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## THE SYNTAX OF SUBJUNCTIVE COMPLEMENTS: EVIDENCE FROM JAPANESE

Asako Uchibori, Ph.D. University of Connecticut, 2000

This dissertation aims to present a syntactic analysis of seemingly problematic, but intriguing properties of the subjunctive complements in Japanese concerning Tense (T), Case for subjects, and the locality of Ascrambling, under the Minimalist Program pursued by Chomsky (1995, 1998, 1999).

Chapter 2 provides basic descriptions concerning the categorial status and the distribution of subjunctive clauses. I establish that the two forms, - *yoo(ni-(to))* and *-koto*, are the subjunctive complementizers introducing finite clauses.

Chapter 3 discusses the Case properties of complement subjects and their control property. It is indicated that subject-to-subject raising takes place out of a certain type of subjunctive complement. It is also demonstrated that while only nominative Case is licensed for subjects in some other types of subjunctive complement, both nominative Case and null Case are actually available in the rest. I also discuss how the control property of empty subjects is related to interaction between the semantics of the governing verbs and the aspectual property of complement predicates.

The tense property of subjunctive complements is deeply investigated in Chapter 4. It is observed that T in a certain group of subjunctive complements is defective with respect to tense morphology, licensing of temporal adverbs, and tense interpretations of nonpast stative predicates. I point out that nominative Case and null Case are correlated with [+ tense] feature and defective [- past] feature, respectively.

Chapter 5 presents two analyses of the fact that long-distance Ascrambling is allowed out of subjunctive CP complements, but not out of non-subjunctive CP complements. One analysis accounts for the case in which defective T occurs in the complement. Based on Chomsky's (1998, 1999) hypothesis concerning strong phases, I propose that CP of which head selects defective T does not count as a strong phase. The other analysis explains the case of the complement headed by *-koto*, in which complete T appears. Based on *-koto*'s rich nominal property, I assume that the Spec of *-koto* is an A-/L-related position. Furthermore, it is suggested that V-to-T movement is not a necessary condition on Ascrambling and that A-scrambling is movement of a different kind from A'scrambling.

#### THE SYNTAX OF SUBJUNCTIVE COMPLEMENTS:

#### EVIDENCE FROM JAPANESE

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A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

at the

University of Connecticut

2000

UMI Number: 9997209

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#### APPROVAL PAGE

#### Doctor of Philosophy Dissertation

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#### ACKNOWLEDGEMENTS

First of all I would like to express my deepest gratitude to my dissertation committee members, Howard Lasnik and Diane Lillo-Martin at the University of Connecticut, and Shigeru Miyagawa at MIT, for their insightful and stimulating theoretical discussions and suggestions on every part of this dissertation. I am very much obliged for their continued encouragement even while I started working as a part-time lecturer in Japan four years ago. Without their help and guidance, this dissertation would never have come to be.

My indebtedness to the other faculty members at UConn from 1992 to 1996 is deep, too. I had their valuable education of important linguistic fields; Stephen Crain, Ignatius Mattingly, David Michaels, and Mamoru Saito. I am also greatly thankful to Sigrid Beck, Zeljko Boskovic and William Snyder, current faculty members, for their helpful discussions, comments and suggestions on this dissertation.

It was very fortunate that when I was living in Storrs and in Boston, I met not only with people at UConn, but also with people from many other places. I am grateful for the time with; Jun Abe, Makiko Asano, Zeljko Boskovic, Yoshio Endo, Koji Fujita, Masao Fukuhara, Naoki Fukui, Laurel Laporte-Grimes, Anne Hurbert, Hiroto Hoshi, Koji Hoshi, Hisatsugu Kitahara, Yasuhiko Kato, Ruriko Kawashima, Masatoshi Koizumi, Elizabeth Laurencot, Rhang-Hye-Yun Lee, Hideki Maki, Masumi Matsumoto, Ayumi Matsuo, Kazumi Ma-

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tsuoka, Roger Martin, Haruko Kato and Yoichi Miyamoto, Keiko Murasugi, Yukio Oba, Masao Ochi, Madoka and Toshifusa Oka, Masayuki Okado, Satoshi Oku, Hee-Hyon Park, Myung-Kwan Park, Keun Won Sohn, Hiroaki Tada, Mayumi and Daiko Takahashi, Hiroyuki Ura, Saeko Urushibara, Akira Watanabe, and Kazuko Yatsushiro.

I greatly appreciate that, even after I came back to Japan, I was able to communicate with many of those mentioned above as well as others. I am indebted for their useful comments, suggestions, criticisms, corrections, and/or judgements on my work, and/or for their warm encouraging words; Jun Abe, Makiko Asano, Yoshio Endo, Kazuma Fujimaki, Yukio Hurukawa, Takako Iseda, Yasuo Ishii, Hironobu Kasai, Ruriko Kawashima, Hisatsugu Kitahara, Laurel Laporte-Glimes, Elizabeth Laurencot, Roger Martin, Masumi Matsumoto, Kazumi Matsuoka, Haruko Kato and Yoichi Miyamoto, Keiko and Hideki Maki, Hironobu Miyoshi, Keiko Murasugi, Fumikazu Niinuma, Masao Ochi, Madoka and Toshifusa Oka, Norvin Richards, Mamoru Saito, Hiromu Sakai, Tetsuya Sano, Sandra Stepanovic, Uli Sauerland, Chris Tancredi, Michie and Yuji Takano, Mayumi and Daiko Takahashi, Shoichi Takahashi, Koichi Takezawa, Yoshiko Tonosaki, Yukiko Ueda, Akira Watanabe, Miyuki Yamashina, Kazuko Yatsushiro, Masaya Yoshida, Noriko Yoshimura, and Yoko Yumoto.

I owe special thanks to Jun Abe, Hisatsugu Kitahara, Mamoru Saito, Daiko Takahashi, and Akira Watanabe, for their invaluable discussions,

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comments, suggestions, questions, and judgements, which are all incorporated into my work. Without their contributions, this dissertation would not have reached the stage that it actually has.

My sincere thanks are also given to Fumikazu Niinuma, Masao Ochi and Kazuko Yatsushiro for their help and cooperation in continuing my registration every semester for me after I left Storrs. Fumi deserves special mention. He had the great kindness to make every effort to complete all necessary procedures at the Department and the Graduate School for me during the last two months. I cannot thank him enough for his time and labor. Judy Marcus, our department secretary, also gave me her help and assistance, which was indispensable to completion. Haruko Kato and Yoichi Miyamoto generously put me up at their cozy place nearby the campus when I came back to Storrs to have my defense. During my stay, they served me delicious and nutritious meals, gave me a ride to anywhere I needed to go, allowed me to connect to the Internet anytime I wanted to, and so on. I survived the last week before the defense thanks to them. Yoichi, in particular, listened to me rehearsing the defense talk late at night, and gave me helpful comments and suggestions. Hironobu Miyoshi kindly gave me a ride to/from the airport at Hartford many times. Without all these people's help, I would have never been able to submit this dissertation by the critical deadline.

I should also like to acknowledge my deep gratitude to the following professors in Japan, Nobuko Hasegawa, Taisuke Nishigauchi, Yoko Sugioka,

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and Seisaku Kawakami, for their guidance and encouragement that I received continually since I started studying linguistics more than ten years ago.

Finally, special thanks are due to my family; Atsumaru and Masako Uchibori. and Haruko. Haruki, and Ryoota Fukazawa, for their constant love and support. I thank Haruko, in particular, for her professional advise on my mental health. Thanks also go to Ai. She was ready to cheer me up every time I needed it. They never lost trust in me and have always been on my side during the most challenging years of my life. I dedicate this dissertation to them.

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## **Chapter I**

### Introduction

## 1.1 A problem: Transparency of Subjunctive Complements in Japanese

This dissertation aims to present a syntactic analysis of seemingly problematic, but intriguing properties of subjunctive complements observed in Japanese. Among them, subjunctive complements allow long-distance Amovement such as subject-to-subject raising and A-scrambling. We will be particularly concerned with what syntactic property causes the transparency of the subjunctive complements. In this connection, the tense property of embedded T and the Case property of embedded subjects will be investigated in detail.

Let us here briefly review the interesting fact concerning long-distance Ascrambling, which will be discussed under the Minimalist program (Chomsky 1998, 1999), in Chapter 5. Following Mahajan's (1990) analysis of scrambling in Hindi, previous studies (Saito 1992, Tada 1993, Nemoto 1993a, among many others) discusses the difference between clause-internal scrambling and long-distance scrambling in regard to A/A'-property of movement in Japanese, presenting the evidence that while clause-internal scrambling can be A-scrambling, long-distance scrambling out of a finite clause cannot. This is shown, for example, by the contrast between the case of clause-internal scrambling in (1b) and the case of long-distance scrambling out of a finite CP complement in (2b), with respect to the possibility of anaphor binding from the scrambled positions.

- (1) a. ?\*otagai<sub>i</sub>-no sensei-ga karera<sub>i</sub>-o hihansi-ta (koto)
   each other-gen teacher-nom they-acc criticize-past (fact)
   '\*Each other's teacher criticized them.'
  - b. ?karerai-o [otagaii-no sensei-ga ti hihansi-ta] (koto) they-acc each other-gen teacher-nom criticize-past fact

"Them, each other's teacher criticized."

- (2) a. ?\*otagai<sub>i</sub>-no sensei-ga [John-ga karera<sub>i</sub>-o hihansi-ta to] omot-ta each-other-gen teacher-nom -nom they-acc criticize-past comp think-past
   '\*Each other's teacher thought that John criticized them.'
  - b. ?\*karera<sub>i</sub>-o [otagai<sub>i</sub>-no sensei-ga [John-ga t<sub>i</sub> hihansi-ta to] teacher-acc each other-gen teacher-nom -nom criticize-past comp omot-ta think-past fact

'\*Them, each other's teacher thought that John criticized.'

On the other hand, as is pointed out by Nemoto (1991, 1993a), A-scrambling out of the so-called 'control' non-finite clause is possible (see Mahajan 1990 for the parallel facts found in Hindi). A sentence such as the following has been so-called 'control (non-finite)' in Japanese.

(3) sensei-ga John<sub>j</sub>-ni [e<sub>j</sub> sono hon-o yom-u -yoo(ni(-to<sup>1</sup>))] tanon-da teacher-nom -dat the book-acc read-nonpast ask-past
'The teacher asked John to read the book.'

The embedded empty subject has been assumed to be PRO.<sup>2</sup> A-scrambling out of the so-called 'control (non-finite)' clause is possible, as shown in the example below.

(4) a. ?\*otagai<sub>i</sub>-no sensei-ga John<sub>j</sub>-ni [e<sub>j</sub> karera<sub>i</sub>-o hihansu-ru each-other-gen teacher-nom -dat they-acc criticize-nonpast

<sup>&</sup>lt;sup>1</sup> The form *-to*, which is the same form as the complementizer *-to* (see the example 2 above), optionally follows *-yooni*. In most examples in the literature, *-to* is omitted. However, the existence of *-to* does not significantly change the grammaticality of the example sentences, according to the judgements of my informants (including of myself). The syntactic and morphological status of *-to* will be a central concern of Chapter 2.

<sup>&</sup>lt;sup>2</sup> In Chapter 3 (in particular, 3.2), we will deal with this construction in more detail and show that it is not the only possibility.

-yoo(ni(-to))] tanon-da ask-past

'\*Each other's teacher asked John to criticize them.'

 b. ?karera<sub>i</sub>-o [otagai<sub>i</sub>-no sensei-ga John<sub>j</sub>-ni [e<sub>j</sub> t<sub>i</sub> hihansu-ru they-acc each other-gen teacher-nom -dat criticize-nonpast
 -yoo(ni(-to))] tanon-da] ask-past

'\*Them, each other's teacher asked John to criticize.'

Locality of scrambling has been discussed based on these facts. Ascrambling out of a clause is possible when the clause is 'control (non-finite)', but not when it is finite. What distinguishes them seems to be whether the embedded subject is empty (PRO) or not, and correspondingly, whether the embedded predicate is non-finite or not. For example, Nemoto's (1993) account depends on the assumption that the empty subject of these complements is controlled PRO.

However, A-scrambling out of a similar complement is possible even if the embedded subject is overt. For example, verbs of wishing, praying and so on select complement clauses in which an overt nominative subject appears, as shown in (5a) and (6a) below. In this type of complement clause, either - *yoo(ni(-to))* appears just like the case of the so-called 'control (non-finite)', or another special form *-koto* shows up. The examples in (5b-c) and (6b-c) be-

low indicate that long-distance scrambling out of these two types of complements is exactly A-scrambling.<sup>3</sup>

 (5) a. sensei-ga [ koochoo-ga karera-o suisensu-ru teacher-nom principal-nom they-acc recommend-nonpast
 -yoo(ni(-to))] negat-ta wish-past'

'The teacher wished that the principal recommended them.'

b. ?\*otagai<sub>l</sub>-no sensei-ga [koochoo-ga karera<sub>l</sub>-o suisensu-ru each-other-gen teacher-nom principal-nom they-acc recommend-nonpast

-yoo(ni(-to))] negat-ta wish-past

'\*Each other's teacher wished that the principal recommended them.'

c. ?karera<sub>l</sub>-o [otagai<sub>l</sub>-no sensei-ga [koochoo-ga t<sub>l</sub> suisensu-ru they-acc each-other-gen teacher-nom principal-nom recommend-nonpast

-yoo(ni(-to))] negat-ta]

wish-past

- '\*Them, each other's teacher wished that the principal recommended.'
- (6) a. sensei-ga [koochoo-ga karera-o suisensu –ru koto]-o nega-ta teacher-nom principal-nom they-acc recommend-nonpast -acc wish-past

<sup>&</sup>lt;sup>3</sup> Nemoto (1993b) also points out the fact that long-distance A-scrambling out of complements accompanying *-koto* is possible when there is no overt embedded subject. Notice that we here shows that even if there is an overt subject in a complements accompanying *-koto*, A-scrambling is still possible out of the complement.

'The teacher wished that the principal would recommend them.'

b. ?\*otagai<sub>l</sub>-no sensei-ga [koochoo-ga karera<sub>l</sub>-o suisensu -ru each-other-gen teacher-nom principal-nom they-acc recommend-nonpast

koto]-o negat-ta -acc wish-past

'\*Each other's teacher wished that the principal would recommend them.'

c. ?karera<sub>l</sub>-o [otagai<sub>l</sub>-no sensei-ga [ koochoo-ga t<sub>l</sub> suisensu-ru they-acc each-other-gen teacher-nom principal-nom recommend-nonpast

koto]-o negat-ta]

-acc wish-past

"Them, each other's teacher wished that the principal would recommended"

It is thus suggested that a different perspective should be required to treat these facts properly. I will argue that the two forms, -yoo(ni-(to)) and -koto, are forms to signify that the clauses are subjunctive. Since subjunctive clauses have rarely been mentioned in the literature so far, we will start by studying their basic morphological properties in more detail, and go on to the analysis of the syntactic properties of the subjunctive complements that cause the transparency effect.

#### **1.2** An Overview of the Dissertation

We adopt the Principles and Parameters approach to linguistic theory (Chomsky and Lasnik 1993, Chomsky 1991) and the most current approach, the Minimalist Program, pursued by Chomsky (1993, 1994, 1995, 1998, 1999).

Chapter 2 provides basic descriptive generalizations concerning the categorial status and the distribution of subjunctive clauses in Japanese. I here establish that the two forms, -yoo(ni-(to)) and -koto, are the subjunctive complementizers introducing finite clauses. The discussion given in this Chapter is not merely a matter of terminology for Japanese syntax. The fact that the subjunctive complements are CP and that the subjunctive complementizer *koto* is nominal will be importantly related to the issues discussed in Chapter 4 and 5.

Chapter 3 mainly discusses the Case properties of complement subjects and their control property. In 3.1, it is suggested that subject-to-subject raising takes place out of a certain type of subjunctive complement. In 3.2 and 3.3, it is demonstrated that while only nominative Case is licensed for subjects in some other types of subjunctive complements, both nominative Case and null Case for PRO are available in the rest. I argue that the control property of empty subjects, i.e., PRO or *pro*, is related to an interaction between the semantics of the governing verbs and the aspectual property of complement predicates. The presence of PRO is confirmed by the PRO gate effects (Higginbotham 1980).

The tense property of subjunctive complements is investigated in depth in Chapter 4. Our discussion is particularly meaningful to a language without direct correlation between  $\phi$ -feature agreement morphology and the shape of Case, such as Japanese. Chomsky (1998, 1999) hypothesizes that checking of nominative Case feature of an NP accompanies syntactic  $\phi$ -feature agreement between the NP and T that has a full set of  $\phi$ -features. In a language lacking morphological  $\phi$ -feature agreement, however, it is impossible to detect the syntactic  $\phi$ -feature property of a given instance of T based on its surface morphology. We eventually have to ask what other visible property of T is directly connected to checking of NP's Case feature in such a language.<sup>4</sup>

In 4.1, 4.2, and 4.3, it is observed that T in a certain group of subjunctive complements is defective. That is, there are certain restrictions on tense morphology, licensing of temporal adverbs, and tense interpretations of non-past stative predicates. Based on this observation, I propose in 4.4 that tense morphemes in Japanese map from a set of the speech time and the refer-

<sup>&</sup>lt;sup>4</sup> Under Chomsky's current approach, it is assumed that  $\phi$ -features in a language like Japanese are just morphologically invisible and play the same role as visible  $\phi$ -features do. Even if it is the case, children still need morphologically visible marking that helps them differentiating T with a full set of  $\phi$ features from one without it. Our discussion on tense features has a clear implication to the current approach to Case checking in this respect. See relevant discussions in 4.5 and 5.5.

ence time to a tense structure, in which a relation between them is determined in a certain way to be made clear, following Hornstein's (1990) neo-Richenbachian approach to tense theory. In 4.5, it is argued that nominative Case and null Case for PRO are correlated with [+ tense] feature and defective [- past] feature, respectively, under the mechanism of Case checking suggested by Chomsky (1995). It is, in particular, discussed how subject-tosubject raising takes place out of a CP complement of which T is [- tense].

Chapter 5 presents two analyses that answer the question briefly mentioned in 5.1: why only subjunctive complements permit long-distance Ascrambling. Section 5.1 gives ample data of long-distance A-scrambling out of subjunctive CP complements. In 5.2, I show an analysis for the case in which defective T occurs in a CP complement. Based on Chomsky's (1998, 1999) hypothesis that derivations proceed by strong phases, I propose that CP of which head selects defective T does not count as a strong phase. The analysis accounts for why scrambling out of such a CP does not have to go through the intervening A'-position, i.e., the CP Spec. In 5.3, I give another analysis, which explains how long-distance A-scrambling is possible out of subjunctive CP complements where complete T appears. The analysis is crucially based on what is observed in Chapter 2. That is, this type of complement is headed by *-koto*, a nominal complementizer. It is argued that the Spec of *-koto* is an A- or L-related position through which A-scrambling continues up to the higher clause. The last two sections, 5.4 and 5.5 show that some alternative analyses do not account for the fact we are looking at. It is pointed out that long-distance A-movement out of subjunctive CP complements does not depend on long-distance verb movement to the matrix (Cf. Saito 1992). Furthermore, it is suggested that A-scrambling is a movement of a different kind from A'-scrambling and also that A-scrambling is triggered by EPP-feature of T/v\* (see Miyagawa 1997, in press, and to appear, which propose a theory of A-scrambling in terms of EPP-feature checking, based on entirely different empirical grounds).

#### Chapter II

## Preliminary Discussions: The Distributions and the Categorial Status of -yoo(ni(-to)) and -koto

In this chapter, the distributions of the clauses headed by -yoo(ni(-to)) and -koto and the categorial status of these clauses will be investigated. The descriptive generalizations to be given in this and the next chapters will be important to establish the theoretical account for the fact concerning raising and long-distance A-scrambling out of these clauses, which is to be presented in Chapter 5.

I will first argue against a view taken for granted in the literature such that the clauses introduced by -yoo(ni(-to)) and -koto are control non-finite clauses (for example, Nemoto's 1993 analysis of -yoo(ni) clauses). With finer examination on morphological and syntactic properties of the yoo(ni(-to)) and -koto clauses, it will be demonstrated that they are not control non-finite clauses, but subjunctive clauses, which are finite. There are two reasons for regarding them as finite, but not as infinitive; (i) the predicates in these clauses are always marked with tense by a tense suffix and display existence of tense feature, (ii) these clauses appear not only in embedded context. but also root context.

Further, it will be shown that their distributions are contingent on existence of such modality that expresses the speaker's attitude toward what has been traditionally characterized as *irrealis* 'non-realistic',<sup>1</sup> and argued that these clauses should be properly distinguished from non-subjunctive clauses in this respect. Since the literature of Japanese linguistics has rarely referred to mood choice between the subjunctive and the nonsubjunctive in embedded clauses (except for Uchibori 1997 and Watanabe 1996a, 1996b), it is necessary to make clear at this point why it is proposed that these clauses be subjunctive.

The distributions and morphological properties of the -yoo(-ni(-to)) clauses will be discussed in section 2.1, and those of the -koto clauses in section 2.2. It will be shown that -yoo(ni(-to)) and -koto are subjunctive complementizers, hence, the subjunctive clauses are CP (contra Nemoto 1991, 1993 and Sakai 1994, 1996, where the so-called 'non-finite' clauses are assumed to be VP or IP/TP). I will also argue that these subjunctive complementizers, -yoo(-ni(-to)) and -koto, both have a nominal feature, but differ with respect to the degree of richness of the nominal feature.

<sup>&</sup>lt;sup>1</sup> It has been pointed out that subjunctive markings in factive clauses (as in many languages) are exceptions to the traditional notion 'irrealis'. In fact, the form *-koto* and a morphological variant of the form *-yoo(-ni(to))* also introduce factive complements and result clauses, respectively (the latter which is considered to be factual). In this study the semantics of subjunctive modality will not be examined, since it is beyond our goal. See Giorigi and Pianesi (1997) for a semantic theory of subjunctives that uniformly covers both complements of the so-called 'irrealis' and factive complements.

#### 2.1 -Yoo(-ni(-to))

#### 2.1.1 The Distribution

The form  $-yoo(-ni(-to))^2$  has been assumed to be either the control non-finite marker on predicates (Nemoto 1993) or the complementizer introducing control infinitive clauses (Nakau 1973).<sup>3,4,5</sup> Such an analysis, however, cannot account for the distribution of -yoo(-ni(-to)), since this form appears in clauses that have nothing to do with either control struc-

<sup>4</sup> See Nakau (1973) for an argument against an assumption held in traditional Japanese linguistics that *-yoo(ni)* is a combination of the so-called formal noun *-yoo* 'way' plus a case particle *-ni* 'dative'. We, however, do not deny the possibility that the form historically originated from those morphemes, since the present form still manifests certain nominal properties, as we will discuss in 2.1.2. The point to be made is that its categorical status has been already changed from a noun into a complementizer.

<sup>&</sup>lt;sup>2</sup> In the literature, the 'control infinitive' marker appears as -yoo(ni), but not -yoo(ni(to)). Although some informants prefer the shorter forms -yooand -yooni to the longest form -yoonito, others report that the existence of -to does not significantly change the grammaticality of the examples under discussion. Accordingly, we take the form -yoonito as a morphological variant of -yoo and -yooni. The optional occurrence of -to is suggestive when the categorial status of -yoo(ni(to)) becomes at issue in section 2.1.2.

<sup>&</sup>lt;sup>3</sup> Shibatani (1978) analyzes the embedded clauses with *-yoo(ni)* as indirect speech of direction, based on the fact that the clauses function as main causes of direction, as we will see below in the text. Shibatani's analysis is reminiscent of the one discussed here in that they recognize certain modality in the clauses. However, the type of modality relevant here is not restricted to what is associated with direction. See below. Incidentally, Uchibori (1997) demonstrates that these clauses are not direct speech of direction, reporting that Japanese generally allow imperatives to appear in embedded clauses of indirect speech, which seems unusual in languages (see also note 11).

<sup>&</sup>lt;sup>5</sup> Sakaguchi (1990), on the other hand, treats the *-yoo(ni)* clauses as finite control complements.

ture or non-finite predicates, as will soon be seen below. That is, an occurrence of this form implies neither control structure of the clause nor an infinitive/non-finite form of the predicate. This casts strong doubt on the previous assumptions.

A typical example of the so-called control non-finite complement is given below.

(1) John-ga Maryi-ni [xp ei Bill-o susensu-ru -yoo(-ni(-to))] tanon-da
-nom -dat -acc recommend-nonpast ask-past
'John asked Mary to recommend Bill.'

The matrix verbs selecting the complement headed by -yoo(-ni(-to)) are those of ordering, wanting, suggesting, wishing, praying, and so on. Those verbs take the dative object in addition to the clausal complement. The empty embedded subject seems always to refer to the matrix dative object at first sight, which seems to be the main reason for regarding them as control complements. As will be seen below however, this is not necessarily the case, and the situation is actually more complicated.<sup>6</sup> Here, Let us first be concerned with the finiteness of the complement clauses as in (1), and then we will proceed to a discussion about their modal status. There are two reasons to maintain that they are finite clauses; (i) the em-

<sup>&</sup>lt;sup>6</sup> For example, some of the governing verbs alternately do not take dative objects, and allow overt nominative non-controlled embedded subjects, as shown in (4b) below. In chapter 3, we will also look closely into control structures of the clauses as in (1).

bedded predicates that are always followed by the nonpast tense suffix *-ru* manifest a certain tense property that is significantly different from that of bare predicates, and (ii) they are used as main clauses, with the form *- yoo(-ni(-to))* being slightly modified into *-yoo(ni)*.

First, a predicate followed by -yoo(-ni(-to)) must be a nonpast form with the nonpast suffix -(r)u. The morphology of a -(r)u form predicate in the -yoo(-ni(-to)) complement is exactly the same as the one in a main clause (for example, compare the embedded verb form with the verb form appearing in a main clause such as *Mary-ga Bill-o suisens<u>u-ru</u>*, Mary-nom Bill-acc recommend-nonpast, 'Mary recommends Bill'). It is evident that a predicate in the -(r)u form, i.e., the nonpast form, is finite in general.<sup>7</sup>

In (i), *-ru* appears in the first disjointed clause embedded under the matrix causative predicate. Complements of causative predicates must be non-tensed, as shown by the non-tensed verb form in the second clause. This example, thus, might indicate that *-ru* may appear in non-tensed clauses. In addition to the argument against such a view given in this section, I here point out that the alleged acceptable status of this example is not unproblematic. A doubtful point is immediately raised about why coordination of different categories, TP and VP in this case, is allowed. Our guess is that the disjunction structure makes the solecism in the first clause difficult to detect. A structurally parallel example as in (ii), which is a much more simple one, sounds severely degraded to many speakers.

(ii) \*hahaoya-ga kodomo-ni [[asob-u] ka [ne]]-ase-ru/ta
 -nom -dat play-nonpast or sleep-causative-nonpast/past
 'The mother let the baby play or sleep.'

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<sup>&</sup>lt;sup>7</sup> Nemoto (1993) argues that *-ru* does not always signify existence of tense feature, based on Kuroda's (1986) observation that *-ru* occurs in non-tensed clauses, as in the following example.

 <sup>(</sup>i) Mary-ga John-ni [[uti-o soozisu-*ru*] ka [heyadai-o haraw\*(-u)]]-ase-ru
 -nom -dat house-acc clear-nonpast or rent-acc pay-nonpast-caus-nonpast
 'Mary makes John clean the house or pay the rent.'

It should be noted here that the predicates in these types of clauses cannot be followed by the other tense suffix, i.e., the past tense suffix *-ta*. The literature seems to take the unavailability of predicates in past forms as a reason sufficient enough to consider the *-(r)u* form predicate in the *- yoo(-ni(-to))* complement as a (part of) non-finite/infinitival form, in addition to the seemingly future-oriented interpretation of these clauses. This view however is problematic. Neither the restriction against past tense nor such future reading indicates non-existence of tense feature. The nonpast form in the *-yoo(ni(-to))* complement such as in (2) below shows the ability to make its own time reference that is independent from the matrix tense, suggesting that it has its own tense.<sup>8</sup>

It should be furthermore noted that when the disjunction marker -ka takes clausal complements, it occurs in the structure of [XP-ka XP-ka], where XP cannot be bare VP, but TP. If a disjunction structure appears in a causative sentence, the causative morpheme -(s)ase plus some tense suffix must be included in the disjunction structure (as in (iiia) below), or disjointed tensed clauses must be embedded under the causative main verb sase 'make/let' (as in (iiib) below).

(iii) a. hahaoya-ga kodomo-ni [asob-ase-ru] ka [ne-sase-ru/ta] mother-nom baby-dat play-caus-nonpast or sleep-caus-nonpast/past
b. hahaoya-ga kodomo-ni [[asob-u] ka [ne-ru] ka] sase-ru/ta mother-nom baby-dat play-nonpast or sleep-nonpast or make-nonpast/past

<sup>8</sup> We will turn to more details of the issue concerning the tense property of this type of complement in Chapter 4. In particular, it will be shown that the tense property of subjunctive complements is deficient not in a uniform way. (2) John-ga kinoo Maryi-ni [xp ei Bill-o asita hihansu-ru -yoo(ni(-to))]
 -nom yesterday -dat -acc tomorrow criticize-nonpast

tanon-da

ask-past

'Yesterday, John asked Mary to criticize Bill tomorrow.'

While the matrix verb marked by the past tense suffix -ta refers to an event that took place yesterday, the embedded verb in the -(r)u form refers to another event in the future (i.e., tomorrow).

On the other hand, predicates that are not followed by a tense suffix do not have such ability, as is naturally expected. A verb followed by the suffix *-te* appears in various embedded contexts; (i) in a complement of verbs such as 'come' and 'go', as in (3a), (ii) in a complement of verbs such as 'give' and 'receive', as in (3b), (iii) in a complement of verbs such as 'want' and 'expect', as in (3c), (iv) in a complement of aspectual auxiliary verbs such as the progressive, *-ir-* and the perfective of completion, *-ar-*, as in (3d), and (v) in a complement of postpositions such as *kara* 'since, from', *made* 'till, up to', as in (3e).<sup>9</sup>

(3) a. John-wa kono hon-o kat-te ku-ru/ki-ta.

-top this book-acc buy-te come-nonpast/come-past

<sup>&</sup>lt;sup>9</sup> For discussion on the basic properties of the *-te* clauses, see Shibatani (1978) and Inoue (1976). Note that these *-te* forms should be properly distinguished from another instance of *-te* that functions as a conjunction meaning 'and' (e.g., [kinoo yuki-ga hut-te] kyoo ame-ga hut-tei-ru, [yester-day snow-nom fall-*te*] today rain-nom fall-prog-nonpast, 'Yesterday, it snowed, and today, it's raining.')

'John comes/came buy this book.'

b. John-wa Mary-ni ie-ni ki-te mora-u/morat-ta.

-top -dat house-dat come-*te* receive-nonpast/receive-past 'John has/had Mary come to his house.'

c. watasi-wa koho hon-ga ure-te hosi-i/hoshikat-ta

I -top this book-nom sell-*te* want-nonpast/want-past 'I wants/wanted this book sell well.'

d. John-ga kono hon-o yon-de i-ru/i-ta

-nom this book-acc read-te prog-nonpast/prog-past

'John is/was reading this book.'

e. Johni-wa [ei Tokyo-ni it-te kara] Boston-ni ik-u/it-ta.

-top -dat go-*te* from -dat go-nonpast/go-past 'John go/went to Boston after going to Tokyo.'

In these examples, the tense interpretation of the V+-*te* form depends on that of the main verb. If the main verb refers to the past, the V+-*te* form must do the same. This clearly means that in the -*te* clauses, the bare predicate bares no intrinsic time reference at all. It is, thus, obvious that the form with -(r)u (the nonpast tense suffix) as in (1) above must be properly distinguished from the form that is followed by neither -(r)u nor - *ta* (the past tense suffix). To refer to only the former form as 'non-finite/'infinitive' obscures the necessary morphological distinction with respect to different tense properties, and does not seem to make any useful sense.

Second, if the -yoo(-ni(-to)) clauses are non-finite/infinitive, it is natural

to expect that they would not occur as main sentences.<sup>10</sup> This is not the case, however. They show up in root context as well as in embedded context. In the root context, the form *-yoo(-ni)* appears either in weak imperative sentences<sup>11</sup> or in optative sentences, as exemplified in the example in (4-5) below.

(4) Weak imperative clauses

(anata-ga/Tanaka-ga) heya-o soojisu-ru -yoo(-ni) you-nom/ -nom room-acc clean-nonpast

'Clean up the room.'

<sup>11</sup> We use the term 'weak imperative' to distinguish it from the regular imperative, which is formed by a bare form of a verb plus the imperative suffix, *-e/-ro/-yo* (i.e., *-e* is for verbs end with a consonant, *-ro*, for those end with a vowel, and *-yo*, an archaic and formal version of *-ro*). As the term suggests, the imperative force of the sentences with *-yoo(ni)* is relatively weaker than that of regular imperative sentences.

Elsewhere I (Uchibori 1997) points out that a complement with the regular imperative form (which is not a quotation) allows long-distance A-scrambling (see Appendix 2 for relevant data), and assumes that the regular imperative form is an instance of subjunctive mood in Japanese. I do not adopt the assumption here, since the distribution of the imperative and the type of modality concerned is rather limited than -yoo(ni(to)). Note in passing that the proposal to be given in Chapter 5 can be extended to the cases of long-distance A-scrambling out of complements with non-subjunctive complements such as complements with the regular imperatives. Another assumption made there that -yoo(ni) is a subjunctive suffix is denied, either. See discussion in 2.1.2.

<sup>&</sup>lt;sup>10</sup> There seems to be apparent exceptional cases, which are non-finite forms used to give general prohibitions or instructions (e.g., *No smoking/Smoking*). Palmer (1986) points out that non-finite forms in these cases just indicate what is the prohibited or permitted action in general, but not even to whom the prohibition/permission is addressed. Thus, we do not take an assumption that such non-finite forms constitute a main sentence. Note that *-yoo(ni)* clauses can have their overt subjects when they function as a main sentence.

(5) Optative clauses

a. siken-ni ukar(-imas)<sup>12</sup>-u -yoo(-ni)

Examination-dat pass(-politeness)-nonpast

'I wish I passed the exam'

However, the optional existence of the suffix *-mas*, which expresses politeness of the speaker, excludes the possibility. When the politeness suffix *-mas* appears in a complement clause headed by *-yoo(-ni(to))*, the complement is always a direct quotation of an actual utterance, but cannot be an indirect speech. The following examples confirm that the politeness suffix marks the clause to be a direct speech. As seen in the example in (ia), the direct quotation marker *-to* never undergo deletion.

(i) John-ga [ aa, tukare-ru -naa! \*(-to)] it-ta
 -nom interjection `be tired`-nonpast-interjection-quotation marker say-past
 'John said, 'Uh, I'm tired!''

In the following example, when the politeness suffix occurs in a complement headed by -yoo(-ni(to)), -to cannot be deleted. On the other hand, when it doesn't appear, -to can be dropped.

(ii) hitobito-wa [ame-ga huri-mas-u -yoo(-ni)\*(-to) ] inot-ta people-top rain-nom fall-politeness-nonpast-quotation marker pray-past hur-u -yoo(-ni(-to)) ] fall-nonpast
 'People prayed that it would rain.'

It follows that the politeness suffix cannot appear in an indirect speech that is realized as a complement headed by -yoo(-ni(to)). When it seems to appear in the complement as in (ii), the occurrence of -to is an instance of the direct quotation marker that quotes an optative sentence introduced by -yoo(-ni). The politeness suffix in the examples in (5) above, thus, indicates that the examples stand as main optative sentences, but not as non-finite/infinitival complements. We will directly turn to the issue con-

cerning what is the categorial status of -to in these examples in 2.1.2.

<sup>&</sup>lt;sup>12</sup> Roger Martin (p.c.) drew my attention to a hypothetical analysis against the one discussed here as follows. Assuming that these clauses are nonfinite/infinitival, one might claim that a main verb selecting them such as 'wish' and 'hope' happens to be omitted in (5).

b. ame-ga/yo hayaku hur(-imas)-u -yoo(-ni)
rain-nom/voc soon fall(-politeness)-nonpast
'May it rain soon.'

The only morphological difference from the embedded context is that -to must be dropped from the sequence of -yoo-ni-to. The reason for this will be addressed in the next subsection. The predicates in these sentences must be followed by the nonpast suffix -(r)u in the case of imperative sentences (Another case will be looked at in Chapter 4.) Moreover, the subjects of weak imperative clauses are either empty or Case-marked with the nominative particle -ga. Those of optative clauses are also either empty or overt. Overt subjects are marked either as nominative or as vocative (by the vocative particle -vo).<sup>13</sup> The occurrence of nominative subjects cannot be explained if the predicates lack the tense feature, if we follow Takezawa's hypothesis (1987) that licensing of nominative Case in Japanese is attributed to the [+ Tense] feature of Infl (See also Ura 1996. Cf. Kuroda 1988, Fukui 1986, Fukui and Nishidauchi 1992, Saito 1983).<sup>14</sup> Overt nominative subjects also appear in the purposive clauses headed by -yoo(-ni(to)) quite freely, as will be seen below (see the example in (8)). It is, therefore, safe to maintain that the -(r)u form in this type of clause is

<sup>&</sup>lt;sup>13</sup> Note that subjects of both weak and regular imperatives are not restricted to the second person in Japanese.

<sup>&</sup>lt;sup>14</sup> We will intensively discuss the correlation between existence of certain tense feature of  $T^0$  and availability of nominative Case in Chapter 4.
finite.

Now, let us return to the issue concerning the modal property of the clauses headed by -*yoo(-ni(to))*. In many languages, the mood of main sentences of wishes and exhortations, which express deontic modality, is subjunctive. As will soon be seen, the embedded context of the form - *yoo(-ni(to))* is also very similar to those of subjunctives in other languages such as Romance, Germanic, and Balkan.<sup>15, 16</sup> For example, the form - *yoo(-ni(to))* appears to mark the complements of volitional verbs such as 'want' and 'wish', where subjunctive clauses are typically also used in those languages because of its obvious characteristic of modal such that it has been traditionally considered to be irrealis. Since the form -*yoo(-ni(to))* always occurs in these modal contexts, the form is evidently a grammatical device to signify the kind of modality that is related to an attitude of the speaker toward 'irrealis' events (such as intention). It is, therefore, quite natural to refer to -*yoo(-ni(to))* as the subjunctive form in

<sup>&</sup>lt;sup>15</sup> See Palmer (1986) for an overview of the distributions of the subjunctives in other languages including non-Indo-European languages.

<sup>&</sup>lt;sup>16</sup> Of course, languages diverge as to where subjunctives appear in many cases. For example, as we will see below, while *-koto* appears in complements of fiction verbs such as 'dream/imagine', the subjunctives in French and Romanian do not. On the other hand, the subjunctives in lce-landic and German occur in complements of verbs of reported communications such as 'say' and 'write', Japanese subjunctive forms do not, like Italian and French. More differences are observed in these and other groups of languages. Following Giorgi and Pianesi's (1997) approach by which subjunctives in different contexts are uniformly treated, we maintain that, although there are crosslinguistic, and even intralinguistic differences as to where subjunctives are actually used, the subjunctive contexts are concerned with a certain modal meaning basically shared by languages.

this language.

There are six cases of the embedded context, in which certain morphological variations are seen in the form -yoo(-ni(to)).<sup>17</sup> Before examining morphological differences among the variants in the next section, let us first observe where the forms appear. First, verbs of command, request, suggestion, wish, prayer, and so on, select complement clauses headed by -yoo(-ni(-to)). The verbs are divided into two subtypes; verbs taking an obligatory goal object in addition to the -yoo(-ni(to)) clause, as shown in (6a) below, and those taking an optional one, as in (6b). The sentence in (1) above is an example of the former subtype, in which the matrix goal object usually controls the embedded subject (but, see discussion in 3.2). The verbs belonging to the latter subtype are of wishing and praying. The embedded subject need not be controlled by the matrix subject. Obviously, the form -yoo(-ni(-to)) does not exclusively signify control structures.

(6) a. NP-nom NP-dat [ e V-yoo(ni(-to)) ] meijiru, yookyuusuru, motomeru, tanomu, susumeru, nozomu, etc.

order, want, insist, request, ask, urge, wish

sensei-ga seito<sub>i</sub>-ni [ e<sub>i</sub> sono hon-o yom-u -yoo(ni(-to))] meiji-ta. -nom -dat the book-acc read-nonpast order-past 'The teacher told the pupils to read the book.'

b. NP-nom (NP-dat) [NP-nom... V yoo(ni(-to))] negau, nozomu, inoru,

<sup>&</sup>lt;sup>17</sup> As Shibatani (1978) points out, all the occurrences of *-yoo(ni)* discussed below should not be confused with another form *-yooni*, i.e., an inflected form of the auxiliary verb *-yooda* 'look like/seem as if '. They are clearly different from each other in their interpretations.

#### want, wish, hope, pray

hitobito-ga (kami-ni) [ ame-ga hur-u -yoo (ni(-to)) ] inot/negat-ta people-nom (God-dat) rain-nom fall-nonpast-sbj comp pray/wish-past 'People prayed (to God) that it would rain.'

Second, the form -yoo(ni) heads the complements of verb meaning making a plan/attempt/effort whether such as *kokoromi/kuwadate* 'try/attempt/', *keikakusu/mokurom*, plan/intend, and *tutome/doryokusu* 'endeavor/make an effort'. The complements of this type are subject-control clauses (see Watanabe 1996b, Nakau 1973, Sakaguchi 1990).

(7) NP<sub>i</sub>-nom [e<sub>i</sub> V -yoo(ni)] kokoromiru/kuwadateru/keikakusuru/mokuromu

kokorogakeru/tutomru/doryokusuru, etc. try. attempt, plan, intend, endeavor, make a effort John<sub>i</sub>-ga [e<sub>i</sub> motto benkyoosu-ru -yoo(ni)] kokoromi/tutome-ta -nom more study-nonpast try/endeavor-past 'John endeavored to study hard.'

Third, an adjunct purpose clause is also marked by the same form.

(8) Purpose clauses

kare-wa [ kodomo-ga daigaku nyuusi-ni ukar-u -yoo(-ni(-to)) ] he-top child-nom university entrance exam-dat pass-nonpast katei kyoosi-o yatot-ta

home teacher-acc employ-past

'He employed a private teacher so that his child should pass a university's entrance examination.'

The subject of the purpose clause may be either overt as in (8) or empty, which can refer to anything prominent in a given context, as in (9) below. This fact also suggests that -yoo(-ni(-to)) is not a control marker.

(9) Context: John's son is going to take a university's entrance examination this year.

John<sub>i</sub>-wa [ e<sub>j</sub> siken-ni ukar-u -yoo(-ni(-to))] katei kyoosi-o yatot-ta -top exam-dat pass-nonpast home teacher-acc employ-past 'John has employed a private teacher so that his son should pass the examination.'

Purpose clauses clearly convey a type of modality such that it is related to the matrix subject's intention, which is very reminiscent of what is expressed by the complements of the volitional verbs. In fact, it often happens in natural languages that adverbial purpose clauses and complements meaning purposes/intention are marked by the same form (e.g., *to*infinitive in English used for both types of clause).

In this connection, it should be noted that a morphologically very close form, *-yooni*, appears in complements referring to results, since it also happens in some languages that purpose clauses and result clauses are not formally distinguished.<sup>18</sup> The verb *su* 'make it happen/force' and *nar* 'happen' take this type of complement, as shown in (10a-b) below;.

(10)a. watasi<sub>i</sub>-wa [e<sub>i</sub>/gakusei-ga motto benkyoosu-ru -yooni] si-ta
-top pupil-nom more study-nonpast do-past
'I decided to study harder, and actually I made them do so./I forced the pupils to study harder.'

b. watasi<sub>i</sub>-wa [e<sub>i</sub> motto benkyoosu-ru -yooni] nat-ta -top more study-nonpast become-past

'As a natural consequence of a situation, it happens that I have studied harder.'

While the complement subject of the verb *su* 'make it happen' may be either nominative or empty (which is either controlled or non-controlled), that of the verb *nar* 'happen' must be empty and coreferential with the matrix subject.<sup>19</sup>.

Here, the complement of verb *su* 'make it happen/force' as in (8a) means that the action intended by the matrix subject is carried out by its force. On the other hand, the interpretation of the complement of the verb *nar* 'happen' is that the denoted action is realized as a natural result from the situation, as the English translation says. Adopting Dixon's (1972)

<sup>&</sup>lt;sup>18</sup> For example, in Latin, the form *ut* (a complementizer) plus the subjunctive is used in both clause (as well as the complement clauses of verbs of ordering and requesting).

term, Palmer (1986) refers to both purpose and result clauses as 'implicated' clauses. The term means that these clauses have a causal or 'implicational' relationship' with the main clause. Palmer points out that, since both clauses express the common type of modality, it is not surprising even if the same form is used for both in a given language. Since the form -yoo(ni(to)) is used for the purpose clauses and complements, as seen above, it is natural to assume that the form -yooni appearing in the complements of results as in (10) is a morphological variant of -yoo(ni(to)) and that the different forms are selected by the different groups of governing verbs.

Fifth and sixth, slightly different forms, *-yoona* and *-yoonitono/-yoonitoyuu*, introduce clauses modifying nouns. The former appears in adjunct clauses such as relative clauses and adverbial clauses modifying nouns, and the latter, in complement clauses such as the so-called content (or appositive) clauses.

(11) a. Relative clauses headed by -yoona

John-ga [[takusan-no hon-o mot-tei-ru -yoona ] gakusei-o hito-ri ] -nom many-gen book-acc have-prog-nonpast student-acc one-classifier

motome-tei-ru

want-prog-nonpast

'John wants a student who should have many books.'

<sup>&</sup>lt;sup>19</sup> The next chapter will discuss what empty category actually shows up in each case. In particular, it will be argued that subject-to-subject raising takes place in the result complement of *nar* 'happen'.

Cf. John-ga [[takusan-no hon-o mot-tei-ru ] gakusei-o -nom many-gen book-acc have-prog-nonpaststudent-acc

hito-ri ] motome-tei-ru

one-classifier want-prog-nonpast

'John wants a student who has many books.'

b. Adverbial clauses modifying nouns headed by -yoona

(= Sakai 1996:85, 62b)

[e Boston-e ik-u -yoona] keikaku, kokoromi, kuwadate, etc.

-to go-nonpast plan, trial, attempt,

'a plan/attempt to go to Boston'

(12) Content clauses headed by -yoonitono/-yoonitoyuu

[NP [John-ga Boston-e ik-u -yoonitono/-yoonitoyuu] meirei, nozomi, etc. -nom -to go-nonpast order, request, wish

'the order/request/wish that John would go to Boston'

Note that the interpretation of the *-yoona* relatives significantly differs from that of relatives without *-yoona* in regard to a question whether the entire noun phrase, *gakusei-o hitori* 'a student' which is indefinite, is within the scope of the matrix verb, *motomete-iru* 'wants' which is an intentional verb.<sup>20</sup> The ambiguous reading of the indefinite noun phrase between

<sup>&</sup>lt;sup>20</sup> Note that the *-yoona* relative clauses at issue should be distinguished from relative clauses with the adnominal form *-yoona* of the auxiliary verb *-yooda*, which is paraphrased as *-rasii* 'look like/seem as if ' (e.g., *ame-ga hut-a-yooda*, rain-nom fall-past-seem, 'It seems that it rained'). The auxiliary verb follows either a past tense form predicate or a nonpast form one. Actually, the example in (11a) is ambiguous. One interpretation derived from the meaning of the auxiliary verb is such as "John wants a student

specific and non-specific reading is unavailable in contrast to the case of the relative clause without *-yoona*, but only non-specific reading is possible (see Appendix 1 for more detailed discussion about the interpretation). The same kind of difference in interpretation is widely found in indicative and subjunctive relative clauses in other languages. I, thus, assume that the *-yoona* relative clause is subjunctive and that its modal property semantically interacts with the scope properties of indefinite nouns and intentional verbs. Furthermore, as Sakai (1996) also argues, the form *-yoona* is morphologically akin to the form *-yooni*. The morphology of *-yoona* will be examined in the next subsection.

As for the adverbial clauses and the complement clauses of nouns such as 'plan', 'attempt', order', 'want', and so on, it is simply obvious that, while in some cases the head nouns are derived from the verbs listed in (6a) and (7) above that take the subjunctive complements with *-yoo(-ni(to))* or those with *-yoo(ni)*, in the other cases the opposite derivations take place (e.g., *nozomi* 'wish' from *mozom* 'to wish' for the formar case, and *meireis* 'to order' from *meirei* 'order' for the latter). Hence, it is also natural to assume that the form *-yoonitono/-yoonitoyuu* marks clausal modifiers of nouns as subjunctive.

In sum, the form *-yoo(-ni(to))* and its morphological variants *-yoo(ni)*, *- yooni*, *-yoona*, *-yoonitono/-yoonitoyuu*, show up in the following contexts: (1) The form *-yoo(ni)* appears (i) in main clauses of weak imperative and

who seems as if s/he has many books". There is another interpretation available as given above, which clearly does not mean the same.

optative, and (ii) in the complement clauses selected by verbs meaning 'try, attempt, plan, decide, endeavor, and so on'; (2) the form -*yoo(-ni(to))*, (iii) in the complement clauses selected by verbs of ordering, wanting, suggesting, wishing, praying and so on, and (iv) in purposive clauses; (3) the form -*yooni*, (v) in the complements clauses meaning results selected by the verbs *su* 'make it happen/force' and *nar* 'happen'; (4) the form -*yoona*, (vi) in relative clauses, and (vii) adverbial clauses modifying; (5) the form *-yoonitono/-yoonitoyuu*, (viii) in the complement clauses of the nouns that have the same root as the verbs listed in (ii-iii). It is naturally concluded that clauses with these forms are subjunctive. Although the list given here might not be exhaustive, it is enough to show that each form functions as a subjunctive marker.<sup>21</sup>

### 2.1.2 The Categorial Status as C<sup>0</sup>

In this section, it will be argued that -yoo, -ni/na and -to form a complex subjunctive complementizer together. The conclusion is based on a certain restriction by which a hypothetically possible form -yooto is excluded, and on a certain asymmetry in complementizer deletion.

First, let us consider what is -to in the sequence of -yoonito. Its obvi-

<sup>&</sup>lt;sup>21</sup> For example, it might be the case that the form *-yoo-nara*, which introduces a conditional clause, is another instance of the subjunctive form. The conditional form *-nara* can be attached to the past tense suffix as well as the nonpast tense suffix. Interestingly, if the form *-yoo* appears, *-yoonara* follows only a predicate in the nonpast form. This property is essentially shared by the other cases where the subjunctive forms appear. Although we will not go into more details, it might be suggested that the conditional clauses with the form *-yoo-nara* is subjunctive.

ous property is that it never appears in the root context, but it does only in the embedded context. Therefore it is suggested that it is the complementizer *-to*, which is the same thing appearing in non-subjunctive clauses. Notice also that *-to* shows up not only in complement clauses, but also in adjunct clauses as in purpose clauses. That is, *-to* occurs in an embedded clause whether the clause is subjunctive or non-subjunctive, and whether the clause is a complement or an adjunct. It is thus natural to treat all instances of *-to* uniformly, and regard it as a complementizer that simply functions as a clause subordinator. Here, I assume that the function of complementizers is twofold, a clause subordinator and a clause-type indicator, essentially following Bhatt and Yoon (1991) (see also Cheng 1991 for a theory of clausal typing and the role of  $C^0$ ). That is, *-to* functions as a clause subordinator.

Then, what is the rest part? Do *-yoo* and *-ni*, belong to the same category as *-to*, or to some different category? Recall here that in the sequence of *-yoonito*, only *-yoo*, *-yooni*, and *-yoonito*, are allowed, but *yooto* is not.<sup>22</sup> This restriction is accounted for only if we assume that *-ni* is more closely connected with *-to* than *-yoo*, and separated from *-yoo* in the

<sup>&</sup>lt;sup>22</sup> One might point out that the form *-yoo-to* is allowable, if there is a long pause between *-yoo* and *-to*. I assume that in that case, the embedded clause is a direct speech of a main optative/imperative sentence introduced by *-yoo*, which is an alternative form of *-yooni* and that *-to* functions as the quotation marker (see note 12). The crucial fact is that form *-yooto* is strictly prohibited when the embedded clause is not a quotation. For example, when scrambling takes place out of an embedded clause, the form *-yooto* cannot appear at the end of the clause, which cannot be a quotation in that case.

way to be described below. Suppose that -*yoo* and -*ni* both belong to a category different from -*to*, for example,  $T^0$ . Since free alternation between -*yoo* and -*yooni* is allowed as in the case of main clauses, it can be assumed that -*ni* can be freely deleted in principle. Moreover, -*to* may optionally appear in embedded clauses. Then, it cannot be explained why -*yooto*, which results from -*ni* deletion from -*yooni* and an optional occurrence of -*to*, is unacceptable. This strongly suggests that -*ni* must be set apart from -*yoo*. Suppose, then, that -*ni* and -*to* consist of a unit. Since -*to* is assumed to belong to C<sup>0</sup>, this unit is also C<sup>0</sup>. Importantly, C<sup>0</sup> plays a role of a clause subordinator as well as a clause-type indicator (the latter which corresponds to a mood-marker in Bhatt and Yoon's 1991 term). While -*to* appears both in subjunctive and non-subjunctive clauses as a clause is a main clause or an embedded one. It is therefore safe to conclude that -*ni* is a clause-type indicator of subjunctive clauses.

How are these two morphemes structured within C<sup>0</sup>? There are three possibilities; either *-ni* or *-to* is the head, or both are coordinated, as illustrated below.



My answer is that *-ni* is the head, as shown in (13a). Otherwise, it cannot be accounted for why the three variations, -yoo, -yoo-ni, and -yoo-nito are possible, whereas -yoo-to is impossible. If it is assumed that -to is the head, the form -yoo-ni should be incorrectly excluded. This is because, the head cannot be omitted, leaving its adjunct part remaining alone. It cannot be assumed that -ni and -to are coordinated, either. If so, it would be expected that there would be no reason why one of the coordinated morphemes could be omitted as in -voo-ni, but the other could not as in \*yoo-to, given that -ni can in principle be dropped as in the case of -yoo. Given this, it is naturally expected that among the possible combinations of these morphemes, -yoo(-to) is never realized even if -yoo(-ni) is admitted as being in the complements of the verbs meaning 'try/attempt', 'endeavor/make an effort', etc. The essential part is the head -ni, but not the adjunct, -to. In short, -to, if it appears, is an adjunct part of -ni-to. It follows that -ni(to) is not formed as a result of head movement of -ni to -to, since to must be a head of the adjunction structure if that happens. Consequently, *-ni* cannot be some inflectional head, such as tense (T<sup>0</sup>) or mood  $(M^{0})$ . The complex structure is assumed to be built by word formation, but not by syntactic computation.

Nemoto (1993) argues that -*to* following -*yooni* is not an instance of the complementizer -*to*, since Japanese does not allow -*to* deletion in non-subjunctive complements in general, unlike the case of English *that* (except for Osaka Japanese, which allows -*to* deletion in complements of bridge verbs, as pointed out by Saito 1987). Our analysis naturally ac-

counts for the distinction between subjunctive and non-subjunctive clauses. That is, *-to* in subjunctive complements is not a sole head of  $C^0$ , but an adjunct, so that it can be deleted without damaging the word-internal structure of  $C^0$ . The ban on *-to* deletion in non-subjunctive clauses suggests that those clauses must be always project up to CP, and that Japanese lacks a null complementizer corresponding to *-to* that carries necessary features to be placed in the position of  $C^0$ .

There is supporting evidence concerning complementizer deletion. In the following example, a non-subjunctive complement headed by *-to* occurs in the focus position of the cleft structure. The complementizer *-to* cannot be deleted, as is expected, just like the case of non-cleft sentences.<sup>23</sup>

(14) John-ga Mary-ni it-ta no-wa [Bill-ga tikaku ku-ru
 -nom -dat tell-past nominalizer-top -nom soon come-nonpast
 \*(to)] da

comp 'be nonpast'

'(Lit.) It is [that Bill was coming soon] that John told Mary.'

Cf. John-ga Mary-ni [Bill-ga tikaku ku-ru \*(to)] it-ta -nom -dat -nom soon come-nonpast comp tell-past

'(Lit.) John told Mary that Bill was coming soon.'

<sup>&</sup>lt;sup>23</sup> Although some speakers do not admit CP appearing in the focus position in the first place, others, including myself, do.

Since there is no null complementizer, the impossibility of -to deletion in the focus position also indicates that a clause in the focus position must be CP, but not TP. Interestingly, when a subjunctive complement headed by -yoo-ni-to appears in the focus position, while -to can be deleted, -nito cannot.

(15) John-ga Mary<sub>i</sub>-ni meiji-ta no-wa [e<sub>i</sub> tikaku ku-ru
-nom -dat order-past nominalizer-top soon come-nonpast
-yoo-ni(-to)] da
`be nonpast'

'(Lit.) It is [that shei come soon] that John ordered Maryi.'

The possibility of *-to* deletion implies that the bracketed part, i.e., the subjunctive complement, is still CP even after *-to* deletion. That is, when *- yoo-ni* appears, it satisfies the categorial requirement for the focus position. It is assumed that at least, the part of *-ni* is placed in  $C^0$ .

Now, let us consider the final part, *-yoo*. There are two possibilities. It is either a part of  $T^0$  or a further part of  $C^0$  of which position is distinct from that of *-nito*.<sup>24</sup> I assume the latter to be the case; *-yoo* is also a member of  $C^0$ , being the head of  $C^0$  to which *-nito* is adjoined. Since *-yoo* neither

<sup>&</sup>lt;sup>24</sup> We here do not take an assumption that there is a modal projection such as MP under CP, since there is no independent evidence indicating its existence in Japanese. The discussion below is not affected if it is actually the case. The point here is whether some element is (a part of)  $C^0$  or (a part of) the head of a complement of  $C^0$ .

changes its shape nor is omitted in any case, it is simply assumed that it is the core part of the subjunctive form, hence, the head of the subjunctive complementizer. This assumption also captures the general prohibition against complementizer deletion in Japanese.<sup>25</sup> As noted above, *-to* in non-subjunctive complementizer cannot be deleted. Under the analysis proposed here, it is because *-to* is a single member of  $C^0$ , i.e., the head of  $C^0$  (and there is no null complementizer replacing it). If *-yoo* is also the head of  $C^0$ , the same account is applicable to the question of why it cannot be deleted at all.

A piece of supporting evidence comes from complementizer deletion, again. Consider complementizer deletion in scrambled clauses. When a non-subjunctive complement headed by *-to* is scrambled to the sentence-initial position, the complementizer *-to* is never deleted just like the case of unscrambled complements and cleft sentences, as shown below.

(16) [Bill-ga tikaku ku-ru \*(to) ]<sub>j</sub> John-ga Mary<sub>i</sub>-ni t<sub>j</sub> it-ta -nom soon come-nonpast comp -nom -dat tell-past
'John told Mary that Bill was coming soon.'

Since there is no null complementizer that can replace *-to*, as seen above, this fact means that the scrambled clause must be CP. Now, consider the example in (17) below. In the scrambled complement headed by *-yoo-nito*,

<sup>&</sup>lt;sup>25</sup> The question as to what principle accounts for the restriction is left open.

either -nito, or -to can be dropped, but the entire form, -yoo-nito, cannot.

(17) [e<sub>i</sub> tikaku ku-ru -yoo(-ni(-to))/\*(-yoo(-ni(-to))]<sub>j</sub> John-ga Mary<sub>i</sub>-ni soon come-nonpast -nom -dat

t<sub>i</sub> meiji-da

order-past

'John ordered Mary to come soon.'

Since the bracketed part must be CP even after *-nito* is deleted, *-yoo* is assumed to be  $C^0$ . Besides, it is shown that there is no null counterpart of the subjunctive complementizer, either. This is not unexpected, since no morphological indication of the subjunctive mood is given if such a null element supports the position of  $C^{0.26, 27}$ 

(i) John-ga Maryi-ni meiji-ta no-wa [ei tikaku ku-ru -yoo]
-nom -dat order-past nominalizer-top soon come-nonpast-sbj comp
[sensyuu-ni] da
last week-at 'be nonpast'
'(Lit.) It is [that shei should come soon] [yesterday] that John ordered Maryi.'

The effect reminds us of the similar fact pointed out by Koizumi (1995) that less acceptability of a single Case-marked NP in the focus position is amended by adding another element such as a numeral after the NP (that is, a Case-marker is preferred to be omitted if there is no other element after the NP).

(ii) John-ga tabe-ta no-wa ringo-o \*?(3-tu) da -nom order-past nominalizer-top apple-acc -cl 'be nonpast'

<sup>&</sup>lt;sup>26</sup> A question remained here is about the cleft construction as shown in (15) above: why is it impossible that *-ni* is deleted from *-yoo-ni* in the focus position even if it is not the head of  $C^0$ ? I here point out the fact that if some other element appears after the subjunctive clause (i.e., multiple foci appear in the sentence), the ungrammaticality in the case of *-to* deletion as in (15) is significantly improved, as shown below:

Given this, the following structure of the subjunctive complementizer yoo(ni(to)) is assumed.<sup>28</sup> A part of C<sup>0</sup> may be omitted as long as its wordinternal adjunction structure is not destroyed. Note also that the structure is not created by syntactic head movement of -*yoo* to -*nito*, as discussed in the case of the formation of -*nito* above. Thus, the categorial notations shown in (18a) are used for expository purpose: They can be represented as in (18b), according to the theory of bare phrase structure (Chomsky 1995).

'(Lit.) It is [Maryi that shei come soon] that John ordered.'

If the effect observed in (i-ii) follows from some requirement of the focus position in the cleft sentence, the complementizer deletion as shown in (i) is accounted for by the analysis discussed here. We leave a further analysis of the cleft construction for future research.

27 One might recall that complementizers in subjunctive clauses can be also deleted in other languages. For example, in Italian, the complementizer che can be deleted from subjunctive complements, but not from indicative complements, just like the case of -to. At first glance, there seems to be a uniform treatment of deletion of subjunctive complementizer. However, the distributions of subjunctive clauses and the contexts of complementizer deletion are different in these languages. One important difference between Italian and Japanese, for example, is whether the complementizer position of a subjunctive clause is filled with a clause-type indicator other than a clause subordinator that is neutral with respect to mood choice. Japanese -yoo(ni) contains the subjunctive indicator, but Italian che does not. Notice that Italian subjunctives are grammaticalized as verbal inflection. It seems that the mechanism of complementizer deletion depends on the morphology/morphosyntax of complementizers in a given language. See Giorgi and Pianesi (1997) for a morphosyntactic approach to complementizer deletion in Italian.

<sup>28</sup> Note that the structure is not an instance of doubly-filled comp (Cf. Fukui 1986).



Under this analysis, the variety in shape of a complementizer is simply accounted for in terms of idiosyncrasy of the subcategorization property of the main verbs.

Finally, let us consider the subjunctive forms appearing in modifier clauses of nouns, *-yoona* and *-yoonitono/-yoonitoyuu*. It automatically follows from the discussion above that these forms are also morphological variants of the subjunctive complementizer, the head of which is *-yoo*.<sup>29</sup> As for relative clauses, notice here that, if a relative clause is non-subjunctive, the clause subordinator *-to* does not occur (for example, [[*e<sub>i</sub> John-ga kinoo at-ta* (*\*to*)] *hito*<sub>i</sub>], [[e<sub>i</sub> John-nom yesterday see-past (\*comp)] person<sub>i</sub>]. 'a person that John saw yesterday'). As will soon be seen below, *-to* may appear as the subordinator in a complement of a noun, only if its form is slightly modified according to a general morphological rule held in Japanese. We, thus, interpret the fact that *-to* never appears in non-subjunctive relative clauses to indicate that *-to* cannot function as a clause

<sup>&</sup>lt;sup>29</sup> But, see Murasugi (1991), where non-subjunctive relative clauses in Japanese are shown to be IP, not CP. We will leave the question how our analysis recapture Murasugi's theory for future study.

subordinator if it introduces an adjunct within NP. This is why *-to* never appears after *-yoona* in subjunctive relatives.

It also follows from the consideration made above that the subjunctive indicator *-na* appears as an adjunct to *-yoo* within C<sup>0</sup>. As is also suggested by Sakai (1996), the phonological change of *-na* from *-ni* is assumed to be due to a morphological rule by which elements modify nouns must be in adnominal forms. For example, the so-called adjectival verbs end with *-da*, when one is in a main clause. The *-da* ending must turn into *-na*, when it functions as a modifier of a noun.

(19) a. sono hito-wa \*rippana/rippada that person-nom 'is admirable'

'That person is admirable.'

b. rippana/\*rippada hito admirable person

'an admirable person'

Moreover, when *-to* appears in a complement clause of a noun, it cannot appear as it is, but it must change to *-tono/-toyuu*.

(20) [John-ga Tokyo-ni it-ta (tono/toyuu)/\*to] sirase -nom -dat go-past comp news

'The news that John went to Tokyo'

Given this, it is possible to regard *-na* as the adnominal form of *-ni*, which obeys the same rule that applies to the other cases such as in (19-20).

The examples in (20) also plainly indicate the origin of the form yoonitono/-yoonitoyuu. Here, subjunctive clauses headed by -yoo(-ni(-to)) are complements of nouns. The subordinator -to must be altered into tono or -toyuu, accordingly. The analysis provides a natural account of the fact that the non-subjunctive counterparts, -tono/-toyoo, allow their deletion, whereas the subjunctive complementizers -yoonitono/-yoonitoyuu do not. Since the latter includes -yooni, the morphological marking for the subjunctive mood, it cannot be omitted without changing the mood of the subordinate clauses. The analysis along the same line also answers to the question of why -tono/-toyuu cannot be deleted from -yoo-nitono/-yoonitoyuu, leaving -yoo alone. Since -yoo is the head, such deletion seems to be allowed without causing any problem. This is not the case, however, because -yoo must be in a proper form, i.e., the adnominal form, when it introduces a clause modifying a noun, being subject to the morphological requirement as discussed above. When -yoo plays the role of the subjunctive relative complementizer, it must become -yoo-na, where -na manifests adnominal morphology. When -yoo heads a subjunctive complement of a noun, it must also be supported by *-ni*, which, in turn, must be supported by the adnominal form of -to, namely, -tono/-toyuu.

The following schemata summarize what has been examined so far.

(21) a. [<sub>CP</sub> [<sub>TP</sub>... V-nonpast]-yoo(-ni(-to)) ] -yoo(-ni(-to)) = the subjunctive indicator -yoo(-ni + the clause subordinator -to)
b. [<sub>NP</sub> [<sub>CP</sub> [<sub>TP</sub>... V-nonpast]-yoo-na/nitono/nitoyuu ] [<sub>NP</sub> ... ] ] -yoo-na = the subjunctive indicator -yoo + the adnominal form of the subjunctive indicator -na

> -yoo-ni-tono/ni-toyuu = the subjunctive indicator -yoo-ni + the adnominal forms of the clause subordinator -tono/-toyuu

## 2.2 -Koto

Watanabe (1996a, b) convincingly argues that *-koto* is also a subjunctive complementizer. As is pointed out there, *-koto* appears in similar (but not the same) contexts of *-yoo(-ni(to))*, which again overlaps mostly with those of the subjunctives in other languages. Here, I essentially follow Watanabe's analysis, presenting a more detailed description of its distribution and categorial property.

#### 2.2.1 The Distribution

The form *-koto* shows up in the matrix as a weak imperative sentence.<sup>30</sup> As a complement clause, it appears (i) in the complements of verbs of ordering, wanting, suggesting, wishing, praying and so on, which

(i) Optative
 \*ame-ga/yo hur-u koto
 rain-nom/voc fall-nonpast subj. comp
 'May it rain.'

<sup>&</sup>lt;sup>30</sup> There is no optative use of *-koto*, however, as shown below.

are the same verbs as selecting the *-yoo(-ni(-to))* subjunctive complements; (ii) in the factive complements selected by factive verbs such as *sir* 'know', *omoidas* 'remember', *hakkensu* 'discover' (which are the so-called semifactive complements in Hooper's 1975 term); (iii) in the complements of verbs of emotion such as *kuyam* '*regret*', *yorokob*, 'be glad', and *haji* 'be ashamed' (which are called true factives, and also correspond to emotional factives in Farkas's 1992 term); (iv) in the complements of some of the so-called subject control verbs such as *kokoromi/kuwadate*, 'try/attempt' *kime/ketsuisu*, 'decide' and *yakusokusu* 'promise'<sup>31</sup>; (v) in the complements of aspectual verbs such as *hajime*, 'start', *tuduke*, 'continue', *oe*, 'stop', etc.; and (vi) in the complements of verbs that have speculative and fictional interpretations, such as *kangae/omow*, 'think/ponder,' *soozoosu* 'imagine', and yumemi 'dream'.<sup>32</sup>

<sup>&</sup>lt;sup>31</sup> These verbs alternatively take non-subjunctive complements headed by *-to*.

<sup>&</sup>lt;sup>32</sup> The verbs taking the result complements headed by *-yooni*, i.e., *nar* 'happen' and *sur* 'make it happen/force' also select complements introduced by *-koto-ni* (which are dative-marked, but not accusative-marked). As is hinted by Shibatani (1978), there seems to be some property shared by these two types of complements of the same verbs. We, however, leave open the question of whether the property is attributed to the subjunctive mood.

#### (22) Weak imperative

(anata-ga/Tanaka-ga) sono heya-o soojisu-ru koto<sup>33</sup>
you-nom/ -nom that room-acc clean-nonpast
'Clean up the room.'

- (23) Complements of verbs of command, request, suggestion, wish, prayer, etc.
  - a. koochoo-ga sensei<sub>i</sub>-ni [e<sub>i</sub> Mary-o suisensu-ru koto]-o motome-ta principal-nom teacher-dat -acc recommend-nonpast -acc request-past
     'The principal requested the teacher to recommend Mary.'
  - b. sensei-ga [ koochoo-ga Mary-o suisensu-ru koto]-o nega-ta teacher-nom principal-nom -acc recommend-nonpast -acc wish-past
    'The teacher wished that the principal would recommend Mary.'

(24) Factive complements (semifactive)

John<sub>i</sub>-ga [jibun<sub>i</sub>-ga kagi-o nakusi-ta koto]-ni kidui-ta -nom self-nom key-acc lose-past -acc notice-past

'John noticed that he lost the key.'

<sup>&</sup>lt;sup>33</sup> The politeness suffix *-mas* cannot appear here (see note 12). This does not indicate that this example is not a main clause. This is simply because the sentence is not optative, but weak imperative, which is incompatible with the expression of the speaker's politeness. Note that the regular imperative and the weak imperative sentence headed by *-yoo(ni)* do not allow the politeness suffix, either.

(25) Complements of emotional verbs (true factive/emotional factive)
John<sub>i</sub>-ga [ zibun<sub>i</sub>-no kodomo-ga umi-de oyoi-da koto]-o yorokon-da -nom self-gen child-nom sea-dat swim-past -acc 'be glad'-past
'John was glad that his children swam in the sea.'

(26) Complements of some of the so-called subject control verbs

John<sub>i</sub>-ga [e<sub>i</sub> (umi-de) oyog-u koto]-o kokoromi-ta -nom sea-dat swim-nonpast -acc try-past 'John tried to swim (in the sea).'

(27) Complements of aspectual verbs

John<sub>i</sub>-ga [ e<sub>i</sub> (umi-de) oyog-u koto ]-o hajime/yame-ta -nom sea-dat swim-nonpast -acc start/stop-past

'John start to swim/stop swimming (in the sea).'

(28) Complements of verbs meaning speculation

John-ga [kodomo-ga (umi-de) oyog-u koto]-o omot-ta -nom children-nom sea-dat swim-nonpast -acc think-past 'John thought/imagined that the children swim (in the sea).'

The referential and Case properties of embedded subjects will be intensively discussed in the next chapter.

#### 2.2.2 Nominal Property of -koto as a Complementizer

Since -koto appears in the root context, it is not a clause subordinator,

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but a clause-type indicator; i.e., the subjunctive complementizer. The subjunctive complementizer *-koto* clearly differs from the other subjunctive complementizer *-yoo(ni(to))* in that only the former is followed by a case particle such as the accusative *-o* and the dative *-ni*. It is strongly suggested that *-koto* bears a nominal feature of the kind concerning Case marking that is in common with nouns.

Here, one might doubt its morphological status as complementizer, since case particles are neither attached to non-subjunctive declarative clauses with *-to*, nor to the subjunctive clauses with *-yoo(ni(to))*. The Case-marking property is not decisive evidence that some element is actually a noun however, as we will discuss below. Before discussing it, first let us argue against an assumption held often in the literature that *-koto* in what we call 'subjunctive clauses' here is an instance of the formal noun *-koto* (Nakau 1973 and Fukui 1988, for example). When non-subjunctive clauses appear in a Case-marked position, they must undergo nominalization by the clause nominalizer *-no*, or complementation by the so-called formal noun *-koto* 'fact'. However, the formal noun *-koto* shows significant differences from the subjunctive complementizer *-koto*.

First, the formal noun takes a finite complement clause that is optionally headed by the complementizer *-tono/-toyuu*, as in the following example.

(29) [[John-ga tookyoo-ni ik-u/it-ta (tono/toyuu)] koto ]-ga yuumei-da -nom Tokyo-dat go-nonpast/go-past comp fact-nom famous-nonpast

'The fact that John will go/went to Tokyo is well-known.'

This sharply contrasts with the *-koto* subjunctive complements. The complementizer *-tono/-toyuu* never co-occurs with the subjunctive complementizer *-koto*, as shown below.

(30) John<sub>i</sub>-ga [e<sub>i</sub> umi-de oyog-u (\*tono/toyuu) koto ]-o hajime-ta -nom sea-dat swim-nonpast comp sbj comp-acc start-past
'John started to swim in the sea.'

This restriction on the shape of complementizer cannot be accounted for by the assumption that *-koto* in these complements is an instance of the formal noun. On the other hand, under the analysis proposed here, *-koto* itself is a complementizer, namely, the head of  $C^0$ . Thus, there is no noun that is modified by a clause headed by the complementizer *-tono/toyuu*.

Second, as Watanabe (1996b) correctly pointed out, the imperative use cannot be explained if *-koto* is a formal noun. Even if one assumes that a noun may function as an imperative sentence for some reason, a serious question arises. Many of the verbs listed above as taking the *-koto* subjunctive complements alternatively take true noun complements, i.e., noun phrases and/or nominalized clauses with the nominalizer *-no*. For example, the aspectual verb *hajime* 'start' takes either one of them, as shown below:

(31) a. John<sub>i</sub>-ga [ e<sub>i</sub> umi-de oyogu no ]-o hajime-ta
-nom sea-dat swim nominalzer-acc start-past
'John start swimming in the sea.'

b. John<sub>i</sub>-ga [ e<sub>i</sub> umi-de-no oyogi ]-o hajime-ta
-nom sea-dat-gen swim-acc start-past
'John start swim in the sea.'

Suppose that the *-koto* complements at issue are noun clauses same as the nominalized clauses. Then, one should expect that the nominalized clauses could be used as imperative sentences due the same reason the *-koto* clauses function as imperative. It is not the case, however.<sup>34</sup>

 (32) \*(anata-ga/Tanaka-ga) sono heya-o soojisu-ru no you-nom/ -nom that room-acc clean-nonpast nominalizer
 Under the intended reading such as '(You/Tanaka,) clean up the room.'

Consequently, the *-koto* subjunctive complements must be distinguished from pure nouns and the nominalized clauses with *-no*.

<sup>&</sup>lt;sup>34</sup> Neither the formal noun *koto* functions as a weak imperative sentence, as shown below.

 <sup>(</sup>i) \*(anata-ga/Tanaka-ga) sono heya-o soojisu-ru tono/toyuu koto you-nom/ -nom that room-acc clean-nonpast comp Under the intended reading such as '(You/Tanaka,) clean up the room.'

This, again, confirms that *-koto* under discussion is not an instance of the formal noun.

Now let us return to the issue of nominal properties of clauses, which are indeed shared by other types of clauses. Japanese nouns cause the following two phenomena for their complement clauses and relative clauses; namely, (i) optional nominative-genitive Case conversion of embedded subjects (see Miyagawa 1993, Ochi 1999, Saito 1983, Ura 1994, Watanabe 1994, for theoretical accounts of this phenomenon), as shown in (33a) below, and (ii) obligatory adnominal morphology on elements in the final position of a modifier clause within NP (see 2.1.2 above), as shown in (33b) below. Non-subjunctive clauses headed by *-to* tolerate neither of them.

(33) a. [siken-ga/-no umaku ik-u] hoohoo
 exam-nom/-gen well go-nonpast way
 'the way they pass exams successfully'

b. [eigo-ga honyaku kannona/\*kanooda] konpyuutaa
English-nom translation 'is possible' computer
'A computer that can translate English'

The two phenomena are found in the subjunctive complements headed by -*koto*.

(34) a. John-wa [siken-ga/no umaku ik-u koto]-o negat-ta -top exam-nom/-gen well go-nonpast sbj comp-acc wish-past

'John wished that he would pass exams successfully.'

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b. NEC-wa [sono konpyuutaa-ga eigo-o umaku honyaku -top that computer-nom English-acc well translation
kanoona /\*kanooda koto]-o negat-ta
'is possible' sbj comp-acc wish-past

'NEC wished that the computer would be able to translate English successfully.'

This fact does not necessarily imply that *-koto* is a noun, but only suggests that *-koto* has nominal features to the extent that it causes the two kinds of phenomena that are also induced by a noun's nominal feature. Other types of clauses occasionally trigger either one or both. For example, the question particle *-no*, which is plausibly assumed to be  $C^0$ , triggers adnominal morphology of a predicate directly preceding it.

(35) dare-ga itiban rippana/\*rippada no?

who-nom most 'is admirable' Q

'Who is most admirable?'

Even the head of the other subjunctive complementizer, -yoo, has a certain degree of nominal feature,<sup>35</sup> since it causes optional nominative-

<sup>&</sup>lt;sup>35</sup> Maintaining the complementizer status of *-yoo(ni)*, Nakau (1973) also points out the nominal property of *-yoo(ni)* based on the fact as follows: A pro-form used for clauses headed by *-yoo(ni)* is *sono-yooni su*, where *yooni* seems to be modified by an adjective-like element *sono* 'that'. The pro-form differs from a sentential pro-form used for a clause headed by *to*, which is *so su* 'do so'. It seems to be the case that *-yoo* is a noun (such as a formal noun *-yoo* 'way'), not a clause. It is, however, shown there that the seemingly adjectival pro-form *sono* as in *sono-yooni* actu-

genitive Case conversion as well as adnominal morphology.<sup>36</sup> The following examples of purpose clauses show this point.<sup>37</sup> It might be suggested that subjunctive clauses have nominal status in general, as is pointed out by Akira Watanabe (p.c.).

(36) a. John-wa [siken-ga/no umaku ik-u -yoo(-ni(\*to))]

-top exam-nom/-gen well go-nonpast sbj comp

moobenkyoosi-ta

'study hard'-past

'John studied hard in order to pass the exam successfully.'

b. NEC-wa [sono konpyuutaa-ga eigo-o umaku honyaku -top that computer-nom English-acc well translation

kanoona/\*kanooda -yoo(-ni(to))] doryokusi-ta

'be able to do' -sbj comp 'make efforts'-past

'NEC made every effort so that the computer is able to translate

English successfully.'

ally replaces complement clauses introduced by predicates with certain nominal property such as adjectival nominal, e.g., *hazuda* 'is expected to', *tsumorida* 'intend to' and so on. Thus, the nominal property concerning the shape of pro-form do not determine the entire categorial status as a noun, either.

<sup>36</sup> In (36a), when genitive marking takes place, *-to* must be deleted. The incompatibility of *-to* with genitive marking might also support our assumption that the source of the nominal feature is *-yoo*, the head of  $C^0$ . See also note 34.

Furthermore, the fact that *-koto* is Case-marked as accusative or as dative does not guarantee its categorial status to be a noun, either. Case particles are sometimes attached to categories other than NP, such as PP and CP. PP may be Case-marked (e.g., *tookyoo-kara-ga tooi*, Tokyo-fromnom 'is far', '(lit.) [from Tokyo] is far' and *John-ga tookyoo-made-o arui-ta*. John-nom Tokyo-to-acc walk, 'John walked to Tokyo', see Takezawa 1987, for more discussion on this topic). The accusative case particle is optionally attached to an embedded interrogative clause headed by the interrogative complementizer, *-ka(dooka)*, as shown below:

(37) John<sub>i</sub>-wa [e<sub>i</sub> sono siken-o uke-ru ka(dooka) ](-o) kime-ta.
-top that exam-acc take-nonpast whether -acc decide-past
'John decided whether to take the exam (or not).'

Accordingly, this type of interrogative complement is assumed to have a certain degree of nominal feature that permits an accusative case particle to appear. The (optional) Case-marking on the *-ka(dooka)* interrogative complements and on the *-koto* subjunctive complements suggests that these clauses possess the same kind of nominal feature concerning Case-marking,<sup>38</sup> even though they are not categorized as nouns. That is,

<sup>&</sup>lt;sup>37</sup> Russian subjunctive clauses are NP, according to Stepanov (1998), for example.

<sup>&</sup>lt;sup>38</sup> Moreover, the interrogative complementizer *-ka(dooka)* optionally alters into *-noka(dooka)*, where *-no*, the same form as the nominalizer, is included and causes adnominal morphology for preceding predicates. This fact also suggests its potential nominal property. Yet, there is no

Case-marking cannot be regarded as solid morphological evidence by which something is categorized as a noun in Japanese.<sup>39</sup> It is noteworthy here that the -yoo(ni(to)) subjunctive clauses never receive overt Casemarking. That is, only *-koto* complements cause all of the three phenomena; i.e., Case-marking, nominative-genitive Case conversion, and adnominal morphology. The nominal feature of *-koto* is significantly richer than that of *-yoo(ni(to))* in this sense.<sup>40</sup> In Chapter 5, it will be argued that the richness of the nominal property of the subjunctive complementizer *-koto* is crucially related to the possibility of long-distance A-scrambling out of the complements.

The following summarizes what has been established so far.

(38) [<sub>CP</sub> [<sub>TP</sub>... V] koto<sub>[+ N]</sub>]-Case

room to doubt its categorial status and its function as C<sup>0</sup>, i.e., a clause-type indicator as well as a clause subordinator.

<sup>39</sup> Historically, case particles are attached directly to clauses without nominalization by *-no*. This is shown by fossilized expressions such as a proverb like [e *nige-ru*]-ga kati(-da), [e escape-pres]-nom victory (-is), 'To run away is to win'. Also, conjunction markers such as *-ga* 'but' is considered to be descendants of case particles. It has been noted in the literature that there are certain correspondence between case systems and complementizers in some languages. See Gorbet (1976), for example, for a case study in Diegueno and for some comments about Japanese.

<sup>40</sup> The nominalizer *-no* also manifests the three phenomena in a clause to which *-no* is attached. This does not imply that the nominalizer *-no* and the subjunctive complementizer *-koto* have the same degree of nominal feature that makes both of them nouns, however. Recall that the nominalized clauses cannot function as main sentences (imperative sentences). This is naturally expected if we assume that only the nominalizer *-no* renders its clause equivalent to a noun, but *-koto* does not.

## koto = $C^0$ = the subjunctive indicator with nominal feature

Now, we have two types of subjunctive complementizer, -*koto* and yoo(ni(to)). What distinguishes -*koto* from -yooni(to) is the nominal feature necessary for Case-marking that only -*koto* has. It, thus, turns out that the existence of two types of subjunctive complementizers is a reflex of two different features of subjunctive complements in Japanese; nominal feature rich enough to require Case-marking and nominal feature so deficient that Case-marking is not only unnecessary, but also impossible. Furthermore, it follows that Case properties of main verbs determine whether they take either one of the two types of subjunctive complements, or both. For example, factive verbs only select the nominal subjunctive clauses (i.e., -*koto*), which is naturally expected.

# Appendix 1: On a certain difference in interpretation between sub junctive and non-subjunctive relative clauses

Here, let us take the subjunctive relatives to see how they should be distinguished from the non-subjunctive relatives. A difference between them is detected from the availability of a specific interpretation of an indefinite noun. As is well known, certain types of indefinite nouns allow both specific and non-specific readings, although specific readings of such indefinites with subjunctive relatives are impossible (see Beghelli 1998 for a semantic analysis of the case of Italian and Modern Greek). In Japanese, case-marked nouns either with bare postnominal numerals or with genitive-marked prenominal numerals are indefinites that have both specific and non-specific readings, but bare nouns with case-marked postnominal numerals are not, as the following example show.

 (1) daremo-ga everyone-nom
 gakusei-o hitori student-acc one hitori-no gakusei-o one-gen student-acc
 'Everyone saw a (different) student.' a. sore-wa John dat-ta.

mi-ta. see-past

'Everyone saw a (different) student.'
a. sore-wa John dat-ta.
that-top be-past
'It was John.'
b. gakusei-wa gookee 10-nin i-ta
student-top total -classifier-exist-past

'10 students were there in total.'

- (2) daremo-ga gakusei hitori-o mita everyone-nom student one-acc see-past 'Everyone saw a student.'
  - a. #sore-wa John dat-ta. that-top be-past 'It was John.'
  - b. gakusei-wa gookei 10-nin -i-ta. student-top total -classifier-exist-past '10 students were there in total.'

Since the reading of a genitive-marked numeral plus a case-marked noun has a flavor of that of partitive indefinites such as 'one of the students' in English, let us here take case-marked nouns with bare postnominal numerals as indefinites to be examined with respect to the ambiguous reading between a specific and non-specific reading. Consider the next example.

(3) John-ga gakusei-o hito-ri motometei-ru -nom student-acc one-cl want-nonpast 'John wants a student.' This sentence is ambiguous. The indefinite noun, *gakusei-o hitori* 'one student,' has either wide scope over the intentional verb *motome* 'want,' or narrow scope; that is, it may either refer to a certain student, or to any student. This ambiguity also appears when the indefinite is modified by a relative clause without *-yoona*. In the example (4) below, the indefinite with such a relative clause has either wide scope or narrow scope with respect to the matrix verb.

(4) John-ga [[takusan-no hon-o mot-tei-ru] gakusei-o hito-ri] -nom many-gen book-acc have-prog-nonpast student-acc one-classifier-acc motome-tei-ru. sore-wa John dat-ta. want-prog-nonpast that-top be-past
'John wants a student who has many books. It was John.'

Compare (5) with (6) below.

(6) John-ga [[takusan-no hon-o mot-tei-ru -yoona] -nom many-gen book-acc have-prog-nonpast-subj gakusei-o hito-ri] motome-tei-ru. #sore-wa John dat-ta. student-acc one-classifier want-prog-nonpast that-top be-past
'John wants a student who should many books. #It was John.'

The indefinite, *gakusei-ga hitori* 'one student', in (6) has the non-specific reading only. The subjunctive relative in Japanese shows a similar opaqueness as those in other languages.

Specific readings of this type of indefinites also disappears when it occurs in a certain subjunctive complements. Consider the contrast in the availability of a specific reading between the example (7) and (8) below:

(7) Bill-ga [gakusei-ga hitori sono syoogakukin-o tot-ta to] kii-ta.
 -nom student-nom one that scholarship-acc receive-past comp hear-past sore-wa John dat-ta.
 that-top be-past

'Bill heared that a student received the scholarship. It was John.'

(8) Bill-ga [gakusei-ga hitori sono syoogakukin-o tor-u -yoo(ni(to))] -nom student-nom one that scholarship-acc receive-nonpast-subj(comp) nozon-da. #sore-wa John dat-ta. hope-past that-top be-past

'Bill hoped that a student would receive the scholarship. It was John.'

The example (9) below shows that a different kind of indefinite NP still holds its specific reading even in a subjunctive complement.

(9) Bill-ga [ hitori-no gakusei-ga sono syoogakukin-o tor-u--nom one-gen student-nom that scholarship-acc receive- nonpastyoo(ni(to)) ] nozon-da. sore-wa John dat-ta. sbj comp hope-past that- top be-past 'Bill hoped that a student would receive the scholarship. It was John.'

Notice here that the indefinites in the examples above are in the embedded subject position. What happens then when they are in the embedded object position? Surprisingly, the specific reading becomes available, although it is not perfect.<sup>41</sup>

(10) Bill-ga [iinkai-ga gakusei-o hitori suisensu-ru -yoo(ni(to))]
-nom committee-nom student-acc one recommend-nonpast-subj(comp)
nozon-da. ?sore-wa John dat-ta.
hope-past that-top be-past
'Bill hoped that the committee would recommended a student. It was John.'

The fact that the subject-object asymmetry is observed with respect to the wide scope reading of indefinites within subjunctive relatives suggests that the scope interaction between indefinites and intentional verbs is not only governed by their semantics, but also significantly affected by some syntactic property of subjunctive clauses which enables only object indefinites to escape from the semantically opaque domain. Exactly what syntactic mechanism concerns the effect should be studied, which I will leave for future research.

<sup>&</sup>lt;sup>41</sup> Sabine latridou (p.c.) reports that the same asymmetry is found also in Modern Greek.
# **Chapter III**

# Raising, Control, and Lexical and PRO/pro Subjects

In this chapter the Case property of subjects of subjunctive complements will be a main focus. The observation given below will lead to a proposal for the mechanism of nominative Case checking, which will be discussed in Chapter 4.

In section 3.1, it will be indicated that, among the subjunctive complements discussed in chapter 2, complements headed by *-yooni* allow subjectto-subject raising. Since *-yooni* is a subjunctive complementizer, as previously established, this is an instance of raising out of CP.

In 3.2, the availability of nominative Case for *pro* and of null Case for PRO, and its direct relations with the control property of subjunctive complements will be examined. In connection to this point, I will also look into the distribution of nominative subjects, and how it is connected with their control property. As has already been discussed in the previous chapter, *-yoo(ni(to))* and *-koto* do not get treated as control markers, since they allow overt non-controlled nominative subjects. Besides, it will be shown that empty pronomi-

nal subjects can be controlled or not so strictly controlled by matrix elements. Section 3.2.1 deals with cases of the non-controlled overt subjects in subjunctive complements. In section 3.2.2, not strictly controlled subjects will be closely examined. It will be shown that subjunctive complements of aspectual verbs behave interestingly in regard to licensing of *pro*.

In section 3.3, I will focus on the question of whether an embedded empty subject is indeed PRO, as has been taken granted by many authors (for control non-finite complements in their terminology). Examples will be presented of the so-called PRO gate by which existence of PRO subjects are confirmed (Higginbotham 1980). The examples will indicate that controlled PRO is available in the subjunctive complements in which nominative subjects are also allowed. In the next Chapter, it will be argued that Case licensing of PRO, *pro*, and a nominative NP is connected to tense features of T in subjunctive complements.

### 3.1 Subject-to-Subject Raising

As seen above, the subjunctive complementizer *-yooni* introduces result complements of the verb *nar* 'happen/become as a natural consequence'.

(1) John<sub>i</sub>-ga [e<sub>i</sub> motto benkyoosu-ru-yooni] nat-ta
-nom more study-nonpast-sbj comp happen-past
'It happened as a natural consequence that John studied harder.'

The interpretation of this sentence is such that John's studying harder happened as a natural consequence of the situation. The complement refers to the event obtained as a result from the situation.

The subject of this type of subjunctive complement undergoes raising to the matrix subject position. That is, the nominative subject does not stay within the complement. This is shown by the fact that a temporal adverbial phrase that is compatible only with the matrix past predicate may come between the nominative subject and the complement in which a present tense predicate appears, as in the example below.

- (2) a. ame<sub>i</sub>-ga [mikka mae-ni] [t<sub>i</sub>/\*PRO<sub>i</sub> yam-u -yooni] nat-ta rain-nom `three days ago`-at stop-nonpast-sbj comp happen-past
   'Three days ago it happened as a natural consequence that it stopped raining.'
  - b. ame-ga [mikka mae-ni] yan-da/\*yam-u
    rain-nom 'three days ago'-at stop-past/rain-nonpast
    'It stopped/stops raining.'

The adverbial phrase [*mikka mae-ni*] 'three days ago', referring to past time, successfully modifies the matrix past predicate *nar-ta* 'happened'. Since the complement denotes the obtained result (see 2.1.1), the implication of this sentence is that it had been raining before three days ago. The non-animate

subject, *ame* 'rain', is assumed not to be a proper controller of PRO, as shown by its incompatibility with control predicates (e.g., \**ame<sub>i</sub>-ga* [*PRO<sub>i</sub> huri*]-*age-ta*, rain-nom fall-complete-past, 'it stops raining') (for discussions on control predicates in Japanese, see Kageyama 1993, Koizumi 1995, Nishi-gauchi 1993. Shibatani 1978. etc.) (Cf. Takahanshi 2000).

Furthermore, such a temporal adverbial can intervene in an idiom chunk consisting of a nominative phrase and a predicate. Consider the following examples.

- (3) a. [siraha -no ya]-ga John-ni tat -ta
  `white feather'-gen arrow-nom -dat stand-past
  'An arrow made of white feather hit John. = John was nominated.'
  - b. [siraha -no ya]<sub>i</sub>-ga kinoo [t<sub>i</sub> tekisetuna koohosya-ni white feather'-gen arrow-nom yesterday appropriate candidate-dat

tat -u -yooni] nat-a stand-nonpast -sbj comp happen-past

'Yesterday it happened that appropriate candidates was nominated as a natural consequence from the situation.'

<u>tat-u</u> stand-nonpast

"Yesterday appropriate candidates are nominated."

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The (3a) shows that the idiom consists of the nominative phrase [*siraha-no* ya]-*ga*, [white feather-gen arrow]-nom and the predicate *tat-u/a*, standnonpast/past. The grammatical sentence in (3b) contains the adverb *kinoo* 'yesterday' following the nominative phrase and preceding the nonpast predicate *tat-u* 'stands' that is followed by *-yooni nat-ta*, *-subj* comp happen-past. 'happened as a natural result'. Its interpretation is such that yesterday, it happened as a natural result that appropriate candidates were nominated (they had not been nominated before that). Since the temporal adverb adverb *kinoo* 'yesterday' modifies the matrix past predicate *nat-ta* 'happened', but not the nonpast predicate in the complement *tat-u* 'stands', the nominative phrase preceding the adverb must be located in the matrix. The fact that the combination of the nominative phrase and the predicate in the complement is still interpreted as an idiom, therefore, implies that the nominative part of the idiom chunk undergoes raising out of the complement in which the rest of the idiom appears.

Let us look at another example of an idiom appearing in this type of complement, confirming that no control structure is involved here. (4a) below shows an example of a clausal idiom, in which the nominative phrase is human (see Nishigauchi 1993 for compatibility of this idiom with other raising predicates). In (4b), the idiom is embedded in the *-yooni* complement.

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(4) a. Kooboo-ga/mo hude-o ayama-ru<sup>1</sup>

-nom/even brush-acc 'make a mistake'-nonpast

'(lit.) (Even) Kobo, the master of calligrapher, makes a mistake in writing.' = '(Even) an expert makes a mistake.'

b. Kooboo<sub>i</sub>-ga/mo [t<sub>i</sub> hude-o ayama-ru -yooni] nar-ta -nom/even brush-acc 'make a mistake'-nonpast-sbj comp happen-past '(lit.) It happened that (even) Kobo, the master of calligrapher, made a mistake in writing.' = 'It happened as a natural consequence that (even) an expert made a mistake.'

The example in (4b) is ambiguous between the literal reading and the idiomatic reading (the latter of which allows the use of this sentence to refer to a specialist in any fields other than calligraphy). When it is interpreted as an idiom, the nominative subject *Kooboo-ga* 'Kobo (= the name of the calligrapher)', obviously does not play a role of a thematic argument of the matrix predicate *nar-ta* 'happened'. Accordingly, the nominative phrase cannot be a controller of PRO in the complement subject position. This is just parallel with the case of idioms embedded in raising constructions in English, as seen in

(i) Kooboo-mo hude-no ayamari
 even brush-gen mistake
 'Even an expert makes a mistake.'

<sup>&</sup>lt;sup>1</sup> The original form of this idiom is the proverb as in the following:

the example like *The cat<sub>i</sub>* seems [ $t_i$  be out of the bag], which retains its idiomatic meaning that a secret seems to be leaked.

Given these facts, it becomes fairly clear that subject-to-subject raising takes place in this type of subjunctive complement. One might ask why there is no Case available for the subject of the complement, since the complement predicate is finite, as I have argued in 2.1.1. This question will be answered in the next chapter (see 4.5).

Finally, one more piece of supporting evidence will be added, which concerns subject-honorification. Shibatani (1978), contrary to the analysis presented here, claims that what I regard as a complement clause is an adverbial clause, and that the main predicate *-nar* takes no subject. Shibatani's claim is based on interesting examples of subject-honorification. Let us briefly review the relevant examples, which indeed support the raising analysis. Shibatani points out that subject-honorification in the clauses at issue is morphologically displayed not by the matrix verb *-nar*, but by the embedded predicate, as shown below.<sup>2. 3</sup>

<sup>&</sup>lt;sup>2</sup> The grammatical judgement is due to Shibatani (1978). The degree of less acceptability in (5a) might not be so severe, depending on speakers. The point is that there is certainly a contrast between (5a) and (5b).

<sup>&</sup>lt;sup>3</sup> Subject-honorification is morphologically marked either (i) by a pair of honorification morphemes, o- and -(i)ninar, which are prefix and suffix, respectively, or (ii) by the suffix -(r)are, the same form as the passive suffix. I here ignore the second type (but, see note 8).

(5) a. \*Yamada sensei-ga yoku tazune-te ku-ru -yooni professor-nom often visit-*te* come-nonpast-sbj comp
o -nar-ininat -ta hon-happen-hon-past
'It has been the case that Professor Yamada often comes.'
b. Yamada sensei-ga yoku tazune-te o-ideni-nar-u professor-nom often visit-*te* hon-come-hon-nonpast

-yooni nat-ta -sbj comp happen-past

Shibatani suggests that the acceptability of (5b) is attributed to the structure the same as that of a sentence like (6) below, where the embedded clause is a pure adverbial clause.

 (6) [Yamada sensei]<sub>i</sub>-wa sono e-o [PRO<sub>i</sub> aruki-nagara] o-nagameprofessor-top that painting-acc walk-while hon-`look at`ninat-ta hon-past
 'Professor Yamada looked at the painting while walking.'

The embedded predicate within the adverbial clause does not manifest subject-honorification, whereas the matrix verb does. It should be noted that the matrix verb must be always in honorific form, whether the embedded verb is also an honorific form (although it sounds wordy), or not. Shibatani accordingly assumes that *Yamada sensei* 'Professor Yamada' in (5b) above is not subject of the main verb *nar* 'happen', but that of the embedded verb *ku* 'come'.

The implication of these examples, however, should be reconsidered with respect to what kind of subject position induces subject-honorification. It will be shown below that a subject position derived by raising prohibits honorification of the raising predicate, whereas a controller subject easily induces that of the control predicate. This is naturally expected, if we assume that honorification is an operation by which a predicate alters into an honorific form if the argument highest in the thematic hierarchy of the predicate is qualified as the trigger of honorification, which seems to be a plausible assumption (see at the end of this section a mechanism of subject-honorification proposed under the analysis presented here.

Pure control verbs are as shown in (7a), and pure raising verbs as shown in (7b), according to Kageyama (1993), Koizumi (1995), Nishigauchi (1993), Shibatani (1978), etc.<sup>4</sup>

 (7) a. gakusei<sub>i</sub>-ga [PRO<sub>i</sub> ronbun-o kaki]-naosi/age-ta student-nom article-acc write-'re do'/complete-past
 'The student rewrote the article/written up the article.'

<sup>&</sup>lt;sup>4</sup> We here do not deal with verbs that allow both raising and control, such as *-hazime* 'start' and *-tuzuke* 'continue'.

b. gakusei<sub>i</sub>-ga [t<sub>i</sub> ronbun-o kaki]-sugi/kake-ta student-nom article-acc write-'do too much'/'be about to'-past
'The student wrote too many articles (or a too long article)/was about to write the article.'

Now, let us consider the following examples of subject-honorification, where control verbs appear in (8-9) and raising verbs, (10-11). In the (a)-examples, subject-honorification takes place on the embedded verbs, and in the (b)-examples, it shows up on the higher control/raising verbs.

(8) a. \*[Yamada sensei]<sub>i</sub>-ga [PRO<sub>i</sub> ronbun-o <u>o-kaki-ninari</u>]-naosi-ta professor-nom article-acc hon-write-hon-'re do'-past 'Professor Yamada rewrote the article.'

- b. [Yamada sensei]<sub>i</sub>-ga [PRO<sub>i</sub> ronbun-o <u>o-kaki]-naosi-ninar</u>-ta professor-nom article-acc hon-write-`re do`-hon-past
- (9) a. \*[Yamada sensei]<sub>i</sub>-ga [PRO<sub>i</sub> ronbun-o <u>o-kaki-ninari</u>]-age-ta professor-nom article-acc hon-write-hon-complete-past
   'Professor Yamada written up the article'
  - b. [Yamada sensei]<sub>i</sub>-ga [PRO<sub>i</sub> ronbun-o <u>o-kaki]-age-ninar</u>-ta professor-nom article-acc hon-write-complete-hon-past

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(10) a. [Yamada sensei]<sub>i</sub>-ga [t<sub>i</sub> ronbun-o <u>o-kaki-ninari</u>]-kake-ta professor-nom article-acc hon-write-hon-'be about to'-past

'Professor Yamada was about to write the article.'

b. \*[Yamada sensei]<sub>i</sub>-ga [t<sub>i</sub> ronbun-o <u>o-kaki]-kake-ninar</u>-ta professor-nom article-acc hon-write-`be about to`-hon -past

(11) a. [Yamada sensei]<sub>i</sub>-ga [t<sub>i</sub> ronbun-o <u>o-kaki-ninari</u>]-sugi-ta professor-nom article-acc hon-write-hon-`do too much`-past

'Professor Yamada wrote too many articles/a too long article.'

b. \*[Yamada sensei]<sub>i</sub>-ga [t<sub>i</sub> ronbun-o <u>o-kaki]-sugi-ninar</u>-ta professor-nom article-acc hon-write-`do too much`-hon -past

The (a)-examples in (8-9) are bad, whereas those in (10-11) are perfect. It follows from this contrast that subject-honorification of a predicate is induced only by the subject that has a thematic relation with the predicate.<sup>5</sup> Let us turn to the example of *-yooni* subjunctive complement in (5), which is repeated in (12) below. The ungrammaticality of (12a) implies that the nominative subject is not a thematic argument of the matrix predicate, but it raises

<sup>&</sup>lt;sup>5</sup> This does not exclude cases of certain control verbs, such as -oe 'finish' and *-sokonaw*, 'fail', where subject-honorification is allowed also in the embedded verbs (although such a case seems to be less acceptable).

 <sup>(</sup>i) a. Yamadai-sensei-ga [PROi ronbun-o o-kaki]-oe/sokona-ininar-ta
 b. (?)Yamadai-sensei-ga [PROi ronbun-o o-kaki]-ninari-oe/sokonaw-ta

What is important here is that subject-honorification is never allowed on raising verbs.

from the complement in which the predicate can be honorific form as shown in (12b).

 (12) a. \*[Yamada sensei]<sub>i</sub>-ga [t<sub>i</sub> yoku tazune-te ku-ru -yooni] professor-nom often visit-*te* come-nonpast-sbj comp
 o -nar-ininat -ta hon-happen-hon-past
 'It has been the case that Professor Yamada often comes.'

b. [Yamada sensei]<sub>i</sub>-ga [t<sub>i</sub> yoku tazune-te o-ideni-nar-u
 professor-nom often visit-*te* hon-come-hon-nonpast
 -yooni] nat-ta

-sbj comp happen-past

Notice here that in the (b)-examples in (8-11) above, the honorific forms of control verbs are not the ones that are straightforwardly expected. A target verb of honorification is normally sandwiched between the honorification prefix and suffix, creating the sequence of o-V-ninar. In the (a)-examples, it is exactly the case. The target verb of honorification,  $V_{\text{honorific}}$  is embedded under another verb V, creating the sequence of [... o- $V_{\text{honorific}}$ -ninar]-V. On the other hand, in the (b)-examples, the target verb  $V_{\text{honorific}}$  embeds another verb V. While the honorification suffix -ninar immediately follows the target verb, the prefix o- immediately precedes not the target verb, but the embedded verb V. The result is [... o-V]- $V_{\text{honorific}}$ -ninar. One might ask whether such a form is an instance of honorification of the higher verb. I suggest that the surface order among these morphemes is simply derived from the morphological requirement of the prefix *o*- and of the control verbs. They must be supported by the embedded verb because of their morphological status as bound morphemes.<sup>6</sup> Since *o*- is a prefix, it cannot follow other morphemes, and a form like *V*-*o*-*V*<sub>honorific</sub>-*ninar* cannot be allowed. At the same time, since the embedded verb must attach to the higher control verb to form one word (as indicated by the placement of one primary tonal accent on the entire form), an alternative form like *V* o-*V*<sub>honorific</sub>-*ninar* (where each V has one primary tonal accent) cannot be materialized, either.<sup>7</sup> The position of the suffix - *ninar*, therefore, indicates which predicate is the target of honorification.<sup>8</sup>

<sup>&</sup>lt;sup>6</sup> For example, as argued by Koizumi (1995), verb movement overtly takes place from the embedded verb to the control verb.

<sup>&</sup>lt;sup>7</sup> The V-V(control) sequence that are created syntactically should be distinguished from true V-V compounds formed in the lexicon (see Kageyama 1989 for a detailed analysis about this distinction), since honorification morphology appears to be same in both cases, unfortunately. That is, lexical compounds also manifest the pattern of *o*-*V*-*V*-*ninar*. In this case, however, honorification naturally takes place on a single compound [*V*-*V*]. The same surface morpheme order, thus, does not necessarily imply that the sequence of the embedded verb and the higher control verb is treated together as a target of honorification.

<sup>&</sup>lt;sup>8</sup> Although the use of the other type of honorification (the passive honorification suffix -(r)are, see footnote 3) also seems to confirm our analysis, we will have the same problem as stated here (because -(r)are simply follows the target verb). Moreover, the ungrammatical status of honorification of raising verbs seems to become less clear. I here present the relevant examples, which is left to further investigation. Compare the followings with (8-11).

In what follows, I make several comments on a theoretical treatment of subject-honorification that confirms the analysis of raising subjunctive complements. It has been shown by now, that subject-honorification takes place even if it is not mediated by the checking of some relevant feature between the subject and T/AgrS (for example,  $\phi$ -feature checking by AgrS, as is assumed by Ura 1996, Cf. Toribio 1990). In the (a)-examples in (10-11) above, not the raising verbs, but the embedded verbs, are the target of honorification, and there is no T/AgrS under the raising verbs. Accordingly, there is no coincidence between nominative Case licensing and subject-honorification. It is suggested that subject-honorification is not an instance of morphological realization of the relationship between some feature placed on T/AgrS and that of the subject of the clause in which T/AgrS appears, but that of the relationship between a predicate and its thematically highest argument.<sup>9</sup>

(i) a. \*[Yamada sensei]<sub>i</sub>-ga [PRO<sub>i</sub> ronbun-o kak<u>-are</u>]-naosi/age-ta professor-nom article-acc write-hon-'re do'/'complete'-past
b. [Yamada sensei]<sub>i</sub>-ga [PRO<sub>i</sub> ronbun-o kaki]-naosi/age<u>-(r)are</u>-ta professor-nom article-acc write-'re do'/'complete'-hon-past
(ii) a. [Yamada sensei]<sub>i</sub>-ga [t<sub>i</sub> ronbun-o kak<u>-are</u>]-kake/sugi-ta professor-nom article-acc write-hon-'be about to/do too much'-past
b. ?\*/??[Yamada sensei]<sub>i</sub>-ga [t<sub>i</sub> ronbun-o kaki]-kake/sugi-rare-ta professor-nom article-acc write-'be about to/do too much'-past

<sup>9</sup> See Namai (2000) for an argument against the approach in terms of syntactic  $\phi$ -feature agreement from a different point of view. I, however, still keep Harada's (1976) insight that subject-honorification is a syntactic phenomenon, as will be made clear below in the text. Furthermore, another piece of supporting evidence for an analysis along this line comes from subject-honorification of psych-predicates which are morphologically causative in Japanese, such as in the following:

(13) zyusyoo-no nyuusu-ga Mary-o yorokob-ase-ta
`receiving a prize'-gen news-nom -acc `be pleased'-caus-past
'The news of receiving a prize pleased Mary.'

Since an experiencer of this type of psych-predicate, which is Case-marked as accusative, does not have a ( $\phi$ -)feature checking relationship with T/AgrS, the approach in terms of ( $\phi$ -)feature checking with T/AgrS predicts that even if an experiencer is a noun that has the relevant feature, honorification on the entire predicate (including the causative morpheme) would not take place. This is not the case, however. In the example in (14a) below, the nominative subject is the theme argument, *zyusyoo-no nyuusu* 'the news of receiving a prize', and the accusative object is the experiencer, *Yamada sensei* 'Professor Yamada'. The subject-honorification morpheme *-ninar* follows the embedded verb *yorokob* 'please' and precedes the causative verb *-ase*. If the honorification suffix follows the causative verb, it results in the ungrammaticality, as shown in (14b) (even if the ordering among the morphemes itself is allowed in principle, as shown in  $14c^{10}$ ).

(14) a. [zyusyoo-no nyuusu]-ga Yamada-sensei-o

'receiving a prize'-gen news-nom professor-acc
taihen o-yorokobi-ninar-ase-ta
greatly hon-'be pleased'-hon-caus-past
'The news of receiving a prize greatly pleased Professor Yamada.'
b. \*[zysyoo-no nyuusu]-ga Yamada-sensei-o

- ireceiving a prize'-gen news-nom professor-acc
   haihen o-yorokob-ase-ninar-ta
   greatly hon-'be pleased'-caus-hon-past
- c. [[e<sub>i</sub> zyusyoosi-ta] Yamada sensei<sub>i</sub>]-go mina-o 'receive a prize'-past professor-nom all-acc

taihen o-yorokob-ase-ninar-ta greatly hon-'be pleased'-caus-hon-past

'Professor Yamada, who receives a prize, greatly pleased all.'

This situation is exactly opposite to what is predicated by the approach as-

suming  $(\phi$ -)feature checking by T/AgrS.

<sup>&</sup>lt;sup>10</sup> In the grammatical example in (14c), the nominative subject is not the theme (or target of emotion) argument, but the cause argument of the psych-predicate, the latter which is ranked higher than the former, according to Pesetsky (1990).

The generalization follows that the subject-honorification suffix is attached to a predicate that has its thematically highest argument in the most external position, which is usually its Spec position (if there is only one argument, the position is naturally regarded as most external).<sup>11</sup> Suppose, following Harada (1976) that the honorification morphemes head a verbal projection together. This is not an unreasonable assumption, since the suffixal part *-ninar* clearly includes what corresponds to the verb root *-nar* 'happen/become'.<sup>12</sup> Now, it is reasonably assumed that the honorification verb has the selectional restriction as stated above. Since raising verbs do not assign any ( $\theta$ -)role to its Spec, the subject-honorification verb do not take a raising verb as its complement.

<sup>&</sup>lt;sup>11</sup> An exception seems to be the case of control verbs in (8-9). While the embedded verbs have their own  $\theta$ -role assigned to an argument in its Spec, the honorification morphemes do not appear on the embedded verbs, but on the control verbs. Notice, however, that the control verb itself assign its  $\theta$ -role to the Spec, so that it satisfies the proposed subcategorization property of the honorification verb. Also, as has been shown in footnote 5, there are some control verbs that allow both patterns. Keeping in mind the generalization that there is no subject-honorification on a predicate of which Spec is non- $\theta$  position, we here put aside the question why the cases in (8-9) do not allow both.

<sup>&</sup>lt;sup>12</sup> Harada (1976) argues, based on detailed morphosyntactic investigation, that *-ni* and *-nar* are verbal heads, projecting VP separately. Even though they are morphological separable, we here do not assume that *-ni* is an independent verb (or a head of whatever category), since it is unclear what role each morpheme independently plays in honorification. The question is open, however.

An analysis along this line might capture an interesting parallelism among the passive verb, the causative verb, and the subject-honorification verb. All these three must precede raising verbs, and follow control verbs, as shown below for the cases of the passive in (15-16)<sup>13</sup> and of the causative in (17-18).

- (i) a. \*Yamada-sensei-ga sono hito-ni(yotte) o-nagur-ininar-are-ta professor-nom that person-by hon-hit-hon-pass-past 'Professor Yamada was hit by that person.'
  - b. Yamada-sensei-ga sono hito-ni(yotte) o-nagur-are-ninar-ta professor-nom that person-by hon-hit-pass-hon-past

Here, the honorification suffix directly follows the passive morpheme, as shown in (ia), but not the embedded verb, as in (ib). One might wonder why it is not the other way around, since both raising subjects and passivized subjects are in a non- $\theta$ -position.

What we have witnessed here, however, is not that raising construction behaves differently from passive construction in terms of subjecthonorification, but that the subject-honorification verbs exactly pattern with the passive verb and also with the causative verb.

Under the mechanism of subject-honorification proposed here (see below in the text), the ungrammaticality of (ia) is assumed to be due to a failure of  $\theta$ -role absorption by the passive verb because of the intervening subject-honorification verb.

Incidentally, the analysis in the text does not account for the fact that in the causative construction, subject-honorification is always induced by the causer subject, as pointed out by Shigeru Miyagawa (p.c.). As in (ii-iii) below, the subject-honorification verb cannot precede the causative verb.

- (ii) \*John-ga Yamada-sensei-o/ni o-aruki-ninar-ase-ta -nom professor-acc/dat hon-walk-hon-caus-past 'John made/let Professor Yamada walk.'
- (iii) Yamada-sensei-ga John-o/ni o-aruk-ase-ninar-ta/\*o-aruki-ninar-ase-ta professor-nom -acc/dat hon-walk-caus-hon-past/hon-walk-hon-caus-past 'Professor Yamada made/let John walk.'

<sup>&</sup>lt;sup>13</sup> There is a seemingly mysterious contrast between raising and passive in regard to subject-honorification. Shibatani (1978) points out that subject-honorification is induced by passivized subjects, as shown in (i) below.

(15) a. \*John-ga (Mary-ni(yotte)) nagur-are-naosi-ta -nom -by hit-pass-'re do'-past

'John was hit by Mary again'

b. John-ga (Mary-ni(yotte)) naguri-naos-are-ta -nom -by hit-`re do`-pass-past

(16) a. John-ga (Mary-ni(yotte)) nagur-are-sugi-ta -nom -by hit-pass-`do too much`-past

'John was hit by Mary too much'

b. \*John-ga (Mary-ni(yotte)) nagur-isugi-rare-ta -nom -by hit-`do too much`-pass-past

(17) a. \*John-ga Mary-o/ni hasir-ase-naosi-ta -nom -acc/dat run-caus-`re do`-past

'John made/let Mary run again'

b. John-ga Mary-o/ni hasiri-naos-ase-ta

-nom -acc/dat run-'re do'-pass-past

The question is why the embedded verb cannot be the target of honorification. Comparing (ii-iii) with (ia) above, it might be possible to regard these examples as another instance of the similarity between the passive verb and the causative verb with respect to its relation with the subject-honorification verb. That is, it might be assumed that when the causative or passive verb appears, it must be directly adjoined to by an embedded verb that has a full thematic structure, to play its syntactic role relating to  $\theta$ -role assignment or absorption. The issue ought to be explored in further research. (18) a. John-ga Mary-o/ni hasir-are-sugi-ta

-nom -acc/dat run-caus-'do too much'-past

'John made/let Mary run too much'

b. \*John-ga Mary-o/ni hasir-isugi-sase-ta -nom -acc/dat run-'do too much'-caus-past

The well-known function of the passive verb is to absorb an external  $\theta$ -role of its complement verb (see Hoshi 1993 for an analysis of passive in Japanese). Moreover, the passive verb locates another argument of the complement verb in the Spec. The causative verb itself has an external  $\theta$ -role for its cause argument in the Spec. Given the significant symmetry between these two, and the subject-honorification verb, it is suggested that the subjecthonorification verb also puts an argument of its complement verb in the Spec, and has a direct relationship with the argument in the Spec in terms of a θ-role of the kind discussed so far, which results in licensing morphologically parallel forms of the predicate and its argument. Here the following mechanism will be tentatively proposed. The subject-honorification verb receives a  $\theta$ -role of the complement verb that is ranked highest at that point, as does the passive verb, but it does not 'absorb' it. Then, it assigns the  $\theta$ -role to an argument that is moved to its Spec, as the causative verb assigns its cause role to the argument in the Spec. At the same time, the subjecthonorification verb is naturally assumed to have its own feature such as [+

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honorification]. Since this is a semantic feature (just like the case of [+/- human]), it is natural to assume that the thematic relationship with the argument in its Spec must be properly in accordance with this semantic feature specification. That is, the argument must also have the same semantic feature [+ honorification].<sup>14</sup> Now. the incompatibility between the raising verb and the subject-honorification verb is straightforwardly accounted for, since the raising verb has no  $\theta$ -role to hand in to the subject-honorification verb. This analysis supports the raising analysis of the -*yooni* subjunctive complements.

The morphological status of the subject-honorification verb might also defend an analysis along this line. The prefix *o*- and the initial part of the suffix, *-ni* are both noun-related morphemes. The former can be attached to a noun, forming a noun that sounds polite (although not all nouns become this form, the details here to be put aside), and the latter's form corresponds to the dative particle or the postposition, *-ni*. Furthermore, the inflected form of the sandwiched verb is the same as the one that can be used as a derived nominal (let us put the details aside, again) (e.g., *o-<u>hataraki</u>-ninar*, hon-workhon, 'to work' and *John-no <u>hataraki</u>-ga ii*, [John-gen work]-nom 'good-is', 'John's work is good'). Since the rest of the suffix, *-nar*, is verbal, it might be

<sup>&</sup>lt;sup>14</sup> The approach might be extended to object-honorification, given Harada's (1976) generalization that when a complement verb is ditransitive, only the indirect object, but not the direct object, induces object-honorification. Notice that the indirect object is higher than the direct object in terms of the thematic relation with the verb. An analysis along the line suggested here seems promising.

assumed that the entire complex might correspond to a single predicate that has an internal structure where a verb takes a nominal complement. This newly created predicate, thus, has a single set of  $\theta$ -role(s) to be assigned to its argument. Under this view, both transferring a  $\theta$ -role of the complement verb to the subject-honorification verb and movement of an argument of the complement verb to the Spec of the subject-honorification verb, are necessary to restructure the two verbs into a single honorific predicate in the component of syntax.

I have suggested that the subject-honorification phenomenon is yielded syntactically in the sense stated above. Under this analysis, however, one might doubt whether it can be ensured that the highest argument of the complement verb goes through the Spec of the subject-honorification verb just for the need of receiving  $\theta$ -role. It is still unclear, however, whether a syntactic agreement mechanism is needed for subject-honorification such as an operation of Agree (Chomsky 1998, 1999).<sup>15</sup> This is mainly because of the interpretability of a [+ honorification] feature of the subject-honorification verb and of nouns. Since Agree takes place between two features both/either of

<sup>&</sup>lt;sup>15</sup> Cf. Niinuma (2000), which presents a theory of object-honorification in terms of the operation Agree between  $\underline{v}$  and an object that properly captures Harada's (1976) generalization (see footnote 14), and also give an argument against an account with recourse to Spec-head agreement or feature movement (in terms of Chomsky 1993, 1995). The example of subject-honorification on the psych-predicate in (14a) might be a potential counter-example to an analysis of subject-honorification along the line of Niinuma's, however.

which has an uninterpretable feature there is no reason to assume that Agree establishes the necessary relation of subject-honorification (although it is possible to assume that the complement verb of the subject-honorification verb has an uninterpretable [+ honorification] feature, it just causes verb movement). This issue is left to future research.

## 3.2 Nominative/pro Subjects and The Control Requirement

In this section, I will be concerned with the control property of subjunctive complements, and with its direct relevance to the Case property of embedded subjects. It can be observed that subjunctive complements basically allow PRO, *pro*, or a lexical NP with certain exceptional cases in which temporal interpretations of embedded predicates become an issue.

Subjunctive complements are divided into two types in regards to the control property of embedded subjects; control type and non-control type. First, I will discuss a fairly obvious case; non-control type complements, in which embedded subjects can be nominative NP or *pro*, in 3.2.1. Second, I will look into the other case, i.e., control type, which is more complicated. An empty category appears in an embedded subject position of the control type complement. It will be questioned whether the empty category is PRO or *pro*, or even both. Moreover, it will be examined what the control structure is that is required in the complements. In 3.2.2, I will show that nominative and *pro* subjects are available in subject and object control subjunctive complements,

where the embedded subjects are not necessarily strictly controlled by the matrix elements in certain cases. Such cases are called 'semi-control'. The occurrence of a *pro* subject is, in particular, confirmed by examples in which an empty subject may refer to what is prominent in a given context. Such non-strict control (semi-control, in my term) is restricted to taking place in a certain group of subject control complements that basically express an action that is simultaneous with the matrix action. The restriction is loosened when a complement denotes a generic/habitual or durative action. It will be suggested that the difficulty in semi-control interpretations is attributed to the interaction of a required tense reading with the possibility of identification between the matrix subject and the embedded subject.

#### 3.2.1 Non-Control Type Complements

As seen in chapter 2, some of the subjunctive complements freely allow overt nominative subjects. First, verbs of wanting and praying select this type of subjunctive complements, where either *-yoo(ni(-to))* or *-koto* appears, as shown in (18) below.<sup>16</sup> These main verbs optionally select matrix objects, which may or may not be coreferential with embedded subjects. Some of the other *-koto* subjunctive complements are also non-control type; i.e., factive complements and complements of fictional verb, as shown (19) below.

#### Non-control type

(18) NP-nom (NP-dat) [NP-nom... V-yoo(ni(-to)) ] negau, nozomu, inoru, nenjiru sbj comp wish, hope, pray, etc. hitobito-ga (kami-ni) [ame-ga hur-u -yoo(ni(-to)) ] inot-ta people-nom (God-dat) rain-nom fall-nonpast-sbj comp pray-past 'People prayed (to God) that it would rain.'

(19) a. NP-nom (NP-dat) [NP-nom ...V-koto]-o negau, nozomu, inoru, nenjiru sbj comp-acc wish, hope, pray, etc.

hitobito-ga (kami-ni) [ ame-ga hur-u -koto]-o inot-ta

people-nom (God-dat) rain-nom fall-nonpast-sbj comp-acc pray-past

'People prayed (to God) that it would rain.'

b. NP-nom [NP-nom ... V-koto]-o/ni kiduku, kookaisuru, wasureru, yorokobu, etc.

sbj comp-acc/dat notice, regret, forget, be pleased, etc.

John-ga [Mary-ga kinoo ko-nakat-ta koto]-o osin-da -nom -nom yesterday come-not-past subj.comp-acc regret-past 'John regretted that Mary did not come yetsterday.'

c. NP-nom [ NP-nom V koto]-o omow, kangaeru, yumemiru

<sup>&</sup>lt;sup>16</sup> Verbs such as *nozomu*, 'hope', *negau*, 'wish', and so on, take both control type and non-control type complements.

subj.comp-acc think, ponder, imagine, dream

John-ga [ kodomotachi-ga (umi-de) oyogu koto]-o kangae-ta -nom children-nom sea-dat swim sbj comp-acc think-past 'John thought that the children would swim (in the sea).'

It is, thus, obvious that if subjects of the non-control type are empty, they are *pro*. The example in (20) below shows that the embedded empty subject of the non-control type does not require coreference with any element in the matrix.

(20) John<sub>i</sub>-ga [e<sub>i/j</sub> daigaku-ni ukar-u yoo(ni(-to)) / koto-o ] inot-ta
 -nom university-dat pass-nonpast subj comp /subj.comp-acc pray-past
 'John<sub>i</sub> prayed that he<sub>i/i</sub> could enter a university.'

In addition, if there is a matrix object, an embedded empty subject may or may not refer to it, as the following example shows:

 (21) a. John<sub>i/j</sub>-ga kamisama<sub>k</sub>-ni [e<sub>i/j/\*k</sub> daigaku-ni ukar-u yoo(ni(-to))/ -nom God-dat univresity-dat pass-nonpast sbj comp/
 koto-o ] inot-ta sbj comp-acc pray-past

'John<sub>i</sub> prayed to God<sub>k</sub> that height could enter a university.'

b. John-ga mahootukai<sub>i</sub>-ni [ e<sub>i</sub> arasi-o okos-u yoo(ni(-to))/
 -nom wizard -dat storm-acc cause-nonpast sbj comp
 koto-o ] negat-ta
 sbj comp-acc wish-past

'John wished that the wizard would cause a storm.'

This fact clearly indicates that empty subjects of the non-control type subjunctive complements are *pro*.

### 3.2.2 Nominative and pro Subjects

In this subsection, we deal with the rest of the groups of subjunctive complements; namely, control type. Some exhibit subject control (hereafter, SC) and the other, object control (hereafter, OC), as in the following examples.

(22) a. Hanako<sub>i</sub>-ga [e<sub>i/\*j</sub> mainiti umi-de oyog-u koto]-o -nom everyday sea-dat swim-nonpast sbj comp-acc hajime/kokoromi/kime-ta<sup>17</sup> start/try/decide-past

<sup>&</sup>lt;sup>17</sup> Some verbs selecting SC complements take both complementizers *-koto*o and *-yoo(ni)*. Aspectual verbs only select *-koto-o*, whereas verbs such as *keikakusu* 'plan' select both (see 2.1.1). The examples given below only include *-koto* in the case of SC complements, just for the sake of space.

'Hanako started/tried/decided to swim in the sea everyday.'

b. Hanakoi-ga Taroj-ni [e•i/J mainiti umi-de oyog-u -yoo(-ni(to))]/
-nom -dat everyday sea-dat swim-nonpast -sbj comp
koto]-o meiji/susume/negat-ta
sbj comp-acc order/recommend/wish-past
'Hanako ordered/recommend/wished Taro to swim in the sea
everyday.'

The empty subject of a control infinitival complement in English has been assumed to be controlled PRO.<sup>18</sup>

(23) a. John; started/tried/decided [PRO<sub>i/<sup>\*</sup></sub>/\*he<sub>i/i</sub> to swim in the sea].

b. John; ordered/asked Bill; [PRO-i/j/\*hei/j to go to Boston].

It seems possible to regard the empty subjects of the control type subjunctive complements in Japanese to be also controlled PRO, if the obligatory local control phenomenon is attributed to some referential property of PRO (Cf. Hornstein 1999).

As is pointed out by Watanabe (1993), however, the obligatory control requirement of a complement clause does not necessarily imply that its subject is controlled PRO, given Borer's (1989) observation of Korean control clauses, where an overt reflexive and pronoun as well as an empty element are eligible to satisfy the control requirement by the governing verb.

(24) John<sub>i</sub>-ka [e<sub>i/\*j</sub>/ku<sub>i/\*j</sub>/cagi<sub>i/\*j</sub>/\*Bill<sub>j</sub> ttena-lye-ko] nolyek ha-ess-ta
-nom he self leave-will-comp try do-past
'John tried to leave.'

Sakaguchi (1990) indeed demonstrates that the subjunctive complements in Japanese are very similar to Korean control clauses in this respect. That is, overt anaphors and/or pronouns are permitted in certain cases (see also Hasegawa 1984). Consider the following example of an OC complement:<sup>19</sup>

(25) Hanako<sub>i</sub>-wa Taro<sub>j</sub>-ni [ (?)karejisin•<sub>i/J</sub>-ga/(?)kare•<sub>i/J</sub>-ga mainiti umi-de
 -top -dat heself-nom/he-nom everyday sea-dat
 oyog-u -yoo(-ni(-to))/-koto]-o meiji/susume-ta
 swim-nonpast-sbj comp/sbj comp/acc order/recommend-past

'Hanako ordered/recommend Taro to swim in the sea everyday.'

Following Takezawa's (1987) hypothesis that the [+ Tense] feature is responsible for nominative Case in Japanese, Ueda (1990) argues that nominative Case of an overt reflexive/pronoun as in (25) is licensed by an em-

<sup>&</sup>lt;sup>18</sup> See Chomsky and Lasnik (1993), Martin (1996), Hornstein (1999), and references cited there, for Minimalist approaches to PRO and/or control.

bedded [+ Tense] predicate marked with the nonpast tense suffix -(*r*)*u* (Cf. the alternative hypothesis given in Chapter 4). Since Japanese has *pro*, it seems quite reasonable to assume that those overt subjects can be replaced by *pro* in the subjunctive complements. This sharply contrasts with the PRO subject of the control infinitival complement in English. which never alternates with an overt nominative NP.

Here, one might observe the overt reflexive and pronoun to be less acceptable and doubt that nominative Case is licensed in the subject position of an OC complement. Previous studies disagree about the degree of acceptability of relevant data. For example, while Hasegawa (1984) judges examples such as in (25) to be less acceptable, Sakaguchi (1990) regards them as perfect. In addition, according to more than a few informants, lexical subjects as in (25) are completely grammatical. The examples relevant to this point, therefore, should be evaluated carefully enough. It should be noted here that the lexical subjects as in (25) only receive emphatic or contrastive reading, as noted by Sakaguchi (1990) and by Watanabe (1996b). Once appropriate contrastive stress is placed, the apparent marginality disappears accordingly. This fact suggests that the mild deviancy of the lexical subjects at issue just originates from the use of an overt element in the embedded

<sup>19</sup> The grammatical judgements given here are mine.

subject position that redundantly refers to the immediately preceding element in the matrix object position without the emphatic/contrastive reading.<sup>20</sup>

There is a piece of evidence that the less acceptability in (25) does not come from illegal licensing of nominative Case. Watanabe (1996b) argues that, since overt nominative subjects appear only marginally, they are not licensed by the same syntactic mechanism as the one for empty subjects, which are completely grammatical. However, when a nominative subject occupies a position in which nominative Case is never licensed, the sentence results in total ungrammaticality, which is much more severe than the relatively mild deviancy of nominative subjects such as in (25). Compare (25) with an example of the *-ni* (dative) causative sentence as in the following:

(26) Hanako-ga Taroi-ni [ei/\*kare(jisin)i-ga heya-o soojis]-ase-ta
-nom -dat he self -nom room-acc cealn-caus-past
'Hanako made Taro clean the room.'

The embedded overt nominative subject is strictly prohibited here. Takezawa (1987) argues that, since there is no [+ Tense] element in a complement of the causative morpheme -(s)ase, nominative Case is unavailable in the complement. The contrastive/emphatic stress does not improve the severe un-

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<sup>&</sup>lt;sup>20</sup> In this sense, I follow Hasegawa's (1984) suggestion that the degraded status of (25) is due to a violation of the Avoid Pronoun Principle (Cf. Watanabe 1996b, see also footnote 21).

grammaticality at all. This strongly suggests that the mechanism of licensing

nominative Case is in principle available in the OC complements as in (25).

The fact that a lexical subject and an empty subject are both permitted,

therefore, needs to be accounted for by the grammar.<sup>21</sup>

Now, let us look into more detail at lexical and pro subjects. The exam-

ples to be presented below are of three types of subjects in both SC com-

plements and OC complements, i.e., (i) controlled lexical reflexives and pro-

<sup>&</sup>lt;sup>21</sup> Watanabe (1996b) argues that the less acceptability of the examples in (25) is accounted for in his terms of Switch-reference and the effect of the so-called 'Avoid Pronoun Principle' is captured by his theory of PRO and Switch-reference. Here, we just briefly review Watanabe (1996b)'s analysis, and rise a question about it.

Romance subjunctive clauses show obviation, where an embedded subject pronoun cannot refers to the matrix subject. This phenomenon has been accounted for in term of the 'Avoid Pronoun Principle'. According to Watanabe, on the other hand, Romance subjunctives are headed by a different-subject (DS) marker, causing the obviation.

As for Japanese subjunctives, Watanabe shows that while *-koto* is unspecified with respect to Switch reference, *-yoo(ni)* is a DS marker, which causes the effect of what the 'Avoid Pronoun Principle' allegedly induces, just like the case of Romance subjunctive obviation.

Watanabe's argument about -yoo(ni) as a DS marker is based on the fact that -yoo(ni) always heads OC complements. The subjunctive complementizer -yoo(ni), however, appears in other non-OC complements, e.g., in SC complements of verbs such as 'try/attempt' and 'plan/decide'. Although Watanabe treats them as an exception, it is not clear whether those cases are exceptions to what are derived from the core property of -yoo(ni) as a subjunctive complementizer.

Moreover, the subjunctive complementizers introduce non-control complement of which subject can refer to the matrix subject, as we have seen in the previous subsection. This fact raises a question as to whether the subjunctive markers at least in Japanese function as a Switch-reference marker (i.e., a marker of the control property of embedded subjects). I will briefly discuss the control structure of subjunctive complements from a different point of view in this section.

nouns, (ii) lexical subjects, but neither reflexives nor pronouns, and (iii) empty subjects which are not strictly coreferential with the matrix elements. It will be shown that subjects of subjunctive complements are not always locally controlled, whereby their empty subjects can be *pro* (under a certain condition in some group of SC complements).

First let us consider the case of OC complements. As discussed above, the OC complements allow controlled reflexives and pronouns to appear in their subject positions, and license nominative Case there. Now, observe that in the examples in (27) below, the embedded subjects are lexical, but neither object-controlled reflexives nor pronouns. That is, the lexical subjects are not coreferential with the matrix object.<sup>22,23</sup>

(27) a. Context: Hanako<sub>i</sub> is the chief of a section which [Taro, Keiko<sub>j</sub>, and Jiro]<sub>k</sub> belong to at a company. Keiko<sub>j</sub> wanted to go to Boston on business by herself. Hanako<sub>i</sub>, however, decided to sent all of them<sub>k</sub> to Boston.

Hanako<sub>i</sub>-ga Keiko<sub>j</sub>-ni [ [kanojyo-<sub>i/j/\*k</sub>-o hukum-u 3-nin]-ga -nom -dat she -acc include-nonpast -cl-nom

<sup>&</sup>lt;sup>22</sup> I owe this example Mamoru Saito (p.c.).

<sup>&</sup>lt;sup>23</sup> The controlled pronouns do not need to be used as contrastive or emphatic here, because they are embedded under the complement subjects, so that the matrix subjects and the complement subjects are not coreferential. Notice that reflexive subjects such as *kanojyozisin* 'she self 'are also possible in these examples, which are omitted for the sake of space.

Boston-ni syucchyoosu -ru -yoo(-ni(-to))/-koto]-o meiji-ta. -to 'have a trip on business'-nonpast-sbj comp/sbj comp-acc order-past 'Hanako<sub>i</sub> told Keiko<sub>j</sub> that the three including her<sub>j</sub> should have a trip to Boston on business.'

b. sensei-wa seito-ni [ hiroti-hitori-ga doryokusu-ru -yoo(ni(-to))/ teacher-top student-dat 'one person'-nom 'make a effort'-nonpast -sbj comp/

-koto]-o motome-ta -sbj comp-acc require-past

'The teacher required the students that each one should make a effort.'

c. koochyoo-wa sono kyooshi<sub>i</sub>-ni [ [(kare<sub>i</sub>-no) ukemochi-no seito]-ga principal-top that teacher-dat he-gen 'taking charge'-gen student-nom choorei-no aidajyuu shizukadear-u -yoo(ni(-to))/-koto]-o morning assembly-gen during 'be quiet'-nonpast -sbj comp/sbj comp-acc yookyuusi-ta

request-past

'The principal request the class teacher that the students of his class should keep quiet during the morning assembly.'

d. shyachyoo-ga buchyoo-ni [[kachyoo -ijyoo]-ga sono kaigi-ni president-nom chief director-dat section chief-over-nom that meeting-dat syussekisu-ru -yoo(ni(to))/koto]-o meiji-ta attend-pres -sbj comp/sbj comp-acc order-past

'The president ordered the chief directors that those who holding a manegial post attend that meeting.' In these examples, the referent of the embedded subject is closely related, but not identical, to that of the matrix object. Surprisingly, there is no obligatory coreference between the embedded subject and the matrix object. These complements are not truly control complements. In other words, the coreferential requirement between them is not so strict as has been considered so far.<sup>24</sup> Since the embedded subject and the matrix object are not completely referentially independent of each other, let us tentatively call these complements 'semi-control' complements.

Notice that it is not possible to assume that these complements in (27) have multiple subjects that consist of an object-controlled empty subject plus the lexical noun phrases appearing. The examples in (28) below clearly indicate that, in each example in (27) above, there is no empty subject controlled by the matrix object in addition to the embedded nominative subject.

(28) a. \*Keikoj-ga [kanojyoj-o hukum-u 3-nin]-ga Boston-ni -nom she -acc include-nonpast -cl-nom -dat
syuttyoosi -ta
'have a trip on business'-past

'As for Keiko<sub>i</sub>, the three members including her<sub>i</sub> had a trip to Boston on

<sup>&</sup>lt;sup>24</sup> It should be noted that even those speakers who judged the example in (25) above to be less acceptable, more easily admit the examples listed here. Then, it might be suggested again that the deviancy is related to the use of an overt controlled pronoun/reflexive, namely, the effect of the 'Avoid Pronoun Principle'.

business.'

b. \*seito-ga hiroti hitori-ga doryokusi-ta student-nom 'one person'-nom 'make a effort'-past
'As for the students, each one made a effort.'

c. \*sono kyooshi<sub>i</sub>-ga (kare<sub>i</sub>-no) ukemochi-no seito-ga that teacher-nom he-gen 'taking charge'-gen student-nom chyoorei-no aidajyuu shizukadat-ta 'morning assembly'-gen during 'be quiet'-past
'As for the teacher<sub>i</sub>, the students of his<sub>i</sub> class kept quiet during the morning assembly.'

d. \*buchyoo-nom [kachyoo -ijyoo]-ga sono kaigi-ni syussekisi-ta chief director-nom section chief-over-nom that meeting-dat attend-past
'As for the chief directors, those who holding a manegial post attended that meeting.'

It is naturally assumed that the semantics of the governing verbs of the OC complements determines what kind of referential dependency should occur between the goal argument of the governing verb and the agent /experiencer argument of an embedded verb. The semantic requirement by these governing verbs may be satisfied either by control complements or semi-control complements as shown in (28). In the former case, an action denoted by the complement should be carried out in the future by the goal person. On the other hand, in the latter, what is expressed by the comple-
ment does not have to be fulfilled by the goal person, but it can be done by those who are connected with him/her. That is, the strict coreference between the matrix object and the embedded subject is not necessarily required when the OC complements have semi-control structure. Since a semi-OC complement allows lexical subjects as in (27), it is safe to assume that an empty subject in these OC complements can be *pro*.

The following example also supports the point. Here, the adverbial phrase, *hitori-hitori(-de)* 'one by one/individually', in the complement guarantees the embedded empty subject to refer not to the matrix object, *Keiko*, but to a group of people who are prominent in the given context, which includes *Keiko*.

(29) Context: Hanako<sub>i</sub> is the chief of a section which [Taro, Keiko<sub>j</sub>, and Jiro]<sub>k</sub> belong to at a company. Keiko<sub>j</sub> wanted to go to Boston on business together with the other members. Hanako<sub>i</sub>, however, wanted them<sub>k</sub> to go to Boston one by one/individually.

Hanako<sub>i</sub>-ga Keiko<sub>j</sub>-ni [e-<sub>i/<sup>\*</sup>j/k</sub> hitori-hitori(-de) Boston-ni -nom -dat `one preson'-`one person'-dat -to

syucchyoosu -ru -yoo(ni(to))] meiji-tamake a business trip'-nonpast-sbj comp order-past

'Hanako<sub>i</sub> ordered Keiko<sub>j</sub> that they<sub>k</sub> should go to Boston on business one by one.'

Cf. karerak-ga/\*Keikoj-ga hitori-hitori(-de) Boston-ni syucchyoosi-ta

-nom -nom 'one by one' -to 'make a business trip'-

past

'(\*As for Keiko<sub>i</sub>) they<sub>k</sub> went to Boston on business one by one.'

In sum, the OC complements allow controlled lexical subjects, controlled empty subjects, semi-controlled lexical subjects, and semi-controlled empty subjects. It follows that nominative Case is available in the subject position of an OC complement. The question remains at this point whether PRO is also able to show up in the same position, as will be addressed in 3.2.3.

Next, let us return to the SC complements. The governing verbs of the SC complements are divided into two types in regards to whether semi-control structure is freely allowed: (i) some permit it without restriction, same as the OC complements, and (ii) the others allow it in a very limited fashion. The former type of verbs (hereafter, type-i) are some of the so-called subject control verbs, which are *keikakus/kuwadate/mokurom* 'plan', *kime* 'decide', *nozom* 'hope', and so forth. The complements of type-i refer to some action that has not been realized at the time point of the matrix action. The verbs of the latter type (hereafter, type-ii) are aspectual verbs such as *hazime* 'start', *oe* 'stop', *tuduke* 'continue', and verbs meaning 'try' such as *kokoromi* and *tames*. The type-ii complement basically expresses some action that is simultaneous with the action of the matrix verb.

Let us first look at the type-i, which is more simple than type-ii. The following examples are of semi-control complements of verbs such as *keika-kus/kuwadate/kime* 'plan/decide'. This type allows both lexical subjects and empty subjects, whether they are strictly controlled by the matrix subjects or not.

- (30) Context: [Hanako<sub>i</sub>, Taro, Keiko, and Jiro]<sub>j</sub> are close friends. Hanako<sub>i</sub> wondered what to do as a physical exercise. She thought of swimming in the sea.
  - a. Contorlled/semi-controlled lexical subjects of the type-i SC comple-

ments

Hanako<sub>i</sub>-wa [e<sub>i/j</sub>/kanojyo(zisin)<sub>i</sub>-ga/[kanojyo<sub>i</sub>-o hukum-u 4-nin]<sub>j</sub>-ga -top she self-nom/ she -acc include-nonpast -cl -nom mainiti umi-de oyog-u -yoo(ni)/-koto]-o keikakusi/kime-ta everyday sea-at swim-nonpast-sbj comp/sbj comp-acc plan/decide-past 'Hanako<sub>i</sub> made a plan/decision, according to which she<sub>i</sub>/they<sub>j</sub> swim in the sea every day.'

b. Semi-controlled empty subjects of the type-i SC complements

Hanako<sub>i</sub>-ga [e-<sub>i/j</sub> mainiti hitori-hitori(-de) umi-de oyog-u -yoo(ni)/ -nom everyday `one by one' sea-at swim-nonpast-sbj comp

koto]-o keikakusi/kime-ta sbj comp-acc plan/decide-past

'Hanako made a plan/decision, according to which they<sub>j</sub> should swim in the sea every day one by one/individually.'

Cf. kareraj-ga/\*Hanakoj-ga hitori-hitori(-de) mainiti umi-de oyoi-da

they -nom/ -nom 'one by one' every day sea-at swim-past 'They<sub>i</sub>/\*Hanako<sub>i</sub> swim in the sea every day one by one/individually.'

Note that nominative subjects are quite freely allowable here. It straightforwardly follows that an empty subject of this type of SC complement can be *pro* unconditionally, just like the case of OC complements. It is suggested, thus, that the type-i subjunctive complements correspond to the so-called nonobligatory control complements such as the infinitive complement of *decide* in English. As for the distinction between obligatory control and nonobligatory control, one might expect that the type-ii verbs, on the other hand, require obligatory control in the complements. This is not the case, however.

The type-ii SC complements (i.e., the complements of the aspectual verbs and those verbs meaning 'try/attempt') behave differently from type-i with respect to the possibility of semi-control structure. As for control structure, not only empty subjects, but also lexical subjects are allowed. This means that nominative Case is basically licensed also in this type of complements. This is not surprising given that embedded predicates are always finite. Whether a semi-control structure is possible, however, depends on the following condition. The semi-control complement of type-ii must denote either (a) a generic (or habitual) action or (b) an action that takes place within certain time duration (typically expressed by verbs showing durative as-

pect<sup>25</sup>), but not an action that instantaneously/momentarily happens at a specific point of time (typically expressed by verbs showing momentaneous aspect<sup>26</sup>). Thus, an empty subject of this type of complement can refer to someone/something in a given context only if the complement expresses either one of the two types of actions (a-b). Semi-control subjects in the OC complements and the SC complements of type-i are not sensitive to the distinction of the types of action denoted by complements. In what follows, first I will present relevant facts, and then I will discuss where such situations come from.

First, let us begin with confirming that nominative Case is in principle available also in the type-ii complements. The following example introduces a typical example of durative action (we have already seen an example of generic/habitual action, such as *mainiti oyogu* 'swim everyday' above). The example in (31) is durative, so that it can be modified by the adverb *sibaraku* 'for a while', but not by the adverbial phrase *sono syunkan* 'at that moment'

(31) durative action

Hanako<sub>i</sub>-ga sibaraku/?\*sono syunkan hon-o yom-u/-da -nom `for a while'/that moment book-acc read-nonpast/-past 'Hanako<sub>i</sub> will read/read books for a while.'

<sup>&</sup>lt;sup>25</sup> Verbs such as 'run', 'swim', 'read', 'live, have this meaning.

<sup>&</sup>lt;sup>26</sup> Verbs such as 'arrive', 'appear', 'leave', 'reach', which are the so-called Inchoative (Jackendoff 1990), have this meaning.

The durative action is, of course, compatible with the matrix verbs at issue, when the embedded subject is empty and strictly controlled. This is shown below (as for generic action, see the example in 22a above):

(32) Controlled empty subjects of the type-i SC complements of durative action

Hanako<sub>i</sub>-ga [e<sub>i</sub> hon-o sibaraku yom-u koto]-o hajime/kokoromi-ta -nom book-acc `for a whole` read-nonpast sbj comp-acc start/try-past

'Hanakoi started to read books for a while.'

The following example is of the type-ii complements of generic/durative action, in which controlled and semi-controlled lexical subjects are basically allowed.<sup>27</sup> Note that the controlled reflexives/pronouns are degraded if they do not receive contrastive/emphatic stress and are not interpreted as such, as in the other cases (see note 20, 24).<sup>28</sup>

<sup>28</sup> Accordingly, if the reflexive morpheme *-zisin* 'self' appears in addition to *zibun/kanojyo* 'self/she', the example becomes more acceptable. This is be-

<sup>&</sup>lt;sup>27</sup> Some speakers do not allow lexical subjects in this type of SC complement at all. Interestingly, however, even those speakers allow semicontrolled empty subjects when the complements denote generic/durative action (for example, they accept examples as in (34a) below). Thus, they do not exclude the possibility of semi-control structure of this type of SC complement in principle. It might be suggested that they have a licensing condition of *pro* independently from that of nominative Case. Further investigations ought to be in order.

- (33)a. Controlled/semi-controlled lexical subjects of the type-ii SC complements of generic action
  - Context: [Hanako<sub>i</sub>, Taro, Keiko, and Jiro]<sub>j</sub> are close friends. Hanako<sub>i</sub> is the leader of [her<sub>i</sub> friends]<sub>j</sub>. She<sub>i</sub> wondered what to do as a physical exercise, and thought of swimming in the sea.
  - (?)Hanako<sub>i</sub>-wa [zibun(zisin)/kanojyo(zisin);/[kanojyo<sub>i</sub>-o hukum-u -nom self self/ she sefl/ she -acc include-nonpast

4-nin]<sub>j</sub> -ga mainiti umi-de oyog-u koto]-o hajime/kokoromi-ta -cl -nom everyday sea-at swim-nonpast-subj comp-acc start/try-past
'Hanako<sub>i</sub> started/tried to swim in the sea everyday/to conduct their<sub>j</sub> activity, which was swimming in the sea everyday.'

- b. Controlled/semi-controlled lexical subjects of the type-ii SC complements of durative action
  - Context: [Hanako<sub>i</sub>, Taro, Keiko, and Jiro]<sub>j</sub> are close friends. Hanako<sub>i</sub> is the leader of [her<sub>i</sub> friends]<sub>j</sub>. One day they gathered, and she<sub>i</sub> was wondering what to do to kill the time.
  - (?)Hanako<sub>i</sub>-wa [zibun(zisin)/kanojyo(zisin)<sub>i</sub>/ [kanojyo<sub>i</sub>-o hukum-u -nom self self/ she self/ she -acc include-nonpast
  - 4-nin]<sub>j</sub> -ga hon-o sibaraku yom-u -koto]-o hajime/kokoromi-ta
    - -cl -nom book-acc `for a while' read-nonpast-sbj comp-acc start/try-past
  - 'Hanakoi started/tried to read books for a while/to conduct their activity,

which was reading books for a while.'

cause anaphors with this morpheme easily gets contrastive/emphatic stress and provide such readings as emphatic anaphors/pronouns.

These semi-controlled lexical subjects are relatively less acceptable when compared with the perfect status of those appearing in the type-i complements (see 30a above), and in the OC complements. Since licensing of nominative Case is not a problem here, as shown above, I assume that the deviancy is related to difficulty in semi-control interpretations with respect to identification between the agent of the main verbs and that of the embedded verbs. The examples as in (33) are actually paraphrased almost such as 'Hanako forced them to do the action'. This is why appropriate discourse is necessary for semi-controlled subjects. Moreover, the person referred to by the matrix subject must be able to govern and control the others' action.

What is assumed here is as follows. To get embedded subjects semicontrolled, the agent of the matrix verb, which started/tried to do the action, should not be strictly identical to, but closely connected to the agent of the embedded verb, that actually participated in the action. This is exactly the case in the semi-control case of OC complements and the type-i SC complements. In those cases, the situation is not unusual at all, since the action expressed by the complement is not realized at the time point of the matrix action, but going to take place in the future. If one can use his/her power (in any sense) to direct someone in a close relationship with him/her to do something in general, he/she can easily arrange for the one to do something in the future. Such a situation is presupposed by the semi-control interpretation for type-i and OC complements.

The verbs of type-ii, however, require furthermore that the referents of both subjects be more closely tied together, as stated above. Notice here that the type-ii complement refers to an action that is simultaneous with the matrix action. The referent of the matrix subject must force that of the embedded subject to do the same action at the same time. It is certainly difficult for a speaker to admit such a situation. The determination also seems to depend largely on a context given in the discourse, which results in the more severe judgements on the type-ii semi-control complements.<sup>29</sup>

<sup>&</sup>lt;sup>29</sup> Semi-controlled subjects are more degraded in the case of 'start', compared with the case of 'try'. The reason, again, seems that it is relatively harder to get an interpretation such that those who start to conduct some action forces someone else to participate in accomplishing the same action at the exactly same time. The speakers allowing the semi-control complements of 'start' have such a reading, while those disliking them do not.

There are some type-i verbs similar to 'try', which have not been mentioned so far, i.e., *yakusokusu* 'promise' and *tikaw* 'make a vow'. Judgements vary also depending on whether speakers permit such loose identification. We here focus on more clear cases (aspectual verbs and 'try'), leaving the case of other verbs for future research.

One might doubt whether this kind of interpretation for semi-control clauses is linguistically obtained in the first place. Terzi (1997) discusses more theoretical approach to a very similar case of Modern Greek 'try'. Terzi points out that 'try' in Modern Greek takes control subjunctive complements where some speakers allow non-control structure (non-controlled lexical subject or *pro*) (e.g., in Verlokosta 1994), but others strictly require subject control structure.

Terzi proposes, based on independent evidence, that such non-control structure is obtained by a structure in which the matrix 'try' selects an invisible subjunctive complement of which head is an invisible counterpart of the causative verb 'make', which, in turn, embeds the visible subjunctive complement (the interpretation is such that 'try to make it so that', same as semi-

It is not completely impossible, however, to presuppose such a situation and the loose identification between the matrix subject and the embedded subject under a certain condition. In the case of examples as in (33), what is expressed by the semi-controlled complements is a generic or durative action. The action denoted by the complement takes place and lasts during a certain time span which also covers the point of time of the matrix action. That is, although the action denoted by the complement starts at the same time as the action denoted by the matrix, the former action necessarily last longer than the latter. The situation is similar to the type-ii and OC complements in a sense that the action denoted by the type-i complement continues in the future (the important difference is when the action denoted by the complement begins). Because of this time duration, a speaker more easily obtains the semi-control interpretation: the matrix agent is allowed to have a time to use his/her power to direct the complement agent to do the action.

A potential problem of such an analysis extended to Japanese is the necessity to assume an empty subjunctive complementizer. In 2.1.2, we have

control complements in Japanese). The subject of the intervening invisible subjunctive complement is, then, subject-controlled PRO, whereas that of the most embedded one refers to the causee. In this approach, 'try' in Modern Greek is always a SC verb.

Recall that Japanese verb *su* 'make it happen/force' is quite similar to the Modern Greek causative verb with respect that both select subjunctive complements and give rise to similar interpretation (in addition, the selected subjunctive complements have nominal property in both languages). Thus, it might be possible to apply Terzi's analysis to the semi-control cases of 'try' at issue in Japanese, and to assume that Japanese 'try' and other verbs allowing semi-control complements take a null counterpart of the verb *su* (which takes the overt subjunctive complement).

Based on the availability of semi-controlled lexical subjects, it would be expected that semi-controlled empty subjects, i.e., *pro*, are also possible in the same contexts. This is actually the case.

(34) a. Semi-controlled empty subjects of the type-ii SC complements of generic action

Context: same as in (33a)

Hanako<sub>i</sub>-ga [e-<sub>i/j</sub> mainiti hitori-hitori(-de) umi-de oyog-u koto]-o -nom everyday 'one by one' sea-at swim-nonpast sbj comp-acc

hajime/kokoromi-ta

start/try-past

'Hanako<sub>i</sub> started/tried to conduct their<sub>j</sub> activity, which was swimming in the sea everyday one by one/individually.'

b. Semi-controlled empty subjects of the type-ii SC complements of durative action

Context: same as (33b)

Hanako<sub>i</sub>-ga [e-<sub>i/j</sub> sibaraku hitori-hitori-de hon-o yom-u -koto] -nom 'for a while' 'one by one' book-acc read-nonpast-sbj comp

-o hajime/kokoromi-ta

-acc start/try-past

'Hanako<sub>i</sub> started/tried to conduct their<sub>j</sub> activity, which was reading books individually.'

argued that there is no null counterpart of the non-subjunctive/subjunctive

Interestingly, these semi-controlled *pro* are more clearly acceptable than controlled/semi-controlled lexical subjects as in (33), which is the familiar situation (as seen in the case of OC complements). It is, thus, suggested that semi-control readings should not be excluded in the type-ii complements, when the complements denote generic/durative actions. This also means that the type-ii verbs cannot be characterized as the obligatory control type of verbs such as *try* in English.

Now, let us compare what has been observed so far with the following cases in which the complement refers to a momentary action. The sentence in (35) below is a typical example of a momentary action, which is compatible with the adverbial phrase *sono syunkan* 'at that moment'.

(35) momentary action

Hanako<sub>i</sub>-ga \*sibaraku/sono syunkan syuppatusu-ru/-ta -nom 'for a whole'/that moment leave-nonpast/past 'Hanako<sub>i</sub> will leave/left home at that moment/\*for a while.'

A momentary action can also be denoted by the type-ii complement in principle, of course.

(36) Controlled empty subjects of the type-i SC complements of

complementizers in Japanese. Further examination should be necessary.

## momentary action

Hanako<sub>i</sub>-ga [e<sub>i</sub> ie-kara sono syunkan syuppatusu-ru-koto]-o -nom home-from that moment leave-nonpast-sbj comp-acc hajime/kokoromi-ta start/try-past

'Hanakoi tried to leave home at that moment.'

The following examples indicate that the type-ii complement permits neither semi-controlled lexical subjects nor semi-controlled empty subjects.

(37) a. Semi-controlled lexical subjects of the type-ii complements of momentary action

Context: [Hanako<sub>i</sub>, Taro, Keiko, and Jiro]<sub>j</sub> are close friends. Hanako<sub>i</sub> is the leader of [her<sub>i</sub> friends]<sub>j</sub>. She<sub>i</sub> planned to have a picnic and to leave her house together with them<sub>i</sub> exactly at eight a.m.

\*Hanako<sub>i</sub>-wa [[kanojyo<sub>i</sub>-o hukum-u 4-nin] -ga e<sub>j</sub> ie-kara sono syunkan -top she-acc include-nonpast -cl-nom home-from that moment

syuppatusu-u -koto]-o hajime/kokoromi-ta leave-nonpast-sbj comp-acc start/try-past

'Hanako<sub>i</sub> started/tried to conduct the action, which was their<sub>j</sub> leaving home at that moment.'

b. Semi-controlled empty subjects of the type-ii complements of momentary action

Context: same as above

\*Hanakoi-ga [ej ie-kara hitori-hitori(-de) sono syunkan syuppatusu

'Hanako<sub>i</sub> started/tried to conduct the action, which was their<sub>i</sub> leaving home one by one/individually at that moment.'

The severe ungrammatical status of (37) becomes more clear, once this is compared with type-i complements denoting the same type of action. In (38) below, the type-i complement that means a momentary action guite freely allows semi-controlled lexical/empty subjects.

(38) (Semi-)controlled lexical/empty subjects of the type-i complements of momentary action

Context: same as (37)

-U

Hanakoj-wa [ei//zibun(zisin)/kanojyo(zisin)/[kanojyoj-o hukum-u self self/ she self -top she-acc include-nonpast 4-nin] -ga ie-kara sono syunkan syuppatusu-ru-koto]-o -nom house-from that moment leave-nonpast-sbj comp-acc -cl

keikakusi/kime-ta

plan/decide-past

'Hanako<sub>i</sub> planned/decided that they should leave her house at that moment.'

Thus, the badness of (37) is a peculiar property of the type-ii complement denoting a momentary action. Given the discussion above, I suggest that the total ungrammaticality is attributed to the inconsistency of the required simultaneous reading of the type-ii complement with the loose identification between the matrix subject and embedded subject that is inevitably requested to obtain semi-control interpretations

This reasoning does not exclude the possibility of controlled lexical subjects in the type-ii complements denoting momentary actions. Rather, it is predicted that, since nominative Case is licensed in this type of complement, controlled lexical subjects yield no problem. This is actually the case, as shown below.

(39) Controlled lexical subjects of the type-ii complements of momentary action

?(?)Hanako<sub>i</sub>-wa [zibun(zisin)/kanojyo(zisin)<sub>i</sub> -ga ie-kara sono syunkan -top self self/ she self -nom house-from that moment syuppatusu-ru-koto]-o hajime/kokoromi-ta leave-nonpast-sbj comp-acc start/try-past

'Hanakoi started/tried to leave home at that moment'

The controlled lexical subjects are degraded if compared with those of the same type-ii complements of generic/durative actions as in (33a,b).<sup>30</sup> It should be emphasized, however, that these controlled lexical subjects in (39)

<sup>&</sup>lt;sup>30</sup> The degree of less acceptability of (39) depends on how good/bad one judges the controlled lexical subjects in (33a, b).

are much better than the semi-controlled subjects in (37) above, even if the latter is lexical. Moreover, the degree of less acceptability varies depending on speakers. This suggests, again, that the badness of this type of construction is a matter of interpretation concerning tense and aspect in the complement (and the matrix), but not that of Case licensing.<sup>31</sup>

Before closing this section, I add a final comment on the treatment of the semi-control complements in relation to passivization.<sup>32</sup> Given Visser's generalization that subject control verbs resist passivization, I predict the following. When a semi-control structure of subjunctive complement is licensed by a given context, the matrix verb can be passivized. When a control structure is required, on the other hand, passivization of the same verb is prohibited. This predication is born out. The examples in (40) show that passivization of *hajime/kokoromi* 'start/try' is possible when the action denoted by the complement is generic or durative, hence, allow semi-control structure.

<sup>&</sup>lt;sup>31</sup> Another piece of evidence supporting this approach is concerning adverbs. So far we have used the adverb *hitori-hitori-(de)* 'one by one' to ensure an occurrence of *pro*, which forces the distributive reading of a plural subject. If we use another adverb such as *ze'nin-de* 'all the members', which implies the collective reading of a plural subject, the semi-controlled subjects in (39) become more acceptable. This fact suggests that, if the referent of the embedded subject of the type-ii complement is interpreted as a single unit including that of the matrix subject, it becomes easier to get a semi-control interpretation; a loose identification between the former and the latter.

<sup>&</sup>lt;sup>32</sup> I owe the following discussion on the relevance of passivization to the semi-control structure of type-ii to Daiko Takahashi (p.c.)'s suggestion.

(40) a. Context: same as in (33a)

Hanako<sub>i</sub>-niyotte [e<sub>'i/j</sub> mainiti hitori-hitori(-de) umi-de oyog-u -by everyday 'one by one' sea-at swim-nonpast koto]-ga hajime/kokoromi-rare-ta sbj comp-nom start/try -pass-past

'\*It was tried/started by Hanakoi to swim in the sea everyday.'

b. Context: same as (33b)

Hanako<sub>i</sub>-niyotte [e<sub>'i/j</sub> sibaraku hitori-hitori-de hon-o yom-u -by 'for a while' 'one by one' book-acc read-nonpast -koto]-ga hajime/kokoromi -rare-ta

-sbj comp-nom start/try -pass-past

'\*It was tried/started by Hanakoi to read books for a while.'

On the other hand, when the same verbs take control complements, that is, complements denoting a momentary action, the passivized sentence becomes worse.

(41) ??Hanako<sub>i</sub>-niyotte [e<sub>i</sub> ie-kara sono syunkan syuppatusu-ru-koto]-ga -by house-from that moment leave-nonpast-sbj comp-

nom

hajime/kokoromi -rare-ta start/try -passive-past

"It was tried/started to leave home at that moment"

According to Hendrick (1995), there is a similar contrast in English. As is shown by Baker (1988), nonobligatory control verbs such as *decide* allow passivization, as in the following.

(42) It was decided to shave oneself.

Here, the complement subject is not controlled PRO, but arbitrary PRO, and the complement is a generic statement. That is, when a complement expresses a generic action, the subject has a generic/arbitrary reference, and does not need obligatory control. Hendrick points out that the arbitrary reference is necessary for passivization, by showing the following example.

(42) \*It is decided to shave himself/yourself.

In this example, the complement denotes a non-generic action, and the PRO subject should be controlled by a specific referent. The failure of passivization in such a case is in accordance with Visser's generalization, since obligatory subject control is involved in that case. Furthermore, the contrast in (41-42) supports the observation that the control/semi-control distinction is related to a distinction of the types of the action denoted by the complement in terms of generic/non-generic.<sup>33</sup>

In sum, the facts observed in this subsection suggest that the control requirement by these governing verbs is optional. Both strict control and semicontrol are therefore possible as long as semi-control interpretations are consistent with tense interpretations of the complements. The tense interpretations of the type-i complements and the OC complements, on the one hand, and that of the type-ii complements, on the other, are different, as mentioned earlier in this section: whether the event denoted by the complement is unrealized at the point of time of the matrix or it is simultaneous with that point. The semi-control interpretation is difficult when the agents of two actions that take place simultaneously do not coincide. This is the reason the seemingly mysterious restriction on semi-controlled subjects exists. The distinction between the OC/type-i complements and the type-ii complements in terms of tense will be discussed in more detail in the next section 3.3.

<sup>&</sup>lt;sup>33</sup> As for a durative action, since it is not necessarily generic, we cannot straightforwardly generalize an analysis along this line. It might be suggested, however, that the relation between obligatory/nonobligatory control and generic/non-generic distinction is a part of a certain connection between the referential property of an empty subject and the tense and aspectual properties of a predicate. We will leave the entire issue for future research.

## 3.3 PRO Gate Effects<sup>34</sup>

In this section, I will demonstrate that an empty subject of the subjunctive complements behaves exactly like PRO in a WCO configuration. That is, the empty subject yields the effect same as the so-called PRO gates (Higginbotham 1980).

In a WCO structure such as illustrated in (40) below, where an operator is in an A'-position and neither pronoun nor variable does not c-command each other, the pronoun cannot be interpreted as a bound variable.

(42)  $Op_i \dots [x_P \dots pronoun_i \dots] \dots vbl_i \dots$ 

(ex. ?\*Who<sub>i</sub> did his<sub>i</sub> mother kiss t<sub>l</sub>?/?\*His<sub>i</sub> mother kissed everyone<sub>i</sub>.)

I assume here that in such a configuration, a bound pronoun must be ccommanded by a variable, putting aside details of theoretical treatments of WCO phenomena.<sup>35</sup> A typical example of WCO in Japanese is shown below.

(43) ?\*[soitui -no sensei]-ga darei-o susensi-ta-no?the guy'-gen teacher-nom who-acc recommend-past-Q

'?\*Whoi did hisi teacher recommend?'

<sup>&</sup>lt;sup>34</sup> Japanese examples of PRO gates discussed in this section were originally presented by Daiko Takahashi (p.c.).

<sup>&</sup>lt;sup>35</sup> See Hornstein (1995) for a Minimalist approach to WCO effects, for example.

The pronoun *soitu* is not c-commanded by the variable of the wh-operator *dare* 'who' at LF. Higginbotham (1980) points out that there are no WCO effects in configurations such as in (44).

(44) Op<sub>i</sub> ... [x<sub>P</sub> PRO<sub>i</sub> ... pronoun<sub>i</sub>... ] ... vbl<sub>i</sub> ...

Here, even though the pronoun is not c-commanded by the variable, it can serve as a bound pronoun. The only difference between this structure and the WCO configuration is the existence of PRO that is controlled by the operator, which is the so-called PRO gate. Compare (45a/b) with (45c/d).

(45) a. ?\*Who<sub>i</sub> did [her<sub>i</sub> forgetting what he<sub>i</sub> said] annoy t<sub>i</sub>?

- b. ?\*[His<sub>i</sub> getting letters from his<sub>i</sub> sweethearts] is important for [every soldiers]<sub>i</sub>.
- c. Whoi did [PROi forgetting what hei said] annoy ti?
- d. [PRO<sub>i</sub> getting letters from his<sub>i</sub> sweethearts] is important for [every soldiers]<sub>i</sub>.

Suppose that XP in (44) is the subjunctive complement and that the operator controls an empty subject of XP. If the empty subject is PRO, it is expected that there is no WCO violation thanks to the PRO gate. Before proceeding to the subjunctive complements, it must be confirmed that lexical and *pro* subjects do not induce such gate effects in Japanese. Consider the following examples in this respect.

(46) a. darei-ga [ proin/Taroj-ga/[soitui-no hahaoya]-ga soitui-no -nom -nom/`the guy`-gen mother-nom `the guy`-gen koibito-ni at-ta no ]-o iyagat-ta-no? girlfriend see-past nominalizer -acc dislike-past-Q

'Who<sub>i</sub> disliked [Taroj's/proj/his<sub>i</sub> mother's seeing his<sub>i</sub> girlfriend]?

b. '?\*[ pro<sub>i/j</sub>/Taro<sub>j</sub>-ga/[soitu<sub>i</sub>-no hahaoya]-ga soitu<sub>i</sub> -no koibito-ni -nom/ 'the guy'-gen mother -nom `the guy'-gen girlfriend-dat

at-tano]-gadarei-niyotteiyagar-are-ta-no?see-past nominalizer-nom who-bydislike-pass-past-Q

'[Taroj's/hisi mother's/proin seeing hisi girlfriend] was disliked by whoi?'

In (46a), the pronoun *soitu* cannot be interpreted as a variable bound by the wh-operator *dare* 'who' due to the WCO effect. Even if the embedded subject is *pro*, it does not significantly change the ungrammatical status. Therefore, it can be assumed that PRO gate effects are obtained in Japanese.<sup>36</sup>

<sup>&</sup>lt;sup>36</sup> One might argue that the example in (46) (and the examples to be given as those concerning PRO gate below) are independently excluded. That is, it might be the case that *soitu* cannot be locally A-bound, but must be always A-free. Whether this condition applies or not seems to depends on speakers.

There might be another way to construct relevant examples, namely, using not *soitu*, but a reflexive *zibun* 'self', which can be bound by a quantified NP (Saito and Hoji 1983). In that case, the wh-operator must appear as the ma-

Now, let us return to the subjunctive complements. The examples to be examined with respect to PRO gates must have overt structures such as schematized below.

(47) [xp PRO<sub>i</sub> ... soitu<sub>i</sub>... -koto-o/-yoo(ni(to))] ... Op<sub>i</sub> ...

Here, since the operator is the controller of PRO at the same time, it is either the matrix subject or the matrix dative object. It follows that the complement clause must be overtly moved higher than the matrix subject or object, and stay there at LF. It is necessary to ensure that the complement is moved to an A-position from which LF reconstruction does not takes place. We will first

zibun<sub>i</sub> -no koibito-ni doko-de at-ta (i) [?\*pro;/\*soitu;-ga; toli 'the guy'-nom self-gen girlfriend where-dat see-past comp [[ t sore<sub>i</sub>-o ii-soo-mo-nai] dare<sub>i</sub>]-niyotte (mina-ni) iw-are-ta-no? it-acc say-seem-even-not who-by all-to say-pass-past-Q '[that [proi/hisi seeing selfi's girlfriend where] was said by which personi who is not likely to say it;?' Cf. [[ t sore<sub>i</sub>-o ii-soo-mo-nai] dare<sub>i</sub>-ga] [ [soitu<sub>i</sub>-ga/pro<sub>i</sub> zibun<sub>i</sub>-no it-acc say-seem-even-not who-nom 'the guy'-nom self-gen koibito-ni doko-de at-ta to]; it-ta-no? girlfriend-dat where-dat see-past comp say-past-Q

Although the controlled *pro* subjects in (i) seems less acceptable, finer examination on relevant facts ought to be necessary. See also note 38.

trix subject due to the subject orientation of *zibun*. Taking into consideration this and the other conditions on constructing examples of PRO gates that are discussed below in the text, we tentatively present the following example in (i) (where *zibun* should not receive any emphatic or contrastive stress, since it should not be treated as a sort of an emphatic pronoun).

introduce examples to testify to A-movement of the complements, and then, return to those of PRO gates.

First, let us observe examples of the SC complements. Consider the following example, where the intended reading of the pronoun *sore* 'it' is the one such that it is bound to the complement clause in which the operator *doko* 'where' occurs.

(48) ?\*[[t sore<sub>i</sub>-o si-soo-mo-nai] hito]<sub>j</sub>-ga [e<sub>j</sub> doko<sub>k</sub>-de John-o it -acc do-seem-even-not person-nom where-at -acc hihansu-ru i -koto]-o keikakusi-ta-no? criticize-nonpast-subj comp-acc plan-past-Q
'A person<sub>i</sub> who is not likely to do it<sub>j</sub> planned [PRO<sub>i</sub> to criticize John where<sub>k</sub>]<sub>i</sub>?'

The example is degraded only if the pronoun *sore* 'it' has the intended reading. This fact suggests that the pronoun serves as a variable bound by the complement, and also that the sentence exhibits a kind of WCO violation, since the pronoun *sore* is not c-commanded by the complement. Although the complement clause itself is not a wh-operator, it contains the wh-operator *doko* 'where'. I here tentatively assume that the complement clause functions as a quantified antecedent of the pronoun.<sup>37</sup> There is a piece of evidence

<sup>&</sup>lt;sup>37</sup> It might be assumed that the subjunctive complement is pied-piped as a container of the wh-operator, moves to an operator position, and binds the

supporting this analysis. It is well-known that A-movement of an operator remedies a WCO violation (ex. 'Everyone<sub>i</sub> seems to his<sub>i</sub> mother t<sub>i</sub> to be intelligent.'). If the less acceptability of (48) above is caused by WCO, it is predicted that A-movement of the control complement cancels it. This is actually the case. Compare the degraded example in (48) with the following in (49), where the complement undergoes passivization.

(49). [e<sub>j</sub> doko<sub>k</sub>-de John-o hihansu-ru -koto]<sub>i</sub>-ga [[ t sore<sub>i</sub>-o si-soo-mo-where-at -acc criticize-nonpast-sbj comp-nom it-acc do-seem-even-nai] hito]<sub>j</sub> -niyotte keikakus-are-ta -no?
 not person-by plan-pass-past-Q

'[PRO<sub>j</sub> to criticize his<sub>j</sub> friend where<sub>k</sub>]<sub>i</sub> was started/planned by a person<sub>j</sub> who is not likely to do it<sub>i</sub>?'

The example in (49) is perfect. The moved complement need not be reconstructed to its original position at LF, since the sentence would otherwise be as bad as the example in (48). Based on this, we utilize this type of bound interpretation of the pronoun *sore* 'it' for guaranteeing A-movement of a complement that plays a role of the quantified antecedent of *sore* 'it'.

pronoun at LF. we will leave the exact mechanism of LF operator-movement for future research. For detailed discussions on LF pied-piping in Japanese, see Nishigauchi (1990). Now, the sentences in (50) below exemplify PRO gates in the SC complements.

(50) a. ?\*[[t sore<sub>i</sub>-o si-soo-mo-nai] dare]<sub>j</sub>-ga [e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no it -acc do-seem-even-not who-nom where-at 'the guy'-gen yuujin-o hihansu-ru -koto]<sub>i</sub> -o keikakusi-ta-no? friend-acc criticize-nonpast subj comp-acc plan -past-Q
'Which person<sub>j</sub> who is not likely to do it<sub>i</sub> planned [PRO<sub>j</sub> to criticize his<sub>i</sub> friend where<sub>k</sub>]<sub>i</sub>?'

b. [e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no yuujin-o hihansu- ru -koto]<sub>i</sub>-ga [[ t sore<sub>i</sub>-o where-at `the guy`-gen friend-acc criticize-nonpast sbj comp-nom it-acc si-soo-mo-nai] dare]<sub>i</sub>-niyotte keikakus-are-ta no?
do-seem-even-not who -by plan-pass-past-Q
'[PRO<sub>j</sub> to criticize his<sub>j</sub> friend where<sub>k</sub>]<sub>i</sub> was planned by which person<sub>j</sub> who is not likely to do it<sub>i</sub>?'

In these examples, the agent NP *hito* 'person' in (48-49) above is changed into the wh-phrase *dare* 'who', which is the controller of the embedded empty subject. The sentence in (50a) is degraded because of the WCO effect. That is, the intended bound reading of *sore* 'it' is illicit. On the other hand, the example in (50b) significantly sounds better than (50a). Since the passivized complement clause in (50b) is in an A-position at LF, a WCO configuration such as in (50a) is avoided. Although the difference in judgements might be subtle, what is important here is the fact that the interpretation of *soitu* 'the guy' as a variable bound by *dare* 'who' is allowable in (50b), but not in (50a).<sup>38</sup> Since the LF structure of (50b) corresponds to (47) above, it is assumed that an empty subject of the SC complement can be PRO.

- (i)a. ??[[t sore<sub>i</sub>-o si-soo-mo-nai] dare]<sub>i</sub>-ga [e<sub>i</sub> soitu<sub>i</sub> -no yuujin -o it -acc do-seem-even-not who-nom `the guy`-gen friend -acc hihansu-ru -koto]<sub>i</sub> -o keikakusi-ta-no? criticize-nonpast-subj comp-acc plan-past-Q 'Which person<sub>j</sub> who is not likely to do it<sub>i</sub> planned [PRO<sub>j</sub> to criticize his<sub>j</sub> friend]<sub>i</sub>?'
  - b. [e<sub>j</sub> soitu<sub>j</sub> -no yuujin-o hihansu- ru]<sub>i</sub> -koto-ga [[t sore<sub>i</sub>-o 'the guy'-gen friend-acc criticize-nonpast-subj comp-nom it -acc si-soo-mo-nai] dare]<sub>j</sub> -niyotte keikakus-are-ta-no? do-seem-even-not who -by plan-pass-past-Q
    '[PRO<sub>j</sub> to criticize his<sub>j</sub> friend<sub>k</sub>]<sub>i</sub> was planned by which person<sub>j</sub> who is not likely to do it<sub>i</sub>?'

To those speakers, (iib) is an example of PRO gate (where the SC complement stays at the moved position at LF). (iib) is exactly better than (iia).

- (ii)a. ?(?)[[ t sore<sub>i</sub>-o si-soo-mo-nai] hito]<sub>j</sub> -ga [ e<sub>j</sub> yuujin -o hihansu it -acc do-seem-even-not person-nom friend -acc criticize-ru -koto]<sub>i</sub>-o keikakusi-ta nonpast-sbj comp-acc plan-past 'A person<sub>j</sub> who is not likely to do it<sub>i</sub> planned [PRO<sub>j</sub> to criticize his<sub>j</sub> friend]<sub>i</sub>'
  - b. [e<sub>j</sub> yuujin-o hihansu- ru -koto]<sub>i</sub> -ga [[t sore<sub>i</sub>-o si-soo-mo-nai] friend-acc criticize-nonpast-subj comp-nom it -acc do-seem-even-not

<sup>&</sup>lt;sup>38</sup> Jun Abe (p.c.) proposes alternative examples relevant to PRO gates in which the wh-operator *doko* 'where' is dropped as shown in (i-ii) below, reporting that the occurrence of multiple wh-operators in (50) obscures grammatical judgements concerning the availability of the bound interpretation of *soitu*. The examples in (ia-b) show an alternative way to ensure that the complement is in an A-position. That is, at least some speakers require that *sore*, in its non-deictic use, should be c-commanded by its antecedent at LF (see Ueyama 1998, for detailed discussions on this requirement as well as syntactic requirements on *so*-words in general). To them, (ib) is acceptable because it satisfies the c-command requirement of *sore* at LF

Second, let us turn to the OC complements. The example in (51a) below exhibits a WCO effect of the same kind as discussed in the case of the SC complement as shown in (48) above. In (51b) below, on the other hand, the WCO effect disappears by clause-internal scrambling of the OC complement (see Abe 1993, Yoshimura 1989, Saito 1992, among others). The moved complement stays at the scrambled position.<sup>39</sup>

(51) a. ?\*[[ t sore<sub>i</sub>-o meiji-soo-mo-nai] hito ] -ga John<sub>j</sub> -ni [ e<sub>j</sub> doko<sub>k</sub>-de it -acc order-seem-even-not person-nom -dat where-at

hito]<sub>j</sub>-niyotte keikakus-are-ta person-by plan-pass-past

Akira Watanabe (p.c.) independently points out another problem about multiple-wh constructions. That is, the example in (50a) is not degraded in the first place to those speakers who use the operation of absorption in the sense of Higginbotham and May (1981) (by which a sequence of simple operators is mapped onto a single complex operator). In that case, it is impossible to detect the contrast between (50a) and (50b).

Furthermore, Watanabe (p.c.) suggests that the use of the pronoun '*soitu*' causes the ungrammaticality independently from WCO, reporting that both examples of WCO and PRO gate presented here are not acceptable. The problem of the use of *soitu* is that it might have to be locally A-free (which seems to depend on speakers, however) The reflexive *zibun* 'self' should be used instead in that case. (see also note 35).

Noriko Yoshimura (p.c.) also suggests that the adjunct-wh phrase *doko* 'where' in the complement, should be changed to some argument-wh phrase, in order to get the contrast at issue clear.

Although there might be these and other interfering factors involved in the examples discussed in this section, we present them as a first approximation of the examples of PRO gates in Japanese.

<sup>39</sup> Interestingly, the fact shown in (51) indicates that a complement clause can also undergo clause-internal A-scrambling. See the discussion on the mechanism of A-scrambling in Chapter 5.

yuujin-o hihansu-ru -yoo(ni(to))], jituwa meiji-ta-no?
friend-acc criticize-nonpast-sbj comp actually order-past-Q
'A person who is not likely to order it, actually ordered John, [PRO, to criticize his friends where,];?'

 b. [e<sub>j</sub> doko<sub>k</sub>-de yuujin-o hihansu-ru -yoo(ni(to)) ]<sub>i</sub> [[ t sore<sub>i</sub>-o meejiwhere-at friend-acc criticize-nonpast-sbj comp it -acc ordersoo-mo-nai] hito]-ga John<sub>j</sub>-ni jituwa meiji-ta-no?
 seem-even-not person-nom -dat actually order-pass-past-Q

The followings are examples of PRO gates in the OC complements. The empty subject of the OC complement is controlled by the matrix wh-operator, *dare* 'who'.

(52) a. ?\*[[ t sore<sub>i</sub>-o meiji-soo-mo-nai] hito ]-ga dare<sub>j</sub> -ni [e<sub>j</sub> doko<sub>k</sub>-de it -acc order-seem-even-not person-nom who-dat where-at soitu<sub>j</sub> -no yuujin-o hihansu-ru -yoo(ni(to))]<sub>i</sub> jituwa meiji-ta-no? 'the guy'-gen friend criticize-nonpast-sbj comp actually order-past-Q 'A person who is not likely to order it<sub>i</sub> actually ordered whom<sub>j</sub> [PRO<sub>j</sub>

to

criticize his<sub>j</sub> friend where<sub>k</sub>]<sub>i</sub>?'

b. [e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no yuujin-o hihansu-ru -yoo(ni(to))]]<sub>i</sub> [[e<sub>j</sub> where-at 'the guy'-gen friend-acc criticize-nonpast-sbj comp
 sore<sub>i</sub>-o si-soo-mo-nai] hito]-ga dare<sub>j</sub>-ni jituwa meiji-ta-no?
 it -acc do-seem-even-not person-nom who-dat actually order-past-Q

Since the bound reading of *soitu* in the OC complement is possible in (52b), it is suggested that the empty subject is PRO. The acceptable status of (52b) becomes more clear if it is compared with examples in which a lexical subject appears in a non-subjunctive complement clause. Consider the following example of a WCO structure with a non-subjunctive finite complement in (53a), and that of cancellation of the WCO structure by passivization of the complement in (53b).<sup>40</sup>

(53) a. ?\*/??[[ t sore<sub>i</sub>-o ii-soo-mo-nai] hito]-ga (minna-ni) [ pro<sub>i</sub>/Taro-ga it -acc say-seem-even-not person-nom all-dat -nom doko<sub>k</sub>-de Jiro-o hihansi-ta to ]<sub>i</sub> jituwa tuge-ta no? where-at -acc criticize-past comp actually tell-past-Q
'[A person who is not likely to say it<sub>i</sub>]<sub>j</sub> actually told all [that pro<sub>j</sub>/Taro

criticized Jiro wherek ]i?'

b. [*pro*<sub>j</sub>/Taro-ga doko<sub>k</sub>-de Jiro-o hihansi-ta to]<sub>i</sub> [[t sore<sub>i</sub>-o ii-soo-mo-nai] -nom where-at -acc criticize-past comp it-acc say-seem-even-not

hito] -niyotte (minna-ni) jituwa tuge-rare-ta no?

person-by all-dat actually tell-pass-past-Q

'[that proj/John criticized Bill wherek ]; was actually told all by [a per-

<sup>&</sup>lt;sup>40</sup> A question immediately arises about how the non-subjunctive finite complement undergoes passivization in spite of its clausal category as CP. Alternatively, the complement is moved by clause-internal A-scrambling, independently from passivization. The issue should be explored in future research.

## son that is not likely to say it<sub>i</sub>];?'

Observe that the following examples in (54b), where the bound pronoun *soitu* appears in the non-subjunctive finite complement, is severely degraded compared with (54b).

- (54) a. ?\*/??[[ t sorei-o ii-soo-mo-nai] dare]i -ga [proi/John-ga dokok-de it -acc say-seem-even-not who-nom -nom where-at soitui -no yuujin-o hihansi-ta to]i (mina-ni) jituwa tuge-ta no? 'the guy'-gen friend-acc criticize-past comp all-dat actually tell-past-Q
  'Which personi who is not likely to say iti actually told all [that proi/John criticized hisi friend where ]i?'
  - b. ?\*/\*[pro<sub>j</sub>/John<sub>l</sub>-ga doko<sub>k</sub>-de soitu<sub>j</sub>-no yuujin-o hihansi-ta to]<sub>i</sub> -nom where-at 'the guy'-gen friend-acc criticize-past comp
    - [[ t sore<sub>i</sub>-o ii-soo-mo-nai] dare]<sub>j</sub>-niyotte (mina-ni) jituwa tuge-rare-ta-no? it-acc say-seem-even-not who-by all-dat actually tell-pass-past-Q
      '[That *pro<sub>j</sub>*/John<sub>i</sub> criticized his<sub>j</sub> friend where<sub>k</sub>]<sub>i</sub> was actually reported by which person<sub>i</sub> who is not likely to say it<sub>i</sub>?'

The examples (54b) indicate that the unacceptability due to a WCO violation by the offended bound pronoun *soitu* cannot be rescued in this context. Given this, compare (54b) with (52b) above, the latter which is far better than the former. The contrast also supports the assumption that the example of the OC complements in (52b) is an instance of PRO gates. Consequently, an empty subject of the OC complement as well as the SC complements are assumed to be PRO.

It has been shown in this section that PRO subjects indeed appear in the OC subjunctive complements marked by *-yoo(ni(to))* and the SC subjunctive complements marked by *- koto-o*. The following are examples relevant to the effect of PRO gate in SC subjunctive complements marked by *-yoo(ni)*. Since the same account as stated above is applicable here, it will not be repeated here. The examples in (55a-b) are of WCO and of its cancellation by clause-internal scrambling of the complement. Those in (56b) are the examples of the PRO gate effect.

- (55) a. ?\*[[ t sore<sub>i</sub>-o si-soo-mo-nai] hito]<sub>j</sub>-ga [ e<sub>j</sub> doko<sub>k</sub>-de John-o it -acc do-seem-even-not person-nom where-at -acc hihansu-ru<sub>i</sub> -yoo(ni)] jituwa keikakusi-ta-no? criticize-nonpast-subj comp-acc actually plan-past-Q
  'A person<sub>i</sub> who is not likely to do it<sub>j</sub> actually planned [ PRO<sub>i</sub> to criticize John where<sub>k</sub>]<sub>j</sub>?'
  - b. [e<sub>j</sub> doko<sub>k</sub>-de John-o hihansu-ru -yoo(ni)]<sub>i</sub> [[t sore<sub>i</sub>-o si-soo-mo-where-at -acc criticize-nonpast-sbj comp-nom it-acc do-seem-even-nai] hito]<sub>j</sub> -ga jituwa keikakusi-ta -no?
     not person-nom actually plan-past-Q

- (56) a. ?\*[[ t sore<sub>i</sub>-o si-soo-mo-nai] dare]<sub>j</sub>-ga [ e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no it -acc do-seem-even-not who-nom where-at `the guy'-gen yuujin-o hihansu-ru yoo(ni)]<sub>i</sub> jituwa keikakusi-ta-no? friend-acc criticize-nonpast subj comp-acc actually plan -past-Q
  Which person<sub>j</sub> who is not likely to do it<sub>i</sub> actually planned [PRO<sub>j</sub> to criticize his<sub>i</sub> friend where<sub>k</sub>]<sub>i</sub>?'
  - b. [e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no yuujin-o hihansu- ru -yoo(ni)]<sub>i</sub> [[ t sore<sub>i</sub>-o where-at `the guy`-gen friend-acc criticize-nonpast sbj comp-nom it-acc si-soo-mo-nai] dare]<sub>j</sub>-ga jituwa keikakusi-ta no?
    do-seem-even-not who -nom actually plan-past-Q

A group of subjunctive complements have not been mentioned so far, i.e., the non-control type complements. In 3.1.1 above, I have shown that these complements freely allow overt nominative subjects, hence, also *pro* subjects. Here it will be examined as to whether they allow PRO subjects as well as nominative/*pro* subjects, by presenting examples of the PRO gate effect in this types of complements. There are two types in the non-control cases: the one is complements of verbs of wishing and praying headed by *-yoo(ni(to))* and by *-koto*, and the other is complements of factive verbs such as *kuyam* 'regret' and *yorokob* 'glad' headed by *-koto*. As will be shown below, only the former displays the effect of PRO gate.

(57-58) and (59-60) below are examples of the complements of *nozom* 'wish' headed by *-yoo(ni(to))* and those headed by *-koto*, respectively. Cancellation of WCO violations is testified in terms of clause-internal scrambling for the case of *-yoo(ni(to))* in (57b), and in terms of passivization for the case of *-koto* in (59b). The examples of the PRO gate effect are (58b) and (60b), both of which actually escape WCO violations.

(57) a. ?\*[[ t sore<sub>i</sub>-o nozomi-soo-mo-nai] hito]<sub>j</sub>-ga [ e<sub>j</sub> doko<sub>k</sub>-de John-o it -acc wish-seem-even-not person-nom where-at -acc hihan-deki-ru<sub>i</sub> -yoo(ni(to))] jituwa nozon-da-no? criticize-can-nonpast-subj comp actually wish-past-Q

'A person<sub>i</sub> who is not likely to wish it<sub>j</sub> actually wished [ PRO<sub>i</sub> to be able to criticize John where<sub>k</sub>]<sub>i</sub>?'

 b. [e<sub>j</sub> doko<sub>k</sub>-de John-o hihan-deki-ruyoo(ni(to))]<sub>i</sub> [[ t sore<sub>i</sub>-o nozomi-soowhere-at -acc criticize-can-nonpast-sbj comp it-acc wish-seemmo-nai] hito]<sub>j</sub> -ga jituwa nozon-da -no?
 even-not person-by actually wish-past-Q

(58) a. ?\*[[ t sore<sub>i</sub>-o nozomi-soo-mo-nai] dare]<sub>j</sub>-ga [ e<sub>j</sub> doko<sub>k</sub>-de John-o it -acc wish-seem-even-not who-nom where-at -acc hihan-deki-ru -yoo(ni(to))]<sub>i</sub> jituwa negat-ta-no? criticize-can-nonpast-subj comp actually wish-past-Q
'which person<sub>i</sub> who is not likely to wish it<sub>j</sub> actually wished [ PRO<sub>i</sub> to be able to criticize John where<sub>k</sub>]<sub>i</sub>?'

- b. [e<sub>j</sub> doko<sub>k</sub>-de John-o hihan-deki-ru-yoo(ni(to))]<sub>i</sub> [[ t sore<sub>i</sub>-o nozomi-soowhere-at -acc criticize-can-nonpast-sbj comp it-acc wish-seemmo-nai] dare]<sub>j</sub> -nom jituwa nozon-da -no?
   even-not who-nom actually wish-past-Q
- (59) a. ?\*[[ t sore<sub>i</sub>-o si-soo-mo-nai] hito]<sub>j</sub>-ga [ e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no it -acc do-seem-even-not person-nom where-at 'the guy'-gen yuujin-o hihan-deki-ru -koto]<sub>i</sub> -o jituwa nozon-da-no? friend-acc criticize-can-nonpast-subj comp-acc actually wish-past-Q
  'A person<sub>j</sub> who is not likely to do it<sub>i</sub> actually wished [PRO<sub>j</sub> to criticize his<sub>i</sub> friend where<sub>k</sub>]<sub>i</sub>?'
  - b. [e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no yuujin-o hihansu- ru -koto]<sub>i</sub>-ga [[ t sore<sub>i</sub>-o where-at 'the guy'-gen friend-acc criticize-nonpast sbj comp-nom it-acc si-soo-mo-nai] hito]<sub>j</sub>-niyotte jituwa nozom-are-ta no? do-seem-even-not person -by actually wish-pass-past-Q
    '[PRO<sub>j</sub> to criticize his<sub>j</sub> friend where<sub>k</sub>]<sub>i</sub> was wished by a person<sub>j</sub> who is not likely to do it<sub>i</sub>?'
- (60) a. ?\*[[t sore<sub>i</sub>-o si-soo-mo-nai] dare]<sub>j</sub>-ga [e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no it -acc do-seem-even-not who-nom where-at `the guy`-gen yuujin-o hihan-deki-ru -koto]<sub>i</sub> -o jituwa nozon-da-no? friend-acc criticize-can-nonpast-subj comp-acc actually wish-past-Q
  'Which person<sub>i</sub> who is not likely to do it<sub>i</sub> acutally wished [PRO<sub>i</sub> to

b. [e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no yuujin-o hihansu- ru -koto]<sub>i</sub>-ga [[ t sore<sub>i</sub>-o where-at 'the guy'-gen friend-acc criticize-nonpast sbj comp-nom it-acc si-soo-mo-nai] dare]<sub>j</sub>-niyotte jituwa nozom-are-ta no? do-seem-even-not who -by actually wish-pass-past-Q '[PRO<sub>j</sub> to criticize his<sub>j</sub> friend where<sub>k</sub>]<sub>i</sub> was actually wished by which person<sub>j</sub> who is not likely to do it<sub>i</sub>?'

Let us compare these cases with the other case; factive subjunctive complement introduced by *-koto* complements. (61a-b) are examples of the complement of *kuyam* 'regret'. (61a-b) show a WCO effect and its cancellation by passivization.

- (61) a. ?\*[[ t sore<sub>i</sub>-o si-soo-mo-nai] hito]<sub>j</sub>-ga [ e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no it -acc do-seem-even-not person-nom where-at `the guy`-gen yuujin-o hihansi-ta -koto]<sub>i</sub> -o jituwa kuyan-da-no? friend-acc criticize-past-subj comp-acc actually regret-past-Q
  'A person<sub>j</sub> who is not likely to do it<sub>i</sub> actually regretted [that e<sub>j</sub> criticized his<sub>i</sub> friend where<sub>k</sub>]<sub>i</sub>?'
  - b. [e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no yuujin-o hihansi-ta -koto]<sub>i</sub>-ga [[ t sore<sub>i</sub>-o where-at 'the guy'-gen friend-acc criticize-past sbj comp-nom it-acc si-soo-mo-nai] hito]<sub>j</sub>-niyotte jituwa kuyam-are-ta no?
     do-seem-even-not person -by actually regret-pass-past-Q
'[That e<sub>j</sub> criticized his<sub>j</sub> friend where<sub>k</sub>]<sub>i</sub> was actually regretted by a person<sub>j</sub> who is not likely to do it<sub>i</sub>?'

The deviancy of the example in (62b) shows that there is no PRO gate effect.

- (62) a. ?\*[[ t sore<sub>i</sub>-o si-soo-mo-nai] dare]<sub>j</sub>-ga [ e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no it -acc do-seem-even-not who-nom where-at `the guy`-gen yuujin-o hihansi-ta -koto]<sub>i</sub> -o jituwa kuyan-da-no? friend-acc criticize-past-subj comp-acc actually regret-past-Q
  'Which person<sub>j</sub> who is not likely to do it<sub>i</sub> actually regretted [that e<sub>j</sub> criticized his<sub>i</sub> friend where<sub>k</sub>]<sub>i</sub>?'
  - b. ??[e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no yuujin-o hihansi-ta -koto]<sub>i</sub>-ga [[ t sore<sub>i</sub>-o where-at 'the guy'-gen friend-acc criticize-past sbj comp-nom it-acc si-soo-mo-nai] dare]<sub>j</sub>-niyotte jituwa kuyam-are-ta no? do-seem-even-not person -by actually regret-pass-past-Q
    '[That e<sub>j</sub> criticized his<sub>j</sub> friend where<sub>k</sub>]<sub>i</sub> was actually regretted by which person<sub>j</sub> who is not likely to do it<sub>i</sub>?'

The less acceptability of this example should be compared with the grammaticality of the example of SC complements marked by *-koto* shown in (50b) above, which is repeated in (63b) below.

- (63) a. ?\*[[ t sore<sub>i</sub>-o si-soo-mo-nai] dare]<sub>j</sub>-ga [ e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no it -acc do-seem-even-not who-nom where-at `the guy'-gen yuujin-o hihansu-ru -koto]<sub>i</sub> -o jituwa keikakusi-ta-no? friend-acc criticize-nonpast subj comp-acc actually plan -past-Q 'Which person<sub>j</sub> who is not likely to do it<sub>i</sub> actually planned [PRO<sub>j</sub> to criticize his<sub>i</sub> friend where<sub>k</sub>]<sub>i</sub>?'
  - b. [e<sub>j</sub> doko<sub>k</sub>-de soitu<sub>j</sub> -no yuujin-o hihansu- ru -koto]<sub>i</sub>-ga [[ t sore<sub>i</sub>-o where-at 'the guy'-gen friend-acc criticize-nonpast sbj comp-nom it-acc si-soo-mo-nai] dare]<sub>j</sub>-niyotte jituwa keikakus-are-ta no?
    do-seem-even-not who -by actually plan-pass-past-Q
    '[PRO<sub>j</sub> to criticize his<sub>j</sub> friend where<sub>k</sub>]<sub>i</sub> was actually planned by which person<sub>i</sub> who is not likely to do it<sub>i</sub>?'

What is important is the fact that (62b) sounds worse than (63b), the latter of which exemplifies the PRO gate effect. The minimal difference between factive complements as in (62b) and SC complements as in (63b) is the type of the main verbs (whether factive or not), hence, the tense of the embedded verbs (whether past or nonpast). In connection to this, the lack of PRO gate effects in subjunctive factive complements reminds us of the similar case of non-subjunctive finite complements as shown in (54b). Both are shown to disallow PRO subjects in complements of which predicates are past tense. I will discuss the issue concerning the relation between subjects and tense in the next section. Notice that the lack of PRO gate effects in non-control type subjunctive complements marked by *-koto* is what is naturally expected under an assumption that nominative/*pro* subjects and PRO subjects complementarily distribute in complement clauses. On the other hand, it has already been observed that PRO subjects as well as nominative/*pro* subjects are possible in the rest of non-control and the entire control subjunctive complements. One might wonder whether it is exactly the case that the two distinct types of empty category, PRO and *pro*, alternately show up in the same context. Below, a few examples of the OC subjunctive complements will be shown to confirm the point.

Heim, Lasnik and May (1991) point out the three-way ambiguous reading in the example in (64) below.

(64) John and Mary told each other that they should leave.

Here, the matrix plural subject binds the matrix reciprocal object, and the embedded subject pronoun, *they*, has three readings (= 'l'-, 'you'-, and 'we'- reading) as shown in (65-c) below.

- (65) a. 'John told Mary that he should leave and Mary told John that she should leave.' (='l'-reading)
  - b. 'John told Mary that she should leave and Mary told John that he

should leave.' (= 'you'-reading)

c. 'John told Mary, and Mary told John, "We (together/separately)should leave.' (= 'we'-reading)

Heim, Lasnik and May observe that PRO subject of the infinitival complement, on the other hand, has only one reading that corresponds to the one in (65b) (= 'you'-reading), as shown in (66) below.

(66) John and Mary persuaded each other PRO to leave.

'John told Mary that she should leave and Mary told John that he should leave.' (= 'you'-reading)

In the corresponding example in Japanese, the pronominal subject of a nonsubjunctive finite complement also displays the same three-way ambiguity as in (65a-c), as shown the example in (67) below. <sup>41</sup>

(67) [John to Hanako]<sub>i</sub>-ga otagai<sub>i</sub>-ni [karera<sub>/</sub>-ga deteik-u -bekida to] and -nom each-other they-nom leave-nonpast-should comp

it-ta

tell-past

'John and Mary told each other that they should leave.' = (56a-c)

<sup>&</sup>lt;sup>41</sup> Daiko Takahashi (p.c.) originally pointed out to me the similarity between English and Japanese in this respect such as shown in (67-68).

Furthermore, even if the overt pronoun is replaced by *pro*, the same three readings are possible, as in the following example.

(68) [John to Hanako];-ga otagai;-ni [*pro*; deteik-u -bekida to] it-ta
and -nom each other-dat leave-nonpast-should comp tell-past
'John and Mary told each other that they should leave.' = (65a-c)

Now, given this, let us consider the OC subjunctive complements. It is predicted that the same three readings should be available, if an empty subject of an OC subjunctive complement can be *pro*. On the other hand, if it is PRO, only one of them, i.e., the 'you'-reading as in (65c) is expected. At first sight, the second predication seems indeed born out by the following example in (69).

(69) [John to Hanako]<sub>i</sub>-ga otagai<sub>i</sub>-ni [e<sub>i</sub> deteik-u yoo(-ni(to))] meiji-ta.
and -nom each other-dat leave-nonpast subj. sbj.comp order-past
'John and Mary ordered each other to leave.' (= 'you'-reading)

The interpretation of this example is exactly parallel with that of the English example in (66) above, i.e., 'you'-reading. This fact supports that an empty subject of OC subjunctive complements can be PRO.

Nonetheless, it does not deny a possibility of *pro* subject, either. If an appropriate context is given, the interpretation is significantly changed accordingly. Recall that semi-controlled subjects of OC subjunctive complements refer to someone prominent in a given context who is closely connected to the matrix object. Suppose that an empty subject in (68) is semi-controlled, given an appropriate context. It is, then, predicted that the semi-controlled empty subject has some reading other than the 'you'-reading. The following example confirms this prediction.<sup>42</sup>

(70) Context: Hanako and Taro belong to the same section of a company. They wanted to go to Boston on business together with other colleagues.
[Hanako to Taro]<sub>i</sub>-ga otagai<sub>i</sub>-ni [*pro*<sub>i</sub> mina-de/3-nin-de Boston-ni and -nom each other-dat all-dat/ -cl-dat -to syucchyoosu -ru -yoo(ni(to))] it-ta 'make a business trip'-nonpast-sbj comp tell-past
'Hanako and Taro told each other that they should go to Boston on business together with the others/the other two.'

Here, the sentence means that Hanako told Taro that Taro and the others/the other two (one of whom may be Hanako) should go to Boston and Taro told Hanako that Hanako and the others/the other two (one of whom may be Taro) should go to Boston. This reading is not available in the exam-

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<sup>&</sup>lt;sup>42</sup> This fact was pointed out to me by Jun Abe (p.c.)

ple in (69). That is, the empty subject in (70) is not PRO, but *pro*. These facts confirm again that OC subjunctive complements allow both PRO and *pro* subjects.

# **Chapter IV**

# The Tense Property and

# The Case Properties of Subjects

In this chapter, the tense property of subjunctive complements will be explored. What will be argued is as follows; (i) the tense property of T in the subjunctive complements is deficient compared with that of T in non-subjunctive clauses, in spite of the fact that tense morphemes in both types of clauses are morphologically indistinguishable; and (ii) the tense property of T in a clause determines the Case property of its subject, so that Case-checking in Japanese, which lacks  $\phi$ -feature agreement, is not mediated by  $\phi$ -feature agreement between T and NP/DP, but by agreement between them in terms of Case feature. In this sense, I adopt the mechanism of Case checking proposed by Chomsky (1995), but not that pursed by Chomsky (1998, 1999). However, I do assume that values for Case feature are determined by values of T's tense feature, following the spirit of Chomsky's (1998, 1999) suggestion that values for Case feature are determined by the value of T's  $\phi$ -feature.

The tense in subjunctive clauses is naturally different from that in nonsubjunctive ones in relation to the clauses' modal property, as seen in many other languages which show visible restriction in tense morphology in subjunctive clauses. It will be maintained that the tense property of subjunctive complements in Japanese is significantly impoverished, compared with that of in non-subjunctive clauses. The deficiency will be observed mainly in licensing of temporal adverbs and in the (un)ambiguity of temporal interpretations of nonpast stative predicates. Adopting the neo-Richenbachian theory of tense pursued by Hornstein (1990) (see also Girogi and Pianesi 1997), I assume that tense structures are represented in terms of relations among the speech time (hereafter, S), the reference time (hereafter, R), and the event time (hereafter, E). Following Hornstein's hypothesis that tense morphemes map from a given pair of S and R to a specific relation between them, I maintain that the nonpast and past suffixes in Japanese also determine SR relations, and contribute to the composition of SR relations and RE relations. forming proper tense structures, i.e., triplets of S, R, and E.

In section 4.1, it will be indicated that past tense is always disallowed in the subjunctive complements headed by *-yoo(ni(to))*, whereas it is allowed in some cases of those headed by *-koto*. That is, the subjunctive complementizer *-yoo(ni(to))* selects [- past] T. On the other hand, the other subjunctive complementizer *-koto* may take [+ past] or [- past] in the complement in principle, depending on types of the governing verbs. In 4.2, it will be demon-

strated that subjunctive complements are not uniform with respect to licensing of temporal adverbs. The raising and type-ii SC complements cannot have temporal adverbs that make an independent time reference. The OC, type-i SC, and non-control type complements, on the other hand, allow temporal adverbs that make a specific time reference independently from the matrix.

In section 4.3 (un)ambiguous readings of [- past] (= nonpast) predicates in subjunctive and non-subjunctive clauses will be discussed. I will first review ambiguity of nonpast stative predicates in non-subjunctive clauses: a stative predicate followed by the nonpast suffix -(r)u in a non-subjunctive clause is ambiguous between a simultaneous reading and a future reading (Ogihara 1996). Contrarily, It will be pointed out that a stative nonpast predicate in a subjunctive complement is unambiguous in certain cases: a nonpast stative predicate in the OC and type-i SC complements (see 3.2.2) and in the non-control complement headed by -yoo(ni(to)) has the future reading only, whereas that in the type-ii SC complements has the simultaneous reading only. In the case of the others of the non-control type, the same predicate can be ambiguous.

In section 4.4, based on the unambiguity of nonpast predicates in subjunctive complements observed in section 4.3, I will propose a mapping rule from a certain tense feature specified for each tense morpheme (i.e., either the past suffix or the nonpast suffix) to a certain relation between S and R in a tense structure. By the mapping rule, [+/- past] specification in T yields the past reading in which R precedes S, the future reading in which S precedes R, and the simultaneous reading in which S coincides with R. I assume that, while the feature [- past] basically has an ability of setting two different types of SR relations that correspond to the simultaneous reading and the future reading, it can be defective to the extent that it loses the ability, and is able to specify only one relation between S and R that brings about either one of the two readings. The assumption concerning tense features will be supported by the observations in 4.1, 4.2 and 4.3.

In section 4.5, it will be argued that tense features are closely correlated with Case properties of subjects and that Case checking is not mediated by agreement in terms of  $\phi$ -feature (which is morphologically invisible in Japanese, if any), but by agreement between T and NP/DP in terms of their Case features, basically assuming Chomsky's (1995) framework. It will be proposed that Case feature is valued by T's tense feature, so that T's [+ tense] feature determines its Case feature to be Nominative. Under the assumption given in 4.4, the [+ tense] feature is a prerequisite for setting an SR relation on its own. If a given T in a finite clause is [- tense], it cannot be interpreted at all unless a generic operator is induced, to give values to R (which is a certain time duration), and relates it to S. It will be pointed out that [- tense] feature is independent from [+ finite] feature, so that the presence of a tense suffix does not guarantee Case for a subject (Cf. Takezawa 1987). It will be

demonstrated that raising out of CP in which T lacks the ability of nominative Case checking is possible whether the clause is subjunctive or not. It will also be shown that a certain defective [- past] feature is directly connected to licensing of null Case for PRO. This observation concerning the deficiency of T in subjunctive clauses will be the basis for an analysis of long-distance A-scrambling out of subjunctive complements presented in Chapter 5.

## 4.1 [+/- Past] Tense

Here the possible combinations between matrix tense and embedded tense in subjunctive complements are considered. As far as the embedded tense being nonpast (i.e., -(r)u), main verbs can be either in nonpast or in past in all the cases, whether they are of the control type or the non-control type, whether -yoo(-ni(to)) or -koto, etc. The past tense (i.e., -ta) appears in a very limited way, on the other hand. As will be shown below, the generalization is simply as follows. Only nonpast predicates are possible in the raising complement headed by -yooni, the control and non-control type complements headed by -yoo(-ni(to)) and SC and OC complements headed by -koto.

First, the raising complement and the control type complements only allow nonpast tense. The OC and SC subjunctive complements never allow embedded past tense whether they are headed by -*yoo(-ni(to))* or by -*koto*.

#### (1) Raising complement

a. John<sub>i</sub>-ga [t<sub>i</sub> motto benkyoosu-ru-yooni] nar -u/-ta
 -nom more study-nonpast-sbj comp happen-nonpast/-past

'It has happened that John studies harder.'

b. \*John<sub>i</sub>-ga [t<sub>i</sub> motto benkyoosi-ta-yooni] nar -u/-ta
 -nom more study-past-sbj comp happen-nonpast/-past

#### (2) OC complements

- a. John-ga nakama<sub>i</sub>-ni [e<sub>i</sub> yoake-madeni umaku datsugokusu--nom partner-dat dawn-by successfully 'escape from jail'ru -yoo(ni(-to))/koto-o] motome/nega -u/-ta nonpast sbj comp/sbj comp-acc require/hope -nonpast/-past
  'John requires/hopes/required/hoped that his partner should have successfully escaped from jail before dawn.'
- b. \*John-ga nakama<sub>i</sub>-ni [e<sub>i</sub> yoake-madeni umaku datsugokusi-ta -past

yoo(ni(-to))/ koto-o] nega-u/-ta sbj com/sbj.comp-acc order-nonpast-past

- (3) SC complements
  - a. John<sub>i</sub>-ga [e<sub>i</sub> yoake-madeni umaku datsugokusu-ru
     -nom dawn-by successfully 'escape from jail'-nonpast

koto]-o keikakusi/hajime/tames -u/ta<sup>1</sup> sbj comp-acc plan/start/try -nonpast/-past 'John plans/starts/tries/planed/started/tried to escape from jail successfully before dawn.'

b. \*John<sub>i</sub>-ga [e<sub>i</sub> yoake-madeni umaku datsugokusi-ta -nom dawn-by successfully 'escape from jail'-past
koto]-o keikakusi/hajime/tames -u/ta sbj comp-acc plan/start/try -nonpast/-past

Second, the non-control type subjunctive complements allow embedded past tense when they are headed by *-koto*, as in (4), but not when they are headed by *-yoo(ni(to))*, as in (5).

(4) -koto complements of verbs such as 'wish' and 'pray'

a. John-wa [nakama-ga yoake-madeni umaku datsugokusu-ru -top partner-nom dawn-by successfully 'escape from jail'-nonpast

-koto]-o nega-u/-ta

sbj comp-acc -nonpast/-past

'John hoped that his partner would successfully escape from jail before dawn.'

b. John-wa [nakama-ga yoake-madeni umaku datsugokusi-(oose)-ta -accomplish-past

<sup>&</sup>lt;sup>1</sup> Here, *keikakus* 'plan' alternately takes the subjunctive complementizer 'yoo(ni)'. We just omit the case for the sake of space.

koto]-o nega-u/ta

-nonpast/-past

'John hopes/hoped that his partner had successfully escaped from jail before dawn.

The appropriate context for the examples in (4b) is as follows. One day, John's partner, a prisoner, tried to escape at night, but John didn't know about that at all. After the next day break, John was only told by someone that his partner had tried to escape last night, but again, he didn't know whether the attempt was successful. So, in the morning, he hoped that his partner had successfully escaped from jail by dawn. (4b) is grammatical and felicitous under such a context. The example in (5b) below, on the other hand, is severely ungrammatical under whatever context.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> One should be careful to distinguish the ungrammatical example as in (5b) from a sentence embedding a direct speech of an optative sentence, as shown below.

 <sup>(</sup>i) John-ga [(dooka) nakama-ga yoake-madeni umaku datsugokusi--nom please partner-nom dawn-by successfully 'escape from jail'-(masi)- ta -yooni\*(to)] negat/inot -ta politeness-past-sbj comp wish/pray -past
 'John wished/prayed that his partner would have successfully escaped

from the jail by dawn.'

The existence of the politeness suffix and the ungrammaticality of deletion of *-to* confirm that the bracketed part of (i) is not a complement, but a quotation (see Ch 2: note 12). We will briefly touch upon the past optative sentence in section 4.4 (the example in 21).

- (5) -yoo(ni(-to)) complements of verbs such as 'wish' and 'pray'
  - a. John-wa [nakama-ga yoake-madeni umaku datsugokusu-ru
     -top partner-nom dawn-by successfully 'escape from jail'-nonpast
     -yoo(ni(-to))] nega-u/-ta
     subj comp hope-nonpast/-past

'John hoped that his partner had successfully escaped from jail before dawn.'

b. \*John-wa [nakama-ga yoake-madeni umaku datsugokusi-(oose)-ta -accomplish-past

-yoo(ni(-to))] nega-u/-ta -sbj comp -nonpast-past

It follows that the impossibility of past predicates in the complements headed by -yoo(ni(to)) cannot be attributed to some semantic restriction such that since they are complements of verbs such as 'wish' and 'hope', the embedded predicates always express unrealized events. The sentences in (6) below, which are examples of *-koto* complements of fictional verbs, more easily and naturally show the point. Given the same context as in (4b) above, the past predicate in (6b) is used to denote John's idea that his partner had already escaped from jail.

(6) -koto complements of verbs of speculation/imagination/fiction

a. John-wa [nakama-ga yoake-madeni umaku datsugokusu-ru -top partner-nom dawn-by successfully 'escape from jail'-nonpast

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koto]-o soozoosu-ru/soozoosi-ta

sbj comp-acc imagine-nonpast/imagine-past

'John imagines/imagined that his partner would successfully escape

from jail before dawn.'

b. John-wa [nakama-ga yoake-madeni umaku datsugokusi-ta koto]-o

-past

soozoosu-ru/soozoosi-ta

imagine-nonpast/imagine-past

'John imagines/imagined that his partner had successfully escaped

from jail before dawn.'

Third, complements of factive verbs such as kiduk 'find out' and yorokob

'be glad' headed by -koto also allow both.<sup>3</sup>

(i) John<sub>i</sub>-wa [[jibun<sub>i</sub>-o hukum-u 4-nin]-ga hubenkyoo-de siken-ni -top self-acc include-nonpast 4-cl-nom 'not to study'-at exam-dat

<sup>&</sup>lt;sup>3</sup> Koichi Takezawa (p.c.) points out that true factive verbs such as *kookais* 'regret' only selects [+ past] predicates in the complements, and suggests as follows: since the embedded empty subjects of this type of factive complements must be always subject-controlled, it is assumed to be PRO, and if so, the presence of the past tense suffix does not necessarily exclude the possibility of an occurrence of PRO subject.

If this is empirically correct, this type of complement belongs to nonnonpast group (but, see note 37). If the non-nonpast complement indeed allow PRO subjects, it is not subject to our generalization made so far (i.e., only the non-past group complements allow PRO subjects, see 3.3). Although we here do not deal with this type of factive subjunctive complements any further, we just point out the following: (i) according to our example of PRO gate, this type of factive complements do not permit PRO subjects (see 3.3, 63b), (ii) they allow semi-control structures as show in (i) below, and (iii) they also allow long-distance A-scrambling (see Chapter 5).

### (7) -koto factive complements

a. Johi	n-wa [na	ikama-ga yoake-ma	adeni umaku	datsugokusu-ru		
	-top par	tner-nom dawn-by	successfully `	escape from jail'-nonpast		
-koto	o]-ni	kiduk-u/-ta	/-koto]-o	yorokob-u/-da		
sbj comp-acc notice-nonpast/past			/-sbj comp-acc notice-nonpast/-past			
'John notices/noticed/is glad/was glad that his partner successfully						
esca	ape from	i jail before dawn.'				

b. John-wa [nakama-ga yoake-madeni umaku datsugokusi-ta -past

-koto]-ni 👘	kiduk-u/-ta	/-koto]-o	yorokob-u/-da
-------------	-------------	-----------	---------------

sbj comp-acc notice-nonpast/past /-sbj comp-acc notice-nonpast/-past

'John notices/noticed/is glad/was glad that his partner successfully

escape from jail before dawn.'

In sum, embedded past tense is possible (i) in the non-control type com-

plements headed by -koto, but (ii) neither in the control type complements

oti-ta koto]-o kookaisi-ta fail-past sbj.comp-acc regret-past '(lit.)John<sub>i</sub> regretted that the four people, including him<sub>i</sub>, failed the exam because of their laziness.

These facts suggest that nominative Case is available for the embedded subject of this type of complement, but null Case is not. The semi-control structure implies that *pro* is also possible (relevant data are omitted). Thus, the apparent obligatory subject-control is the preferred interpretation due to the semantics of the main verb, just like the case of the type-ii SC subjunctive complement.

headed by -yoo(ni(-to)) and -koto, nor in the non-control type complements headed by -yoo(ni(-to)). I refer to (i) as past group, and (ii), as non-past group. The embedded tense in the non-past group is strictly restricted; that is, it is always specified as [- past]. In other words, the subjunctive complementizer -yoo(ni(-to)) always selects [- past] T as its complement, whereas the subjunctive complementizer -koto selects both [- past] T as well as [+ past] T.

Notice that the distinction between the non-past group and the past group does not coincide with the distinction between the control type and the non-control type. That is, the past group covers the non-control type with one exception; the non-control type of complements headed by -*yoo*(*ni*(-*to*)) belongs to the non-past group. In section 4.5, I will examine how this specification of tense feature relates to the Case properties of complement subjects.

## 4.2 (in)dependent Tense

In this section it is examined whether tense in subjunctive complements is able to make an independent specification of R. This property is examined by the licensing of temporal adverbs. Some subjunctive complements allow temporal adverbs denoting different points of time from those in the main clauses, whereas others do not. Let us tentatively refer to the distinction in terms of '(in)dependent tense'. I will discuss how the property of dependent tense is derived from more general deficient tense property of subjunctive complements in 4.4.

Below, it will be shown that independent tense exists in the control and non-control subjunctive complements headed by -*yoo(ni(to)*, and the type-i control and non-control type subjunctive complements headed by -*koto*, whereas dependent tense appears in the type-ii SC subjunctive complements headed by -*koto* and the raising subjunctive complement headed by -*yooni*.

Nakau (1973) points out that tense in what I call the type-ii complements cannot refer to any time independent from the matrix tense, and that the embedded nonpast predicate is always interpreted either as being the same as the matrix tense or as being generic/habitual. In the example in (8) below, the matrix clause denotes an event in the past, i.e., on the day before yesterday. Since the matrix event and the embedded event are contemporaneous, the complement cannot be modified by the temporal adverb *asu* 'tomorrow', nor even by the temporal adverb *kinoo* 'yesterday', which also denotes the past.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> The following example appears to be a counterexample to the existence of dependent tense in this type of complement at first sight, since the two adverbs the complement makes its own specific time reference.

 <sup>(</sup>i) kinoo-no Mary-ga [e kyoositu-ni gogo 3-ji-ni i-ru yesterday-gen -nom classroom-dat p.m. -time-dat be-nonpast -koto]-o hajime/kokoromi-ta -sbj comp-acc start/try-past
 'Yostorday, Many started/tried to be in the classroom at 3 clock

<sup>&#</sup>x27;Yesterday, Mary started/tried to be in the classroom at 3 o'clock.'

(8) a. slightly modified from Nakau (1973):VI.2.1.(19)

\*John<sub>i</sub>-wa [PRO<sub>i</sub> asu/kinoo umi-de oyog-u koto]-o
 -top tomorrow/yesterday sea-dat swim-nonpast-sbj.comp-acc
 ototoi kokoromi-ta
 the day before yesterday attempt-past
 '\*The day before yesterday, John attempted to swim in the sea
 yesterday/tomorrow.'

b. \*John<sub>i</sub>-wa [PRO<sub>i</sub> asu/kinoo umi-de oyog-u koto]-o -top tomorrow/yesterday sea-dat swim-nonpast sbj.comp-acc

ototoi hajime-ta

the day before yesterday start-past

'\* The day before yesterday, John started to swim in the sea yester-

day/tomorrow.'

On the other hand, as is naturally expected, the type-i and OC complements can make their own specific time reference that is independent with respect to the time reference made by the matrix.

However, such an example is always the case in which the embedded adverb does not independently point to a time different from the time expressed by the matrix. In this case, too, the adverb phrase *gogo 3-ji-ni* 'at 3 o' clock' is interpreted relative to the matrix. Since the matrix refers to the past, the designated time '3 o' clock' is, of course, at yesterday. We take it that the dependent tense cannot specify its own time reference, apart from the time reference made by the matrix.

(9) John-ga [ei asu/kinoo umi-de oyog-u -yoo(ni)/koto-o]
-nom tomorrow/yesterday sea-dat swim-nonpast-sbj.comp/sbj comp-acc
ototoi keikakusi/kime-(tei)-ta
the day before yesterday plan/decide-past (perf)
'The day before yesterday, John made a plan/decision that he will swim in

the sea yesterday/tomorrow.'

(10) John-wa Maryi-ni [ei asu/kinoo umi-de oyog-u yoo(ni(-to)) -top -dat tomorrow/yesterday sea-dat swim-nonpast sbj.comp
/koto-o] ototoi nozon-(dei)-ta sbj.comp-acc the day before yesterday want-past (perf)
'The day before yesterday, John wanted Mary to swim in the sea yesterday/tomorrow.'

Since the complements in (8-10) all belong to the same non-past group, the appearance of tense morphology in the type-ii SC complements and the OC complements is uniform. Nevertheless, the substantial content of tense feature in the former type is more severely defective than the latter. That is, while tense in the type-ii complements is dependent, tense in the OC complements is independent.

Now, the distinction between independent tense and dependent tense does not correspond to the distinction between control type and non-control type, again, as the distinction between [+ past] and [-past] does not (see 4.1). The non-control subjunctive complements headed by by -*yoo(ni(-to))* have their own independent time reference, even though it belongs to non-past group, as shown below.

(11) John-wa [ Mary-ga asu/kinoo umi-de oyog-u yoo(ni(-to))] -top -nom tomorrow /yesterday sea-dat swim-nonpast sbj comp ototoi negat-(tei)-ta the day before yesterday wish-past-(perf)

'The day before yesterday, John wished that Mary would swim in the sea yesterday/tomorrow.'

Since the rest of the non-control type complements also belong to the past group, it is straightforwardly expected that their tense is independent, making a specific time reference. The sentence in (12) below shows that the complements of fiction verbs actually have independent tense.

(12) John-wa [ Mary-ga asu/kinoo umi-de oyog-u koto]-o
-top -nom tomorrow/yesterday sea-dat swim-nonpast sbj comp-acc
ototoi soozosi-(tei)-ta
the day before yesterday imagine-past (perf)
'The day before yesterday, John imagined that Mary would swim in the
sea yesterday/tomorrow.'

Another member of the past group, the complements of factive verbs, also make an independent time reference, although the point of time reference is naturally limited to in the past (because the factive complements denote factual events that have already taken place).

(13) John-wa [ Mary-ga iti-nen-mae umi-de oyoi-da koto]-ni
-top -nom one-year-before sea-dat swim-past subj comp-dat
kinoo kidui-ta
yesterday notice-past
'Yesterday, John noticed/found out that Mary swam in the sea a year

ago'

Finally, compare the raising subjunctive complement introduced by yooni. As the following example shows, the complement does not permit an independent temporal adverb modifying it, suggesting that its tense is also dependent.

(14) \*John<sub>i</sub>-ga [ t<sub>i</sub> umi-de asu/kinoo oyog-u

-nom sea-dat tomorrow/yesterday swim-nonpast
-yooni] ototoi nat-ta
-subj comp the day before yesterday happen-past
'Yesterday, it happened that Mary will swim in the sea now/tomorrow.'

Recall that the complement expresses a result, i.e., a natural consequence of the situation (see 3.1). Since the matrix predicate is past, the result is what had been already obtained by the matrix event time. Thus, the complement does not express some event in the present or future time in spite of its surface nonpast morphology. The raising complement with *-yooni* clearly displays not only the independent property of tense, but also its tense-less property, i.e., [- tense].<sup>5</sup> I will later touch upon what role the [- tense] feature plays in relation to the construction of tense structures and the checking of nominative Case (see 4.4 and 4.5).

In short, except for the dependent tense in the type-ii SC complements (and in raising complements), tense in the type-i SC, OC, and non-control type, subjunctive complements are independent.

## 4.3 (Un)ambiguity of Nonpast Predicates

This section discusses temporal interpretations of nonpast predicates in subjunctive complements, indicating that T in subjunctive complements is more defective than T in non-subjunctive complements. The topic is significant, in particular, in the case of non-past group. Since predicates in this group of complements are limited to be nonpast, a question immediately

<sup>&</sup>lt;sup>5</sup> This property is exactly shared by the non-tensed form followed by *-te*, which we discussed in 2.1.1. In 4.5, the tense-less property will be further discussed.

arises what tense they are allowed to denote compared with past/nonpast predicates in non-subjunctive clauses.

Recall that subjunctive complements do not just state or describe actions, states, or events, but additionally express the speakers' certain attitudes toward them. In this sense, the tense interpretations of subjunctive complements depend on the semantics of the governing verbs. For example, the complement of a main verb such as 'order', 'ask', and so on, only denote an action to be realized at some time later than the time of ordering, asking, and so on. As was observed in the previous subsection, however, the semantics of the governing verbs is not the sole factor that decides the tense form of a complement predicate (e.g., the contrast between the non-control complement headed by -yoo(ni(to)) of verbs of wishing and praying, and the complement headed by -koto of the same groups of verbs with respect to [+/past]). Subjunctive complements, thus, independently signify some tense that is not only restricted by the semantics of the main verbs (hence, by the relevant modal meanings), but are also determined by the tense features, such as we have seen so far, which are syntactically connected with the surface tense morphology of subjunctive clauses. Below, I will investigate the tense property of subjunctive complements from this point of view.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> See Ogihara (1996) for a modal-theoretic approach to the semantics of tense in Japanese and English, in particular, for a semantic approach to SOT phenomena in terms of a *de se* analysis of attitudes.

Let us begin with a review of basic tense interpretations of nonpast predicates in non-subjunctive clauses in Japanese, and then compare them with the case of subjunctive complements. First, consider nonpast predicates in non-subjunctive main clauses. As pointed out by Ogihara (1996: Ch1), a stative verb followed by the nonpast tense suffix -(r)u, as in (15) below, is ambiguous between a simultaneous reading and a future reading.<sup>7.8</sup>

Others are interpreted only as being simultaneous with the speech time, however.

 (ii) Sono syobyoosi-ga (ima/\*asu) genki da that fireman-nom now/tomorrow lively 'be nonpast'
 'The fireman is now lively/The fireman will be lively tomorrow.'

Those of individual-level are not ambiguous in the same way, either. Although such an adjective denotes a state that holds at the speech time, a temporal adverb such as *ima* 'now' cannot appear because of the permanent status of the denoted state.

 (iii) Sono syobyoosi-ga (\*ima/\*asu) tyoosin da that fireman-nom now/tomorrow tall 'be nonpast'
 'The fireman is tall.'

We do not discuss how these readings of adjectives are derived, which is beyond the scope of this study.

<sup>8</sup> This sentence has another reading; that is, a generic/habitual reading. The generic/habitual reading will be discussed later in this section.

<sup>&</sup>lt;sup>7</sup> Below, we will ignore non-verbal tensed predicates, such as adjectives. Some of nonpast adjectives of stage-level are ambiguous between the future reading and the simultaneous reading, in the same way as the nonpast stative verbs as shown in (15).

 <sup>(</sup>i) Sono syobyoosi-ga (ima/asu) syutudoo-kanoo da that fireman-nom now/tomorrow 'go into action'-able 'be nonpast'
 'The fireman is now available/The fireman will be available tomorrow.'

(15) John-ga/wa<sup>9</sup> kyoositu-ni i-ru

-nom/top classroom-dat be-nonpast

'John is in the classroom' or 'John will be in the classroom.'

The simultaneous reading is such that John is in the classroom at the moment of speech, and the future reading is such that John will be in the classroom at some future time relative to the moment of speech. That is, the nonpast suffix -(r)u functions both as a present marker and as a future marker. This is one major difference form English, where stative present predicates refer to the moment of speech, but not to the future.

Similarly, when a nonpast stative predicate is embedded in a complement, it has both the simultaneous reading and the future reading. Japanese is one of the non-SOT (sequence of tense) languages (see Nakamura 1995, Ogihara 1996, Kusumoto 1998). That is, tense in a finite complement is in-

<sup>&</sup>lt;sup>9</sup> To reduce the less acceptability caused by the nominative marking when the sentence is uttered out of the blue, the topic marking should be used instead. Although the formal noun *-koto* is usually added at the end of the sentence for the same reason in the literature, we here want to avoid confusion between the formal noun *-koto* and the subjunctive complementizer *koto* (for the necessary distinction, see 2.2.2).

terpreted as being relative to the matrix event time (see also Miyamoto 1993 for an analysis of the case of temporal adverbial clauses). Consequently, both simultaneous and future readings of an embedded nonpast stative predicate are interpreted in relation to the matrix event time. Consider the following example.

(16) Mary-ga [John-ga kyoositu-ni i-ru to] it-ta
-nom -nom classroom-dat be-nonpast comp say-past
'Mary said that John was in the classroom (at the moment of her say-ing.)'

The sentence means that John's being in the classroom was simultaneous with Mary's saying so in the past. This simultaneous reading is the same one as the English translation has. The so-called shifted reading is not available, However. This sentence does not mean that John's being in the classroom took place earlier than Mary's saying in the past, which is another interpretation of the English translation.

The following example shows a future reading of an embedded nonpast non-stative predicate.

(17) a. Context: One day, Bill noticed that no one was in the classroom. Then, he asked, 'Well, who will be in the classroom (tomorrow)?'.
 Mary-ga [John-ga (asu) kyoositu-ni i-ru to] it-ta

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-nom -nom tomorrow classroom-dat be-nonpast comp say-past

'Mary said that John will be in the classroom (tomorrow/in some future relative to the moment of speech).'

Even if the adverb *asu* 'tomorrow' does not appear in the complement, the future reading is clearly available under an appropriate context. The denoted future time is relative to the matrix event time, again. These facts evidently indicate that tense structures of embedded clauses are always interpreted as being relative to the matrix event time.<sup>10, 11</sup>

(i) a. John said [that Mary was sick].

b. John-ga [Mary-ga byooki-da to] it-ta -nom -nom sick- be nonpast' comp say-past

The English example is ambiguous between a reading in which Mary's sickness is simultaneous with John's saying and another in which Mary's sickness is earlier than John's saying. On the other hand, the Japanese example, where the embedded predicate is nonpast, only has the former reading. We will not go into theoretical details of such non-SOT phenomenon any further. See Ogihara (1997) and references cited there.

<sup>11</sup> This generalization reminds us of the SOT rule for infinitival complements proposed by Hornstein (1990: p. 148).

(i) SOT rule for infinitival clauses: Associate  $E_n$  with  $R_{n-1}$ 

Actually, if this rule applies to (subjunctive as well as non-subjunctive) complements in Japanese, correct interpretations seem to be derived. Notice that the SOT rule for finite complements is that  $S_n$  is associated with  $E_{n-1}$ . Assuming that English infinitival clauses lack their own S points (and if S does not exist, R and E cannot receive interpretations in relation with S), Hornstein gives the rule as in (i). Then, there seems no necessarily reason why Japa-

<sup>&</sup>lt;sup>10</sup> This is generally hold in Japanese even if an embedded predicate is past, as shown in the following contrast between English and Japanese:

Now, keeping this in mind, let us return to the non-past group of subjunctive complements. They behave rather differently. First, in the case of OC and type-i SC complements and non-control complements headed by *yoo(ni(to))*, an action denoted by the complement is unrealized at the event time of the matrix action such as ordering. planning. etc. takes place. This interpretation amounts to a future reading interpreted relative to the matrix event time that is observed for nonpast stative predicates in non-subjunctive complements. Consider the following example.

(18) a. kinoo Mary-ga John-ni [e kyoositu-ni (asu) i-ru yesterday -nom -dat classroom-dat (tomorrw) be-nonpast
-yoo(ni(to))/koto-o] meiji-ta
-sbj comp/sbj comp-acc order-past

'Yesterday, Mary ordered John to be in the classroom (tomorrow/later than the moment of her ordering.'

b. kinoo John-ga [e kyoositu-ni (asu) i-ru -yoo(ni)/ yesterday -nom classroom-dat (tomorrw) be-nonpast-sbj comp/

koto-o] keikakusi/kime-ta

sbj comp-acc plan/decide-past

'Yesterday, John decided/planned to be in the classroom (tomorrow).'

nese finite complements, which have S, are always subjects to the SOT rule as in (i). We will leave other relevant questions for future study.

(i) kinoo Mary-ga [John-ga kyoositu-ni (asu) i-(mas)-u yesterday -nom -nom classroom-dat (tomorrw) be-politeness-nonpast -yooni \*(to)] nega/inot-ta -sbj comp quotation marker wish/pray-past
'Yesterday, Mary wished that John would be in the classroom (tomorrow).'

The quoted speech easily refer to the event that is simultaneous of the matrix action, i.e., Mary's wishing/praying. Speakers, including myself, report that the example in (i) contrasts with (18c) above with respect to the availability of the simultaneous reading. The point is clearly shown by the following example, in which a non-stative nonpast progressive predicate appears:

(ii) kinoo Mary-ga [ame-ga hut-tei-ru -yooni??(to)] nega/inot-ta yesterday -nom -nom fall-prog-nonpast-sbj comp wish/pray-past 'Intended reading = Yesterday, Mary wished that it was raining at the moment of wishing.'

As will be discussed in 4.4, a non-stative nonpast progressive predicate must be interpreted only as being a simultaneous with the moment of speech. The fact that the example in (ii) where *-to* does not occur is degraded indicates that the forced simultaneous reading of the complement predicate is incompatible with some tense property of T in this type of subjunctive complement.

One might still consider a simultaneous reading to be available in this type of complement (such as in 18c). That is, a stative nonpast predicate in subjunctive complements might permit an interpretation such that the event referred to by the predicate starts at the moment of speech and continues for some time after the moment of speech. In non-subjunctive complements, however, the same stative nonpast predicate never allows such a interpretation. Thus, even though the non-past group of subjunctive complements apparently refer to the moment of speech, the interpretation should be distin-

<sup>&</sup>lt;sup>12</sup> The longest form of this complementizer *-yoonito* must be avoided here. As has been mentioned earlier (note 2, see also Ch2: note 12, note 22), a main sentence headed by *-yoo*(ni) can be embedded as a direct quotation. If the embedded clause is a quoted speech of a main optative sentence, it is predicated that the sentence allow both simultaneous and future readings. This is because T in a main optative sentence is not defective, but as complete as T in non-subjunctive clauses (see relevant discussion in 4.4). This prediction is born out by the following example.

yesterday -nom -nom classroom-dat (tomorrw) be-nonpast-sbj comp nega/inot-ta wish/pray-past

'Yesterday, Mary wished that John would be in the classroom (tomorrow).'

John's being in the classroom did not occur at the matrix event time, which is in the past, and it will occur later than that. That is, the event denoted by the complement never takes place at the exactly same time as the matrix event time. Even though both events took place in the past, the matrix event always precedes the event denoted by the complement, as shown in the case of the above examples without the adverb *asu* 'tomorrow'. Thus, this type of complement is interpreted only as denoting some future time relative to the matrix event time.

This restricted reading is not simply derived from the semantics of the governing verbs. That is, for example, as shown (4) above, in the non-control type complement, there should be no conflict between the semantics of the main verbs such as 'wish' and 'pray' and that of their complements even if the complements refer to events that is simultaneous with the matrix. There-fore, the unavailability of the simultaneous reading of the example in (18c) is

guished from the strict simultaneous reading of a stative nonpast predicate in non-subjunctive clauses.

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fore, the unavailability of the simultaneous reading of the example in (18c) is not follow from some hypothetical semantic requirement by the main verbs of this kind of complement.

Second, a nonpast stative predicate in the type-ii SC complements oppositely expresses an action that is simultaneous with the matrix action: they only yield the simultaneous reading. This reminds us of what we have observed in the previous section, where it is indicated that these types of complements disallow independent temporal adverbs. The situation is actually more restricted, however. Consider the following example.

(19) kinoo-no gogo 3-ji Mary-ga [e kyoositu-ni (\*asu/\*5-hun-go-ni) yesterday-gen p.m. -time -nom classroom-dat (tomorrw/`5 minutes later`)
i-ru -koto]-o hajime/kokoromi-ta be-nonpast-sbj comp-acc start/try-past

'Yesterday, at 3 o'clock, Mary started/tried to be in the classroom (\*tomorrow/\*5 minutes later).'

Here, the matrix states the event that took place at yesterday, 3 p.m. The subjunctive complement expresses the action that occurs at the same time. Accordingly, it does not permit the adverb *asu* 'tomorrow', nor the temporal adverbial phrase *go-hun-go-ni* '5 minutes later', the latter of which does not refer to some time not in the past, but to some past time

non-contemporaneous with the matrix event time. That is, the nonpast stative predicate in this type of complement strictly requires the simultaneous interpretation relative to the matrix event time.

It is now suggested that nonpast predicates in subjunctive clauses are not only specified in terms of [+ tense. -past], and that a certain feature determines whether those predicates allow both future and simultaneous readings, and if not, which reading they yield. In the next section, a certain mapping mechanism from tense features to tense structures and how it correctly captures the necessary distinction in (un)ambiguous reading of nonpast predicates in Japanese will be proposed.

# 4. 4 Mapping from Tense Features to Tense Structures in Japanese

In this section, will present a mechanism of mapping from tense features to tense structures, basically under Hornstein's (1990) neo-Richenbachian framework. The analysis to be proposed will nicely account for various readings of nonpast predicates in subjunctive and non-subjunctive clauses.

Hornstein argues that a tense morpheme composes an SR relation and an RE relation, mapping to a tense structure made of S, R, and E, and that tense morphemes and aspectual morphemes deal with SR relations and RE phemes in English that give rise to the following correlation between the tense morphemes and the tense structures:

(20) Hornstein (1990: p. 111, 42ai-ii):

present morpheme: associate S and R: S, R past morpheme: R removed to left of S: R\_S future morpheme: R removed to right of S: S\_R

After a certain SR relation is determined by a tense morpheme, it is tied together with a corresponding RE relation by an ordering principle proposed by Hornstein (1990: p.113, 43a), which ends up with a complete tense structure. The ordering principle requires that the linear order of RE should be identical to the linear order of SR in a tense structure, if not intrinsically determined (by some aspectual morpheme, for example). Thus, for example, (S, R) is tied together with (R, E), which results in (S, R, E), i.e., the present tense structure.

Suppose, then, that Japanese tense morphemes, the nonpast suffix and the past suffix, basically do the same as the English tense morphemes. That is, they determine SR relations. I assume, furthermore, that not a tense suffix

<sup>(</sup>i) (E, R\_S) = past, (S, R, E) = present, (S\_R, E) = future

That is,  $(x_y)$  and (x, y), represent 'x precedes y' and 'x is coincides with y', in a time line from left to right, respectively. We do not deal with the perfect tenses below.
itself, but a certain tense feature specified for each tense suffix, is responsible for constructing an SR relation. Let us consider what feature determines what SR relation. First of all, it is natural to assume that [+ finite] T is qualified to have both S and R (see note 11). If a given [+ finite] T is [+ tense], it can determines some specific SR relation on its own.<sup>14</sup> If it is [- tense], it cannot make its own SR relation. Later in this section, how [+/- finite, +/- tense] T behaves will be shown.

Then, if a given T is [+ tense], it can basically determine one of the three possible relations between S and R, namely, (S, R),<sup>15</sup> (R\_S), and (S\_R). I assume that [+/- past] is specified for each [+ tense] T and specifically determines one SR relation according to the following mechanism. Mapping of the past tense structure is simple. It is assumed that [+ past] T set the SR relation as (R\_S), just like the case of English past morpheme. Recall here that a nonpast predicate in Japanese is ambiguous between a simultaneous reading and a future tense reading in certain cases (see 4. 3). If such a predicate appears in a main clause, the simultaneous reading amount to a present tense reading. It follows that [- past] T in Japanese ambiguously de-

<sup>&</sup>lt;sup>14</sup> The [+ tense] feature assumed here plays a role that is almost corresponding to what T1 does under Girorgi and Pianesi's (1997) theory of tense structures.

<sup>&</sup>lt;sup>15</sup> (S, R) is equivalent to (R, S) here. There is an issue concerning this point, however. See Hornstein (1990: pp. 213-216) and references cited there, for example.

termines SR relations in principle, contrary to the case of English present morpheme.<sup>16</sup> How does [- past] T set SR relations?

The feature specification of [- past] signifies that mapping by way of the [+ past] feature is not applicable. Since the [+ past] T puts R to left to S in a time line (hence, creates (R\_S), what [- past] T does is either to associate S and R, or to put R to right of S in a time line. This simply accounts for the ambiguity of a [- past] stative predicate in non-subjunctive clauses, which yields both a future interpretation based on the (S\_R) relation, and a present (i.e., simultaneous) interpretation from the (S, R) relation. This way of mapping by [- past] T can be stated more clearly. That is, [- past] T has both ability of associating S and R, and that of separating R to right of S.

Given this mechanism, the limited interpretations of a [- past] stative predicate in the subjunctive complement of the non-past group is also straightforwardly explained in our terms. The [+/- past] feature of T in a subjunctive complement of this group is not as complete as that of T in non subjunctive clauses, since the former is always fixed as -, and never altered into +. That is, [- past] T in the former is not only different from, but also more deficient than, [- past] T in the latter. Let us refer to [- past] T in the former case as [- past] def (which represents a defective/deficient [- past] feature).

<sup>&</sup>lt;sup>16</sup> Therefore, Hornstein's (1990: p.113, 43b) mapping principle as in (i) below is not applicable to Japanese tense system.

<sup>(</sup>i) Morphemes unambiguously determine unique mappings.

There are two types of [- past] def; [- past] def and more, namely, most defective [- past] def. Let us refer to the former 'type-i' [- past]def, and to the latter 'type-ii' [- past]def. The type-i and ii [- past]def appear in the corresponding types of the SC control complements (but not in the case of the OC complements, see 3.2.2). The type-ii [- past]def is the most defective so that it does not have an ability of making a relation greatly changed from the initial stage of mapping. That is, it cannot do almost anything other than just coupling SR together in a tense structure, hence yielding (S, R) only. This SR relation provides a simultaneous reading, after the application of the ordering rule of the RE relation as introduced above. The type-i [- past] def feature, on the other hand, is slightly richer, and has an ability to do some more operation: that is, it puts R in a point different from S in a tense structure for a future reading.

Under this analysis of tense features, it follows that subjunctive complements are different from non-subjunctive clauses not only in their modal property induced by the subjunctive complementizers, but also in their tense property in certain cases. The subjunctive complementizers sometimes (but not every time) select defective T. In raising complements, the complementizer *-yooni* takes [- tense] T. In the type-ii SC subjunctive complements headed by *-yoo(ni)* and/or *-koto*, T must be the most defective [- past], i.e., type-ii [- past]<sub>def</sub>. In the OC and type-i subjunctive complements and the noncontrol complement headed by -yoo(ni(to)), T must be the type-i [- past] <sub>def</sub>. In the rest of the non-control types headed by *-koto*, T is not defective at all, and is as complete as T in subjunctive complements. Thus, the difference between them lies not in T, but only in C.

Furthermore, the tense property of T in subjunctive clauses in the root context are accounted for as in the following way. In main clauses, the subjunctive complementizer in a weak imperative sentence, *-yoo(ni)* or *-koto*, always takes the type-i [- past]<sub>def</sub> T, which is less defective and interpreted as denoting a future event. The future reading is properly associated with the modal meaning also induced by the subjunctive complementizer such as the speaker's strong intention.<sup>17, 18</sup> On the other hand, as we have observed in 4.1 that, in the non-control subjunctive complement of verbs meaning 'wish' and 'pray', the complement may denote an event in the past (which is

<sup>&</sup>lt;sup>17</sup> Note also that this account is applicable for the case of purposive clauses, which are headed by -yoo(ni(to)), without additional assumptions.

<sup>&</sup>lt;sup>18</sup> Note that even if an adverb such as *ima* 'now' or *tatta ima* 'right naw' appears in an imperative sentence, the moment of ordering cannot be identical to the point of time when the order is carried out. That is, such a sentence should not be interpreted as an instance of the simultaneous reading.

This is shown by the fact that the adverb *ima* 'now' in an imperative sentence can be replaced by adverbs such as *(ima) sugu* '(now) quickly' or *tadati-ni* promptly/immediately' without any change in the meaning. On the other hand, if the adverb *ima* 'now' is used as a deictic adverb to denote the speech time in subjunctive/non-subjunctive clauses, it cannot be replaced by those adverbs of the different meaning.

It is suggested that there is no simultaneous reading in imperative sentences, which seems to be naturally the case.

4.1 that, in the non-control subjunctive complement of verbs meaning 'wish' and 'pray', the complement may denote an event in the past (which is marked by the past suffix), as long as the complement is headed by *-koto*. That is, such a situation is just semantically normal. Then, I predict that the subjunctive complementizer in an optative sentence, i.e., -yoo(ni), allows a past predicate, meaning that the speaker wants the denoted event to have come out in the past.<sup>19</sup> The following example confirms the point.

(21) (dooka) nakama-ga yoake-madeni umaku datsugokusi-

interjection partner-nom dawn-by successfully 'escape from jail'-

It is suggested that there is no simultaneous reading in imperative sentences, which seems to be naturally the case.

<sup>19</sup> Recall that the type-i [- past]<sub>def</sub> T is selected by -yoo(ni) and -yoo(ni(to)) in complements. One might, then, wonder why the same form -yoo(ni) is allowed to select non-defective T in main clauses. We do not have a straight answer to this question.

Here, we just point out that our observation clearly indicates that there is no intrinsic requirement of selecting defective T by the subjunctive complementizers. In other words, the invariant property of the subjunctive complementizers is their modal property, but not their selectional property concerning T. Still, the defective tense property of the complements, such as we have observed so far, is importantly connected with the modal property of the complementizers. Subjunctive clauses accordingly appear in the various contexts.

It seems, thus, that there is no obvious correspondence between the shape of C and the type of T in Japanese, expect that the absence of the clause-type indicator -yoo(ni) in [+ finite] CP signifies the presence of non-defective T (that is, if the clause subordinator -to is the only member of C, it means that the complement is non-subjunctive. Furthermore, if -to selects [+ finite] T, then, it has no deficient tense feature). Relevant questions are left for future research.

(masi) -ta -yoo(ni) politeness-past-sbj comp

'(I wish) My partner successfully escaped from the jail by dawn.'

Additionally, the prediction is that since there is no defectiveness in [+/- past] specification for T in the optative sentences, [- past] T allows both the simul-taneous reading and the future reading, unlike [- past]<sub>def</sub> T in the weak imperative sentences. This is actually the case, as shown below.

(22) (dooka) Mary-ga kyoositu-ni asu/ima i-(mas)-u
interjection -nom classroom-dat tomorrow/now be-politeness-nonpast
-yoo(ni)
-sbj comp

'I (wish) Mary be in the classroom now or Mary will be in the classroom tomorrow.'

These facts also support the analysis of the nonpast tense suffix.

Under this analysis, the distinction between independent and dependent tense observed in 4.2 is attributed to the degree of defectiveness of [- past] feature of T in subjunctive complements and to the general principle that the tense interpretation of a complement is given relative to the matrix event time (see 4.3). When the most defective nonpast tense (= type-ii [- past]<sub>def</sub>) appears in a complement, it always requires the strict simultaneous reading

relative to the matrix event time, as in the case of type-ii SC complement. A temporal adverb in the complement must not refer to some point of time that is contradictory to the (S, R) relation. A temporal adverb modifies E and/or R points. But it cannot change the tense structure already given (see Hornstein 19990: CH.1, for examples). When the less defective nonpast tense (= type-i [- past] def) appears in a complement, on the other hand, it always requests the future reading relative to the matrix event time, as in the OC and the type-i SC complement and the non-control complement headed by - *yoo(ni(to))*. A temporal adverb in the complement, then, may denote any point of time as long as it is later than the matrix event time. As a consequence, a specific feature such as [+/- independent] is not further needed (Cf. Alexiadou and Anagnostopoulou 1999).

This analysis also correctly predicts that nonpast stative predicates in the past group complements show ambiguity. Since predicates in this group of complements can be either [+ past] or [- past], the feature specification with respect to [+/- past] for T in this group is as complete as that for T in non-subjunctive clauses. Thus, the [- past] feature of T in the past group subjunctive complements (i.e., the complements of factive verbs and fiction verbs, except for a certain case noted in fn. 3) gives forth both a simultaneous

reading and a future reading. Consider the following example of a complement of the fiction verb *soozoos* 'imagine'.<sup>20</sup>

(23) kinoo-no Mary-ga [John-ga kyoositu-ni (asu) i-ru yesterday-gen -nom -nom classroom-dat (tomorrow) be-nonpast
-koto]-o soozoosi-ta -sbj comp-acc imagine-past

'Yesterday, Mary imagined that John was in the classroom (at the moment of her imagining)' or 'Yesterday, Mary imagined that John will be in the classroom (tomorrow/later than the moment of her imagining).'

Moreover, the proposed analysis naturally accounts for available interpretations for nonpast non-stative predicates in subjunctive complements. In a non-subjunctive clause, a nonpast non-stative predicate yields a future reading, but not a simultaneous reading, as shown in (24a) below. When it is in an embedded clause, as in (24b) below, the future interpretation is relative to the matrix event time, as usual.

(24) a. John-ga (asu) sono hon-o yom-u -nom tomorrow that book-acc read-nonpast

<sup>&</sup>lt;sup>20</sup> We omit an example of the other past group complement, factive complement, just for the sake of space. Although factive verbs typically take factive complements of which predicates are past, this is not a morphological restriction on the all factive verbs, as we have shown in 4.1 (See also note 37).

'John will read the book (tomorrow/in some future relative to the moment of speech).'

b. Context: Bill said, 'Well, who will read the book (tomorrow)?
Mary-ga [John-ga (asu) sono hon-o yom-u to] it-ta
-nom -nom tomorrow that book-acc read-nonpast comp say-pas
'Mary said that John will read the book (tomorrow/in some future relative to the moment of speech).'

In order to express that John's reading the book is taking place at the moment of speech, an aspectual morpheme must be added; the progressive suffix *-tei*, which expresses a continuous state of an event/action.<sup>21</sup>

(25) a. John-ga sono hon-o yon-dei-ru

-nom that book-acc read-prog-nonpast

'John is reading the book (at the moment of speech).'

b. Mary-ga [John-ga sono hon-o yon-dei-ru to] it-ta
-nom -nom that book-acc read-prog-nonpast comp say-past
'Mary said that John was reading the book (at the moment of her saying.)'

<sup>&</sup>lt;sup>21</sup> Here we are only concerned with the continuous reading for an event derived by the progressive morpheme *-tei*, putting aside other interpretations caused by this morpheme (such as continuation of a result from the event).

Now, Let us compare this with the case of non-subjunctive complements. Interestingly, a nonpast non-stative predicate in the type-ii SC complements is allowed to give a simultaneous reading even if it is not followed by the progressive suffix, as shown below.

(26) Mary-ga [e sono hon-o (\*asu) yom-u -koto]-o -nom that book-acc (tomorrw) read-nonpast-sbj comp-acc hajime/kokoromi-ta start/try-past

'Mary started/tried to read the book (\*tomorrow).'

The analysis given above quite naturally accounts for why it is the case.

Since T in this type of complement is the most defective [- past]<sub>def</sub>, i.e., the type-ii [- past]<sub>def</sub>, it automatically yields the simultaneous reading.

On the contrary, in the OC and type-i SC complements and the noncontrol -yoo(ni(to)) complements, a nonpast non-stative progressive predicate is never interpreted as simultaneous with the matrix event, but only as later than the matrix event time. A progressive form basically expresses a continuous state of an event at a certain point of time. Thus, if there is no temporal adverb to specify when the event continues (in the future), the sentence sounds odd. The following example of the type-i SC complement shows the point. (27) Mary-ga [e sono hon-o ??(asu gogo) yon-dei-ru -koto] -nom that book-acc (tomorrow afternoon) read-prog-nonpast-sbj comp

-o keikakusi/kime-ta

-acc plan/decide-past

'Mary planed/decided to being read the book tomorrow afternoon.'

This follows from our analysis. Since the nonpast tense in these types of complements is specified as the type-i [- past]  $_{def}$ , it only results in the future reading and is incompatible with the simultaneous reading that the nonpast non-stative progressive predicate originally has in the non-subjunctive context  $^{22}$ 

text.22

<sup>&</sup>lt;sup>22</sup> The remaining question is what feature is associated with a nonpast nonstative predicate. Since it yields the future reading, it might appear that the nonpast non-stative predicate is restricted to be the type-i [- past]<sub>def</sub>. We do not adopt such an assumption, however, since it is entirely unclear how the defectiveness in the [+/- past] feature is forced to co-occur only with the nonstative predicate even in non-subjunctive clauses.

Alternatively, I here suggest the following. It might be the case that some aspectual nature of the non-stative predicate causes the incompatibility with the simultaneous reading of [- past] T. For example, a non-stative predicate might express an incomplete event/action at a certain point of time, while a stative predicate denotes a complete state of affairs that holds over the time. Then, a definite point of time, i.e., S, cannot be associated with the event time, E, of the incomplete event/action, yielding no simultaneous reading. (Note that finer aspectual distinction does not matter here, such as durative vs. momentary. Non-stative predicates in Japanese all induce future interpretations.)

When the progressive suffix is added to the non-stative predicate, it introduces a time duration to R, and relates E to R. Even if the event/action denoted by the non-stative predicate expresses an incomplete state, it can obtain if a time duration/interval is given. Then, the nonpast progressive nonstative predicate allows the tense structure (S, R, E), hence, the simultaneous reading.

Finally, I present comments on generic/habitual readings of nonpast predicates. As has been observed in the previous chapter (see 3.2.2), and as is originally pointed out by Nakau (1973), even in the type-ii SC complements, which are usually interpreted as simultaneous with the matrix event, generic/habitual readings are available. Why is it the case? The answer is simple, actually. Notice that a generic reading is basically possible in all cases discussed so far. First of all, it is available for a nonpast stative predicate almost by definition, since a state of affairs naturally obtains over the time, not only at the time of utterance. Consider the following example.

(28) Context: Mary asked Bill to pick up someone among John, Sue, and David,

and to let her know anything about the person. Then, Bill said:

John-ga/wa<sup>23</sup> (mainiti/itumo) kyoositu-ni i-ru

The analysis is compatible with another reading of a non-stative progressive predicate, which we have not mentioned so far. It can be interpreted as denoting a future event if an appropriate adverb appears, just like the case of the OC and type-i SC subjunctive complement.

(i) Mary-ga sono hon-o ??(asu gogo) yon-dei-ru -nom that book-acc tomorrow afternoon read-prog-nonpast 'Mary will be reading the book tomorrow afternoon.'

That is, if only an adverb locates R (a time duration/interval) in the future, the sentence means a continuous state of a future (incomplete) event. I leave related questions for future study.

<sup>23</sup> Although the nominative-marked subject might sound less acceptable than the topic-marked subject in the generic reading at first glance, this is not relevant to the issue concerning availability of the generic reading. An appropriate focus/contrastive reading of the nominative subject cancels the slight oddness. Note also that the focus reading of the subject causes no problem with the generic reading of the sentence. -nom/top everyday/always classroom-dat be-nonpast 'John is in the classroom (everyday/always).'

This sentence has an interpretation such that John is habitually in the classroom (even without the adverb *mainiti/itumo* 'everyday/always' under such a context as shown above, where the sentence is an answer to a request such as 'Pick up someone (among people given in the context) for example, and tell me anything about the person', or simply 'Tell me about John.')

By the same token, the nonpast non-stative predicate in a nonsubjunctive clause allows the generic/habitual reading other than the future reading. (Suppose the same context as in (28) above, if it is difficult to get the generic reading).

(29) John-ga/wa (mainiti) hon-o yom-u -nom/top everyday book-acc read-nonpast

'John reads books (everyday).'

This sentence means that John is a well-read person. The generic/habitual reading is also available for a nonpast non-stative progressive predicate, in addition to the simultaneous reading.

(30) John-ga/wa (mainiti) hon-o yon-dei-ru -nom/top everyday book-acc read-prog-nonpast 177

'John reads books (everyday).'

The reading of (30) is same as that of (29).

Moreover, the generic/habitual interpretations are preserved in embedded clauses, as shown below.

(31) a. Mary-ga [John-ga/wa (mainiti) kyoositu-ni i-ru
 -nom -nom/top everyday classroom-dat be-nonpast
 to] it-ta
 comp say-past

'Mary said that John is in the classroom (everyday/generally).'

b. Mary-ga [John-ga/wa (mainiti) hon-o yom-u to] -nom -nom/top everyday book-acc read-nonpast comp

it -ta

say-past

'Mary said that John reads books (everyday/generally)'

b. Mary-ga [John-ga/wa (mainiti) hon-o yon-dei-ru to]
 -nom -nom/top everyday book-acc read-prog-nonpast comp
 it-ta

say-past

'Mary said that John reads books (everyday/generally)'

The compatibility of the generic reading and all of the types of nonpast predicates (whether they are stative or non-stative, whether they are progressive or not, and whether they are embedded or not) indicate that the generic reading is a sort of default interpretation. Slightly modifying Giorigi and Pianesi's (1997) analysis of generic readings of English eventive predicates, which adopts Chierchia's (1995) approach to generic and habitual sentences, I assume that the [+ finite] feature in Japanese is associated with the quantificational feature that induces the generic operator, *Gen.*<sup>24</sup> The generic operator *Gen* ranges over a certain reference time. The reference time is either a generic time that is simply introduced by the operator or a certain time interval that is specifically located by a given context. For example, the generic reading available for the following sentence *John-wa sake-o nom-u*, John-nom alcohol-acc drink-nonpast, 'John drinks', is such that for every generic time, there is an event of John's drinking. If the predicate of the sentence is past, an adverb such as *itinen-mae*, 'a year ago' is necessary to appear in the sentence to make reference to the time interval during which the genetic time is located.

This analysis naturally accounts for the original question, namely, the availability of generic/habitual readings in the subjunctive complements as

<sup>&</sup>lt;sup>24</sup> Girorgi and Pianesi originally propose that the categorial features [+ V, -N] in English are associated with the quantificational feature and the generic operator.

we have observed in 3.2.2.<sup>25</sup> Since the generic/habitual reading is given for [+ finite] T as a default interpretation, the most defective nonpast, i.e., the type-ii [- past<sub>def</sub>] is not an exception. Furthermore, as Giorgi and Pianesi argue, when the generic operator is induced in a sentence of the present tense (such as the type-ii SC complement), the event time does not need to be directly associated with the speech time any more (if it does, the simultaneous reading would be forced). This is because the speech time is a part of the generic time during which the event time is located generically many times, due to the quantification of *Gen*.

The following summarizes what we have observed so far.

<sup>&</sup>lt;sup>25</sup> Although relevant examples were not presented in 3.2.1, the generic/habitual interpretations are also possible for non-control type complements. The followings are examples of the factive complement.

<sup>(</sup>i) John-ga [Mary-ga sake-o nom-u koto]-ni kidui-ta -nom -nom alcohol-acc drink-nonpast sbj comp-dat notice-past 'John noticed that Mary drinks.'

<sup>(</sup>ii) John-ga [Mary-ga kyonen sake-o non-da koto]-ni kidui-ta -nom -nom last year alcohol-acc drink-past sbj comp-dat notice-past 'John noticed that Mary (habitually) drunk last year.'



In the next section, given the assumption concerning the mapping from specific tense features to their corresponding tense structures, I will point out a certain correlation between the tense features and the Case properties of subjects.<sup>26</sup>

(i) Taroo-wa kinoo [Hanako-ga ima Tookyoo-ni ir-u to] it-ta -top yesterday -nom now Tokyo-dat be-nonpast comp say-past
-yo. (ai-ni it-ta ra?) -interjection see-dat go-past if
'Taro said yesterday that Hanako is in Tokyo now. (Why don't you go see her?)

In this case, the complement is interpreted as not relative to the matrix event time, but to the matrix speech time. See Ogihara (1996: Ch.6) for a theoretical treatment of double-access readings in general and more discussions on relevant Japanese examples.

One might wonder whether the double-access reading is possible also in subjunctive complements. It seems to be the case, except for the type-ii SC complement, as shown in the following sentence, which is an example of the OC complement.

(ii) kinoo Mary-ga John<sub>i</sub>-ni [e<sub>i</sub> kyoositu-ni ima i-ru -yoo(ni(to)) yesterday -nom -dat classroom-dat now be-nonpast-sbj comp /koto-o] (arakajime) meeji-ta-yo (ai-ni it-ta ra?) sbj comp-acc 'in advance'order-past-interjection see-dat go-past if 'Yesterday Mary ordered John (in advance) that he should be in the class-room now (= at the moment of speech). (Why don't you go see her?)'

Since the event denoted by the complement is interpreted as being simultaneous with the matrix speech time, one might argue that this is a counterexample to our analysis according to which the nonpast predicate in the OC subjunctive complement as in (i) above, for example, should yield the future reading only. Although the temporal location of the complement is in the fu-

<sup>&</sup>lt;sup>26</sup> There is still another meaning for nonpast predicates in the embedded context, namely, what Ogihara (1996) calls 'double-access reading in Japanese', as in the following example (Ogihara 1996: p.240, 111):

## 4.5 Correlation Between Tense Features and The Case Properties for Subjects

In this section, I will argue that uninterpretable Case feature is checked between T and its subject quite independently of  $\phi$ -feature checking. It will be proposed, in particular, that Case features of *pro* and lexical NP/DP and Case features of PRO are checked by corresponding Case features of [+ tense] T and those of [- past]<sub>def</sub> T, respectively. In relation to the raising subjunctive complement, it will be demonstrated that raising out of CP is possible in principle, since C is allowed to select defective T, at least in Japanese, by presenting examples of raising out of non-subjunctive CP of which T is [- finite].

ture relative to the matrix event time, but is simultaneous with the matrix speech time.

It is suggested here that the double-access interpretations originate from entirely different grounds from those for the other normal cases. The most peculiar property of the double access reading is that it is interpreted relative to the matrix speech time, instead of the matrix event time. That is, we need a special procedure in order to introduce the matrix speech time when the temporal interpretation is assigned to the complement. Then, it might be assumed that such a special procedure is not concerned with the defectiveness of the [+/- past] features, but just with the distinction between [+ past] and [past], the latter which simply means that it does not precede the moment of speech (hence, may be simultaneous with it). Since this is only a speculation, the question is still open for future research.

The analysis to be discussed at the end of this section is reminiscent of Chomsky (1995) in that I also assume that not only NP/DP, but also T has uninterpretable Case feature. At the same time, I would like to suggest that Case need not be intrinsically valued for NP/DP and for T, but is determined by T's interpretable *tense* feature. That is. I will deny Chomsky's (1998. 1999) hypothesis that Case is a reflection of the completeness/defectiveness of T's  $\phi$ -feature set, whereas I will agree that Case is a reflection of the completeness/defectiveness of T's feature other than Case, and propose that the relevant feature is a tense feature in languages like Japanese.

In Chomsky (1998, 1999).  $\phi$ -feature agreement is implemented by the operation called 'Agree'. Furthermore, Case checking is assumed to be mediated by  $\phi$ -feature agreement between an appropriate head, e.g., T, and NP/DP. That is, it is the agreement property of T, hence, its  $\phi$ -feature property, that gives values of Case to its subject (let us here put aside the exact mechanism of Case/ $\phi$ -feature checking under this framework). T in Raising/ECM complements has a defective set of  $\phi$ -features, hence, unable to license any Case (let us call such T 'T<sub>def</sub>'). On the other hand, T in Control complements has a full set of  $\phi$ -features that is enough to license null Case for PRO (let us call such T 'T<sub>full</sub>'). This theory seems to fit well into languages showing both subject-agreement morphology on predicates and its relevance to Case licensing property of T (for example, Turkish. See discussion in George and Kornfilt 1981).

This view of Case checking, however, does not straightforwardly account for languages in which agreement morphology is irrelevant to availability of Case. For example, in a language like Japanese, since there is no visible  $\phi$ feature agreement, no morphological evidence for  $\phi$ -feature agreement is available for children. Furthermore, in a language like Modern Greek, where rich morphological  $\phi$ -feature agreement is observed, although finite predicates in subjunctive complements manifest full subject-agreement (the same morphology as in finite indicatives), nominative Case is not always available for subjects of subjunctive complements. That is, morphological  $\phi$ -feature agreement does not coincide with nominative Case licensing in some languages.<sup>27</sup>

<sup>&</sup>lt;sup>27</sup> Maintaining the mechanism of Case checking in terms of Chomsky (1998, 1999), one might argue that the null hypothesis is that  $\phi$ -features in a language like Japanese are just morphologically invisible and play the same role as visible  $\phi$ -features do (that is, there is abstract  $\phi$ -feature agreement even in the former type of language).

Although there is no empirical evidence denying this hypothesis in Japanese, it should be noted that, since children still need morphologically visible marking that helps them differentiating T with a full set of invisible  $\phi$ -features from one with a defective set, overt tense morphology (and its combination of modal markings), such as we discuss here, must be (a part of) the guideline for children even under this hypothesis.

Moreover, a language like Modern Greek poses a similar problem, since it shows no correlation between the rich overt  $\phi$ -feature morphology and the shape of Case. What is clear from the discussion above is, at least, that Case is a reflection of T's tense feature in some languages, for example, in Japanese. it might be suggested that what feature in T is most responsible for Case in a given language is determined by some parameter. See also brief discussion on this topic in 5.5.

It is thus quite reasonable to hypothesize that Case checking does not accompany  $\phi$ -feature agreement in such a language. The fact that Case licensing occurs in no relation with morphological  $\phi$ -feature agreement in these languages strongly suggests that the way of Case licensing without relying on morphological  $\phi$ -feature agreement must be available for natural languages without any special cost. Since the core property of T is obviously to specify the tense structure, we believe that intrinsic tense features are assumed to exist in every T without any stipulation. It has been indeed proposed that tense features directly license nominative Case in Modern Greek (Verlokosta 1994, Hornstein and Verlokosta 1996, and Alexiadou and Anagnostopoulou 1999).<sup>28</sup> The present study adds further support to an analysis of Case checking along this line.

Let us now examine which tense feature decides which Case, based on our observation of subjunctive complements. First, let us consider how nominative Case is checked in Japanese. The answer is easily found in the observation of the raising subjunctive complements made above. T in the raising subjunctive complement is more defective than the others. Even though the surface morphology is nonpast, its interpretation can be neither a simul-

<sup>&</sup>lt;sup>28</sup> Alexiadou and Anagnostopoulou (1999), for example, assume that nominative Case is available only when [+ independent] T is present in the structure. It has been shown above, however, that the [+/- independent] feature is not necessary, hence does no exist in T, at least in Japanese (see 4.2).

taneous reading nor a future reading. That is, T in the raising subjunctive complement has a certain tense feature specification so defective that it yields the limited interpretation. Let us investigate how the tense feature for T is specified in the raising subjunctive complement, and, then, ask how it is connected to its inability to license nominative Case.

First, observe the limited interpretations of T in the raising subjunctive complement, as shown by an example like the following:

(33) John<sub>i</sub>-ga [ t<sub>i</sub> kyoositu-ni i-ru -yooni] nar-(tei)-ru/-ta
-nom classroom-dat be-nonpast-subj comp happen-(prog)-nonpast/past
When the matrix predicate is *-na-ru* (future), 'It will happen (as a natural

result) that John will be in the class room;'

When it is *-nar-tei-ru* (simultaneous), 'It happens (as natural result) that John is in the classroom;'

When it is *-nar-ta* (past), 'It happened (as a natural result) that John was in the classroom.'

When the matrix predicate *-nar* is nonpast, it only receives a future reading (that is, *-nar* is non-stative). Then, the nonpast embedded predicate expresses some event that will be obtained as a natural result in the future relative to the matrix event time, which follows the matrix speech time. John's being in the classroom will happen as a natural consequence of the situation in the future. Second, when the matrix predicate is progressive, it has a si-

multaneous reading (that is, the present tense reading). The nonpast embedded predicate, then, denotes some event that obtains as a natural result at the matrix event time, which is identical to the matrix speech time. John's being in the classroom currently occurs at the present moment (i.e., the matrix speech time). Third, when the matrix predicate is past, the nonpast complement predicate denotes a state of result that had already been given from the situation by the matrix event time. John's being in the classroom, thus, had already obtained by the matrix event time, which precedes the matrix speech time in the past.

It should be noted that there is no ambiguity in all cases. These temporal interpretations of the raising complement obviously show that they are not subject to the general interpretive rule for T in subordinate clauses that an embedded T is interpreted as being relative to the matrix event time (as we have observed in 4.3). The raising subjunctive complements yield more restricted interpretations. That is, a nonpast predicate in the raising complement does not receive its intrinsic nonpast reading (such as future and simultaneous) relative to the matrix event time.<sup>29</sup> Its temporal interpretation crucially depends on the temporal interpretation of the matrix. The same property is exactly shared by non-tensed predicates in general, such as a

<sup>&</sup>lt;sup>29</sup> For example, if T in the raising complement is interpreted as relative to the matrix event time, the nonpast stative predicate in the complement should be ambiguous between the simultaneous reading and the future reading, as we have observed for the case of non-subjunctive complements in section 4.4.

bare verb followed by *-te*, as we have observed in 2.1.1. A relevant example is repeated below.

(34) John-wa kono hon-o kat-te ku-ru/ki-ta.
-top this book-acc buy-*te* come-nonpast/come-past
'John comes/came buy this book.'

The bare verb followed by *-te*, *kaw* 'buy', is interpreted as the past action when the higher verb is past, and as the future action when the higher verb is nonpast (the higher verb is non-stative).

Based on this similarity, it can be assumed that the nonpast predicate in the raising subjunctive complement is tense-less, i.e., [- tense]. This feature specification stands for inability of yielding its own tense structure. In my terms, [- tense] T determines no relation between S and R, so that any relation for the triplet of S, R, and E is not specified (since the default RE relation is impossible, either). This results in a no tense structure, hence, no temporal interpretation of its own.

The given S and R must be interpreted, however, due to the economy principle of Full Interpretation. The remaining possibility is to borrow specific values of S and R from something outside of the clause. The closest element that has some specific values for S and R is the next higher [+ tense] T. If there is one, its values are copied onto S and R of [- tense] T. Accordingly, the valued S and R are properly interpreted. That is, the S, R and E points in

the complement are interpreted as same as the S, R, and E points in the matrix. As a result, if the matrix is past, for example, the complement denotes an action in the same point in the past (not an action in the past relative to the matrix event/speech time). This is basically what happens in the raising subjunctive complement. The bare verbs followed by *-te*, on the other hand, are not only [- tense], but also [- finite], since it completely lacks any tense suffixes. If a form includes a tense suffix, it is [+ finite] and S and R points are assigned. Therefore, T in the raising subjunctive complement is assumed to be [+ finite, -tense].<sup>30</sup>

Interestingly, it very often happens that the raising complement receives a generic/habitual interpretation, as in the following example (and the example (33) above, too, actually).

(35) John<sub>i</sub>-ga [t<sub>i</sub> umi-de oyog-u -yooni] nat-ta
-nom sea-dat swim-nonpast-subj comp happen-past
'As a natural result from the situation, it has happened that John swims in the sea.'

Here, since the matrix is past, the sentence means that John's swimming in the sea obtained at the matrix event time in the past (note that it does not say anything about whether John's swimming in the sea obtains at the moment of

<sup>&</sup>lt;sup>30</sup> The case of [- finite] T will be discussed later.

speech). Moreover, John's swimming in the sea is interpreted as a habitual action. This fact indicates that, when T is [- tense], there is another way to have specific values for S and R. That is, the generic operator, *Gen*, is induced. As has been discussed based on Giorigi and Pianesi (1997) in the previous section. *Gen* determines R. which is some time duration/interval. and its relation with S (that is, S is a part of R). Although [- tense] T itself cannot specify the values of S and R, nor make any relation between them, *Gen* can do so instead of [- tense] T. This is possible, since the generic quantification is associated not only with [- past] T, but also with [- tense] T. That is, *Gen* can be associated with [+ finite] T in general.<sup>31</sup>

(i) John<sub>i</sub>-ga [t<sub>i</sub> kyoositu-ni (??kinoo-no gogo 5-ji 32-hun-ni) i-ru
 -nom classroom-dat yesterday-gen p.m. -o'clock -minute-dat be-nonpast
 -yooni] nar-ta

-sbj comp happen-past

If the adverb phrase 'yesterday, 5: 32 p.m.' appears, it fully specifies E of the event denoted by the complement (since the matrix is past, the E point specified is also in the past). The sentence sounds odd, however. If the adverb phrase disappears, the less acceptability is improved.

Although an analysis of this type of sentence in more detail is left for future study, I here suggest that the peculiar interpretive property of the raising

<sup>&</sup>lt;sup>31</sup> Actually, the generic/habitual reading seems to be always required for the raising subjunctive complement. That is, it might be the case that even if S and R in the raising complement inherit some specific values from those in the matrix, it is not sufficient in order to determine an SR relation. Rather, *Gen* must be induced to specify how the valued S is related with the valued R in the tense structure of the complement.

Here, we present the following examples, which might suggest that [-tense] T always need the generic quantification to determine a specific relation of S, R, and E.

<sup>&#</sup>x27;(lit.) it happened as a natural result that John was in the classroom (\*at yesterday, 5: 32 p.m.)'

By now it has been made quite clear to us that T in the raising subjunctive complement is [- tense]. Recall that the subjunctive complements other than the raising complement all allow overt nominative subjects as well as *pro* in principle (see discussion in 3.2.2), and that their T is able to refer to its own SR relation, even if it does so in a limited way (see 4.4). It is, therefore. safe to conclude that T in the non-raising subjunctive complements are [+ tense], and that [+ tense] is the feature responsible for nominative Case checking. It follows that the existence of a tense suffix, which implies the existence of [+ finite] T, is not a sufficient condition to license nominative Case. This analysis essentially follows Takezawa's (1987) hypothesis that nominative Case in Japanese depends on the existence of tense elements (as was briefly reviewed in 2.2). I have shown, furthermore, that the morphological finiteness (i.e., [+/- finite]) and the [+/- tense] feature specification should be distinguished from each other in Japanese, and that only the latter is connected to checking of nominative Case.

Moreover, what is interesting here is that raising for Case reason takes place out of CP. It has been reported in the literature that raising is possible out of subjunctive clauses (e.g., in Romanian and in Modern Greek, see Rivero1989, Grosu and Horvath 1984, Watanabe 1993b, and references cited there). The raising subjunctive complement in Japanese adds a piece

subjunctive complement should be accounted for in terms of its [- tense] property and its relation with the generic quantification.

of evidence that the category CP itself is not a problem of locality of Amovement. As is illustrated in (36) below, since the embedded T cannot license any Case, the NP/DP *John* must not stay within the complement. It must move out of the complement to the higher [+ tense] T, without violating any economy principles.



Watanabe (1993a, b) argues that the shape of C<sup>0</sup> and the inflectional system are closely connected. For example, in Romanian, Grosu and Horvath (1984) point out that raising out of the subjunctive complement is impossible when the subjunctive complementizer is present, as shown below (where  $\phi$ -feature agreement takes place also in the complement).

- (37) a. Toti doctorii s-au nimerit [(\*ca) sa fie de acord]
  all doctors-the refl-have-3pl happened Comp sbj-particle be-3 of agreement
  'All the doctors happened to agree with each other.'
  - b. S-a nimerit [ca doctori sa fie toti de acord] refl-have-3pl happened Comp all doctors-the sbj-particle be-3 of agreement

This fact reminds us of the absence of *-to* in the raising subjunctive complement in Japanese. If *-to* is the only member of the subjunctive complementizer, Watanabe's (1993a, 1993b) theory of Case, in which C plays a crucial role in Case checking of T in the complement clause, accounts for our case as well. Since I have assumed that *-yooni* is the subjunctive complementizer, however, the similarity between Japanese case and Romanian case, at least, is that lack of the clause subordinator (*-to* and *ca*) is most relevant to the possibility of raising out of subjunctive complements.<sup>32</sup>

In Chomsky (1998, 1999), it is assumed that C selects  $T_{full}$ , but not  $T_{def}$  in English.<sup>33</sup> Given this, it follows that control infinitive clauses are CP, whereas raising/ECM infinitive clauses are TP. Since raising out of control infinitivals

<sup>&</sup>lt;sup>32</sup> According to Watanabe (1993a, b), Romanian subjunctive clauses allow not only raising, but also null Case for subjects. Alexidou and Anagnostopoulou (1999) independently argues that Modern Greek subjunctive complements also allow both control and raising (the subjunctive marker in Modern Greek *-na* has been also assumed to be a part of the inflectional system, but not a complementizer, see, for example, Ingria 1981 and Terzi 1992 and references cited there). Our observation for Japanese suggests that the Case licensing property of T in subjunctive clauses is shared by languages, supporting Watanabe.

<sup>&</sup>lt;sup>33</sup> Chomsky (1999, (5)) claims that C selects  $T_{comp}$  (= what we call  $T_{full}$ ); V selects  $T_{def}$ . As we have observed, such a selectional restriction cannot be maintained, at least in Japanese, on empirical grounds. Note that if the completeness of T is evaluated only in terms of  $\phi$ -features, the generalization might be hold as it is. In that case, it might be possible to maintain that the entire lack of  $\phi$ -features as in Japanese means the completeness of  $\phi$ -feature, since C is able to select T whether T is defective in its tense feature or not.

is prohibited, this assumption seems to confirm that there is no raising out of CP in general. The assumption concerning selectional restrictions is compatible with Watanabe's suggestion that the presence of C determines the possibility of raising out of a clause. As we have pointed out above, however, raising out of CP is possible, because C sometimes takes defective T that cannot license Case for its subject. That is, the selectional property of C and the Case licensing property of T are not as strongly correlated as expected.

This is an empirical issue. There is another piece of evidence that C indeed selects defective T not only in subjunctive complements, but also in non-subjunctive complements, in Japanese. That is, the clause subordinator *-to* selects a clause headed by [-finite] T, out of which a nominative subject is raised to the matrix. In this construction, the complement predicate with [- finite] T is marked by a particular suffix, which is -(y)oo,<sup>34</sup> as in the following example.

(38) Maryi-ga masani sono toki [ei heya -o de-(\*u/\*ta) -yoo -nom exactly that time room-acc go out-(nonpast/past)-future
to ] si-ta comp do-past

<sup>&</sup>lt;sup>34</sup> This suffix, -(y)oo, has nothing to do with the subjunctive complementizer -yoo. That is, they are unrelated morphemes. First, -(y)oo and -yoo are attached to entirely different categories. Second, the first consonant of -(y)oo must be deleted when a verb stem ends with a consonant. No such phonological rule is applicable to -yoo.

'Mary was about to/intended to go out of the room exactly at that time.'

This sentence is ambiguous, as the English translation shows. The two readings are derived from the two distinct suffixes, actually. The volitional reading is due to the volitional suffix -(y)oo. as shown below.

## (39) watasi-ga sore-o si-yoo

I-nom it-acc do-volitional

'I shall/will do it.' (but not 'it will be the case that I do it.'35)

Here the focus is on the other reading of (38), which is interpreted as 'be about to'. Let us refer to the reading as 'the near future reading' and to the suffix -(y)oo as 'the near future suffix'. Since the embedded clause in (38) is followed by *-to*. the embedded clause in which the near future suffix occurs is naturally assumed to be CP.

The tense property of the embedded predicate followed by the near future suffix is as follows. The embedded predicate, *de-yoo*, consists of the bare verb form, *de*, plus the near future suffix. Notice that neither the nonpast suffix nor the past suffix appears in the embedded predicate, and that the bare verb form is exactly the same as the one appearing in the *-te* forms dis-

<sup>&</sup>lt;sup>35</sup> The suffix *-daroo* is used to express the relevant meaning, which follows the nonpast suffix -(r)u.

cussed above. This verb morphology evidently indicates that a predicate with the near future suffix is non-tensed. That is, the complementizer *-to* takes the non-tensed clause as its complement.

The non-tensed status of the predicate with the near future suffix is sup-

ported by the fact that it cannot appear in a main clause contrary to the case

of the volitional suffix, as shown below.<sup>36</sup>

(i) a. (?)kyuukoo-ga kono hoomu-ni toochyakusi-yoo express train-nom this platform-dat arrive-prediction 'The express train will arrive at this platform.'

b. (?)moosugu ame-ga hur-oo soon rain-nom fall-prediction 'It will rain soon.'

This use of -(y)oo is significantly different from the near future suffix, however, since the examples in (i) clearly express the speaker's inference in addition to an event in the future. They cannot be paraphrased such as 'the express train is about to arrive/is arriving at the platform soon.' Actually, the example in (39) also seems possible when it is interpreted such as 'I infer that Mary will go out of the room, ' (although it sounds extremely archaic and marginal).

I assume that this instance of -(y)oo is derived from the volitional suffix -(y)oo, both which commonly express the speaker's epistemic or root modality. When the subject is identical to the speaker, it expresses the root modality (i.e., the speaker's volition). When it is not the speaker, but someone or something else, it cannot express the speaker's volition, but the speaker's inference. It should be noted that the near future suffix at issue has nothing to do with the speaker's inference, but denotes an event that is going on to happen.

<sup>&</sup>lt;sup>36</sup> The matrix use of the near future suffix, -(y)oo, seems marginally possible in a clause of which subject is inanimate, as in the following examples (although they sound very archaic):

(34) \*Mary-ga ima masani heya-o de-yoo
 -nom now exactly room-acc go out-near future
 'Mary is about to go out of the room exactly now.'

A predicate with the future suffix is [- finite], hence, unable to license nominative Case for its subject. Given this, in (37) above, the embedded clause is CP and the embedded T is [- finite]. It follows that the embedded subject in (38) is raised up to the matrix subject position for Case reason.

As is naturally expected, an inanimate subject, which is not assumed to be a proper controller of PRO, can be a subject of this construction. Furthermore, an idiom chunk may appear in this construction. The example in (40ab) below indicates the point.

(41) a. tenkoo<sub>i</sub>-ga masani sono toki [t<sub>i</sub> kawar-oo to] si-ta.
 weather-nom exactly that time change-near future comp do-past

- '(Lit.) The weather was about to change exactly at that time.'
- (Cf. \*tenkoo<sub>i</sub>-ga masani sono toki kawar-oo weather-nom exactly that time change-near future)
- b. <u>siraha-no yai-ga</u> masani sono toki [ t<sub>i</sub> <u>Mary-ni tat</u>-oo 'white feather'-gen arrow-nom exactly that time -dat shoot-near future

to] si-ta comp do-past 'Mary was about to be nominated exactly at that time.'

Thus, this is an instance of raising out of non-subjunctive CP, in which C takes defective T, namely, [- finite] T.

Before discussing how [+/- finite] feature is connected to nominative Case feature, we should make sure that raising as in (41) takes place in a complex sentence, but not in a reduced simple sentence. One might claim, for example, that the sequence of  $V_{bare}$ -(y)oo-to-su-ru/ta, V-near future-comp-do-tense, 'is/was about to V' syntactically constitutes a complex predicate, so that the complement CP as in (41) undergoes the so-called restructuring and is reduced to a single main clause. If such a restructuring actually takes place, there should be no raising across the clausal boundary. A potential reason to take such a view is the fact that the main verb selecting this type of non-subjunctive non-finite CP is limited to the verb -su 'do'. This verb seems to be the same one as the so-called light verb. The light verb -su is assumed to form a complex predicate together with its complement at LF, as shown in (42b) below (Saito and Hoshi 1994).

(42) a. John-ga Mary-kara [v [NP hooseki-no ryakudatu-o] [v si]]-ta -nom Mary-from jewelry-gen plunder-acc do-past
'John stole jewelry form Mary.'

b. LF:[v [NP hooseki-no ti ] [v [Nryakudatu-o]i [v su]]]

According to Saito and Hoshi (1994), the light verb construction involves LF head-movement. That is, the head noun such as *ryakudatu* 'plunder' is incorporated into the supporting light verb *su* 'do' at LF.

In what follows, I will show that the complex verb formation at LF does not take place in the case of the near future suffix and the verb *-su*. First, it has been proposed that head-movement across CP, e.g., V-I-C-V-I, is theoretically excluded as an instance of improper movement (Boskovic 1994, Li 1990, Sakai 1996). Second, a piece of evidence actually indicates that there is no LF verb movement across the [- finite] complement CP at issue. The example in (43) below shows a WCO violation involved in this construction.

(43) ?\*Mary<sub>i</sub>-ga [soitu<sub>j</sub>-ga tyoodo araware-ta toki] [t<sub>i</sub> dare<sub>j</sub>-ni -nom `the guy'-nom just appear-past time who-dat hanasikake -yoo to ] si-tei-ta-no? `talk to'-near future comp do-prog-past-Q

'Whom<sub>j</sub> was Mary about to talk to t<sub>j</sub> when he<sub>j</sub> just appeared?'

The pronoun *soitu* 'guy' in the adverbial CP is bound by *dare* 'who' in the complement CP where the future suffix appears. If the [- finite] CP is scrambled over the adverbial clause, the ungrammaticality due to the WCO violation disappears, as observed in the example in (43) below.
(44) Mary<sub>i</sub>-ga [t<sub>i</sub> dare<sub>j</sub>-ni hanasikake-yoo to ]<sub>k</sub> [ soitu<sub>j</sub>-ga tyoodo -nom who-dat 'talk-to'-near future comp 'the guy'-nom just
 araware-ta toki] t<sub>k</sub> si-tei-ta-no?
 appear-past time do-prog-past-Q

Here, the scrambled [- finite] complement CP is in an A-position, hence, does not undergo LF-undoing of A'-scrambling (Saito 1992). Otherwise, the sentence would indicate the same degree of unacceptability as the sentence of a WCO violation as in (43) above.

In this LF configuration, the [- finite] complement CP is in some adjunct position that is not adjacent to the main verb. Wherever it is, a piece of evidence to be presented below shows that head movement is impossible out of such an A-scrambled domain at LF. Consider the following example of a WCO violation in which a complex predicate formed by -*su* 'do' appears.

(45) ?\*John-ga soitu<sub>i</sub>-no-ie-kara [NP dare<sub>i</sub>-no takara-no ryakudatu-o] -nom guy-gen-house-from who-gen treasure-gen plunder-acc si-ta no? do-past Q

'\*Whose<sub>i</sub> treasure did John plunder from his<sub>i</sub> house.'

Here, the bound pronoun *soitu* 'guy' is not c-commanded by the bracketed NP in which the wh-phrase *dare* 'who' appears. If the bracketed NP is A-

scrambled over the bound pronoun, then, it is predicted that the WCO violation is cancelled, just like the case of the A-scrambled [-finite] complement CP in (44) above. Compare (45) with the following example.

(46) ?\*John-ga [NP darei-no takara-no ryakudatu-oj] soitui-no-ie-kara tj -nom who-gen treasure-gen plunder-acc guy-gen-house-from si-ta no? do-past Q

Interestingly enough, even after the bracketed NP containing the wh-phrase *dare* 'who' is scrambled to the left of the phrase containing pronoun *soitu* 'guy', the whole sentence does not show any improvement in the grammaticality. The unacceptability implies the following. If the scrambled NP is A'scrambled, it is reconstructed to the original position. The head noun within the bracketed NP undergoes incorporation from its original position, yielding the configuration of the WCO violation same as in (45) at LF. On the other hand, if the bracketed NP is A-scrambled, it remains at its scrambled position at LF. Suppose that the head noun *ryakudatu* 'plunder' is raised out of the Ascrambled NP up to the light verb. Since no WCO configuration is obtained there, we expect that the sentence should be grammatical, contrary to the fact. It, thus, follows that, if the NP is in an A-scrambled position, the head noun, *ryakudatu* 'plunder', cannot move to the light verb *su* 'do'. Consequently, It is safe to conclude that a head contained within an A-scrambled phrase cannot be moved out of the phrase at LF.

Given this, returning to our discussion on raising out of the [- finite] CP, as in (44), which is repeated in (47a) below, we can now safely assume that no head movement takes place out of the A-scrambled complement CP at LF. Furthermore, the example in (47b) below indicates that raising is possible out of the CP complement A-scrambled in the same way.

(47) a. Maryi-ga [ti tyoodo darej-ni hanasikake-yoo to ]k [soituj-ga -nom just who-dat 'talk-to'-near future comp 'the guy'-nom araware-ta toki] tk si-tei-ta-no?
 appear-past time do-prog-past-Q

'Whom<sub>j</sub> was Mary about to talk to t<sub>j</sub> when he<sub>j</sub> just appeared?'

b. <u>siraha-no yai-ga</u> masani sono toki [ t<sub>i</sub> <u>darei-ni tat</u>-oo 'white feather'-gen arrow-nom exactly that time -dat shoot-near fu-

ture

to]<sub>k</sub> [soitu<sub>j</sub>-ga araware-ta toki] t<sub>k</sub> si-ta-no? comp 'the guy'-nom appear-past time do-past-Q '<u>Who<sub>i</sub></u> was about to <u>be nominated</u> exactly at that time when he<sub>j</sub> appeard?'

It is, therefore, obvious that the sequence of  $V_{bare}(y)oo-to-su-ru/ta$ , V-near future-comp-do-tense, does not undergo LF head movement out of the [- finite] CP complement to form a complex predicate, and that the subject of the

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predicate followed by the near future suffix -(y)oo is actually raised out of the CP complement. So far our discussion on raising out of CP has clearly suggested that nominative Case of an embedded subject C is directly determined by T, and C is basically allowed to select defective T, whether the clause is subjunctive or not, at least in Japanese.

Now, let us turn to the question as to how null Case for PRO in subjunctive complements is checked. This case is fairly simple. Recall again that an empty subject of the control type complement and of the non-control type headed by *-yoo(ni(to))* can be either nominative NP, *pro*, or PRO (see 3.2 & 3. 3), and that they all belong to the non-past group (see 4.1). The *pro* and lexical subject is licensed by [+ tense], as I have argued above. It is, thus, assumed that the necessary tense feature for licensing null Case shared by this group is the defective tense feature in [- past]. In other words, the type-i and type-ii [- past]<sub>def</sub> both allow null Case for PRO.<sup>37</sup> Since [+/- past] feature

<sup>&</sup>lt;sup>37</sup> As was briefly discussed in note 3, there might be a case in which [+ past] is defective. That is, it seems that the factive complement of the true factive verbs such as *kookaisu* 'regret' is limited to be past. If this is actually the case, it might be assumed that T in this type of complement is [+ past]<sub>def</sub>, since the value is always fixed as -. This defectiveness in [+ past] cannot license null Case for PRO, however (recall that this type of complement does not show the PRO gate effect). The hypothesis proposed here might suggest that the necessary condition on licensing null Case is some [- past] feature, but not the defectiveness of some feature.

However, the hypothetical defectiveness in [+ past] is not clear on empirical grounds, if an example like the following is fully acceptable (which is actually my judgment).

<sup>(</sup>i) Taro<sub>i</sub>-wa [jibun<sub>i</sub>-ga hanzai-o okasi-te-i-<u>ru</u> -koto]-o kookaisi-ta -top [ -nom crime-acc commit-*te*-prog-<u>nonpast</u>-sbj comp]-acc regret-past

accompanies [+ tense], it naturally follows that [+ tense] and [- past]<sub>def</sub> T permits both nominative Case and null Case. In other words, the compatibility of nominative Case and null Case in the same context is naturally captured by the [+ tense] feature shared by both T.<sup>38</sup> Furthermore, it is naturally predicted that there is no T both allowing raising of subjects and PRO subjects, since raising takes place only if T is [- tense], and if T is [- tense], there is no intrinsic [+/- past] specification to begin with.

So far I have not clearly indicated whether these tense features of T directly check relevant Case features of NP/DP, or they just reflect Case features of T itself that checks NP/DP's Case feature. I finally give some discussions on this issue. Under Chomsky's (1995) framework, T's Case feature is assumed in addition to T's tense feature. The difference is in that the former is uninterpretable, but the latter is interpretable. Uninterpretable features must be checked and deleted by LF. The uninterpretable Case feature of T is assumed to exclude a configuration as in the following:

'Taro regretted that he was committing a crime.'

More theoretical and empirical discussions should be given on this topic.

<sup>&</sup>lt;sup>38</sup> One might wonder why [+ tense] T in English infinitival complements does not license both nominative and null Case, but only the latter. It differs from [+ tense] T in Japanese in one important respect; finiteness. In English, [+ finite] (hence, [+ tense]) T licenses nominative Case, while [- finite, + tense] T allows null Case. It follows that both nominative Case and null Case are never permitted by the same instance of T.

If T (in the lower clause as well as in the matrix) has no uninterpretable (Case) feature other than  $\phi$ -feature, there should be nothing wrong with this structure (see Chomsky 1995).<sup>39</sup> Even if raising out of a finite clause (such as a subjunctive clause) is allowed in some languages, as we have briefly discussed above, Case feature of the raised NP/DP is always checked at the higher T, but not at both. That is, in such a case, only the higher T, but not the lower T, is assumed to have the uninterpretable Case feature. Following this view of Case checking between T and NP/DP, it can be assumed that NP/DP's uninterpretable Case feature must enter into a checking relation with T's uninterpretable Case feature.

There is no necessity to assume T's uninterpretable Nominative Case feature and so on, however. Following the core idea of Chomsky's (1999) theory of Case checking and  $\phi$ -feature agreement, I would like to suggest the following. It suffices to assume that each different value of T's tense feature automatically determines its corresponding value of T's Case feature. Then, an agreement relation between T and NP/DP is established in terms of the

<sup>&</sup>lt;sup>39</sup> If the matrix T is infinitive, such a configuration is barred for selectional reasons (Chomsky 1995; p.284). In Chomsky (1998, 1999), on the other hand, no similar account is adopted, but a new assumption so-called 'activation' explains the impossibility of raising out of a finite clause (of which T has the ability of Case checking). Here, we will not discuss details of the mechanism in Chomsky (1998, 1999).

same kind of feature, i.e., Case feature, even if there is no φ-feature. Only T has its specific value, and NP/DP receives the value by virtue of the agreement relation. That is, T's Case feature assigns the same value to NP/DP's Case feature. In this view, Case feature of NP/DP reflects the completeness or defectiveness of T's tense feature, which is exactly the state of affairs that we would like to capture theoretically.<sup>40</sup> I leave for future research related issues concerning a more specific mechanism by which Case feature checking is operated in the Minimalist Program.<sup>41</sup>

Relevant theoretical details is left for future research.

<sup>&</sup>lt;sup>40</sup> Under this view of Case checking, Chomsky's (1988, 1999) operation called 'Agree' might also work only with minimal modification of the theory. That is, if only uninterpretable Case feature is admitted for T, since Case features of T and NP/DP are uninterpretable, both are active and visible to the syntactic computation. Then, Agree takes place based on Match between them, causing necessary checking and deletion of them.

Alternatively, as suggested by Hisatsugu Kitahara (p.c), it might be assumed that while Agree takes place between T and NP/DP in terms of  $\phi$ -feature just like the case of English, the value of NP/DP's Case feature is directly determined by the value of T's tense feature.

<sup>&</sup>lt;sup>41</sup> For example, I here suggest the following under Chomsky's (1998, 1999) mechanism. The hypothesis of derivation by phases, which will be discussed in the next chapter, might function as a principle to exclude the configuration as in (48) in which raising takes place out of a finite CP in English, without assuming Case feature of T in addition to its intrinsic Case feature. Under the definitions relevant to (strong) phases in Chomsky (1999), it is not possible to rule out (48) as a violation of the Phase Impenetrability Condition (PIC) (for the definition, see 5.2). On the other hand, those in Chomsky (1998) rule out as a PIC violation. The difference between them is concerning whether evaluation of a strong phase is put off by the next strong phase level. If it is, as in Chomsky (1999), TP above CP in (48) does not belong to the next higher strong phase level, and any syntactic operation around T in the higher TP above CP can 'look' into the inside of CP. If Chomsky (1998)'s definitions are assumed, on the contrary, any syntactic operation around T cannot 'look'

The following is a summary of what I have argued in this section.

I leave further discussion on this topic for future research.

into the inside of CP because of its phase status and the PIC. Thus, we need the previous version of the theory to rule out the improper raising as in (48) in terms of the PIC.

Even under Chomsky's (1999) definition, a similar analysis might work, if the theory of phase to be proposed in the next chapter is assumed. That is, as will be discussed in 5.2, the proposed definition of strong phase refers to T's intrinsic ability of valuing unvalued features such as Case feature. Then, even if no uninterpretable Case feature is the theory, the illicit raising in (48) is excluded, since CP with  $T_{comp}$  counts as a strong phase and the PIC prohibits to apply any syntactic operation into a strong phase after the phase is handed over to PF.

(49) Summary of 4.4/4.5

Types of complements (see Ch.2 &3)		T (see 4.5)	Case for Subjects (see 3.2.2)
Raising		[+ finite, - tense]	no
-yooni		(no nonpast reading)	
Control type			
type-i SC		[+ tense], type-i [- past] <sub>def</sub>	Nom, null
-yoo(ni), koto		(simultaneous reading)	
	Nonpast		
-yoo(ni(to)), koto	group	[+ tense], type-ii [- past] <sub>d</sub>	<sub>lef</sub> Nom, null
oc		(future reading)	
-yoo(ni(to)), koto		[+ tense], type-ii [- past] <sub>d</sub>	<sub>lef</sub> Nom, null
		(future reading)	
Non-control type			
-yoo(ni(to))		[+ tense], type-ii [- past] <sub>de</sub>	ef Nom, null
		(future reading)	
	Past		
-koto	group	[+/- past]	Nom
	(1	both readings, when [- pas	t])

### Chapter V

# Locality of A-scrambling, Phase of Derivation, and L-relatedness of CP Spec

As was briefly observed in Chapter 1, long-distance A-scrambling is possible out of subjunctive complements, but not out of non-subjunctive complements, even though both are finite CP complements introduced by the overt complementizers (Cf. Nemoto 1993a, 1993b). This chapter provides our answer to the question of how long-distance A-scrambling is allowed to take place only out of subjunctive CP complements. In section 5.1, data of long-distance A-scrambling out of subjunctive complements will be given. Interestingly, it does not matter whether embedded subjects are empty as in the control-type complements, or lexical as in the non-control type.

Section 5.2 presents two analyses of long-distance A-scrambling out of subjunctive complements, in which special attention will be paid to the question how an A-scrambled element escapes from the complement CP without violating the ban on improper movement (Chomsky 1991, Chomsky and Lasnik 1993). One analysis explains the case of the subjunctive complements in which defective T appears, namely, the non-past group. The other accounts for the case of the non-control complements headed by *-koto*.

First, in section 5.2.1, I will argue that defective T in the subjunctive complements plays a crucial role in allowing long-distance A-scrambling. Chomsky (1998, 1999) hypothesizes that a derivation by the syntactic computation cyclically proceeds by strong phases. A strong phase is assumed to be a domain in which a complete thematic relation or proposition is realized, i.e., vP and CP. To put it roughly, once the derivation reaches a domain corresponding to a strong phase, the domain converges and is handed over to PF by application of the operation, Spell-Out. After Spell-Out, the domain is inaccessible to further syntactic operations from outside except for its edge, i.e., its Spec (the Phase Impenetrability Condition, PIC). I will propose that CP with defective T does not count as a strong phase. Since defective T appears in the non-past group of subjunctive CP complement, they are exempt from the effect of the PIC. That is, an element within the CP complement of this group is visible from outside even if it is not located in the Spec of CP.

Second, in section 5.2.2, I will deal with long-distance A-scrambling out of the non-control type subjunctive complements headed by *-koto*. Since this type belongs to the past group, embedded T is not defective, but complete. It will be posited that A-scrambling out of this type of complement may utilizes the Spec of the subjunctive complementizer, *-koto*, as an escape hatch for an intermediate A-position. The A-property of the Spec of *-koto* is naturally derived from the distinctive nominal property of *-koto*, which has already been observed in detail in Chapter 2 (see 2.2.2).

In 5.3 and 5.4, it will be pointed out that long-distance A-scrambling out of subjunctive complements cannot be accounted for by previous approaches. First, Saito (1992) relies on V-to-I movement in order to regard an IP adjoined position created by scrambling as an A- (or L-related) position. I will show, however, that there is no verb movement out of subjunctive complements, even when long-distance A-scrambling out of subjunctive complements successfully takes place. Second, it has been argued in the literature that scrambling is A'-movement and that the A-/A' property of a position created by scrambling is determined independently from scrambling as an A'movement (see Saito 1992 among others). It has been also claimed that Aand A'-scrambling are movement of the same kind, since they interact with each other in a certain way that can be captured by the Minimal Link Condition (MLC) (Chomsky 1993, 1994, 1995) (for example, Oishi, Kikuchi and Yusa 1996, Oka 1996). I will suggest that the Proper Binding Condition (PBC) independently excludes the cases allegedly accounted for by the MLC. It will be shown that the PBC is necessary to rule out an unbound trace of a raising subject in the [- finite] CP complement discussed in Chapter 4 that causes severe ungrammaticality of the sentence. In 5.5, concluding remarks will be given.

### 5.1 Data: Long-Distance A-scrambling out of Subjunctive Complements

This section presents several pieces of evidence that subjunctive complements indeed allow long-distance A-scrambling. In section 5.1.1, it is shown that an element scrambled out of subjunctive complements can bind a reciprocal anaphor in the matrix. In section 5.1.2, scope interpretations are examined: a quantificational phrase scrambled out of subjunctive complements can have wide scope over another quantificational phrase in the matrix. In section 5.1.3, we observe that scrambling out of subjunctive complements remedy WCO violations. The data demonstrate that long-distance Ascrambling out of subjunctive complements is possible whether the complement is headed by -*yoo(ni(to))* or by *-koto-o*, whether the complement is control type or non-control type, whether it belongs to the non-past group or the past group.<sup>1</sup>

#### 5.1.1 Reciprocal anaphor binding

The reciprocal anaphor *otagai* 'each other' requires to be locally A-bound, as shown in (1a) below. As is also pointed out by Nemoto (1993a, b) and Uhichibori (1997), in the b-examples in (2-6) below, the complement object *karera-o* 'they' is scrambled out of the subjunctive complement to the clause

<sup>&</sup>lt;sup>1</sup> In connection to the possibility of A-scrambling, the examples given in Appendix 2 shows that long-distance anaphor binding and long-distance negative polarity item licensing are also permitted in subjunctive complements. Although not giving an analysis of those data, I expect that the analysis proposed in the text covers them uniformly. For example, if anaphors and NPIs are assumed to undergo A-movement to be licensed at LF, the locality observed in Appendix 2 might be accounted for by the same mechanism proposed in section 5.2.1 and 5.2.2. The analysis along this line is left for future research.

initial position of the matrix, and licenses the matrix subject *otagai-ga* 'each other' at the scrambled position. This fact implies that long-distance scrambling of the complement object in these examples is an instance of A-scrambling.

Non-subjunctive complement

- (1) a. ?\*otagai<sub>i</sub>-no sensei-ga [John-ga karera<sub>i</sub>-o hihans-ita to] it-ta each-other-gen teacher-nom -nom they-acc criticize-past comp say-past
   '\*Each other's teacher said that John criticized them.'
  - b. ?\*karera<sub>i</sub>-o [otagai<sub>i</sub>-no sensei-ga [John-ga t<sub>i</sub> hihans-ita to] it-ta teacher-acc each other-gen teacher-nom -nom criticize-past comp say-past
    '\*Them, each other's teacher said that John criticized.'

Control type subjunctive complements

#### Nemoto (1993a)

(2) a. ?\*otagai<sub>i</sub>-no sensei-ga John<sub>j</sub>-ni [e<sub>j</sub> karera<sub>i</sub>-o hihansu-ru -yoo(-ni(-to))] each-other-gen teacher-nom -dat they-acc criticize-nonpast-sbj comp it-ta tell-past

'\*Each other's teacher told John to criticize them.'

b. ?karera<sub>i</sub>-o [otagai<sub>i</sub>-no sensei-ga John<sub>j</sub>-ni [e<sub>j</sub> t<sub>i</sub> hihans-uru -yoo(-ni(-to))] they-acc each other-gen teacher-nom -dat criticize-nonpast-subj comp

it-ta

tell-past

'\*Them, each other's teacher told John to criticize.'

#### Nemoto (1993b)

 (3) a. ?\*otagai<sub>i</sub>-no sensei-ga John<sub>j</sub>-ni [e<sub>j</sub> karera<sub>i</sub>-o hihansu-ru each-other-gen teacher-nom -dat they-acc criticize-nonpast koto]-o meiji-ta sbj. comp-acc order-past

\*\*Each other's teacher ordered John that they (should) criticize them."

b. ?karera<sub>i</sub>-o [otagai<sub>i</sub>-no sensei-ga John<sub>j</sub>-ni [e<sub>j</sub> t<sub>i</sub> hihansu-ru they-acc each-other-gen teacher-nom -dat criticize-nonpast koto]-o meiji-ta sbj comp-acc order-past

'\*Them, each other's teacher ordered John that they (should) criticize.

Non-Control type subjunctive complements

- (4b, 5b): Uchibori (1997)
- (4) a. ?\*otagai<sub>i</sub>-no sensei-ga [ koochoo-ga karera<sub>i</sub>-o suisensu-ru each-other-gen teacher-nom principal-nom they-acc recommend-nonpast

-yoo(ni(-to))] negat-ta

-sbj comp wish-past

'\*Each other's teacher wished that the principal recommended them.'

 b. ?karera<sub>i</sub>-o [otagai<sub>i</sub>-no sensei-ga [ koochoo-ga t<sub>i</sub> suisensu-ru they-acc each-other-gen teacher-nom principal-nom recommend-nonpast-yoo(ni(-to))] negat-ta
 -sbj comp wish-past

"Them, each other's teacher wished that the principal recommended."

(5) a. ?\*otagai<sub>i</sub>-no sensei-ga [ koochoo-ga karera<sub>i</sub>-o suisensu -ru each-other-gen teacher-nom principal-nom they-acc recommend-nonpast

> koto]-o nega-ta sbj comp-acc wish-past

'\*Each other's teacher wished that the principal would recommend them.'

b. karera<sub>i</sub>-o [otagai<sub>i</sub>-no sensei-ga [ koochoo-ga t<sub>i</sub> suisensu-ru they-acc each-other-gen teacher-nom principal-nom recommend-nonpast

koto]-o nega-ta sbj comp-acc wish-past

"Them, each other's teacher wished that the principal would recommended'

(6) a. ?\*otagai<sub>i</sub>-no sensei-ga [ koochoo-ga karera<sub>i</sub>-o suisensi -ta each-other-gen teacher-nom principal-nom they-acc recommend-past

koto]-o wasure-ta/yorokon-da

sbj comp-acc forget-past/'be glad'-past

'\*Each other's teacher forgot/were glad that the principal had recommend them.'

b. karera<sub>i</sub>-o [otagai<sub>i</sub>-no sensei-ga [ koochoo-ga t<sub>i</sub> suisensi-ta they-acc each-other-gen teacher-nom principal-nom recommend-past

koto]-o wasure-ta/yorokon-da sbj comp-acc forget-past/`be glad`-past

'\*Them, each other's teacher forgot/were glad that the principal had

#### 4.1.2 Scope Interaction

in Japanese, when two quantifiers such as *someone* and *everyone* appear in a sentence, the scope relation of the quantifiers is determined by the surface word order (Kuroda 1971). In (7a) below, the subject *dareka* 'some-one' takes wide scope over the object *daremo* 'everyone'. As is pointed out by Kuroda (1971), if the object quantifier undergoes clause-internal scrambling, the sentence becomes ambiguous with respect to the scope interpretation. That is, a wide scope reading of the object quantifier becomes available. The fact implies that the scrambled object quantifier stays at the scrambled position at LF, in which it c-commands the subject quantifier and takes wide scope. Since the c-command relation obtains at LF, it is naturally assumed that clause-internal scrambling can be A-scrambling that is not assumed to undergo reconstruction.

(7) a. dareka-ga daremo-o hihansi-ta (\*Every > Some) someone-nom everyone-acc criticize-past

'Someone criticized everyone.'

b.daremo-o dareka-ga hihansi-ta (Every > Some)

The data concerning anaphor binding shown in 4.1.1 indicate that longdistance A-scrambling out of a non-subjunctive tensed complement is impossible. Thus, it is naturally to be the case that long-distance scrambling of a quantifier does not change the scope interpretation, as seen in the following examples. Non-subjunctive complements

- (8) a. dareka-ga [John-ga daremo-o hihansi-ta to] it-ta (\*Every > Some) someone-nom -nom everyone-acc cricitize-past comp say-past
   'Someone said that John criticized everyone.'
  - b. daremo-o<sub>i</sub> [dareka-ga [John-ga t<sub>i</sub> hihansi-ta to] it-ta] (\*Every > Some)

Contrarily, our informants report that long-distance scrambling of a quantifier out of a subjunctive complement actually changes the scope interpretation, as shown in the examples below. Thus, it is suggested that longdistance scrambling out of a subjunctive complement can be A-scrambling.

Control type subjunctive complements

(9) a. dareka-ga iinkai<sub>i</sub>-ni [e<sub>i</sub> daremo-o suisensu-ru -yoo(ni(-to))] someone-nom -dat everyone-acc recommend-nonpast-sbj comp meiji-ta order-past (\*Every > Some)

'Someone ordered the committee to recommend everyone.'

- b. daremo-o<sub>j</sub> [dareka-ga iinkai<sub>i</sub>-ni [e<sub>i</sub> t<sub>j</sub> suisensu-ru-yoo(ni(-to))] meiji-ta]
   (Every > Some)
- (10) a. dareka-ga iinkai<sub>i</sub>-ni [e<sub>i</sub> daremo-o suisensu-ru -koto] -o someone-nom -dat everyone-acc recommend-nonpast-sbj comp-acc

meiji-ta

order-past (\*Every > Some)

'Someone ordered the committee to recommend everyone.'

b. daremo-o<sub>j</sub> [dareka-ga iinkai<sub>i</sub>-ni [e<sub>i</sub> t<sub>j</sub> suisensu-ru-koto]-o meiji-ta]
 (Every > Some)

Non-Control type subjunctive complements

(11) a. dareka-ga [ iinkai-ga daremo-o suisensu-ru -yoo(ni(-to))]
 someone-nom -nom everyone-acc recommend-nonpast-sbj comp
 negat-ta
 wish-past (\*Every > Some)

'Someone wished that the committee would recommend everyone.'

- b. daremo-o<sub>j</sub> [dareka-ga [ iinkai-ga<sub>i</sub> t<sub>j</sub> suisensu-ru-yoo(ni(-to))] negat-ta]
   (Every > Some)
- (12) a. dareka-ga [ iinkai-ga daremo-o suisensu-ru -koto]-o someone-nom -nom everyone-acc recommend-nonpast-sbj comp-acc

negat-ta wish-past (\*Every > Some)

'Someone wished that the committee would recommend everyone.'

b. daremo-o<sub>j</sub> [dareka-ga iinkai-ga t<sub>j</sub> suisensu-ru-koto]-o meiji-ta]
 (Every > Some)

#### 4.1.3 WCO Effects

In 3. 3. A-property of clause-internal scrambling with respect to WCO phenomena has been already discussed. The interesting fact is found in the b-examples in (15-21) below. Long-distance scrambling out of all types of subjunctive complements rescues WCO violations, so that the scrambled elements are assumed to be in A-positions in these cases.

Clause-internal scrambling

(13) a.?\*[soitsu<sub>i</sub>-no hahayoya]-ga daremo<sub>i</sub>-ni kisusi-ta 'the guy'-gen mother -nom everyone-dat kiss-past

'(lit.)His, mother kissed everyone,.'

b. daremo<sub>i</sub>-ni [soitsu<sub>i</sub>-no hahayoya]-ga kisusi-ta everyone-dat 'the guy'-gen mother --nom kiss-past

'(lit.)Everyone<sub>i</sub>, his<sub>i</sub> mother kissed.'

#### Non-subjunctive complements

 (14) a.?\*[soitsu<sub>i</sub>-no hahayoya]-ga [iinkai-ga daremo<sub>i</sub>-o suisensi-ta 'the guy'-gen mother –nom committee-nom everyone-acc recommend-past to] omot-ta comp think-past

'(lit.)His, mother thought that the commettee recommended everyone,.'

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 b. ?\*daremo<sub>i</sub>-o [ [soitsu<sub>i</sub>-no hahayoya]-ga [iinkai-ga t<sub>i</sub> suisensi-ta everyone-acc 'the guy'-gen mother –nom committee-nom recommend-past to] omot-ta] comp think-past

'(lit.)Everyone<sub>i</sub>, his<sub>i</sub> mother thought that the commettee recommended.'

Control type subjunctive complements

(15) a.?\*[soitsu<sub>i</sub>-no hahayoya]-ga iinkai<sub>j</sub>-ni [ e<sub>j</sub> daremo<sub>i</sub>-o suisensu 'the guy'-gen mother –nom committee-dat everyone-acc recommend

-ru -yoo(-ni(-to))] tanon-da
-nonpast-sbj comp ask-past

'(lit.)His, mother asked the committee to recommend everyone,.'

b. daremo<sub>i</sub>-o [[soitsu<sub>i</sub>-no hahayoya]-ga iinkai<sub>j</sub>-ni [e<sub>j</sub> t<sub>i</sub> suisensu everyone-acc `the guy`-gen mother --nom committee-dat recommend-

-ru yoo(-ni(-to))] tanon-da ]
-nonpast-sbj comp ask-past

'(lit.) Everyone<sub>i</sub>, His<sub>i</sub> mother asked the committee to recommend.'

(16) a.?\*[soitsui-no hahayoya]-ga iinkaij-ni [ej daremoi-o suisensu
 `the guy'-gen mother -nom committee-dat everyone-acc recommend-

-ru koto]-o tanon-da

nonpast sbj comp-acc ask-past

'(lit.)Hisi mother asked the committee to recommend everyonei.'

 b. daremo<sub>i</sub>-o [[soitsu<sub>i</sub>-no hahayoya]-ga iinkai<sub>j</sub>-ni [e<sub>j</sub> t<sub>i</sub> suisensu everyone-acc 'the guy'-gen mother -nom committee-dat recommend--ru koto]-o tanon-da]

nonpast sbj comp-acc ask-past

'(lit.) Everyone<sub>i</sub>, His<sub>i</sub> mother asked the committee to recommend.'

Non-Control type subjunctive complements

(17) a.?\*[soitsu<sub>i</sub>-no hahayoya]-ga [ iinkai-ga daremo<sub>i</sub>-o suisensu `the guy`-gen mother –nom committee-nom everyone-acc recommend-

-ru -yoo(-ni(-to))] nozon-da

nonpast-sbj comp wish-past

'(lit.)His<sub>i</sub> mother wished that the committee would recommend everyone<sub>i</sub>.'

b. daremo<sub>i</sub>-o [ [soitsu<sub>i</sub>-no hahayoya]-ga [ iinkai-ga t<sub>i</sub> suisensueveryone-acc `the guy`-gen mother –nom committee-nom recommend-

-ru -yoo(-ni(-to))] nozon-da]

nonpast-sbj comp wish-past

'(lit.) Everyone<sub>i</sub>, His<sub>i</sub> mother wished that the committee would recommend.'

(18) a.?\*[soitsu<sub>i</sub>-no hahayoya]-ga [iinkai-ga dare<sub>i</sub>-o suisensi-ta `the guy'-gen mother –nom committee-nom who-acc recommend-past

to] it-ta-no?

comp say-past-Q

'(lit. \*)Hisi mother attempted to praise whoi?.'

b. ?\*dare<sub>i</sub>-o [soitsu<sub>i</sub>-no hahayoya]-ga [iinkai-ga t<sub>i</sub> suisensi-ta who-acc `the guy'-gen mother –nom committee-nom recommend-past to] it-ta-no?
 comp say-past-Q

'\*Whol did hisi mother attempt to praise?'

(19) a. ?\*[soitsui-no hahayoya]j-ga [ ej darei-o home-ru koto]-o `the guy'-gen mother -nom who-acc praise-nonpast sbj comp-acc hajime/kokoromi-ta-no? start/attempt-past-Q

'(lit. \*)His, mother started/attempted to praise who;?'

b. (?)dare<sub>i</sub>-o [soitsu<sub>i</sub>-no hahayoya]<sub>j</sub>-ga [e<sub>j</sub> t<sub>i</sub> home-ru koto]-o
 who-acc 'the guy'-gen mother -nom praise-nonpast sbj comp-acc
 hajime/kokoromi-ta-no?
 start/attempt-past-Q

'(\*)Whoi did hisi mother start/attempt to prase?'

(20) a.?\*[soitsui-no hahayoya]-ga [iinkai-ga darei-o suisensu-ru `the guy`-gen mother –nom committee-nom who-acc recommend-nonpast

> koto]-o soozoosi-ta-no? sbj comp-acc imagine-past-Q

'(lit. \*)His<sub>i</sub> mother imagined that the committee would recommend who<sub>1</sub>?.'

b. ?dare<sub>i</sub>-o [soitsu<sub>i</sub>-no hahayoya]-ga [iinkai-ga t<sub>i</sub> suisensu-ru who-acc 'the guy'-gen mother –nom committee-nom recommend-nonpast koto]-o soozoosi-ta-no?
 sbj comp-acc imagine-past-Q

'\*Who, did his, mother imagine that the committee would recommend?'

(21) a.?\*[soitsui-no hahayoya]-ga [iinkai-ga darei-o suisensi-ta `the guy'-gen mother -nom committee-nom who-acc recommend-past koto]-o warure-ta/yorokon-da -no?

sbj comp-acc forget-past/be glad-past -Q

'(lit. \*)Hisi mother forget that the committee had recommended whoi?.'

b. ?dare<sub>i</sub>-o [soitsu<sub>i</sub>-no hahayoya]-ga [iinkai-ga t<sub>i</sub> suisensi-ta who-acc 'the guy'-gen mother –nom committee-nom recommend-past koto]-o wasure-ta/yorokon-da -no?
 sbj comp-acc forget-past/be glad-past -Q

'\*Whoi did hisi mother forget that the committee had recommended?'

## 5.2 Long-distance A-scrambling out of Subjunctive CP Complements

This section presents a new analysis of long-distance A-scrambling out of the subjunctive complement. The most notable fact, compared with the case of non-subjunctive complement, is that the presence of the embedded subject does not change the possibility of long-distance A-scrambling. The fact has not been acknowledged in the literature. For example, Nemoto (1993a), which deals with what we call OC subjunctive complements, claims that the presence of PRO subject in the complement determines whether long-distance A-scrambling is allowed. As long as the acceptability of long-distance A-scrambling out of subjunctive CP complements is significantly contrasted with that of long-distance A-scrambling out of non-subjunctive CP complements, as shown in 5.1 above,<sup>2</sup> it is necessary to explain how A-scrambling out of finite CP complements is permitted exclusively in the case of subjunctive CP complements.

Before going on to my proposals, it should be made clear which position an element lands at in the course of long-distance scrambling. In other words, when an element undergoes long-distance scrambling from a complement CP up to the higher clause, which position the scrambled element actually goes through on its way to the higher clause. Below, I give an answer to this question under the Minimalist framework of Chomsky (1998, 1999). Let us first briefly review Chomsky's definition of a strong phase of derivation.

Chomsky (1998, 1999) hypothesizes that a derivation cyclically proceeds

<sup>&</sup>lt;sup>2</sup> Nemoto (1993) reports that when *-to* appears after *-yooni*, the acceptability of long-distance A-scrambling declines (up to ??, in her scale). According to my informants, although some of them admit the similar tendency, the grammaticality of the case of subjunctive CP complements (even when *-to* occurs) is clearly and significantly contrasted with the severe ungrammaticality of the case of non-subjunctive CP complements.

by strong phases. That is, a domain created by a derivation is Spelled-out, i.e., handed over to PF, at the strong phase level. Only CP and v\*P count as strong phases, since they are distinguished from the others such as TP with respect that only CP and v\*P are 'propositional'.<sup>3</sup> Chomsky points out that v\*P provides a full argument structure. and CP. a complete proposition that includes a force indicator, for example (i.e., a mood/clause-type indicator).<sup>4</sup> The relevant assumptions concerning phases in Chomsky (1998, 1999) are shown below.

- (22) Interpretation/evaluation for PH1 is at PH2. (PH1= a strong phase; PH2 is the next higher strong phase)
- (23) Phase-Impenetrability Condition (PIC): The domain of H, a strong phase head, is not accessible to operations at the next higher strong phase, but only H and its edge.

<sup>&</sup>lt;sup>3</sup> Chomsky suggests that the following fact also independently supports the distinction between CP/v\*P and the others: the formers are reconstruction sites, and have a degree of phonetic independence.

<sup>&</sup>lt;sup>4</sup> What the term 'propositional' exactly mean is not crystal-clear, however. It is evident that what is 'propositional' should not be interpreted in the narrow sense. It should include not only propositions, but also propositional attitudes, for example.

Under these assumptions, a CP complement out of which long-distance scrambling takes place and the matrix v\*P are strong phases. The domain of the complement C is invisible to any operations at the level of the matrix v\*P. Thus, when an element in the complement CP is scrambled to the higher clause. it cannot skip the edge of C, i.e., the CP Spec, to avoid the effect of the PIC.<sup>5</sup> The relevant structure is illustrated below (order irrelevant; PH = a strong phase):



Since the Spec of C is an A'-position due to the non-lexical nature (i.e., non-L-relatedness) of the categorial status of the complementizer, an element extracted out of the complement must stop by this A'-position whether it stars from an A-position or A'-position.

Now, let us return to the original question concerning derivation of longdistance scrambling. Suppose that the complement object is already located in a TP-adjoined position, which can be an A-position, by clause-internal scrambling, and that it is further scrambled up above the matrix v\*, the next

<sup>&</sup>lt;sup>5</sup> See Dejima (2000), which also reaches the same point based on the notion of strong phases, for a Minimalist approach to long-distance scrambling.

higher strong phase head above the complement C. The scrambled element has to be moved to the Spec of C, so that it escapes from any PIC violation at the next strong phase head (= v\*) level. The trigger feature of movement to the edge of a strong phase head is guaranteed in this framework, whatever feature motivates the final step of movement in the matrix. Such a feature is independently necessary to derive successive cyclic movement out of a strong phase (such as long-distance wh-movement out of a finite CP). The feature is assumed to be either the so-called p-feature (peripheral-feature) that can be assigned to C and v\* (Chomsky 1998), or an EPP-feature of these heads (Chomsky 1999).<sup>6</sup>

Whichever the relevant feature is, the long-distantly scrambled element needs to move through the Spec of C to the next higher strong phase head, i.e., v\*. The landing site at this point is assumed to be the Spec of v\* position (alternatively, a v\*P adjoined position) in the higher clause. This position can

<sup>6</sup> Following Reinhart (1998, 1997) and Fox (1995, 1999), Chomsky (1999) posits that EPP-feature can be optionally assigned to a strong phase head only if the assignment yields an effect on outcome. Under this approach, it can be assumed that what motivates scrambling to the intervening strong phase head, i.e., successive-cyclic movement for A-scrambling, is assumed to be such EPP-feature of v\* (A-scrambling cannot go through the Spec of C, as has been discussed above), since A-scrambling clearly gives rise to a new outcome that contributes to a LF interpretation different from the one that obtains when there is no A-scrambling (e.g., scope interpretations of scrambled quantifiers and anaphor binding by scrambled elements). This assumption that is in accordance with the assumption that A-scrambling is triggered by EPP feature, which will be briefly discussed at the end of 5.4. (As for A'-scrambling, on the other hand, it is unclear whether it has an effect on outcome, since it shows the 'radical reconstruction effects' in Saito's 1989 term).

be an A-position, as has been shown by Tada (1993) and also by Nemoto (1993a). Suppose, then, that an element is scrambled from the Spec of C to the Spec of v\* that counts as an A-position. If nothing is wrong with this derivation, long-distance A-scrambling out of a CP complement would always be possible. But, this is contrary to the fact (see 5.1). The fact that A-scrambling out of a non-subjunctive CP complement is impossible means that once a scrambled element is moved to the Spec of the non-subjunctive C, which is an A'-position, it cannot land at an A-position in the higher clause to continue A-scrambling.

The situation is captured by the standard assumption that improper movement, such as A-A'-A movement, is illicit (Chomsky 1991, Chomsky and Lasnik 1993).<sup>7, 8</sup> That is, A-scrambling must go through only A-positions. It follows that when long-distance scrambling takes place out of non-subjunctive CP complements, there is no escape hatch for A-scrambling (i.e.,

<sup>&</sup>lt;sup>7</sup> One might ask what principle eventually derives the effects of this condition, since it is not clear how the notion of improper movement is properly derived from the assumptions under the current Minimalist framework. I here do not go into the details of this question, just pointing out that the facts we are looking at correspond to the effects induced by this general condition, whatever principle is responsible for the phenomena.

<sup>&</sup>lt;sup>8</sup> Saito (1992) proposes an alternative analysis in which the locality of V-to-T movement is correlated with that of A-scrambling. This analysis also relies on the ban on improper movement, if head-movement is relevant to this condition, as has been argued in the literature (Li 1990, for example). In 5.3, however, it will be shown that V-to-I movement is not a necessary condition on A-scrambling.

an intermediate A-position available for A-scrambling) above a position adjoined to the embedded TP. The derivation is illustrated as follows:



Thus, an element located in the intervening CP Spec in order to avoid the PIC cannot undergo A-scrambling in the subsequent derivation because of the condition on improper movement, whatever the trigger feature of A-scrambling is (which will be discussed at the end of 5.4).

Given this, we should answer the following question: how an element can be scrambled out of a subjunctive CP complement without violating the ban on improper movement, that is, without stopping at intervening A'-positions, in particular, the intervening CP Spec. In what follows, it will be argued that there are two ways to cope with this problem, both of which are unavailable for the case of scrambling out of non-subjunctive CP complements.

According to what has been argued in the preceding chapters, subjunctive complements are divided into two types with respect to the deficiency of embedded T. One is the case in which deficient T, i.e., [- past]<sub>def</sub>, appears. That is, the non-past type complements all belong to this type. In section 5.2.1, I will propose that deficient T changes the phase status of C. The close C-T relation will be indicated by the distributions of sentential operators.

In the other type, however, the deficiency of T in the complement does not matter. Recall that T in the non-control type subjunctive complements headed by *-koto* is as complete as T in non-subjunctive clauses. What distinguishes the former type of complements from the latter is not the deficiency of T, but the type of the complementizer. The subjunctive complementizer *koto* is substantially different from the clause-subordinator *-to* in regard to its striking nominal property, by which even Case-marking is necessary for this type of subjunctive complement. It will be maintained that the subjunctive complementizer *-koto* is nominal to the extent that its Spec counts as an Aposition. It should be noted that the A-/A'- (or L-related) status of a head (and its Spec) cannot be solely determined on theoretical grounds, but it should be examined also on empirical grounds. In section 5.2.2, an analysis will be given from this point of view.

#### 5.2.1 The deficiency of T and non-propositional status of CP

The following is proposed:

(26) If a given C embeds defective/deficient T, the C is not qualified as a strong phase head.

The idea lying behind this proposal is that a strong phrase is a domain in which T that has a complete set of features appears (for brief discussion on the consequence of this proposal, see 5.5). Since T in the nonpast group of subjunctive CP complement is defective, the CP complement of this groups is not a strong phase. It follows that an element in the CP complement is still visible even when the derivation reaches the higher v\*P. The representative examples of long-distance A-scrambling are repeated in (27a-b) below, and the structures at the stage of the derivation in question are shown in (28a-b) below. Compare the case of the subjunctive complement with that of the non-subjunctive complement.

(27) a. Out of non-subjunctive CP complements

?\*karera<sub>i</sub>-o [otagai<sub>i</sub>-no sensei-ga [John-ga t<sub>i</sub> hihans-ita to] it-ta teacher-acc each other-gen teacher-nom -nom criticize-past comp say-past

'\*Them, each other's teacher said that John criticized.'

b. Out of subjunctive CP complements

?karera<sub>i</sub>-o [otagai<sub>i</sub>-no sensei-ga [ koochoo-ga t<sub>i</sub> suisensu-ru
they-acc each-other-gen teacher-nom principal-nom recommend-nonpast-yoo(ni(-to))] negat-ta
-sbj comp wish-past

"Them, each other's teacher wished that the principal recommended."

#### (28) a. Non-subjunctive CP complement



The v\*P Spec can be either A- or A'-position in principle. But, in (28a), if movement goes through the intermediate A'-position, i.e., the intervening CP Spec, the v\*P Spec cannot count as an A-position without violating the ban on improper movement. On the other hand, in (28b), if the scrambled element originates from an A-position in the embedded TP (such as a TP adjoined position), the v\*P Spec can be used as an escape hatch for either A- or A'- scrambling (or even as the finial landing site).

A piece of supporting evidence concerning the distribution of adverbs is added here for the proposed defectiveness of T in this type of complements. Cinque (1999) gives detailed investigations concerning the distributions of various types of adverbs, and shows that each type of adverb modifies a

<sup>&</sup>lt;sup>9</sup> Nemoto (1993a) defends A-scrambling from the control type subjunctive complements to the matrix AgrOP Spec, which is assumed to count as an A or A'-position.

functional head of the corresponding type. According to Cinque, two types of sentential adverbs, evidential adverbs and subject-oriented adverbs are located in different positions above manner adverbs, as shown below.<sup>10</sup>

(29) Cinque (1999) (irrelevant details omitted)

- ...[ (evaluative Adv) Mod<sub>evaluative</sub> [ (evidential Adv) Mod<sub>EVIDENTIAL</sub> [ Mod<sub>EPISTEMIC</sub>
- ... [ T<sub>PAST<FUTURE</sub> [ Mod<sub>IRREALIS</sub> ... [ (subject-oriented Adv) Mod<sub>ROOT</sub>...
- [Asp<sub>HABITUAL</sub> ... [T<sub>ANTERIOR</sub> ... (manner Adv)... Asp/Voice... (manner Adv) ...
- a. evaluative Adv/ (un)fortunately, luckily, regrettably, strangely, etc.
- b. evidential Adv/ allegedly, reportedly, apparently, obviously, clearly, etc.
- c. subject-oriented Adv/ intentionally, cleverly, stupidly, etc.
- d. manner Adv/ quickly, frequently, completely, early, well, etc.

The evaluative adverbs and the evidential adverbs are associated with the higher functional heads, compared with the subject-oriented adverbs and manner adverbs. As shown in (29), the former is located in the positions c-commanding T, whereas the latter is not. It is not unreasonable to assume that since the evaluative and evidential adverbs, but not the subject-oriented and manner adverbs, modify a certain kind of epistemic modality of a clause,

<sup>&</sup>lt;sup>10</sup> Actually, Cinque does not determine where the root modals modified by subject-oriented verbs are exactly located in the hierarchy. We here follow Cinque's (1999, p.56 (19)) summary of the hierarchical order of functional heads.

only the former type of adverbs are sentential operators in the sense that they must take scope over the entire clause in which the completeness of T matters. I assume that such a sentential operator requires that non-defective T, i.e., complete T must appear in the domain that is modifies.

The examples in (30a-c) below indicate that the evaluative and evidential adverbs such as *koounnimo* 'fortunately', *akirakani* 'eviently' do not easily modify the subjunctive complements at issue, compared with the subject-oriented adverbs such as *kenmeinimo* 'wisely' and the manner adverbs such as *subayaku* 'quickly'. Although we do not go into details, the different degrees of acceptability of the evidential and subject-oriented adverbs suggest the difference in the defectiveness of T, i.e., from the type-i [- past]<sub>def</sub> to the type-ii [- past]<sub>def</sub>.

#### (30) Non-subjunctive complement

Taro-wa [Hanako-ga subayaku/kenmeinimo/akirakani/koounnimo sono -top -nom quickly/wisely/evidently/fortunately that hasi-o watat -ta to] it-ta bridge-acc cross -past comp say-past

'Taro said that Hanako had quickly/cleverly/evidently/fortunately crossed the bridge.'

(31) a. Type-i SC subjunctive complement

Taroi-wa [ei subayaku/?kenmeinimo/??akirakani/\*koounnimo sono hasi

-top quickly/wisely/evidently/fortunately that bridge

-o watar -u -yoo(ni)/-koto-o] keikakusi/kime-ta

-acc cross -nonpast sbj comp/sbj comp-acc plan/decide-past

'Taro planned/decided [to crossed the bridge quickly/?wisely/

??evidently/\*fortunately].'

b. Type-i SC subjunctive complement

Taroi-wa [ei subayaku/?\*kenmeinimo/\*akirakani/\*koounnimo sono

-top quickly/wisely/evidently/fortunately that

hasi-o watar -u -koto-o] hajime/kokoromi-ta

bridge-acc cross -nonpast sbj comp-acc start/try-past

'Taro started/tried [to crossed the bridge quickly/?\*wisely/\*evidently].'

c. OC subjunctive complement

Taro-wa Hanako-ni [e, subayaku/?kenmeinimo/??akirakani/\*koounnimo -top -dat quickly/wisely/evidently/fortunately
sono hasi-o watar-u -yoo(-ni(to))/-koto-o] meiji/motome-ta
that bridge-acc cross-nonpast-sbj comp/-sbj comp-acc order/require-past
'Taro ordered/asked Hanako [to crossed the bridge quickly/?wisely/

The defectiveness of embedded T in these subjunctive CP complements are, therefore, supported by their incompatibility with the sentential operators.<sup>11</sup>

<sup>&</sup>lt;sup>11</sup> The analysis given in 5.2.1 can be extended further to the case of ECM
This analysis is straightforwardly extended to other cases of long-distance A-scrambling out of non-subjunctive CP complements, even if the complement is embedded under v\*P. Before closing this section, let us observe an example of such a case. In our discussion in 4.5, it was briefly mentioned

out of CP, in which pure A-movement (raising for Case reason) is concerned.

(i) Taro-ga Hanako-o [<sub>CP</sub> t kasiko-i to] omot-ta -nom -acc clever-nonpast comp think-past 'Taro thought Hanako to be clever.'

Sakai (1996) convincingly shows that an accusative NP moves from the complement subject position to the matrix  $v^*P$  (and that if it the matrix is passivized, the complement subject undergoes raising to the matrix subject position), although denying the categorial status of the complement as CP. We assume that the complement is indeed CP, based on the presence of *-to*.

If the complement CP is a strong phase, it should be inaccessible from operations at the next higher strong phase, i.e., the matrix v\*P. This poses a serious problem, since raising of the complement subject must target the matrix v\*. Our analysis also solves this problem basically in the same way as in the case of A-scrambling out of subjunctive CP complements with defective T.

The complement accusative subject as in (i) can be alternatively nominative. Interestingly enough, only when the subject is accusative, the past suffix cannot appear in the complement, as pointed out by Kuno (1976).

- (ii) a. Taro-ga [<sub>CP</sub> Hanako-ga yatteki-ta to] omot-ta -nom -nom come-past comp think-past 'Taro thought that Hanako came.'
  - b. \*?Taro-ga Hanako-o [cp t yatteki-ta to] omot-ta -nom -acc come-past comp think-past

It follows that raising to the higher v\*P Spec is permitted, only if T in the complement can be deficient, i.e.,  $[-past]_{def}$ . This is exactly what our analysis predicts. That is, since embedded T is deficient, the complement CP does not count as a strong phase. The complement subject, thus, does not have to stop at the complement CP Spec on the way to the higher v\*, so that it successfully continues A-movement from within the CP complement. Further investigation along the line suggested here seems worth pursuing.

that the volitional suffix -(y)oo. A predicate with the volitional suffix -(y)oo is assumed to be not only [+ finite], but also [+ tense], since it appears in the matrix and licenses nominative Case, as shown in (32). Furthermore, it is natural to assume that T is the type-ii [- past]<sub>def</sub>, since it invariably yields a future interpretation (relative to the matrix event time when it is embedded in a complement, as shown below).

(32) watasi-ga sore-o si-yoo

I -nom it-acc do-volitional

'I will/shall do it.'

It follows that an empty subject of this type of clause can be PRO. This type of clause is selected by the governing verb of this type of complement, such as *su* 'do' and *keikakusu* 'plan', as shown in (33) below. The governing verb has its external argument, which is the controller of the complement PRO subject. That is, the complement is embedded under v\*P (and VP).

(33) John<sub>i</sub>-wa [PRO<sub>i</sub> Mary-ni hanasikake-yoo -to] si/keikaku-ta
-top -dat 'talk to'-near future comp do/plan-past
'John is willing/planed to talk to Mary.'

Nemoto (1990) actually points out that this type of complement, which she calls 'non-finite clause', allows long-distance A-scrambling.

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(34) a. ?\*[otagai<sub>i</sub>-no sensei]<sub>j</sub>-ga [PRO<sub>j</sub> karera<sub>i</sub>-ni hanasikake-yoo each other-gen teacher-nom -dat 'talk to'-volitional
 to] si/keikakusi-ta comp do/plan-past

'\*Each other's teacher planned to talk to them exactly at that time.'

b. karera<sub>i</sub>-ni [otagai<sub>i</sub>-no sensei]<sub>j</sub>-ga [PRO<sub>j</sub> t<sub>l</sub> hanasikake-yoo they-dat each-other-gen teacher-nom `talk to`-near future to] si/keikakusi-ta comp do/plan-past

This is also what the analysis proposed above predicts. Since T in the predicate with the volitional suffix is defective, the entire CP does not count as a strong phase. It follows that the A-scrambled element does not have to, hence, must not, stop at the Spec of CP.

The possibility of A-scrambling out of these various types of CP complements is uniformly accounted for by my analysis: a scrambled element does not go through the intervening CP Spec, if CP is not a strong phase due to the defectiveness of embedded T.

# 5.2.2 The L-relatedness of the Spec of the nominal subjunctive complementizer *-koto*

This section deals with the case of long-distance A-scrambling out of the subjunctive CP complement introduced by *-koto*. Since T in this type of complement is not defective at all, the possibility of A-scrambling out of CP is not explained by what I have proposed in the previous section. That is, the CP complement should be a strong phase, so that any scrambled element cannot skip its edge, i.e., the CP Spec, on the way to the higher v\*P. I suggest that the Spec of the subjunctive complementizer *-koto* counts as an A-position because of its nominal feature.

I propose that the nominal feature of the complementizer -*koto* is rich enough to regard it as a lexical category as well as a functional category. The dual categorial property of -*koto* is exactly what we have observed in 2.2.2. The subjunctive complementizer -*koto* possesses rich nominal feature, although it is not a true noun. The rich nominal feature of -*koto* induces (i) nominative-genitive Case conversion on complement subjects, (ii) adnominal morphology on complement predicates, and (ii) *obligatory* Case-marking on complements. The only difference from nominal clauses introduced by the nominalizer -*no* is that only the subjunctive clause functions as a main clause. Based on this observation, the following is proposed.

(35) Morphological Case marking on an element indicates that the categorial feature of the element is specified as [+ N].

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Consequently, it is assumed that the Spec of *-koto* is A-/L-related position by virtue of being related with the approximately lexical head *-koto*. Let us consider how the derivation proceeds. A relevant example is repeated in (36) below.

(36) karerai-o [otagaii-no sensei-ga [ koochoo-ga ti suisensu-ru they-acc each-other-gen teacher-nom principal-nom recommend-nonpast -koto]-o nega-ta sbj comp-acc wish-past
'\*Them, each other's teacher wished that the principal would recommended'

Consider the following structure:

Recall that the complement CP with complete T is naturally a strong phase, so that the domain except for the edge is inaccessible from the next higher  $v^*P$ . That is, when the derivation reaches the matrix  $v^*P$  as in (37) above, an element within the embedded TP is not accessible to A-scrambling targeting the matrix  $v^*$ . The element, therefore, must move to the edge of the intervening CP. Since the complementizer *-koto* is nominal, hence, lexical under our analysis, its Spec can be utilized as an escape hatch for A-movement. Consequently, a scrambled element is allowed to keep moving through Apositions even after stopping at the Spec of *-koto*, the nominal complementizer.

In (37) above, notice that the subjunctive CP complement itself is always closer to the matrix v\* than an element embedded in the complement TP. If we assume that the nominal feature of the subjunctive CP complement satisfies what is necessary for an NP/DP to be A-scrambled, which seems to be the case actually, the CP complement should always block A-scrambling of another nominal element embedded in the complement TP. It would be wrongly predicted that the subjunctive CP complement headed by *-koto* never allows long-distance A-scrambling. I posit that CP and its Spec are equidistant from a higher position based on the simple definition of closeness in terms of c-command (not dominance relation).<sup>12</sup>

The derivation as shown in (37) above clearly contrasts with A-scrambling out of a complex NP, which is prohibited, as in the following example (Saito 1985):

<sup>&</sup>lt;sup>12</sup> The relevant definitions are as follows (Chomsky & Lasnik 1993, Chomsky 1995):

<sup>(</sup>i) a. Closeness:  $\beta$  is closer to the target K than  $\alpha$  if  $\beta$  c-commands  $\alpha$ .

b. C-command:  $\alpha$  c-commands  $\beta$  if  $\alpha$  does not dominate  $\beta$  and every  $\gamma$  that dominates  $\alpha$  dominates  $\beta$ .

- (37) a. ?\*ano hon<sub>j</sub>-o John-ga [NP [rel. cl. ei tj katta] hitoi]-o sagashi-ta that book-acc -nom buy-past people-acc look for-past '(lit.)That book, John looked for someone who bought.'
  - b. ??ano hon<sub>i</sub>-o John-ga [NP [CP Mary-ga t<sub>i</sub> kat-ta toyuu] uwasa]-o ki-ta that book-acc -nom -nom buy-past comp rumor-acc hear-past '(lit.)That book, John heard a rumor that Mary bought.'

That is, the subjunctive complement headed by *-koto*, is not a complex noun embedding a clause like the ones in (37) above, but a complement clause with the rich nominal feature. The next question is why scrambling out of the complex NP structure as in (37) is blocked whether A-scrambling takes place or whether A'-scrambling does. A possible account is in terms of the MLC, since the scrambled NP as in (37) is deeply embedded in another NP. Even if it can stop at the Spec of the intervening CP, the higher NP is still closer to the matrix v\*P. More detailed discussions on this topic will be left for future research.<sup>13</sup>

<sup>&</sup>lt;sup>13</sup> One might notice that our two analyses for long-distance A-scrambling out of the subjunctive CP complements redundantly account for the case of SC complements headed by *-koto*. That is, since defective T appears also in this type of complement, both analyses given in 5.2.1 and in 5.2.2 are applicable. We here suggest that the redundancy reflects both important properties of subjunctive complements; the defectiveness in T and the nominal property of the clause. The SC complements headed by *-koto* are actually provided with both properties.

### 5.3 Against V-to-I Movement Approach to A-scrambling

An argument against previous analyses of long-distance A-scrambling is presented in this and the next sections. Saito (1992) claims that if an adjoined position created by scrambling is related to a head that is a locus of verb movement, the position can be regarded as an A-position. Relevant examples discussed in this section, however, indicate that verb movement has nothing to do with the possibility of long-distance A-scrambling out of subjunctive CP complements.

Saito (1992) argues that A- and A'- properties of a position created by scrambling are derived by a syntactic mechanism independent of scrambling itself, that is, verb movement. Saito suggests that V-to-I movement gives rise to A-property of an IP-adjoined position created by clause-internal scrambling. Under this analysis, it is predicted that A-scrambling is possible only if verb movement is possible. If improper head movement such as V-I-C-V-I is also excluded in general by whatever principle that triggers the effect (see Li 1990, Boskovic 1994, and Sakai 1996), scrambling out of CP complements cannot be A-scrambling. This is because movement of an embedded verb out of the embedded CP up to the matrix I necessarily goes through the intervening C, resulting in an instance of improper head movement. This straightforwardly seems to account for the fact that long-distance A-scrambling is never allowed out of a non-subjunctive tensed CP complements. If we adopt this analysis and extend it to the cases that we are con-

cerned about here, it is necessary to assume that long-distance verbmovement exceptionally takes place across subjunctive CP complements, and that such V-I-C-V-T movement is not an instance of improper head movement.

There are, however, pieces of evidence that such verb-movement is not permitted either at overt syntax or at LF. Below we show that an embedded verb of a subjunctive CP complement is not moved up to the matrix either overtly or covertly. First let us examine whether verbs are overtly raised to T. Koizumi (1995) maintains that overt verb movement is crucially involved in the derivation of a cleft sentence. According to Koizumi's analysis, in the example (38) below, the predicate *kat* 'buy' is assumed to move out of VP.

(38) [( [vp Mary-ga ringo-o mittu t<sub>v</sub> ]) kat-ta ] no -wa [ Mary-ga ringo-o -nom apple-acc three-cl buy-past NM-top -nom apple-acc
 mittu ]-da (the parenthesized part is phonologically null.)
 three-cl -be nonpast

'Mary bought three apples.' (The underlined elements are foci.)

Pointing out that elements within a non-subjunctive tensed complement cannot appear in the focus position, as shown in (38) below, Koizumi concludes that the embedded verb is not allowed to move from VP of the embedded tensed clause up to the matrix clause. (38) \*[([<sub>VP</sub> ... t<sub>V</sub>]) kat-ta to it-ta] no-wa [John-ga Bill-ni Mary-ga buy-past comp say-past NM-top -nom -dat -nom ringo-o mittu ]-da apple-acc three-cl -be nonpast

'John told Bill that Mary bought three apples.'

If this analysis is on the right track, the cleft construction can be used as a test to examine whether a verb is overtly raised out of VP. However, the cleft construction is not a reliable test to examine used as a test in order to examine whether a verb is overtly raised. Observe that the cleft sentence including a subjunctive CP complement is possible, as in the example in (39) below. Compare (39) with (38) (which is the case of non-subjunctive CP complement).

(39) [e, kau-yoo(ni(to)) meijii-ta] no-wa [John-ga Bill,-ni ringo-o mittu]
 buy-subj comp order-past NM-top -nom -dat apple-acc three-cl
 -da
 -be nonpast

'John ordered Bill to buy three apples.'

But, this fact does not imply that the embedded predicate *ka-u* 'buy', together with *-yoo(ni(to))*, is raised up to the matrix I (or T). As shown in (40) below, the temporal adverbial clause *ie-o de-ru mae-ni* 'before going out of home',

 (40) [e; kau-yoo(ni(to)) [e; ie-o de-ru mae-ni] kenmeini-mo meijii-ta] buy-subj comp home-acc go-nonpast before-dat wisely-even order-past
 no-wa [John;-ga Bill;-ni ringo-o mittu]-da
 NM-top -nom -dat apple-acc three-cl-be-pres

'John wisely ordered Bill to buy three apples before he went out home.'

That is, the embedded V-I-C is overtly separated from the matrix V-I(-C), which indicates that no overt head movement takes place across the embedded subjunctive CP complement to the matrix.<sup>14</sup>

Second, let us observe the data given below, in which it is indicated that an embedded verb is not raised out of the subjunctive CP complement at LF. As is exemplified below, long-distance of A-scrambling is possible across an A-scrambled subjunctive complement from which head movement cannot

<sup>&</sup>lt;sup>14</sup> It follows that the cleft construction, at least the one involving the subjunctive complement as in (40), has nothing to do with overt verb movement. Interestingly, it is also suggested that the cleft construction is possible wherever A-scrambling takes place (as shown by the contrast between 38 and 39-41). For an alternative analysis of this construction, which deal with data that is not discussed by Koizumi, see Takano (2000).

take place.<sup>15</sup> In 4.5 of Chapter 4, it has been shown that there is no head movement out of an A-scrambled domain. Let us briefly review the point. The relevant examples (44 and 45 in 4.5) are repeated below.

(41) a. ?\*John-ga soitu<sub>i</sub>-no-ie-kara [NP dare<sub>i</sub>-no takara-no ryakudatu-o] -nom guy-gen-house-from who-gen treasure-gen plunder-acc si-ta-no? do-past Q

'\*Whose, treasure did John plunder from his, house.'

 b. ?\*John-ga [NP darei-no takara-no ryakudatu-oj] soitui-no-ie-kara tj -nom who-gen treasure-gen plunder-acc guy-gen-house-from si-ta-no? do-past Q

The example in (41a) is bad because of a WCO violation. The lack of improvement even after clause-internal scrambling of the bracketed NP in (41b) implies the following. If the scrambled NP is A'-scrambled, it is reconstructed to the original position LF. The head noun of the NP undergoes incorporation from its original position, yielding the configuration of the WCO violation same as in (41a) at LF. On the other hand, if the noun phrase is Ascrambled, it remains at its scrambled position at LF, avoiding the WCO violation. The head noun *ryakudatu* 'plunder', however, cannot be extracted out

<sup>&</sup>lt;sup>15</sup> I owe this point and the examples in (42-45) below to Daiko Takahashi's

of the A-scrambled NP to the light verb, which results in the ungrammaticality.

Now, let us return to the subjunctive complement. Consider the following examples, which are taken from Chapter 3 (see 3.3). They indicate that the subjunctive complements undergo A-scrambling.

- (42) a. ?\*John-wa [[ sore<sub>i</sub>-o si-sooni-mo-nai] hito]<sub>j</sub>-ni [ PRO<sub>j</sub> doko-de -top it-acc do-likely-even-neg person-dat where-at
  Mary-o sika-ru yoo(-ni(to)) ]<sub>i</sub> tanon-da no?
  -acc scold-pres subj subj.comp ask-past Q
  'Lit. Where did John ask a person<sub>j</sub> who is not likely to do it<sub>i</sub> [ PRO<sub>j</sub> to scold Mary t]<sub>i</sub>?'
  - b. ?John-wa j [ PROj doko-de Mary-o sika-ru yoo(-ni(to)) ]i [[ sorei-o -top where-at -acc scold-pres subj subj.comp it-acc si-sooni-mo- nai] hito]j-ni tanon-da no?
    do-likely-even-neg person-dat ask-past Q

In (42a), the matrix object includes a pronoun *sore-o* 'it' that is bound by the following subjunctive complement in which a wh-phrase *doko-de* 'where' appears. It is assumed that this is a sort of WCO violation, as was argued in 3.3. The grammaticality of (42b), on the other hand, implies that the subjunctive complement is scrambled to an A-position, from which reconstruction

(personal communication) suggestion.

does not take place. Thus, no WCO violation is yielded. Now, in the following example (43), A-scrambling takes place out of the A-scrambled subjunctive complement.

(43) ?[Mary to Sue]<sub>i</sub>-o [otagai<sub>i</sub>-no hahaoya]<sub>j</sub>-ga [ PRO<sub>j</sub> doko-de t<sub>i</sub> sika-ru and -acc e.o.-gen mother -nom where-at scold-pres yoo(-ni(to)) ]<sub>k</sub> [[ sore<sub>k</sub>-o si-sooni-mo- nai] hito]-ni tanon-da no? sbj comp it-acc do-likely-even-neg person-dat asko-past Q
'Lit. \*Where did each other<sub>i</sub>'s mother ask a person<sub>j</sub> who is not likely to do it<sub>k</sub> [ PRO<sub>j</sub> to scold [Mary and Sue]<sub>i</sub> t]<sub>k</sub>?'

Here, the plural noun phrase [Mary to Sue]-o 'Mary and Sue', which is scrambled out of the A-scrambled subjunctive complement, can bind the reciprocal anaphor *otagai* 'each other' in the matrix subject position.

The A-scrambled subjunctive complement does not undergo reconstruction to the original position at LF. Furthermore, as discussed above, the complement verb cannot be moved out of the A-scrambled complement. That is, even if the embedded verb is raised up to the complementizer together with the embedded T, the complex V-T-C does not move further to the matrix V-T(-C) out of the A-scrambled subjunctive complement at LF. If verbmovement is a necessary condition of A-scrambling, there should be no Ascrambling out of the A-scrambled complement, which is contrary to the fact, again. It follows that verb movement from the subjunctive CP complement to the matrix is irrelevant in permitting long-distance A-scrambling out of the complement. Consequently, long-distance A-scrambling and long-distance A'-scrambling cannot be distinguished in terms of possibility of verb-movement.

### 5.4 The PBC and a non-uniform treatment of A-/A'-

### scrambling

In this section, I present a fact concerning the Proper Binding Condition (PBC) that might suggest that A- and A'-scrambling are not movement of the same kind (except for the case of object shift/short scrambling) (Cf. Kikuchi, Oishi, and Yusa 1996, Oka 1996, Saito 1992, among others).

Kikuchi, Oishi, and Yusa (1996) and Oka (1996) argue that the ungrammaticality of an example like (44) below indicates that the two instances of scrambling are movement of the same kind.

(44) \*[PRO2 t1 rikaisu-ru -yoo(ni(to))] [Bob to John]1-o [Mary-ga undrestand-nonpast-sbj comp and -acc -nom
[otagai1-no hahaoya]2-ni tanon-da]]
each other-gen mother-dat ask-past
'\*Mary asked each other's mother that they would understand Bob and John.'
(Cf. \*[ Bill-ga t<sub>i</sub> yon-da to]<sub>j</sub> John-ga [sono hon-o]<sub>i</sub> Mary-ni t<sub>j</sub> it-ta -nom read-past comp -nom that book-acc -dat say-past

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'\*[Bill read  $t_i]_j$  John told Mary that that book\_i,  $t_{j^{\prime}}$  (Saito1989, Kitahara 1997) )

The relevant structure of (44) is illustrated below:

The first scrambling in (45) is forced to be A-scrambling in order for the reciprocal anaphor in the matrix object to be properly A-bound, and the second can be A- or A'-scrambling (since it is clause-internal scrambling). It seems that the unbound trace in the scrambled complement causes a PBC violation, however.<sup>16</sup> If A'-traces, but not A-traces, obey the PBC, as shown in (46) below, the trace of the first scrambling in (44) must be A'-trace, at least, derivationally (i.e., at least when the PBC applies).

(i) The Proper Binding Condition: Traces must be bound.

See Fiengo (1977) for the original discussion on the PBC and relevant facts.

<sup>&</sup>lt;sup>16</sup> We assume the following version of the PBC:

(46) a. [How likely ei to win] is Johni?

b. [hit ei by Mary] Johni was.

Furthermore, Oka (1996), and Kitahara (1997) independently argue that the PBC effects in scrambling are derived from MLC violations (or the effects of Shallowness in Oka's term). That is, in (45), if the two instances of movement are of the same kind, the first movement violates the MLC, since  $\alpha$  is closer to the target of the movement of  $\beta$ . If this analysis is correct, Japanese scrambling as in (44) is also subject to Muller's generalization.<sup>17</sup> Although I do not discuss the issue concerning the MLC account of (48), I do maintain that the examples discussed in the literature are independently excluded exactly by the PBC, but not by the MLC, by showing below that the PBC applies to A-traces involved in raising constructions.

Recall the near future suffix and the volitional suffix, again. In the nonsubjunctive [- finite] complement where the near future suffix -(y)oo appears, subject-to-subject raising takes place, as in (47a) below. On the other hand, in the non-subjunctive [+ finite] complement where the volitional suffix appears, the empty subject can be controlled PRO, as in (47b) below.

<sup>&</sup>lt;sup>17</sup> Muller's generalization is as follows: X cannot undergo  $\alpha$ -movement resulting in a structure in which X dominates an unbound trace of Y, if the antecedent of Y has also undergone  $\alpha$ -movement. (Muller 1993)

(47) a. sono kyuukoo -gai ima masani [ti/\*PROi tookyoo eki-ni tootyakusi-that express-nom 'just now' Tokyo station-to arrive-yoo to] si-ta near future/\*volitional comp do-past
'That express train was about to/willing to arrive at Tokyo station.'

- b. John-gai ima masani [PROi sono hon-o yom-oo to]
   -nom 'just now' that book-acc read-near future/volitional comp
   si-ta
   do-past
  - 'John was about/willing to read that book.'

Now, observe that scrambling of the raising complement to the sentence initial position results in severe ungrammaticality, whereas scrambling of the control complement to the same position does not yield ungrammaticality at all, as in the following contrast (48a) and (48b).

- (48) a. \*ima masani [ t<sub>i</sub> tookyoo eki-ni tootyakusi-yoo to]<sub>j</sub> sono kyuukoo 'just now' Tokyo station-to arrive-near future comp that express
  -ga<sub>i</sub> t<sub>j</sub> si-ta
  -nom do-past
  '\*That express train was about to arrive at Tokyo station.'
  - b. ima masani [PRO<sub>i</sub> sono hon-o yom-oo to]<sub>j</sub> 'just now' that book-acc read-\*near future/volitional comp

John-gai tj si-ta

-nom do-past

'John \*was about to/was willing to read that book.'

The only difference between (48a) and (48b) is the status of the empty category in the complement. In (48a), it is the trace of the complement subject, which is not bound by the antecedent in this configuration. It cannot be PRO since the embedded T is [- finite] with no specification for [+/- past]. On the other hand, in (48b), it is PRO licensed by the type-ii [- past]<sub>def</sub> T. It is strongly suggested that the trace of the subject in (48) causes the ungrammaticality.

What is suggested by the examples above is that A-traces induce PBC violations contrary to what has been maintained in the literature based on the fact as shown in (46) above. Lasnik and Saito (1992), however, argue that A-traces are indeed subject to the PBC, pointing out the contrast such as in the following (the observation is attributed to A. Kroch and A. Joshi):

- (49) a. [How likely PRO<sub>i</sub> to win the race] is John<sub>i</sub>?
  - b. \*[How likely t<sub>i</sub> to be a riot] is there<sub>i</sub>?
  - c. \*[How likely ti to be taken of John] is advantagei

The contrast between the control structure and the raising structure indicates that the PBC is applicable to unbound A-traces. I follow Lasnik and Saito's analysis in which the PBC applies to unbounded traces irrespective of their A/A'-property.

Finally, I will provide a piece of evidence that whatever triggers the PBC effects is concerned only with surface structures, but not with LF structures. The sentence in (50a) below is an example of the control complement with the volitional suffix, in which the bound pronoun *soitu* 'guy' and the whoperator *dare* 'who' appear in the control complement and in the sentence initial adverbial phrase, respectively. In (50b) below, the control complement is scrambled over the sentence initial adverbial phrase, causing nothing wrong.

(50) a. [darej-ga tyoodo araware-ta toki] Maryi-wa [PROi soituj-ni who-nom just appear-past time -top guy-dat hanasikake -yoo to] si-tei-ta-no?
 `talk to`-volitional comp do-prog-past-Q

'Who<sub>i</sub> was Mary about to talk to t<sub>i</sub> when he<sub>i</sub> just showed up?'

b. [PRO<sub>i</sub> soitu<sub>j</sub>-ni hanasikake-yoo to]<sub>k</sub> Mary<sub>i</sub>-wa [tyoodo dare<sub>j</sub>-ga araware guy-dat `talk to'-volitional comp -top just who-nom appear
 -ta toki] t<sub>k</sub> si-tei-ta-no?

-past time do-prog-past-Q

The perfect status of (50b) implies that the scrambled control complement is reconstructed into its original position, yielding no WCO violation.

- (51) a. [dare<sub>i</sub>-ga ie-o de-ta toki] tennkoo<sub>i</sub>-ga [ tyoodo t<sub>i</sub> soitu<sub>i</sub>-no who-nom home-acc 'go out'-past time weather-nom just guy-gen tihoo-de kawar-oo to ] si-tei-ta-no? area-dat change-near future comp do-prog-past-Q
  'Intended: Who<sub>i</sub> went out of home when the weather about to change in the area where he<sub>i</sub> lives?'
  - b. \*[tyoodo t<sub>i</sub> soitu<sub>j</sub>-no tihoo-de kawar-oo to ]<sub>k</sub> tennkoo<sub>i</sub>-ga [ dare<sub>j</sub>-ga just guy-gen area-dat change-near future comp wheather-nom who-nom ie-o de-ta toki] t<sub>k</sub> si-tei-ta-no?
     home-acc `go out'-past time do-prog-past-Q

At LF, the raising complement must be reconstructed to save the crossover violation, just like the case as in (50b) above (in the latter which PRO subject appears in the complement). If that happens, the unbound trace should be rescued by the LF reconstruction. The sentence in (51b) is severely degraded, however. It is suggested that the PBC at issue, whatever principle derives its effect, is concerned not with syntactic derivations, but with some operation yielding phonological representations. I leave the issue for future research.<sup>18</sup>

The facts observed so far suggest (i) that an overt unbounded trace created by raising/A-scrambling is subject to whatever derives the PBC, and (ii) that Muller's generalization is not applicable to interaction of A- and A'scrambling in Japanese. The latter, in particular, might suggest that A- and A'-scrambling are different kinds of movement in Japanese. If this analysis is on the right track, we have to seriously seek the trigger of A-scrambling by which an element is attracted to an A-position where it contributes interpretations at LF (reflexive/reciprocal binding, operator-variable relations, scope interactions, etc.).

The analysis presented for long-distance A-scrambling in 5.1 and 5.2 suggests that an element must go through edges of strong phases, satisfying the condition on improper movement. When a derivation reaches v\*P, A-scrambling must stop at v\*P, a strong phase. Scrambling to v\*P indeed can be A-scrambling (Tada 1993, Nemoto 1993a). That is, v\*, a strong phase head, should have the trigger feature of A-scrambling, not only the feature necessary for being an intermediate escape hatch. Furthermore, clause-internal A-scrambling targets T. Thus, T must also have the trigger feature of

<sup>&</sup>lt;sup>18</sup> Note that this analysis is compatible with the assumption proposed by Chomsky (1998) and Lasnik (1999) that A-traces are inaccessible to interpretation by the narrow syntactic computation, since it is assumed that the effects of the PBC are derived from some PF requirement.

A-scrambling. It is EPP-feature that both T and v\* possess. It is suggested that A-scrambling be triggered by EPP-feature of T and v. Moreover, T and v allow multiple EPP-features. Since scrambling can be iterated, it is in accordance with the multiple property of EPP-feature in this languages (Ura 1996). Recent analyses of A-scrambling such as Miyagawa (1997, in press, to appear) also propose that EPP-feature trigger A-scrambling on entirely independent grounds. My analysis is also in accordance with those approaches to A-scrambling.

Before closing this section, I add a piece of evidence that A-scrambling is triggered by EPP-feature, following Miyagawa's (1997, in press, to appear) analysis. Miyagawa's evidence that clause-internal A-scrambling is triggered by T's EPP-feature is concerning interaction of scrambling with scope of negation (Neg). In what follows, after a brief review of the core paradigm presented by Miyagawa, it will be observed that similar facts are found also in the case of long-distance scrambling out of the subjunctive complements.

First let us observe how Neg takes scope over a quantifier in an argument position in cases where no scrambling takes place. In (52a) below, the quantifier *zen'in* 'all' appears in the object position and the predicate is negated. The most salient interpretation is such that the referent of *zen'in* 'all' is partially negated, which is called 'partial negation' by Miyagawa. On the other hand, in (52b) below, the quantifier is in the subject position. The referent of the quantifier is totally negated in this case, which is called 'total negation'

interpretation.

(52) a. Taroo-ga zen'in-o home-nakat-ta
-nom all-acc praise-neg-past
'Taro didn't praise all.' Not > All, (\*) All > Not

b. zen'in-ga sono siken-o uke-nakat-ta
all-nom that exam-acc take-neg-past
'All did not take the exam.' \*Not > All, All > Not

Assuming that scope of Neg is a domain c-commanded by Neg (Klima 1964), and that Neg head occurs between v\* and T (Pollock 1989), Miyagawa indicates that the contrast between the partial interpretation and the total interpretation in (52) is derived from the configuration in which the object position is c-commanded by Neg, whereas the subject position is not.

The crucial example is given (53) below, which sharply contrasts with the one in (52b) above.

(53) [sono siken-o]; zen'in-ga t; uke-nakat-ta that exam-acc all-nom take-neg-past
'All did not take the exam.' Not > All, (All > Not)

Once the object is scrambled over the subject quantifier, the sentence allows the partial negation, which is impossible for the subject quantifier in (52b). Miyagawa convincingly shows that the scrambled object in (50) is located in an A-position high enough that Neg does not c-command it at LF, and argues that this type of scrambling is A-scrambling triggered by EPP-feature on T.

Furthermore, Miyagawa demonstrates that long-distance scrambling out of non-subjunctive finite complements does not show the same scope property of Neg as clause-internal scrambling, as is naturally expected.

(54) [sono siken-o]<sub>i</sub> zen'in-ga [John-ga t<sub>i</sub> uke-ta to] omowa-nakat-ta that exam-acc all-nom -nom take-past comp think-neg-past
'That exam, all did not think that John took.' \*Not > All, All > Not

The partial negation interpretation is not available here. Given this, it is predicated that since long-distance out of subjunctive complement can be Ascrambling, the partial negation should be allowed in those cases, contrary to the case of (52b), again. The prediction is actually born out by the example in (55) below, which involves the most typical example of subjunctive complement.

(55) a. zen'in-ga [John-ga [sono siken-o] uke-ru -yoo(ni(to))/koto-o] all-nom -nom that exam-acc take-nonpast-sbj comp/sbj comp-acc negawa-nakat-ta wish-neg-past 'All did not wished that John took that exam.' \*Not > All, All > Not

b. [sono siken-o]<sub>i</sub> zen'in-ga [John-ga t<sub>i</sub> uke-ru -yoo(ni(to))/koto-o] that exam-acc all-nom -nom take-past comp think-neg-past negawa-nakat-ta wish-neg-past
'That exam, all did not wished that John took.'

Not > All, All > Not

The fact suggests that the scrambled complement object occupies the same position as the clause-internally scrambled matrix object as in (53) does. Under Miyagawa's analysis in which A-scrambling is assumed to be triggered by EPP-feature on T, it is suggested that the long-distantly scrambled element as in (53) is attracted by EPP feature on the matrix T. The question concerning the exact mechanism of this type of long-distance A-scrambling triggered by EPP-feature will be left for future research.

### 5.5 Conclusion

This thesis has some consequences concerning the question as to what relation there exists among the followings; the presence vs. absence of C, the completeness vs. defectiveness of T's  $\phi$ -feature, the completeness vs. defectiveness of T's tense feature, values of Case for subjects, the locality of A-movement such as raising and A-scrambling, and derivation by strong phases. I briefly discuss how the completeness T's feature relevant to Case

licensing is correlated with the status of a domain in which T appears as a strong phase under the proposed analysis.

Chomsky (1998, 1999) assumes that these factors are correlated with each other as in the way summarized in (56) below.

(56) English Infinitivals (Stowell 1982, Martin 1996)

no C: T [- finite, - tense]: defective set of  $\phi$ -feature: no Case (raising/ECM)

C: T [- finite, + tense]: full set of  $\phi$ -feature: null Case

This assumption, however, does not account for Japanese subjunctives, since the pieces of evidence given above indicate that the presence of C is not necessarily linked to the completeness of T's (tense) feature, as shown in (57).

### (57) Japanese Subjunctives

C: T [+ finite, - tense]: no visible φ-feature: no Case (raising) and null Case C: T [+ finite, + tense, - past<sub>def</sub>]: no visible φ-feature: null Case and nominative Case

As has been mentioned so far, similar facts are in other languages, for example, in Modern Greek (Alexiadou and Anagnostopoulou 1999, Giorigi and Pianesi 1998, Terzi 1997, among many others).

### (58) Modern Greek Subjunctives

C: T [+ finite, - (independent) tense]: full set of φ-feature: no Case (raising) and null Case

C: T [+ finite, + (independent) tense]: full set of  $\phi$ -feature: null Case and nominative Case

Thus, it is evident that there is no one-to-one correspondence between T's  $\phi$ -feature and values of Case feature for its agreeing subject. That is, Case values are not necessarily determined by the  $\phi$ -completeness of T, but is parameterized for each language.

Given this, my proposal concerning strong phases implies the following. That is, the notion of 'a strong phase' under the proposed analysis refers to the completeness of T's feature. The feature is the one relevant to determination of Case values in a given language, as in the case of the tense feature in Japanese. This view of strong phases quite naturally captures what role strong phases play in the syntactic derivation. That is, a domain derivation converges when it reaches a stage where every unvalued feature is determined.

## Appendix 2: Data: other types of long-distance dependency across subjunctive CP complements

In this appendix, I present more data concerning transparency of the subjunctive complements, that is, long-distance anaphor binding and long-distance negative polarity item (NPI) licensing, some of which are pointed out by Uchibori (1997). The anaphors and NPIs to be examined below must be licensed by their local antecedents when they appear in non-subjunctive clauses. The examples in A.2.1 show that a morphologically complex local reflexive anaphor such as *zibun-zisin* 'self-self' and *kare-zisin* 'he-self' in the subjunctive complement can be licensed by its antecedent in the matrix. Those in A. 2.2 demonstrate that the following NPIs, *sika* 'only' and *wh-mo* (e.g., *nani-mo* 'anything') are allowed to occur in the subjunctive complement of the non-past group even when the negation head *nai* appears in the matrix (as for *sika*, Nakau 1978 originally points out the fact).

Here again, the non-control type complements as well as the control-type complements equally display the transparency property. That is, even if the complement has an overt nominative subject, those long-distance dependencies obtain.<sup>19</sup> Furthermore, whether the complement belongs to the past group or the non-past group does not matter, either, with only one exception (which will be mentioned soon below). Although the exact mechanism of licensing of these elements will be left for future research, I here tentatively suggest the following.

As for anaphors, these data confirm movement analyses for anaphors proposed in the literature (for a movement theory of anaphors, see Lebeaux 1983, Chomsky 1986, and Chomsky and Lasnik 1993; for an anaphor movement analysis of Japanese anaphors, see Katada 1991; for movement analyses of long-distance anaphors in various languages, see the papers in

<sup>&</sup>lt;sup>19</sup> See Aoshima (2000), for a restructuring analysis of similar data concerning Japanese obligatory-control constructions including what is referred to as the control-type subjunctive complements here. Assuming that *-ru/ta* are not tense morphemes but aspectual morphemes, Aoshima argues that the obligatory-control complements lack T. However, as has been shown in Chapter 4, the control-type and non-control type subjunctive complements display the tense property that cannot be accounted for in terms of the absence of T. For example, they show certain tense property clearly different from truly tense-less domains such as *-te* phrases and the raising subjunctive complement (see 2.1, 4.2, 4.5. and 4.4). Furthermore, it has also been pointed out above that the semantics of the governing verbs cannot completely explain the tense interpretations of these subjunctive complements. Thus, it is not clear whether a restructuring approach correctly captures the tense property of the subjunctive complements, even though it deals only with the control-type subjunctive complements.

Koster and Reuland 1991). Since the data given below have not been discussed in the literature so far, it is interesting to ask how they can be naturally accommodated under the current framework of the Minimalist Program. For example, it might be assumed that, since  $\phi$ -features of morphologically complex anaphors must agree with those of their antecedents, Agree in terms of  $\phi$ -features takes place between them. The next question is what kind of movement is triggered.

As for NPI licensing, it also seems possible to assume a movement analysis (Lee 1991, for example. See also Tanaka 1997, which proposes a movement analysis of *sika*, although relevant judgements are different from ours). What is interesting here is the fact that the long-distance NPI licensing is not allowed if an NPI occurs in the factive complement (see the examples in 30a, b). That is, it is suggested that NPI movement is subject the same locality of adjunct movement, since both are blocked by weak islands (Cinque 1990). I leave these issues for future research.

### A2.1 Long-Distance Anaphor Binding

- Non-subjunctive finite clauses/complements (1) John<sub>i</sub>-ga zibun-zisin<sub>i</sub>/kare-zisin<sub>i</sub>-o suisensi-ta -nom self-self /he-self -acc recommend-past 'John recommended himself.'
- (2) \*John<sub>i</sub>-ga [iinkai<sub>j</sub>-ga zibun-zisin<sub>i/j</sub>/kare-zisin<sub>i/j</sub>-o suisensi-ta -nom committee-nom self-self /he-self-acc recommend-past to] it/omot-ta comp say/think-past
   \*John said/thought that the committee recommended himself.'
  - (Cf. \*iinkaij-ga zibun-zisini/kare-zisini-o suisensi-ta committee-nom self-self /he-self -acc recommend-past)

Control type subjunctive complements

(3) Johni-ga [ej zibun-zisini/j/kare-zisini/j-0 suisensu-ru-koto]-0 -nom committee-dat self-self/he-self-acc recommend-nonpast-sbj comp-acc keikakusi/kokoromi-ta

plan/attempt-past

'John planed/attempt to recommend himself.'

(4) Johni-ga iinkaij-ni [ej zibun-zisini/\*j/kare-zisini/\*j-o suisensu-ru-yoo(ni(-to))]
 -nom committee-dat self-self /he-self-acc recommend-nonpast-sbj comp
 motome-ta
 require-past

"John required that the committee would recommend himself."

(5) John<sub>i</sub>-ga iinkai<sub>j</sub>-ni [e<sub>j</sub> zibun-zisin<sub>i/\*j</sub>/kare-zisin<sub>i/\*j</sub>-o suisensu-ru-koto]-o -nom committee-dat self-self/he-self-acc recommend-nonpast-sbj comp-acc motome-ta

require-past

"\*John required that the committee would recommend himself."

Non-Control type subjunctive complements

 (6) (?)John-ga [iinkai-ga zibun-zisin://kare-zisin://j-o suisensu-ru -nom committee-nom self-self/he-self-acc recommend-nonpast
 -yoo(ni(-to)) ] nozon-da
 -sbj comp want-past

'\*John want that the committee would recommend himself.'

- (7) (?)John<sub>i</sub>-ga [iinkai<sub>j</sub>-ga zibun-zisin<sub>i/\*j</sub>/kare-zisin<sub>i/\*j</sub>-o suisensu-ru -nom committee-nom self-self /he-self-acc recommend-nonpast -koto]-o nozon-da -sbj comp-acc want-past
  - '\*John want that the committee would recommend himself.'
- (8) (?)Johni-ga [iinkaij-ga zibun-zisini/\*j/kare-zisini/\*j-o suisensu-ru -nom committee-nom self-self /he-self-acc recommend-nonpast
   -koto]-o soozoo-sita -sbj comp-acc imagine-past
   (\* John imagined that the committee would see semand himself.'
  - '\*John imagined that the committee would recommend himself.'
- (9) Compare this example with (1b) above
  - (?)John<sub>i</sub>-ga [iinkai<sub>j</sub>-ga zibun-zisin<sub>i/\*j</sub>/kare-zisin<sub>i/\*j</sub>-o suisensi-ta -nom committee-nom self-self /he-self-acc recommend-past -koto]-o soozoo-sita -sbj comp-acc imagine-past

'\*John imagined that the committee would have recommend himself.'

- (10) Compare this example with (1b) above
  - (?)John<sub>i</sub>-ga [iinkai<sub>j</sub>-ga zibun-zisin<sub>i/\*j</sub>/kare-zisin<sub>i/\*j</sub>-o suisensi-ta -nom committee-nom self-self/he-self-acc recommend -koto]-o negat/inot-ta

-past -sbj comp-acc wish/pray-past

'\*John wished/prayed that the committee would have recommend himself.'

### A2.2 Long-Distance Negative Polarity Item Licensing

A2.2.1 sika ... nai (see also Muraki 1978 and Nemoto 1993a<sup>20</sup>)

### Non-subjunctive clauses/complements

- (11) seito-ga suugaku sika benkyoosi-nakat-ta student-nom mathematics only study-neg-past 'It is only mathematics that the students studied.'
- (12) \*sensei-ga [seito-ga suugaku sika benkyoosu-ru to] iwa-nakat-ta teacher-nom student-nom mathematics only study-nonpast comp say-neg-past 'It was only mathematics that the teacher said that the students studied.'

### Control type subjunctive complements

- (13) seito<sub>i</sub>-ga [e<sub>i</sub> suugaku sika benkyoosu-ru-koto]-o keikakusi/kokoromi student-nom mathematics only study-nonpast-sbj comp-acc plan/attempt -nakat-ta -neg-past
- (14) sensei-ga seitoi-ni [ei suugaku sika benkyoo-suru-yoo(ni(-to))] teacher-nom student-dat mathematics only study-nonpast-sbj comp motome-nakat-ta require-neg-past
  'It was only mathematics that the teacher required that the students should study.'

<sup>&</sup>lt;sup>20</sup> Nemoto reports that when *-to* occurs in the complement, the long-distance licensing of the NPI *sika* is prohibited. This judgement is consistent with other judgement of Nemoto according to which long-distance A-scrambling out of the subjunctive complements headed by *-yoonito* becomes marginal (Ch. 5: note 2). However, as has been mentioned above (Ch 2: note 2), there are certainly a different type of speakers, including myself, who judge that the existence of *-to* causes no severe ungrammaticality with respect to long-distance NPI licensing as well as long-distance A-scrambling. Furthermore, the behavior of another NPI *wh-mo* shown in A2.2.2 confirms the same point. Recall that Nemoto finds the form *-yoonito* slightly marginal in the first place.

The ungrammaticality at issue can also be expected if a speaker always analyzes the complement introduced *-yoonito* as a direct quotation of an imperative/optative speech, as was discussed in Ch 4: note 12. Thus, it is suggested that there might be a dialectal (or ideolectal) variation with respect to the morphology of this subjunctive complementizer (that is, the difference is whether the clause subordinator *-to* is adjoined to the clause-type indicator *- yooni*).

(15) sensei-ga seito<sub>i</sub>-ni [e<sub>i</sub> suugaku sika benkyoosu-ru -koto]-o teacher-nom student-dat mathematics only study-nonpast-sbj comp-acc motome-nakat-ta require-neg-past

'It was only mathematics that the teacher required that the students should study.'

Non-Control type subjunctive complements

- (16) sensei-ga [seito-ga<sub>i</sub> suugaku sika benkyoosu-ru-yoo(ni(-to))] teacher-nom student-nom mathematics only study-nonpast-sbj comp nozoma-nakat-ta want-not-past
  'It was only mathematics that the teacher wanted that the students should study.'
- (17) sensei-ga [seito-ga<sub>i</sub> suugaku sika benkyoosu-ru-koto]-o teacher-nom student-nom mathematics only study-nonpast-sbj comp-acc nozoma-nakat-ta want-not-past
  'It was only mathematics that the teacher wanted that the students should study.'
- (18) sensei-ga [seito-gai suugaku sika benkyoosu-ru-koto]-o teacher-nom student-nom mathematics only study-nonpast-sbj comp-acc soozoosi-nakat-ta
   'It was only mathematics that the teacher imagined that the students studied.'
- (19) (?)sensei-ga [seito-ga; suugaku sika benkyoosi-ta-koto]-o teacher-nom student-nom mathematics only study-past-sbj comp-acc soozoosi-nakat-ta imagine-neg-past
  'It was only mathematics that the teacher imagined that the students had studied.'
- (19) Compare this example with (18)
   \*seito<sub>i</sub>-ga [jibun<sub>i</sub>-tati-ga<sub>i</sub> suugaku sika benkyoosi-ta-koto]-o
   teacher-nom self-pl-nom mathematics only study-nonpast-sbj comp-acc
   kookaisi-nakat-ta
   'It was only mathematics that the students regretted that they had
   studied.'

A.2.2.2 wh-mo ... nai

Non-subjunctive clauses/complements

- (20) John-ga nani-mo kaw-anakat-ta -nom 'anytinh' buy-neg-past 'John did not buy anything.'
- (21) \*John-ga [Mary-ga nani-mo kat-ta to] iwa-nakat-ta -nom -nom 'anything' buy-past comp say-neg-past 'John did not say that Mary bought anything.'

Control type subjunctive complements

- (22) John<sub>i</sub>-ga [e<sub>i</sub> nani-mo ka-u -koto]-o keikakusi/kokoromi -nom 'anything' buy-nonpast -sbj comp-acc plan/attempt
  -nakat-ta -neg-past
  'John did not plan/attempt to buy anything.'
- (23) John-ga Mary<sub>i</sub>-ni [e<sub>i</sub> nani-mo ka-u -yoo(ni(-to))] motome-nakat-ta -nom -dat 'anything' buy-nonpast -sbj comp require-neg-past 'John did not require Mary to buy anything.'
- (24) John-ga Mary<sub>i</sub>-ni [e<sub>i</sub> nani-mo ka-u -koto]-o motome-nakat-ta -nom -dat 'anything' buy-nonpast -sbj comp-acc require-neg-past 'John did not require Mary to buy anything.'

Control type subjunctive complements

- (25) John-ga [Mary-ga nani-mo ka-u -yoo(ni(-to))] nozoma-nakat-ta -nom -nom 'anything' buy-nonpast -sbj comp want-neg-past 'John did not want that Mary should buy anything.'
- (26) John-ga [Mary-ga nani-mo ka-u -koto]-o nozoma-nakat-ta -nom -nom 'anything' buy-nonpast -sbj comp-acc want-neg-past 'John did not want that Mary should buy anything.'
- (27) ?John-ga [Mary-ga nani-mo kat-ta -koto]-o -nom -nom `anything` buy-past -sbj comp -acc negawa/inora-nakat-ta wish/praynt-neg-past 'John did not wish/pray that Mary would have buy anything.'
- (28) ?John-ga [Mary-ga nani-mo ka-u -koto]-o soozoosi-nakat-ta -nom -nom 'anything' buy-nonpast-sbj comp-acc imagine-neg-past 'John did not imagine that Mary had bought anything.'
- (29) ?John-ga [Mary-ga nani-mo kat-ta -koto]-o soozoosi-nakat-ta

-nom -nom 'anything' buy-past-sbj comp-acc imagine-neg-past 'John did not imagine that Mary had bought anything.'

### (30) Compare these examples with (29)

- a. \*John-ga [Mary-ga nani-mo kat-ta -koto]-o wasure-nakat-ta -nom -nom 'anything' buy-past-sbj comp-acc foget-neg-past 'John did not forget that Mary bought anything.'
- b. \*John;-ga [jibun;-ga nani-mo kat-ta -koto]-o kookaizi-nakat-ta -nom -nom 'anything' buy-past-sbj comp-acc regret-neg-past 'John did not regret that he bought anything.'

### References

- Abe, J. 1993. *Binding Condition and Scrambling without A/A' Distinction*. Doctoral dissertation. University of Connecticut.
- Alexiadou, A. and E. Anagnostopoulou. 1999. Case, Agreement, and (Non-)Deficient Tense. a paper read at the second GLOW in Asia at Nanzan University.
- Aoshima, M. 2000. Mono-clausality in Japanese Obligatory Control Constructions. Ms. University of Maryland.
- Beghelli, F. 1998. Mood and the Interpretation of Indefinites. *The Linguistic Review* 15: 277-300.
- Bhatt, R. and Yoon, J. 1991. On the Composition of Comp and Parameters of V2. WCCFL 10: 41-52.
- Borer, H. 1989. Anaphoric AGR. In *The Null Subject Parameter*, eds. O. Jaeggli and K. Safir, 69-109. Dordrecht: Kluwer.
- Boskovic, Z. and Takahashi, D. Scrambling and Last Resort. *Linguistic Inquiry* 29: 347-366.
- Bosikovic, Z. 1994. D-structure, θ-Criterion, and Movement into θ-Positions. *Linguistic Analysis* 24: 247-286.
- Bosckovic, Z. 1995. Case Properties of Clauses and the Greed Principle. *Studia Linguistica* 49: 32-53.
- Cheng, L. 1991. MIT. On the Typology of Wh-Questions. Doctoral dissertation. MIT.
- Chierchia, G. 1995. Individual Level Predicates as Inherent Generics. In *The Generic Book*, eds. G. N. Carlson. And F. J. Pelletier. Chicago: University of Chicago Press.
- Chomsky, N. 1991. Some Notes in Economy of Derivation and Representation. In *Principles and Parameters in Comparative Grammar*, ed. R. Friedin, 417-454. Cambridge, Mass.: MIT Press.
- Chomsky, N. 1995. Categories and Transformations. In *The Minimalist Program*, 219-394. Cambridge, Mass.: MIT Press.
- Chomsky, N. 1998. Minimalist Inquiries: The Framework. *MIT Occasional Papers in Linguistics* 15. Cambridge, Mass: MITWPL.

Chomsky, N. 1999. Derivation by Phase. Ms. MIT.

- Chomsky, N. and H. Lasnik. 1993. The Theory of Principles and Parame ters. In Syntax: An International Handbook of Contemporary Research, eds. J. Jacobs, A. von Stechow, W. Sternefeld, and T. Vennemann, 506-70. Berlin: Mouton de Gruyter.
- Cinque, G. 1990. *Types of A-bar Dependencies*. Cambridge, Mass.: MIT Press.
- Cinque, G. 1999. *Adverbs and Functional Heads*. New York: Oxford University Press.
- Dejima, M. 2000. Phase-Based Analyais of Long-Distance Scrambling in Japanese. In *Minimalization of Each Module in Generative Grammar*, ed. J. Abe, 77-98. Nagoya University.
- Dixon, R. 1972. *The Dyirbal Language of North Queensland*. Cambridge: Cambridge University Press.

Farkas, D. 1992. On the Semantics of Subjunctive Complements. In *Romance Languages and Modern Linguistic Theory*, eds. P. Hirschbuhler and K. Koerner. Amsterdam: John Benjamin.

Fiengo, R. 1977. On Trace Theory. Linguistic Inquiry 8: 35-61.

- Fukui, N. 1986. A Theory of Category Projection and Its Application. Doctoral dissertation. MIT.
- Fukui, N. 1988. LF Extraction of Naze: Some Theoretical Implications. Natural language and Linguistic Theory 6.
- Fukui, N. and T. Nishigauchi. 1992. Head-movement and Case-marking in Japanese. *Journal of Japanese Linguistics* 14: 1-35.
- George, L. and J. Kornfilt. 1981. Finiteness and Boundedness in Turkish. In *Binding and Filtering*, ed. F. Henny, 1005-127. Cambridge, Mass.: MIT Press.
- Giorgi, A. and F. Pianesi. 1997. *Tense and Aspect.* New York: Oxford University Press.
- Gorbet, L. 1976. A Grammar of Diegueno Nominals. New York: Garland Publishing.
- Grewendorf, G. and J. Sabel. 1999. Scrambling in German and Japanese: Adjunction versus Multiple Specifies. *Natural Language and Linguistic Theory* 17: 1-65.
- Grosu, A. and J. Horvath. 1984. The GB Theory and Raising in Romanian. *Linguistic Inquiry* 15: 348-353.
- Harada, S. I. 1976. Honorifics. In *Syntax and Semantics 5: Japanese Generative Grammar*, ed. M. Shibatani, 499-561. New York: Academic Press.

- Hasegawa, N. 1984-85. On the so-called 'Zero Pronoun' in Japanese. The Linguistic Review 4: 289-341.
- Higginbotham, J. 1980. Pronouns and Bound Variables. *Linguistic Inquiry* 11:679-708.
- Higginbotham, J. and R. May. 1981. Questions, and Quantifiers and Crossing. *The Linguistic Review* 7:1-79.
- Hendrick. R. 1995. Morphosyntax. In *Government and Biding Theory and the Minimalist Program*, ed. G. Webelhuth, 297-348. Oxford: Blackwell.
- Hooper, J. 1975. On Assertive Predicates. In *Syntax and Semantics vol. 4*, ed. J. Kimball. New York: Academic Press.
- Hornstein, N. 1990. As Time Goes By. Cambridge, Mass.: MIT Press.
- Hornstein, N. 1995. *Logical Form: From GB to Minimalism*. Oxford: Blackwell.
- Hornstein, N. 1999. Movement and Control. *Linguistic Inquiry* 30: 69-96.
- Hornstein, N. and S. Verlokosta. 1996.
- Hoshi, H. 1993. Excorporation in Syntax and in LF: the Case of Romance Causatives and Japanese Passives. Doctoral dissertation. University of Connecticut.
- Iatridou, S. 1993. On Nominative Case Assignment and a Few Related Things. *MIT Working Papers in Linguistics* 19: 175-196. Cambridge, Mass.: MITWPL.
- Inoue, K. 1976. Henkee Bunpoo to Nihongo. Tokyo: Taisyuukan.

- Ingria, R. 1981. Sentential Complementation in Modern Greek. Doctoral Dissertation. MIT.
- Ishii, Y. 1997. Scrambling and the Weak-Strong Distinction in Japanese. University of Connecticut Working Papers in Linguistics 8: 89-112. Cambridge, Mass.: MITWPL.
- Josephs, L. 1976. Complementation. In *Syntax and Semantics 5: Japanese Generative Grammar*, ed. M. Shibatani, 307-369. New York: Academic Press.
- Kageyama, T. 1989. The Place of Morphology in the Generative Grammar: Verb-Verb Compounds in Japanese. In *Yearbook of Morphology*, eds. Booij abd van Marle. Dordrecht: Foris.

Kageyama, T. 1993. Bunpo to Gokeisei. Tokyo: Hituzi Syoboo.

- Kikuchi, Oishi, and Yusa. 1994. Scrambling and Relativized Lrelatedness. In *MIT Working Papers in Linguistics 24: Formal Approaches to Japanese Linguistics* 1, 141-158. Cambridge, Mass.: MITWPL.
- Kiparsky, P. and C. Kiparsky. 1971. Fact. In *Semantics*. eds. D. Steinberg and L. Jacobovits. 345-369. Cambridge: Cambridge University Press.
- Kitahara, H. 1997. *Elementary Operations and Optimal Derivations*. Cambridge, Mass.: MIT Press.
- Kitahara, H. 1999. A Derivational Interpretations of Scrambling Sites. a paper read at the second GLOW in Asia at Nanzan University. Lasnik, H. and M. Saito. 1992. *Move α*. Cambridge, Mass.: MIT Press.
- Koizumi, M. 1995. *Phrase Structure in Minimalist Syntax*. Doctoral dissertation. MIT.

- Kuno, S. 1973. *The Structure of Japanese Language*. Cambridge, Mass.: MIT Press.
- Kuroda, S.-Y. 1986. A Case Against Lexicalism in Japanese Syntax and a Modest Proposal for the Reorganization of Grammar. Ms. University of California, San Diego.
- Kuroda, S.-Y. 1988. Whether We Agree or Not. *Linguisticae Investigatio*nes 12: 1-47.
- Li. Y. 1990. Conditions on  $X^{0}$ -Movement. Doctoral dissertation. MIT.
- Mahajan. A. 1990. *The A/A-bar Distinction and Movement Theory*. Doctoral dissertation. MIT.
- Martin, R. 1996. A *Minimalist Theory of PRO and Control*. Doctoral dissertation. University of Connecticut.
- Miyagawa, S. 1986. Restructuring in Japanese. In *Issues in Japanese Linguistics*. eds. T. Imai and M. Saito. Dordrecht: Foris.
- Miyagawa, S. 1993. Case, Agreement, and *ga/no* Conversion in Japanese. In *Japanese/Korean Linguistics vol.* 3. Stanford, Calif.: CSLI/SLA.
- Miyagawa, S. 1997. Against Optional Scrambling. *Linguistic Inquiry* 28: 1-25.
- Miyagawa, S. In press. The EPP, Scrambling, and *Wh*-in-Situ. In *Ken Hale: A Life in Language*, ed. M. Kenstowicz. Cambridge, Mass.: MIT Press.
- Miyagawa, S. to appear. A-movement Scrambling and Options without Optionality. In *Word Order and Scrambling*, ed. S. Karimi. Oxford: Blackwell.

- Miyamoto, Y. 1993. The Temporal Construction in Japanese. In FLSM 4: 220-235. University of Iowa.
- Motomura, M. 2000. Thematic Role of Sentential Complement and the Status of *-to* Particle in Japanese. Ms. University of Maryland.
- Muller, G. 1993. On Deriving Movement Type Asymmetries. Doctoral dissertation. University of Tubingen.
- Muraki, M. 1978. The <u>Sika Nai</u> Construction and Predicate Restructuring. In Problems in Japanese Syntax and Semantics, eds. J. Hinds and I. Howard. 155-157. Tokyo: Kaitakushya.
- Murasugi, K. 1991. *Noun Phrases in Japanese and English*. Doctoral dissertation. University of Connecticut.
- Murasugi, K. 2000. Japanese Complex Noun Phrases and the Antisymmetry Theory. In *Step by Step*, eds. R. Martin, D. Michaels, and J. Uriagereka, 211-233. Cambridge, Mass: MIT Press.
- Nakamura, A. 1994. Some Aspects of Temporal Interpretation in Japanese. In *MIT Working Papers in Linguistics 24: Formal Approaches to Japanese Linguistics* 1, 231-246. Cambridge, Mass.: MITWPL.
- Nakau, M. 1973. Sentential Complementation in Japanese. Tokyo: Kaitakusya.
- Namai, K. 2000. Subject Honorification in Japanese. In *Linguistic Inquiry* 31: 170-176.
- Nemoto, N.1991. Scrambling and Conditions on A-movement. In WCCFL 10: 345-358.
- Nemoto, N. 1993a. Chains and Case Positions: A study from scrambling in Japanese. Doctoral dissertation. University of Connecticut.

- Nemoto, N. 1993b. Notes on Control Constructions in Japanese. *Journal* of Japanese Linguistics 15:125-137.
- Niinuma, F. 2000. Object Honorification in Japanese. Ms. University of Connecticut.
- Nishigauchi, T. 1990. *Quantification in the Theory of Grammar*. Dordrecht: Kluwer.
- Nishigauchi, T. 1993. Long Distance Passive. In *Japanese Syntax in Comparative Grammar*, ed. Hasegawa, N. 79-114. Tokyo: Kuroshio Shyuppan.
- Ochi, M. 1999. *Constraints on Feature Checking*. Doctoral dissertation. University of Connecticut.
- Oka, T. 1996. Scrambling in Japanese and English. In *MIT Working Papers in Linguistics 29: Formal Approaches to Japanese Linguistics* 2, 361-388. Cambridge, Mass.: MITWPL.
- Ogihara, T. 1989. *Temporal Interpretations in English and Japanese*. Doctoral Dissertation. University of Texas at Austin.
- Ogihara, T. 1996. Tense, Attitudes, and Scope. Dordrecht: Kluwer.
- Palmer, F. R. 1986. *Mood and Modality*. Cambridge: Cambridge University Press.
- Pesetskey, D. 1990. Experiencer Predicates and Universal Alignment Principles. Ms. MIT.
- Rivero, M.-L. 1988. Barriers and the Null Subject Parameter in Modern Greek. In *NELS* 18: 412-425.

- Sakaguchi, M. 1990. Control Structures in Japanese. In Japanese/Korean Linguistics, ed. H. Hoji, 303-317. Stanford, Calif.: CSLI/Stanford University.
- Sakai, H. 1996. Derivational Uniformity: A Study of Syntactic Derivation in Parametric Setting. Doctoral dissertation. University of California, Irvine.
- Saito, M. 1983. Case and Government in Japanese. In WCCFL 2: 249-259.
- Saito, M. 1985. Some Asymmetries in Japanese and Their Theoretical Implications. Doctoral dissertation. MIT.
- Saito, M. 1987. Three Notes on Syntactic Movement in Japanese. In *Issues in Japanese Linguistics*, eds. T. Imai and M. Saito. Dordrecht: Foris.
- Saito, M. 1989. Scrambling as Semantically A'-movement. In Alternative Conceptions of Phrase Structure, eds. M. Baltin and A. Kroch. 182-200. Chicago: University of Chicago Press.
- Saito, M. 1992. Long Distance Scrambling in Japanese. *Journal of East* Asian Linguistics 1: 69-118.
- Saito, M. 1994. Improper Adjunction. In *MIT Working Papers in Linguistics* 24: Formal Approaches to Japanese Linguistics 1, 295-314. Cambridge, Mass.: MITWPL.
- Saito, M. and H. Hoji. 1983. Weak Crossover and Mover-alpha in Japanese. *Natural Language and Linguistic Theory* 1: 245-259.
- Saito, M. and H. Hoshi. 1998. Japanese Light Verb Construction and the Minimalist Program. In *Step by Step*, ed. R. Martin, D. Michaels, and J. Uriagereka, Cambridge, Mass: MIT Press.

Shibatani, M. 1978. Nihongo no Bunseki. Tokyo: Taisyuukan.

Stowell, T. 1982. The Tense of Infinitives. Linguistic Inquiry 13: 561-570.

- Stepanov, Arthur. 1999. *NP-Shells*. Syntax general examination's paper, University of Connecticut.
- Tada, H. 1993. A/A-bar Partition in Derivation. Doctoral dissertation. MIT.
- Takahashi, D. 2000. Move F and Raising of Lexical and Empty DPs. In *Step by Step*, eds. R. Martin, D. Michaels, and J. Uriagereka, 297-317. Cambridge, Mass: MIT Press.
- Takano, Y. 1994. Unbound Traces and Indeterminacy of Derivation. In *Current Topics in English and Japanese*, ed. M. Nakamura, 229-253. Tokyo: Hituzi Shoyobo.
- Takano, Y. 2000. Surprising Constituents. Ms. Kinjyo Gakuin University.
- Takezawa, K. 1987. A Configurational Approach to Case Marking in Japanese. Doctoral dissertation, University of Washington.
- Tanaka, H. 1997. Invisible Movement in *Sika-Nai. Journal of East Asian Linguistics* 6: 143-188.
- Terzi, A. 1994. *PRO in Finite Clauses.: A Study of the Inflectional Head of the Balkan Languages.* Doctoral dissertation, City University of New York.
- Terzi, A. 1997. PRO and Null Case in Finite Clauses. *The Linguistic Review* 14: 335-360.
- Thompson, E. 1996. *The Syntax of Tense*. Doctoral dissertation, University of Maryland.

- Toribio, A. J. 1990. Specifier-head Agreement in Japanese. In WCCFL 9: 535-548. Stanford, Calif.: CSLI.
- Uchibori, A. 1997. Opacity and Subjunctive Complements in Japanese. In *Japanese/Korean Linguistics vol.* 6. eds. S. Ho-min and J. Haig, 399-414. Stanford, Calif.: CSLI/SLA.
- Ueda, M. 1990. *Japanese Phrase Structure and Parameter Setting*. Doctoral dissertation, University of Massachusetts, Amherst.
- Ueyama, A. 1998. *Two Types of Dependency*. Doctoral dissertation, University of Southern California.
- Ura, H. 1994. L-relatedness and Its Parametric Variation. In *MIT Working Papers in Linguistics* 19: 377-399. Cambridge, Mass.: MITWPL.
- Ura, H. 1996. *Multiple Feature-Checking: A Theory of Grammatical Function Splitting*. Doctoral dissertation. MIT.
- Verlokosta, S. 1994. *Issues on Modern Greek Sentential Complementation*. Doctoral Dissertation. University of Maryland.
- Watanabe, A. 1993. The Notion of Finite Clauses in Agr-Based Case Theory. In *MIT Working Papers in Linguistics vol.* 18, 281-296. Cambridge, Mass.: MITWPL.
- Watanabe, A. 1994. A Cross-linguistic Perspective on Japanese Nominative-Genitive Conversion and Its Implication for Japanese Syntax. In Current Topics in English and Japanese, ed. M. Nakamura, 341-369. Tokyo: Hituzi Syoboo.
- Watanabe, A. 1996a. Nominative-Genitive Conversion and Agreement in Japanese: A cross-linguistic perspective. *Journal of East Asian Linguistics* 5:373-416.

Watanabe, A. 1996b. Switch reference in Control: Toward a Minimal Theory of Control. In *Kanda Gaigo Daigaku Kiyoo: Gengokyooiku kenkyuu* 7. 89-160. Kanda University of International Studies.

Yoshimura, N. 1992. Scrambling and Anaphora in Japanese. Doctoral dissertation. University of Southern California.