THE INTERROGATIVE MARKER KA
IN JAPANESE

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***

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LIST OF ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols will be used in this thesis.

Nom : nominative
Acc : accusative
Dat : dative
Gen : genitive
Top : topic
Past : past tense
Cop : copula
E.C. : empty copula
NM : nominalizer
S : sentence
S' : sentence + C(omplementizer)
C(omp) : complementizer
Infl : inflection
* : indication of ungrammatical sentences
# : indication of discourse-pragmaticality inappropriate sentences
CHAPTER I
INTRODUCTION

1.1. Introduction

In English, yes-no questions are made by inverting the subject and the auxiliary verb:

(1) a. Mary will buy the book tomorrow.
   b. Will Mary buy the book tomorrow?

Sentence (1a) is a declarative sentence, while (1b) is an interrogative counterpart of (1a). Interrogative (1b) involves the Subject-Auxiliary inversion, which is an example of head movement; the modal auxiliary (head) moves from Infl position to C position (Haegeman 1994: 591). In Japanese, on the other hand, an interrogative sentence is not produced by Subject-Auxiliary inversion, but by attaching a question particle to the verb at the end of the sentence:

(2) a. Mari-wa sono hon-o kaimasu.
   Mari-Top tomorrow the book-Acc buy
   'Mari will buy the book tomorrow.'
b. Mari-wa asita sono hon-o kaimasu ka?

Q

'Will Mari buy the book tomorrow?'

Sentence (2a) is a declarative sentence whereas (2b) is the interrogative counterpart of (2a). The question particle ka with rising intonation makes it an interrogative sentence.

However, this operation of making an interrogative sentence does not produce grammatical sentences in some cases. Consider the following sentences:

(3) a. Taro-wa gakusei da.
   Taro Top student Copula
   'Taro is a student.'

b. * Taro-wa gakusei da ka?

(4) a. Mari-wa ninzin-o kau.
   Mari Top carrot.Acc buy
   'Mari will buy a carrot.'
b. *Mari wa nani-o kau ka?¹
Mari Top what-Acc buy Q
'What will Mari buy?'

For the sentences (3) and (4) above, interrogative sentences with the overt question particle ka are ungrammatical.

There is another way to make an interrogative sentence in Japanese without using an overt question particle ka. An interrogative question in Japanese can be formed by raising the intonation at the end of the sentence:

(5) a. Mari wa asita gakkoo e ikimasu.
Mari Top tomorrow school to go
'Mari will go to school tomorrow.'

b. Mari wa asita gakkoo e ikimasu? (with rising intonation)
'Will Mari go to school tomorrow?'

c. Mari wa asita gakkoo e ikimasu ka?
Q
'Will Mari go to school tomorrow?'

Sentences (bb) and (5c) are the interrogative counterparts of (5a), and these two interrogative sentences convey exactly the same propositional content,

¹ This sentence is ungrammatical when it is an information-seeking question, not a rhetorical question. In this thesis, rhetorical questions are not included in the focus of the study. Thus this sentence is classified as an ungrammatical one.
although (5b) is considered less formal and more feminine in terms of speech style.

According to Akmajian, Demers, and Harnish (1984: 304-307), English also has "abbreviated questions," that is, questions whose auxiliary verbs are deleted, such as the following:

(6) Last night's party go well? (Did last night's party go well?)

They distinguish this kind of interrogative sentences from regular declarative sentences with rising intonation, an example of which is shown below:

(7) Last night's party went well?

Akmajian, Demers and Harnish (1984) points out that (7) is used in a conversation only if the questioner expects that the party did go well and is asking for confirmation of that expectation, while (6) is used to ask for information and does not imply that the questioner has any expectation; that is, (6) conveys exactly the same propositional content as Did last night's party go well? does. Therefore, they conclude that (6) is an interrogative sentence in which the auxiliary verb Did is deleted.

In Japanese, too, the sentences (5b) and (5c) above have the same meaning — that is, they both seek information and do not expect a certain answer. Thus, we assume that there is an phonologically null question particle (は) in (5b) at the end of the sentence.

There are cases, however, that the phonologically empty question particle cannot appear:
(8) a. Kono kohii wa atui desu.  
this coffee Top hot[past] polite  
'This coffee is hot.'  

b. *Kono kohii wa atui desu ka?

(9) a. Taro-wa gakusei da.  
Taro Top student Copula  
'Taro is a student.'  

b. *Taro-wa gakusei da ka?

The ungrammatical sentences (8b) and (9b) become grammatical when the 
polite verb desu is absent and when the copula da is empty, respectively.

In this thesis, the grammatical behavior of Japanese interrogative 
sentences including sentences with and without question particles will be 
examined. Throughout the thesis we assume the framework of Government 
and Binding in Barriers (Chomsky 1986b).

The organization of this thesis is as follows: the remainder of this 
Chapter presents theoretical background. In Chapter II, we will examine the 
grammatical behavior of yes-no questions and wh-questions with various 
predicates with various features. The predicates that we will consider are: 
non-copula predicates, copula predicates (nominal predicates and adjectival 
predicates), the extended predicates (no da construction), and negative 
predicates. The features we will look at are the tense feature ([past]) and the
politeness feature ([±polite]), which indicates the psychological distance between the speaker and the listener. We will see that the grammaticality depends upon the combination of the type of question particles (overt or empty) and the features of Infl which govern the question particle.

In Chapter III, we will present an analysis of the grammatical behavior of these interrogative sentences. First, we will review Miyagawa (1987), which presents an analysis of the interrogatives. Then, we will translate his analysis into the CP schema, which we adopt in this thesis, since Miyagawa used the S' schema. Next, we will discuss the conditions where overt (ka) and empty question particle (#) can appear. The conditions that allow a question particle to appear in an interrogative sentence are related to the features that the predicate has and whether or not the sentence has wh-phrase in it. On analyzing the conditions where the question particles can appear, we separate four kinds of question particles, that is, ka [-wh], ka [+wh], ka [-wh], and ka [+wh]. The first two are overt and the latter two are empty. The feature [+wh] indicates that the question particle is for a wh-question while [-wh] indicates that it is for a yes-no question.

1.2. Assumptions

Throughout this thesis, we assume the so-called T-model of grammar, as presented below:

```
D-Structure
       S-Structure
          PF (Phonetic Form)       LF (Logical Form)
```

Figure 1: T-model of Grammar
This model has four levels of syntactic representations. D-Structure represents the basic argument/adjunct relations in the sentence, and S-Structure shows the actual ordering of the elements in the surface (Hageman 1994: 304-305). PF shows how the sentence at S-Structure is overtly realized. LF, which becomes crucial when we consider wh-questions, is an intermediate step which lies between S-Structure and the semantic representation. If we assume the LF, we can interpret a question like (8) as a multiple wh-question:

(10) Who bought what?

At S-Structure, only who takes the sentential scope. However, we interpret this question asking for two pieces of information, who and what. Thus, it is considered that what moves to the position that can also take the sentential scope at LF. The LF representation of (10) is shown in (11):

(11) [CP [Spec what, [Spec who]][IP t bought t]]

Following Lasnik and Saito (1984), Miyagawa (1987) assumes that wh-phrases move to Comp at LF in Japanese. Since we will discuss Miyagawa in detail, we also follow this assumption throughout this thesis.

There have been some proposals for the subject position in Japanese sentences. Fukui (1986), Kitagawa (1986), and Kuroda (1988) propose that Japanese subjects are base-generated under VP. Nakayama and Koizumi (1991), on the other hand, propose that Japanese subjects are base-generated above VP in unergative and transitive constructions. In this thesis, we follow
Nakayama and Koizumi (1991) and assume that Japanese subjects are base-generated above VP, as English subjects are.

Following Nakayama (1988), we also assume that adjectival predicates appear with copulas, although traditionally they are considered not to have copulas at all. Observe the following sentences:

(12) a. Misako san wa utukusii.
    Misako Top beautiful Copula[-past]
    'Misako is beautiful.'

b. Misako san no okaasan wa utukusikatta.
    of mother beautiful Copula[+past]
    'Misako's mother was beautiful.'

c. Misako san wa yasasiku mo aru.
    gentle also Copula[-past]
    'Misako is gentle, too.'

When the adjectival predicate is with present tense as shown in (12a), it does not look like it has a copula. However, as in (12c) when mo 'also' is inserted, the copula becomes overt. Therefore, we assume the adjectival construction as a copula construction.

As for the abbreviations used in this thesis, please refer to List of Abbreviations.
CHAPTER II
INTERROGATIVE SENTENCES IN JAPANESE

In this chapter, we will examine the grammaticality of a variety of interrogative sentences in Japanese. This chapter is divided into five sections: in Section 1, the interrogative sentences in non-copula constructions are discussed; in Section 2, interrogative sentences in copula constructions are examined; Section 3 deals with interrogative sentences in so-called extended predicate constructions; in Section 4, interrogative sentences in negative sentences are discussed; Section 5 provides a summary of this chapter. Sections are further subdivided into two sub-sections: yes-no questions and wh-questions.

2.1. INTERROGATIVE SENTENCES OF NON-COPULA CONSTRUCTION

2.1.1 YES-NO QUESTIONS

All the types of yes-no questions in the non-copula constructions are grammatical. This means that the politeness feature, which indicates the psychological distance between the speaker and the listener, tense, and presence of the question particle *ka* do not affect the grammaticality of yes-no questions with non-copula predicates. We will show this below.
2.1.1.1. Non-copula Predicates with Feature [-polite]

The form of non-copula predicate with features [-polite, -past] ends with -u or -ru, depending on the verb. Examples of the affirmative sentences of the predicates with these features are:

(1) a. Usagi-wa ninzin-o taberu.
   rabbit Top carrot-Acc eat [-polite, -past]
   'Rabbits eat carrots.'

b. Tanaka-wa kyou gakkoo-e iku.
   Tanaka today school to go [-polite, -past]
   'Tanaka will go to school today.'

Their yes-no question counterparts are as in (2).

(2) a. Usagi-wa kyuuri-o taberu  ka / ka ?
   rabbit Top cucumber-Acc eat [-polite, -past]  Q
   'Do rabbits eat cucumber?'

b. Tanaka-wa kyou gakkoo-e iku  ka / ka ?
   Tanaka Top today school to go [-polite, -past]  Q
   'Will Tanaka go to school today?'
As seen above, sentences with either a transitive or intransitive verb ((2a) and (2b), respectively) and sentences with or without question particle *ka* are grammatical in yes-no questions.

The yes-no questions with stative, causative and passive non-copula predicates also show the same grammaticality. The causatives are expressed by the verb endings which are changed into *-seru* or *-sas*eru, depending on verbs. The passives are expressed by the verb endings changed into *-areru* or *-rareru*, depending on the verb.

(3) Eigo-ga dekiru *ka / ka ?*

English-Nom be capable of [-polite,-past] Q

'Are you capable of English ?'

(4) a. Mika-ni daigaku-e ikaseru *ka / ka ?*

Mika Dat college to go-causative[-polite,-past] Q

'Do you make Mika go to college ?'

b. Akira-ni ninzin-o tabesaseru *ka / ka *

Akira Dat carrot Acc eat-causative[-polite,-past] Q

'Do you make Akira eat a carrot ?'

(5) a. Kono hen, zite*nya*, yoku nusumareru *ka / ka ?*

around here bicycle often steal-passive [-polite,-past] Q

'Are bicycles often stolen around here ?'
b. Akiko-wa yoku gakkoo-de sikareru

Akiko Top often school at scold-passive [-polite, -past] Q

'Is Akiko often scolded at school?'

Yes-no questions in these constructions show the same behavior as those in other non-copula predicate constructions with the feature [-polite, -past].

Non-copula predicates with [-polite, +past] have their endings -ta or -da. When the verb stem ends with a nasal consonant or a bilabial voiced consonant, a predicate with [-polite, +past] ends with -da. For example, the verb kau 'to buy' with [-polite, +past] is katta, and the verb yomu 'to read' with the same features is yonda. In Japanese, both past tense and perfective aspect are indicated with -ta or -da ending. The yes-no sentences of the predicates with these features are as follows:

(6) a. Sato-wa tamanegi-o katta

Sato Top onion.Acc bought [-polite, +past] Q

'Did Sato buy onions?'

b. Ano eiga-wa moo owatta

that movie yet end[-polite, +past] Q

'Has that movie ended yet?'

As shown above, yes-no questions with the [-polite, +past] predicate are grammatical regardless of the verb status (i.e., transitive or intransitive), and
regardless of the presence or absence of question particle *ka*. The yes-no questions of stative, causative and passive predicates show the same result:

(7) a. Zuu-nen mae, eigō-ga dekita  ka / ka-?
    "10 years ago English-Nom be capable of [-polite, +past]  Q"
    "Were you capable of English 10 years ago?"

b. Mika-ni daigaku-e ikaseta  ka / ka-?
    "Mika Dat college to go-causative[-polite, +past] Q"
    "Did you make Mika go to college?"

c. Akira-ni ninzin-o tabesaseta  ka / ka-?
    "Akira Dat carrot Acc eat-causative[-polite, +past] Q"
    "Did you make Akira eat a carrot?"

d. Konohen, zitensya, yoku nusumareta  ka / ka-?
    "around here bicycle often steal-passive [-polite, +past] Q"
    "Were bicycles often stolen around here?"

e. Akiko-wa yoku gakkoo-de sikereta  ka / ka-?
    "Akiko Top often school at scold-passive [-polite, +past] Q"
    "Was Akiko often scolded at school?"

The stative, causative and passive features do not change the grammaticality of yes-no questions.
2.1.2. Non-copula Predicates with Feature [+polite]

Non-copula predicates with features [+polite, -past] end with -masu. Polite verbal suffix -mas in -masu indicates the feature [+polite], and -u indicates the tense [-past]. The yes-no questions of the predicate with these features are the followings:

(8) a. Tanaka-san-wa tako-o tabemasu ka?
   Tanaka Mr. Top octopus-Acc eat [+polite, -past] Q
   'Does Mr. Tanaka eat octopus?'

b. Tanaka-san wa, tako, tabemasu ka?

Sentences in (8) have exactly the same meaning and both are grammatical, though they are slightly different in terms of speech style; (8a), with question particle ka, is a standard yes-no question sentence where the predicate has the [+polite, -past] features, but (8b), without the overt ka, is more informal than (8a) and is often considered as a feminine speech style. Sentences like (8b) are seldom observed in written texts.

The following examples are with an intransitive verb:

(9) a. Kono koozi-wa sugu owarimasu ka?
   this construction Top soon end [+polite, -past] Q
   'Will this construction end soon?'

b. Kono koozi, sugu owarimasu ka?
As shown above, the yes-no questions of intransitive verbs with the features [+polite, -past] are grammatical with and without overt question particle カ, as well as in the transitive counterparts.

The followings are with stative, causative, and passive verbs:

(10) a.エゴガ わかります カ/カ?
English-Nom be capable of [+polite, -past] Q
'Are you capable of English?'

b. ミカニ 大学へ いきます カ/カ?
Mika Gen college to go-causative [+polite, -past] Q
'Do you make Mika go to college?'

c. クノヘン, 自転車ガ ゆこ術生来ます カ/カ?
around here bicycle Nom often steal-passive [+polite, -past] Q
'Are bicycles often stolen around here?'

The yes-no questions with stative, causative, and passive non-copula predicates with the features [+polite, -past] are also grammatical with and without overt question particle カ.

The ending of non-copula predicates with features [+polite, +past] is -masita. The morpheme -masi indicates [+polite], and -ts indicates [+past].

Consider the yes-no questions with this type of predicate below:
(11) a. Satoo-san-wa tamanegi-o kaimasita ka?
   Sato Ms. Top onion-Acc bought [+polite, +past]
   ‘Did Ms. Sato buy onions?’

   b. Satoo-san-wa, tamanegi, kaimasita ka?

   As shown in (11), the interrogative sentences with transitive verbs are grammatical, with and without overt question particle ka.

   Yes-no questions of intransitive verbs, too, are grammatical as seen in:

(12) a. Ano koozi-wa moo owarimasita ka?
   that construction Top yet ended [+polite, -past]
   ‘Has that construction ended yet?’

   b. Ano koozi, moo owarimasita ka?

   The similar behavior to transitives and intransitives is observed in yes-no questions with stative, causative, and passive verbs:

(13) a. Zyuun-nen mae, Eigo-ga dekimasita ka / ka?
   10 years ago English-Nom be capable of [+polite, +past] Q
   ‘Were you capable of English 10 years ago?’
b. Takashi-ni rebaa-o zenbu tabesasemitasita ka / ka?  
Takashi Dat liver Acc all eat-causative[+polite, +past] Q  
'Did you make Takashi eat all the liver?'  

It is concluded that the features [+polite] or [+past] and the presence or absence of overt question particle ka do not change the grammaticality of yes-no questions.

2.1.2. WH-QUESTIONS

Different from the yes-no questions examined in the previous subsections, wh-questions of the non-copula construction vary in terms of grammaticality; wh-questions only become ungrammatical when their predicates have the feature [-polite] and the sentences have question particle ka.

No different grammaticality was observed depending on the position of wh-phrase; that is, questions with a wh-phrase at the subject position, at the object position, at in the adjunct position show the same grammaticality as long as the other features, including the presence or absence of overt question particle ka, are the same.1 This is shown below.

---

1 The wh-phrase dosite 'why' shows somewhat different behavior from the other wh-phrases. Dosite tends to appear in the extended predicate construction (or no da construction), and when it appears in the non-extended predicate construction, the sentence is not acceptable. This seems due to a certain pragmatic constraint, not a structural one. We will disregard interrogative sentences with dosite in this thesis. The extended predicate construction will be discussed later.
2.1.2.1. Non-copula Predicates with Feature [-polite]

In wh-questions with non-copula predicates with features [-polite, -past], a different grammaticality judgment is obtained depending on whether or not there is the overt question particle *ka*. Observe the following sentences.

(14) a.*Asita-wa dare-ga iku ka?
tomorrow Top who-Nom go[-polite, -past] Q
‘Who will go tomorrow?’

b.*Inoue-wa nani-o kau ka?
Inoue what-Acc buy[-polite, -past] Q
‘What will Inoue buy?’

c.*Tanaka-wa itu Tookyoo-ni kuru ka?
Tanaka Top when Tokyo to come[-polite, -past] Q
‘When will Tanaka come to Tokyo?’

d.*John-wa nani go-ga dekiru ka?
what language-Nom be capable of [-polite, -past] Q
‘What language is John capable of?’

2 This sentence is not a rhetorical question.
e."Mika-ni dono daigaku-e ikaseru ka?
Mika Dat which college to go-causative[polite,-past] Q
'To which college will you have Mika go?'

f."Konohen, nani-ga yoku nusumareru
gai ? around here what-Nom often steal-passive[polite,-past] Q
'What is often stolen around here?'

The sentences above, which have wh-phrases in different positions such as argument positions or adjunct positions, are all ungrammatical. These sentences become grammatical if question particle "ka is phonologically null, as shown in the following:

(15) a.Asta-wa dare-ga iku ka?
tomorrow Top who-Nom go[polite,-past]
'Who will go tomorrow?'

b.Inoue-san-wa nani-o kau ka?
Inoue Ms. what-Acc buy[polite,-past]
'What will Ms. Inoue buy?'

c.Tanaka-san-wa itu Tokyou-ni kuru ka?
Tanaka Mr. when Tokyo to come[polite,-past]
'When will Mr. Tanaka come to Tokyo?'
d. John-wa nani go-ga dekiru ka ?
   what language-Nom be capable of [-polite, -past] Q
   'What language is John capable of?'

e. Mika-ni dono daigaku-e ikasleru ka ?
   Mika Dat which college to go-causative[-polite, -past]
   'To which college will you make Mika go?'

f. Konohen, nani-ga yoku nusunareru ka ?
   around here what-Nom often steal-passive[-polite, -past]
   'What is often stolen around here?'

The phenomenon seen in sentences in (15) above is different from the yes-no question counterparts, where the presence of ka does not affect the grammaticality of the sentences.

Wh-questions when the predicate has the features [-polite, +past] behave in the same way as those with the features [-polite, -past] above. That is, those with ka are all ungrammatical whereas those without overt ka are grammatical. Consider the following sentences:

(16) a. *Dare-ga zyagaimo-o katta ka ?
   who-Nom potato.Acc bought [-polite, +past] Q
   'Who bought potatoes?'

---

3 This sentence is not a rhetorical question.
b. "Sato-wa dono hon-o yonda ka?"
   Sato Top which book-Acc read[-polite, +past] Q
   'Which book did Sato read?'

c. "Tanaka-wa kinoo-no yoru doko-de neta ka?"
   Tanaka yesterday of night where at slept [-polite, +past] Q
   'Where did Tanaka sleep last night?'

d. "John-wa rani go-ga dekita ka?"
   what language-Nom be capable of [-polite, +past]
   'What language was John capable of?'

e. "Takashi-ni nani-o tabesasetta ka?"
   Takashi Gen what-Acc eat-causative[-polite, +past] Q
   'What did you make Takashi eat?'

f. "Dare-ga sensei-ni homerareta ka?"
   who-Nom teacher by praise-passive [-polite, +past] Q
   'Who was praised by the teacher?'

All the sentences above become grammatical if question particle ka is phonologically null, as shown below:

(17)a. "Dare-ga zyagaimo-o katta ka?"
   who-Nom potato-Acc bought [-polite, +past]
   'Who bought potatoes?'
b. Satoo-wa dono hon-o yonda ka?
Sato Top which book-Acc read[-polite, +past]
‘Which book did Sato read?’

c. Tanaka-wa kine-o no yoru doko-de neta ka?
Tanaka yesterday of night where at slept [-polite, +past]
‘Where did Tanaka sleep last night?’

d. John-wa nani go-ga dekita ka?
what language be capable of [-polite, +past]
‘What language was John capable of?’

e. Takashi-ni nani-o tabesaseto ka?
Takashi Dat what-Acc eat-causative[-polite, +past]
‘What did you make Takashi eat?’

f. Dare-ga sensei-ni homareta ka?
who-Nom teacher by praise-passive [-polite, +past]
‘Who was praised by the teacher?’

Sentences (14) and (16) show that the feature [-polite] in non-copula construction is incompatible with the combination of a wh-phrase and the question particle ka.
2.1.2.2. Non-copula Predicates with Feature [+polite]

All the wh-questions with the features [+polite, -past] are grammatical, with and without overt question particle ka. Observe the following sentences.

(18)a. Asita-wa dare-ga ikimasu ka / ka?
    tomorrow Top who-Nom go[+polite, -past] Q
    'Who will go tomorrow?'

b. Inoue-san-wa nani-o kaimasu ka / ka?
    Inoue Mr. what-Acc buy[+polite, -past] Q
    'What will Inoue buy?'

c. Tanaka-san-wa ito Tookyoo-ni kimasu ka / ka?
    Tanaka Top when Tokyo to come[+polite, -past] Q
    'When will Tanaka come to Tokyo?'

d. John-wa nani go-ga dekimasu ka / ka?
    John Top what language-Nom be capable of [+polite, -past] Q
    'What language is John capable of?'

e. Mika-ni doko daigaku-e ikasemasu ka / ka?
    Mika Gen which college go-causative[+polite, -past] Q
    'To which college will you make Mika go?'
f. Konohen, nani-ga yoku nusumaremasu ka/ka?
around here what-Nom often steal-passive[+polite,+past] Q
‘What is often stolen around here?’

These examples suggest that the feature [+polite] affect the grammaticality of the sentences with the combination of a wh-phrase and the question particle ka. The grammaticality of wh-questions with this type of predicate is the same as that of yes-no questions with the same type of predicate.

The same grammaticality is observed in wh-questions with the non-copula [+polite, +past] predicates. Observe the sentences below:

(19) a. Dare-ga zyagaimo-o kaimasita ka/ka?
who-Nom potato.Acc bought [+polite, +past] Q
‘Who bought potatoes?’

b. Sato-san-wa dono hon-o yomimasita ka/ka?
Sato Ms. Top which book.Acc read[+polite, +past] Q
‘Which book did Ms. Sato read?’

c. Tanaka-san-wa kinoo-no yoru doko-de nemasita ka/ka?
Tanaka yesterday of night where at slept[+polite, +past] Q
‘Where did Ms. Tanaka sleep last night?’

d. John-wa nagi-go-ga dekimasita ka/-ka?
Top what language-Nom be capable of[+polite, +past] Q
‘What language was John capable of?’
e. Takashi-ni nani-o tabesemasita ka/ka
Takashi Gen what-Acc eat-causative[+polite, +past] Q
'What did you make Takashi eat?'

f. Dare-ga sensei-ni homeraremosita ka/ka
who-Nom teacher by praise-passive [+polite, +past] Q
'Who was praised by the teacher?'

These sentences indicate that tense does not affect the grammaticality.

In sum, the grammaticality of interrogative sentences with non-copula predicates was examined in this section. In yes-no questions, the sentences both with and without overt question particle ka are grammatical, regardless of the predicable tense and politeness features. On the other hand, in wh-questions, the sentences with ka are ungrammatical when and only when the predicate has the feature [-polite]. The grammaticality is not affected by the position of a wh-phrase.

2.2. INTERROGATIVE SENTENCES IN COPULA CONSTRUCTIONS

In Japanese, the copula constructions contain two types of predicates; one is nominal predicate -- nouns and adjectival nouns (AN), and the other is adjectival predicate. The copula for nominal predicates is da (the form da is with the features [-polite, -past]; the [+polite] counterpart is desu):
(20) Nakamura-wa gakusee da.
    Nakamura Top student Copula[-polite, -past]
    'Nakamura is a student.'

(21) Nakamura-no imoo-to-wa kiree da.
    of little sister pretty(AN)
    'Nakamura's sister is pretty.'

The copula da changes its form according to the features of politeness and
tense. The form of the copula with the features [-polite, +past] is datta; desu, as
mentioned above, is the copula with the features [+polite, -past]; desu
becomes desita when it has the feature [+past].

According to Nakayama (to appear), the copula for adjectival predicates
is -i in present tense and atta in past tense, and the copula is incorporated
within the adjective. This copula changes its form according to tense feature,
but not according to the feature of politeness. In order to express the
politeness in the adjectival predicate construction, the politeness suffix -desu
should be attached:

(22) a.Hokkaidoo-wa samui. / samui-desu.
    Hokkaido cold [-past, -polite] [-past, +polite]
    'Hokkaido is cold.'

b. Kinoo-wa samukatta. / samukatta-desu.
    yesterday cold [+past, -polite] cold [+past, +polite]
    'It was cold yesterday.'
Note that the politeness suffix -desu is different from the copula [+polite,-past] in the nominal construction although they look identical. The desu in the nominal construction is a variant of the copula da, whose features are [+polite,-past]. When the features become [+polite, +past], the desu is changed into desita. This is shown in (23a). However, the politeness suffix -desu does not become desita as in (23b):

(23) a. Tanaka-san-wa kyonen-made gakusei desita.
   Mr. Tanaka Top last year until student Copula [+polite, +past]
   ‘Mr. Tanaka was a student until last year.’

b. Kinoo-no tesuto-wa muzukashikatta-desu / * muzukashii-desita
   yesterday of test Top difficult [+past, -polite] / difficult [+polite, +past]
   ‘The test yesterday was difficult.’

As seen in (23b), it is impossible to change the politeness affix for adjectives desu into desita. Furthermore, this desu does not seem to have the ability to carry the independent (or specific) tense, which will be discussed in Chapter III.

2.2.1. NOMINAL PREDICATE CONSTRUCTION

As briefly mentioned above, the nominal predicate construction has two types, that is, Noun + copula and Adjectival Noun + copula. Since no significant difference in grammaticality of interrogative sentences between
the two is observed under the same condition, I will treat the two as one, namely as the nominal predicate construction.

2.2.1.1. YES-NO QUESTIONS

The distribution of ungrammatical sentences in yes-no questions of nominal predicates is as follows: those with da, copula [-polite, -past], are all ungrammatical regardless of the presence or absence of overt question particle ka; those with desu, [+polite, -past], are grammatical when and only when ka is present. This is shown below.

2.2.1.1.1. Nominal Predicates With Copula [-polite]

Yes-no questions with da [-polite, -past] are all ungrammatical, regardless of the presence or absence of ka. Observe the following sentences:

(24)a. Tanaka-wa gakusee da ka?
Tanaka Top student(N) Copula[-polite, -past] Q
‘Is Tanaka a student?’

b. Tanaka-wa gakusee da ka?

The same phenomenon is observed in the yes-no question with an adjectival noun predicate:

(25) a. Tanaka-no imooto-wa kiree da ka?
Tanaka of little sister Top pretty(AN) Copula[-polite,-past] Q
‘Is Tanaka’s little sister pretty?’
b. *Tanaka-no imooto-wa kiree da ka?

As observed in these nominal predicate constructions, the overt copula with the features [-polite,-past] cannot be present in yes-no questions. In order for the yes-no question of the nominal predicate with the features [-polite,-past] to be grammatical, the copula da should not be present; that is, the copula must be empty:

(26) a. Tanaka-wa gakusee s ka / ka?
Tanaka Top student(N) Empty Copula[-polite,-past] Q
Is Tanaka a student?

b. Tanaka-no imooto-wa s kiree ka / ka?
of little sister Top pretty(AN) Empty Copula[-polite,-past] Q
Is Tanaka’s little sister pretty?

The yes-no questions with the Empty Copula such as shown above will be discussed in 2.2.1.1.3.

Nominal predicates with copula [-polite, +past], datta, in yes-no questions behave differently from those with da ([-polite, -past]). This type of yes-no questions is always grammatical, with or without ka, as observed in the following:

(27) a. Yamanaka-wa kyonen-made gakusee datta ka / ka?
Yamanaka Top last year until student(N) Copula[-polite, +past] Q
Was Yamanaka a student until last year?

b. Sasaki-no musuko-wa genki datta
   Sasaki of son fine(AN) Copula [-polite, +past] Q
   'Was Sasaki's son fine?'

Sentences (24)-(25) and (27) suggest that the tense feature affects the grammaticality of the yes-no question sentences with the feature [-polite].

2.2.1.1.2. Nominal Predicates with Copula [+polite]

Yes-no questions of nominal predicates with copula [+polite, -past] desu, have a different grammatical behavior from those with da or with datta presented above. Yes-no questions with desu are grammatical when and only when question particle ka is present: 4

(28) a. Tanaka-san, wa gakusee desu
    Ms. Copula [+polite, -past] Q
    'Is Ms. Tanaka a student?'

b. Tanaka-san, wa gakusee desu
   Tanaka Ms. student (N) Copula [+polite, -past]
   'Is Ms. Tanaka a student?'

---

4 The grammatical judgment of sentences (29b) and (30b) is by native speakers of Tokyo dialect. Recently, especially among relatively young people, these are becoming more and more acceptable. In fact, many non-Tokyo dialect speakers judge these sentences grammatical. However, I have a consistent ungrammatical judgment from native speakers of Tokyo dialect.
(29) a. Kono kompyuu-taa-wa benri desu ka ?
   this computer useful(AN) Copula [+polite, -past] Q
   'Is this computer useful?'

   b. * Kono kompyuu-taa, benri desu ke?
      Copula [+polite, -past]

   Now, compare the sentence (24a) (repeated here as (30)) with (28a) above:

(30) * Tanaka-wa gakusee da ka ?
      Copula [-polite, -past] Q
      'Is Tanaka a student?'

It appears that the feature [+polite] affects the grammaticality of the yes-no questions with both copula [-past] and question particle ka. However, as seen in (28b) and (29b), the feature [+polite] does not affect yes-no questions with copula [-past] and empty question particle ka.

Nominal predicates with desita, copula [+polite, +past], behave in the same way as those with datta, [-polite, +past], in yes-no questions. That is, with or without ka, the yes-no questions are all grammatical. Examine the following sentences:

(31) a. Yamada-san-no akatyan-wa onna -no ko desita ka / ka ?
    Yamada Mr. of baby female child Copula [+polite, +past] Q
    'Was Yamada's baby a girl?'

b. Yamada-san-no okusan-wa kiree desita ka /ka ?
wife pretty(AN) Copula [+polite, +past] Q
'Was Yamada's wife pretty ?'

When sentences (28b) and (29b) are compared with (31) above, we can see that the feature [+past] makes the ungrammatical yes-no questions without overt question particle ka grammatical.

2.2.1.1.3. Nominal Predicates With Empty Copula

In Japanese, it is possible for nominal predicates not to have an overt copula. Since the copula, which has the ability to indicate the feature of politeness and the tense is not overt in this construction, the features the predicate has are [-polite, -past] by default. Therefore, the meaning of this construction is parallel to the nominal predicate sentences with da, copula [-polite, -past].

In yes-no questions, since all the questions with da (overt copula with features [-polite,-past]) are ungrammatical regardless of presence of the question particle, the empty copula o [-polite, -past] will do the work. That is, if you would like to make a yes-no question of a nominal predicate with the features [-polite,-past], the copula has to be empty. This is shown below:

(32) a. Tanaka-wa gakusee o ka ?
Tanaka Top student Empty Copula Q
'Is Tanaka a student ?'
b. Tanaka-wa gakusee ə  ka?

(33) a. Tanaka-no imooto-wa kiree ə ka?
    Tanaka of little sister Top pretty(AN) Empty Copula Q
    'Is Tanaka’s little sister pretty?'

b. Tanaka-no imooto, kiree ə ka?

The grammaticality of (24)-(25) (yes-no questions with overt copula, da) and that of (32) - (33) (those with the empty copula) are in complementary distribution.

2.2.1.2. WH-QUESTIONS

The distribution of grammaticality of wh-questions of nominal predicate constructions is significantly different from that of yes-no questions presented above. An ungrammatical yes-no question with desu which lacks the question particle ka becomes grammatical when the sentence contains a wh-phrase. Also, an ungrammatical yes-no question with da ([-polite, -past]) which does not have ka becomes grammatical when the sentence has a wh-phrase. On the other hand, a grammatical yes-no question with datta ([-polite, +past]) which has ka becomes ungrammatical with a wh-phrase in the sentence. Moreover, a grammatical yes-no question with the empty copula which has ka also becomes ungrammatical when the sentence contains a wh-phrase. This will be shown below.
2.2.1.2.1. Nominal Predicates With Copula [-polite]

For wh-questions with noun predicates, at least two possible positions of wh-phrases come to mind. The one is the case in which the wh-phrase appears in the subject position, and the other is that in which the copula is attached to the wh-phrase (that is, the case when wh-phrase + copula is the predicate for the sentence):

(34) a. ~Dare-ga kono gakubu-no gakubutyoo * da ka / da ka ?
   who-Nom this department of chairperson Copula[-polite,-past] Q
   'Who is the chair of this department?'

b. Kono gakubu-no gakubutyoo-wa dare *da ka / da ka ?
   Top who Copula[-polite, -past] Q
   'As for the department chair, who is in the position?'

In this thesis, only the sentences such as (34a) will be discussed.

If (34a) above is compared with the yes-no question counterpart, repeated below as (35), we can see that the wh-phrase affects the grammaticality of the interrogative sentence of "* N+ Copula [-polite,-past] + ke ? ".

(35) * Tanaka-wa gakusee da ka?
   Tanaka Top student Copula[-polite, -past] Q
   'Is Tanaka a student?'
The parallel behavior to this is observed in the adjectival noun predicate construction, though this is slightly less acceptable than the noun predicate counterpart:

(36) Kono nakade, dono konpyuutaa-ga itiban benri
    this among which computer-Nom most useful (AN)
    *da ka / ? da ka?
    Cop[-polite, -past] Q
    ‘Among these which computer is the most useful?’

Although wh-questions of adjectival noun constructions ending with *da + s? are less acceptable than that of the noun construction, the difference in grammaticality seen between these questions and the yes-no question counterpart is quite apparent. Therefore, the sentence marked with ? in (36) above is treated as grammatical.

Different from the yes-no question counterparts, the wh-questions of the nominal predicate with the features [-polite, +past] are ungrammatical when and only when the sentences have question particle ka:

(37) a.Dare-ga san nen mae OSU-no gakutyyoo datta *ka / ka?
    who-Nom three year ago OSU of president Copula [-polite, +past] Q
    ‘Who was the President of OSU three years ago?’

b. Risa-to Ken, dotti-ga genki datta *ka / ka?
    Lisa and Ken which-Nom active(AN) Copula[-polite, +past] Q
    ‘Between Lisa and Ken, who was the more active?’
The yes-no question counterparts of these sentences are all grammatical regardless of the presence of question particle ka, but the presence of wh-phrase makes the combination of Copula[+polite, +past] and ka impossible.

2.2.1.2.2. Nominal Predicates With Copula [+polite]

In this type of wh-questions, the presence of wh-phrase also makes an ungrammatical yes-no question counterpart grammatical. In yes-no question with this type of predicate, the presence of the overt question particle is obligatory:

(38) a. Donuta-ga kono gakubu-no gakubutyoo desu ka
    who-Nom this department of chairperson Copula[+polite-past] Q
    /desu ka?

    'Who is the chair of this department?'

b. Gakkoo-made-wa dono basu-ga itiban benri desu ka
    school up to Top which bus-Nom most convenient Cop[+polite, -past] Q
    /desu ka?

    'To the school, which bus is the most convenient?'

As observed above, in addition to the case of \( da + e ? \), there is another occasion in which the presence of wh-phrase makes the ungrammatical yes-no question counterpart grammatical.
For the type of predicate with the features [+polite, +past], wh-questions are all acceptable regardless of the presence of question particle ka as their yes-no question counterparts are.

(39)a. Dare-ga san nen ma OSU-no gakutyoo desita ka / ka-?
   who-Nom three year ego OSU of president Copula [+polite, +past ] Q
   'Who was the President of OSU three years ago?'

   b. Risa-to Ken, dotti-ga genki desita ka / ka-?
   Lisa and Ken which-Nom active(AN) Copula [+polite, +past] Q
   'Between Lisa and Ken, who was the more active?'

This is parallel to that of non-copula construction with the features [+polite, +past], as observed below:

(40)a. Ano koozi-wa moo owarimasita ka / ka-?
   that construction Top yet ended [+polite, +past] Q
   'Has that construction ended yet?'

   b. Dare-ga zyagaimo-o kaimasita ka / ka-?
   who-Nom potato-Acc bought [+polite, +past] Q
   'Who bought potatoes?'

This parallel grammaticality between the copula construction and the non-copula construction is not found when the features are [+polite, -past]; in this case, the yes-no question of N/AN + Copula (desu) without question particle
ka is ungrammatical, although the yes-no questions in non-copula predicate
constructions with the features [−polite, −past] are grammatical without ka.

2.2.1.2.3. Nominal Predicates With the Empty Copula

The wh-questions with this type of predicate show the same
grammatical behavior as those with the overt copula with the features
[−polite, −past]. Examine the following sentences:

(41)a. Dare-ga kono gakubu-no gakubutyoo *o ka / o ka-?
   who-Nom this department of chairperson E. C. Q
   ‘Who is the chair of this department?’

b. Kono naka de, dono konpyuutaa-ga itiban benri *o ka / o ka-?
   this among which computer-Nom most useful E. C. Q
   ‘Among these, which computer is the most useful?’

As mentioned in section 2.2.1.1.3., the empty copula has the same features of
[−polite, −past] by default. In yes-no questions, the grammaticality of the
sentences with the overt copula [−polite, −past] and those with the empty
copula shows their complementary distribution, as shown below. However,
in wh-questions, the overt copula [−polite, −past] da and the empty copula
show the same grammaticality.

(42) a."Tanaka-wa gakusee da ka ?
   Tanaka Top student Copula[−polite, −past] Q
   ‘Is Tanaka a student?’
b. Tanaka-wa gakusee ø ka?
   Tanaka Top student Empty Copula Q
   'Is Tanaka a student?'

(43) a. "Tanaka-wa gakusee da ka-?
   b. Tanaka-wa gakusee ø ka?
      Empty Copula

This can be described from another point of view. As in the
interrogative sentences with the copula [-polite, +past], the presence of wh-
phrase makes the grammatical yes-no question counterpart ungrammatical in
this construction. Consider the sentences below:

(44) a. Tanaka-wa gakusee ø ka?
   Tanaka Top student(N) Empty Copula Q
   'Is Tanaka a student?'

b. "Dare-ga kono gakubu-no gakubutyoo ø ka?
   who-Nom this department of chairperson Empty Copula Q
   'Who is the chair of this department?'

(45) a. Yamanaka-wa kyonen-made gakusee datta ø ka?
    Yamanaka last year until student(N) Copula[-polite, +past] Q
    'Was Yamanaka a student until last year?'


b.*San nen mae, dare-ga OSU-no gakutyoo datta ka ?
three years ago who-Nom Copula[-polite, +past] Q
'Three years ago, who was the President of OSU ?'

In yes-no questions, the combination of empty copula and question particle \( \text{ka} \) is acceptable, whereas in wh-questions, this combination is not allowed. This is the same phenomenon that was observed in the questions with the copula [-polite, +past], as presented above.

2.2.2. ADJECTIVAL PREDICATE CONSTRUCTION

In this section, the grammaticality of the interrogative sentences with the adjectival predicate will be discussed.\(^5\) As in the previous section, first the yes-no questions are examined, and then the wh-questions are discussed.

2.2.2.1. YES-NO QUESTIONS

For yes-no questions, sentences are ungrammatical when and only when feature [+polite] and question particle \( \text{ka} \) are absent. In other words, when the predicate has the [+polite] feature, \( \text{ka} \) cannot be empty in yes-no questions.

2.2.2.1.1. Adjectival Predicates with Features [-polite]

Yes-no questions of adjectival predicate with features [-past, -polite] are grammatical regardless of the presence or absence of \( \text{ka} \):

\[ \text{The desiderative V (infinitive) + tai and V (infinitive) + yasu 'to be easy to do something' are also included in the adjectival predicate, since the productive suffixes -tai and - yasu are both morphologically categorized as adjectives, and since they behave in the same way as adjectives in terms of the grammaticality in the interrogative sentences.} \]
(46) Sono supagettii, umai ka? / ka-?

the spaghetti delicious[-polite, -past] Q

'Is the spaghetti delicious?'

This is parallel to the examples of non-copula predicate and nominal predicate with the empty copula, which have [-polite, -past] features, as repeated as (47) below:

(47) a. Usagi-wa kyuuri-o taberu ka / ka-?

rabbit Top cucumber-Acc eat[-polite, -past] Q

'Do rabbits eat cucumber?'

b. Tanaka-wa gakusee o ka / ka-?

Tanaka Top student(N) Empty Copula Q

'Is Tanaka a student?'

Thus, it is possible to conclude that neither of the features [-polite] and [-past] makes the presence of ka obligatory in the yes-no question.

When an adjectival predicate with the features [-polite, +past] is in a yes-no question, the presence of ka is optional; that is, a yes-no question with or without overt ka is grammatical, as shown below:

(48) Kyonen-no huyu, Kororado-wa samukatta ka / ka-?

last year of winter Colorado Top cold [-polite, +past] Q

'Was it cold in Colorado last year?'
Again, in the yes-no question, the questions with the adjectival predicate with these features have the same pattern of grammaticality as those with non-copula predicates or with nominal predicates which have those features:

(49a) Sato-top tamanegi-ō katta \(ka/ka\-?)
    Sato Top onion-Acc bought [-polite, +past] Q
    'Did Sato buy onions?'

b. Sasaki-no musuko-wa genki datta \(ka/ka\-?)
    Sasaki of son: fine(AN) Copula [-polite, +past] Q
    'Was Sasaki's son fine?'

As well as the features [-polite, -past] stated in the previous section, the features [+polite, +past] also do not require the presence of question particle \(ka\) in yes-no questions of any predicate types.

2.2.2.1.2. Adjectival Predicates with Feature [+polite]

Yes-no questions of adjectival predicates with the features [-past, +polite] show the same grammaticality of those of nominal predicates with the same features. That is, the presence of overt \(ka\) is obligatory. Observe the following sentences:

(50) Korombasu-wa, samuidesu \(ka/*ka\-?)
    Columbus Top cold [+polite, -past] Q
    'Is it cold in Columbus?'
(51) Kono kompyuutaa-wa benri desu ka / * ka-?  
  this computer useful(AN) Copula[+polite, -past] Q  
  'Is this computer useful?'  

Interestingly, yes-no sentences of non-copula predicate with the same features as the sentences above do not behave the same as the ones above; that is, the presence of ka is optional in those sentences:

(52) Tanaka-san-wa, tako, tabemasu ka / ka-?  
  Tanaka Mr. Top octopus eat [+polite, -past] Q  
  'Does Mr. Tanaka eat a octopus?'  

The asymmetry between the non-copula predicate with-ka and the copula predicate with-ka observed above will be discussed later.

Yes-no questions of Adj.+katta+desu show the same behavior as those of adjectival predicates with features [+polite, -past], which were examined in the previous section; that is, the presence of question particle ka is obligatory:

(53) Kyonen-no huyu, Korombasu-wa samukatta desu ka / * ka-?  
  last year of winter Columbus Top cold[+polite, +past] Q  
  'Was it cold in Columbus last winter?'

This is not parallel, however, to the behavior of yes-no questions of nominal predicate with these features; in this case, the presence of ka is optional. That is, in the nominal predicate construction, the feature [+past] invalidates the requirement of ka in yes-no questions when the predicate has the [+polite]
feature. On the other hand, this does not hold in adjectival predicate yes-no questions with the feature [+polite]; the yes-no questions are subject to the obligatory presence of overt ka even when the predicate has the feature [+past].

2.2.2.2. WH-QUESTIONS

Unlike wh-questions of nominal predicate with features [+polite, -past], those of adjectival predicates with feature [+polite] are ungrammatical without question particle ka. In the interrogative counterparts of nominal predicate constructions with the features above, the existence of wh-phrase changes the grammaticality of the sentence without ka whose predicate has [+polite, -past] features, but this does not happen in adjectival wh-questions. They remain ungrammatical without question particle ka. This will be shown below.

2.2.2.2.1. Adjectival Predicate with Feature [-polite]

As in wh-questions of the other predicate types with these features, the presence of ka is prohibited in those of the adjectival predicate with features [-past, -polite]; it is obligatory for the question particle ka to be absent in this construction:

(54) Madison -to Denoin-to Korombasu-no uti-de, doko-ga itiban
    Madison and Des Moines Columbus among where-Nom first
    samui          * ka / ka-?
    cold [-polite, -past] Q
    ' Among Madison, Des Moines, and Columbus, where is the coldest?'
The sentence with overt ka becomes grammatical when it has a [+polite] predicate.

The same grammatical behavior is observed in yes-no questions with an adjectival predicate with features [-polite, +past]; that is, the presence of ka makes the sentence ungrammatical:

(55) Ninzin-to zyagaimo-to tamanegi-de, dore-ga itiban
carrot and potato onion among which-Nom first
takakatta *ka / ka?
expensive [-polite, +past] Q
‘Among the carrots, the potatoes, and the onions, which were the most expensive?’

The past tense feature does not invalidate the ungrammatical combination of wh-phrase, the predicate with [-polite], and question particle ka.

2.2.2.2. Adjectival Predicates with Feature [+polite]

Here, as in the yes-no question counterpart, the asymmetry is found again. Unlike in wh-questions with adjectival predicates with [-polite], the presence of ka is obligatory in wh-questions of a predicate with features [-past, +polite]:

(56) Dono kurasu-ga itiban muzukashi desu ka / * ka-?
which class-Nom first difficult[-polite, -past] Q
‘Which class is the most difficult?’
However, the fact that the feature [+polite] makes the sentences with the [-polite] predicate, wh-phrase and ka ungrammatical is parallel to the phenomena seen in other predicate constructions.

In wh-questions of the predicate in the form of *Adj-katta desu*, the presence of ka is obligatory:

(57) Dono mondai-ga itiban muzukasikatta desu ka / * ka-?
    which problem-Nom first difficult [+polite, +past] Q

'Which problem was the most difficult?'

This is the same as the case of the predicate with [+polite, -past] above. This means that the adjectival predicate with the features [+polite, -past] and the adjectival predicate with [+polite, +past] behave exactly in the same fashion in both yes-no and wh-questions. That is, in both yes-no and wh-questions, the presence of ka is obligatory when the predicate has the feature [+polite]. The presence of ka is prohibited when it lacks the feature [+polite] in wh-questions.

2.2.3. SUMMARY

In this section, the grammaticality of interrogative sentences with copula were examined. In yes-no questions, the copula should be empty for nominal predicates with the features [-polite, -past] under any circumstances. Desu, the copula for nominal predicates with features [+polite, -past] and the politeness suffix for the adjectival predicate, requires question particle ka to be present in yes-no questions; wh-phrase invalidates this requirement only in
the nominal predicate construction. The presence of a wh-phrase in the
adjectival predicate construction does not affect the grammaticality of the
sentences without overt ka. In wh-questions with ka, the predicate must
have the feature [+polite]. This behavior is also observed in wh-questions
with non-copula predicates discussed in the first section.

2.3. INTERROGATIVE QUESTIONS IN THE EXTENDED PREDICATE
CONSTRUCTION

This section deals with the behavior of interrogative sentences in the
extended predicate construction. According to Kuno (1973) and Maynard
(1990), the primary function of the extended predicate construction, or "no da
construction" is to make the statement into a certain explanatory tone, by
assuming that the hearer shares the information with the speaker. In terms of
the form, the attributive form, which lacks the politeness feature, is followed
by no, which nominalizes the clause — "nominalizing particle," according to
Kuno (1973: 223)— and it is followed by copula da.6 The politeness is
expressed in the copula, and this copula does not usually have the feature
[+past], as Martin (1975: 851-854) states.7 Examine the following sentences.

(38)a. Yagaimo-o zyu-kkiro-mo katte simaimasita. Totemo
potato of ten kilogram as many as buy have very
yasu-katta no desu.
cheap[+past] NM Copula[+polite,-past]

6 There is "no de aru," in addition to "no da." According to Kuno (1973:223) and Martin
(1975:853), no de aru is a formal style of no da. Following them, I consider no de aru as a
variation of the extended predicate, and do not discuss this formal form.

7 Martin says, "You might not expect a perfective version with the third meaning [the
meaning of nominalized clauses with has the function: 'the fact that...'], since 'facts' are, after
all, facts."
‘I have bought as many as ten kilograms of potatoes; they were very cheap.’

b. Ikiru tame-ni, kare-wa kaku no da.
   live purpose for he Top write[-past] NM Copula[-polite,-past]
   ‘In order to live valuable life, he writes.’

The nominalizing particle no is often contracted as n in casual speech, as seen in the sentence below:

   Copula[-polite,-past]
   ‘Can I open the window? I feel it’s a little hot in here’

b. Ano ringo-wa watasi-ga tabeta n desu.
   that apple Top I-Nom ate[+past] NM Copula[+polite,-past]
   ‘The fact is that I ate that apple.’

It is possible for the copula of the extended predicate construction to be empty. In this case, the sentence has the feature [-polite] by default, although it sounds gentler, or sometimes more feminine, than the counterpart with the overt copula with [-polite], da:
(60) Sigoto-wa site nai no. Gakusee na no, watasi.
   job Top doing Neg NM student Copula[-past] NM I
   'I am not working; I am a student.'

When the empty copula is used, no cannot be contracted as n in Tokyo dialect.

It is impossible for the copula of the nominal predicate construction which precedes no da to be empty. Consider the following sentences:

(61) Hayaoki da kara, ano obaasan-wa *genki o
    early riser Copula because that old woman Top healthy(AN) E.C.
    no desu / genki na no desu.
    Extended Predicate AN Copula[-past] Extended Predicate
    'Because she is an early riser, that old woman is healthy.'

The extended predicate construction is considered as one type of nominal predicate construction, since their grammatical behavior in the interrogative sentences is very similar to that of the nominal predicate.

2.3.1. YES-NO QUESTIONS

In yes-no questions, the distribution of grammaticality of the sentences in the extended predicate construction is identical with that of the sentences in the nominal predicate construction. That is, (1) the sentences with da, copula [-polite, -past], are all ungrammatical regardless of the presence of question particle ka, and (2) those with desu, [+polite, -past], are grammatical when and only when ka is present. As stated above, the copula da in the
extended predicate construction is always in non-past tense, so a discussion of copula[-polite, +past] or [+polite, +past] is not warranted. The constructions which precede the extended predicate construction do not affect the grammaticality; that is, whether the preceding construction is the nominal, adjectival, or non-copula predicate, the grammatical judgment does not vary as long as it is followed by the extended predicate.

2.3.1.1. Extended Predicates with the Overt Copula

Yes-no questions which have the predicate no da [-polite, -past] are always ungrammatical with or without question particle ka:

(62) a. Ano mado, omae-ga-watta *n* da

that window you-Nom broke[+past] NM Copula[-polite, -past]

ka / *n* da ka-?

Q

' Did you break that window?'

This is parallel to the behavior of the nominal predicate with the same feature in yes-no questions, as shown below:

(63) Tanaka-wa gakusee *da ka / *da ka?

Tanaka Top student(N) Copula[-polite, -past] Q

'Is Tanaka a student?'
The extended predicate with the copula [+polite, -past], _no desu_, makes it obligatory for the yes-no questions to have question particle _ka_. In other words, when the extended predicate with features [+polite, -past] is presented in a yes-no question, the sentence must have _ka_. This is shown below:

(64) Buturi-no benkyoo-wa sonnani muzukasii n physics of study Top so difficult[-past] NM desu _ka_ / _n desu_ _ka-?_ Copula[+polite,-past] Q 'Is it so difficult to study physics?'

This grammaticality is parallel to the behavior of the nominal predicate and the adjectival predicate with the same features in yes-no questions. Compare the sentences above with the below:

(65) Kono kompyuutaa -wa benri desu _ka_ / _benri desu_ _ka-?_ this computer useful Copula[+polite,-past] Q 'Is this computer useful?'

(66) Korombasu -wa, samui desu _ka_ / _samui desu_ _ka-?_ Columbus Top cold[-past, +polite] Q 'Is it cold in Columbus?'

It is clear that there are some correlations between the feature [+polite] in the copula constructions and the question particle _ka_ in yes-no questions.
2.3.1.2. Extended Predicates with the Empty Copula

As stated in the introduction of this section, it is possible to delete the copula in the extended predicate construction, and it is possible to make an interrogative sentence with this predicate pattern. Yes-no questions with this type of predicate are always grammatical with or without question particle ka, and again, this is the same behavior as is observed in the nominal predicate construction. Consider the following sentences:

(67) Ken-tyan-wa gakusee na no ø ka /
     Ken  Top student Copula[-past] NM Empty Copula   Q
     gakusee na no ø           ka-?
     Empty Copula
     ‘Is Ken a student, then?’

(68) Tanaka-wa gakusee ø ka / ø ka-?
     Tanaka Top student       Empty Copula   Q   Empty Copula
     ‘Is Tanaka a student?’

Now there are enough pieces of evidence with which we can conclude that the nominal predicate construction and the extended predicate construction behave in the same way in yes-no questions.

2.3.2. WH-QUESTIONS

In wh-questions, the distribution of grammaticality is also identical with that in the nominal predicate construction.
2.3.2.1. Extended Predicates with the Overt Copula

One may predict from the behavior of the nominal predicate construction with the features [-polite, -past] in wh-questions, the ungrammatical yes-no question with da becomes grammatical in wh-question when and only when the question particle ka is not present. Consider the following sentences:

(69) a. Dare-ga asita osieru *n da ka / who-Nom tomorrow teach[-past] NM Copula[-polite,-past] Q n da ka-?
  'Who will teach tomorrow?'

  'What did Tanaka buy?'

c. Kyooto-e-wa itu iku *n da ka / Kyoto to Top when go[-past] NM Copula [-polite,-past] Q n da ka-?
  'When will you go to Kyoto?'

d. Dono konpyuutaa-ga tsiban yasui *n da ka / which computer-Nom first cheap NM Copula[-polite,-past] Q n da ka-?
  'Which computer is the cheapest, then?'
As seen in the examples above, the positions of wh-questions or the predicate types which precede the extended predicate do not affect the grammaticality. That is, in (69a) and (69d), the wh-phrases are in the subject positions, in (69b) it is in the object position, and in (69c) the wh-phrase is in the adjunct position. The ungrammatical yes-no questions with desu and those with ka become grammatical in wh-question. This means that in the extended predicate construction with the features [+polite,-past], the presence of ka is optional:

(70) a. Madison-to Demoin-to Korobusuzu-no uti-de, doko-ga itibana
Madison and Des Moines Columbus among where-NOM first
cold [-past] NM Copula [+polite,-past] Q
‘Among Madison, Des Moines, and Columbus, where is the coldest?’

b. Tanaka-san-wa nani-o katta n desu
‘Tanaka Mr. Top what-Acc bought [+past] NM Copula [+polite,-past]
ka / n desu ka-? Q
‘What did Tanaka buy?’

c. Kono san-biki-no uti-de, dono koinu-ga mesu na
these three Cl among which puppy Nom female Copula [-past]
ka / n desu ka-? NM Copula [+polite,-past] Q
'Among the three, which puppy is a female?'

As shown in the sentences above, when the copula in the extended predicate has [+polite], the wh-questions are grammatical either with or without the overt ka. Again, it is clear that the question particle ka, wh-phrases, and copula desu [+polite, -past] contribute to the sentence grammaticality.

### 2.3.2.2. Extended Predicates with the Empty Copula

With this type of extended predicate, the wh-phrase makes it obligatory for question particle ka to be deleted. That is, the combination of the empty copula of the extended predicate construction and question particle ka is not allowed in wh-questions:

(71) a. Dare-ga asita osieru *no ø ka /
    who-Nom tomorrow teach[-past] NM Empty Copula Q
    no ø ka-
    'Who will teach tomorrow?'

b. Tanaka-kun-wa nani-o katta *no ø ka /
    Tanaka Top what-Acc bought[+past] NM Empty Copula Q
    no ø ka-
    'What did Tanaka buy?'

c. Kyooto-e-wa itu iku *no ø ka /
    Kyoto to Top when go[-past] NM Empty Copula Q
    no ø ka-
'When will you go to Kyoto?'

d. Kono san-biki-no uti-de, dono koinu-ga mesu na
   these three CL among which puppy Nom female Copula[-past]
   *no o ka / no o ka-
   NM Empty Copula Q
   'Among the three, which puppy is a female?'

e. Dono konpyuu-taa-ga itiban yasui * no o ka /
   which computer-Nom first cheap NM Empty Copula Q
   no o ka-
   'Which computer is the cheapest, then?'

As shown in the sentences above, the empty copula, which has the features [-polite, -past], cannot appear in wh-sentences with the overt ka. In these kind of wh-questions, the question particle must be empty. Again, this phenomenon is observed also in the nominal predicate construction.

2.3.3. SUMMARY

In this section, the interrogative sentences with the extended predicate were examined. In yes-no questions, whatever the preceding predicate is, the sentence is ungrammatical when (1) the copula [-polite, -past], da, in the extended predicate construction is overt, and (2) the question particle ka is absent when the copula of the extended predicate has the feature [+polite]. This behavior is identical with those which are found in yes-no questions with nominal predicates.
In wh-questions, when the copula in the extended predicate is either in [-polite] or empty, the grammatical judgment is parallel to that of the nominal predicate construction; the sentence is ungrammatical if the wh-question has question particle ka. However, when the feature of the copula in the extended predicate is [+polite], the status of question particle ka becomes different; that is, the sentences become grammatical regardless of the presence of ka. This is parallel to the behavior observed in the wh-questions with nominal predicates.

2.4. INTERROGATIVE SENTENCES IN NEGATIVE CONSTRUCTIONS

In Japanese, there are several formatives which mark sentence negation. They are nai, zu, n, nu and zaru (McGloin 1986:2). 8 According to McGloin (1986), nai is the most common negative morpheme in Modern Japanese, and it attaches to “the copula, adjectives, and adverbs” (1986:2). In this thesis, we will take the most common negative morpheme nai. Look at the following sentences (cited from McGloin (1986:2)):

(72) a. Nihonzin da.

   Japanese  Copula[-polite,-past]
   ‘(He) is a Japanese.’

b. Nihonzin de (wa) / zya na-9

   Copula  Top  Neg [-polite,-past]
   ‘(He) is not a Japanese.’

8 N is a contracted form of nu (McGloin 1986:3).

9 Zya is a colloquial contracted form of de na.
(73) a. Omosiro-i.
   interesting [-polite, -past]
   'It is interesting.'

   b. Omosiroku-na-i
   interesting Neg [-polite, -past]
   'It is not interesting.'

(74) a. Tabe-ru
   eat [-polite, -past]
   'I will eat./I eat.'

   b. Tabe-na-i.
   eat Neg[-polite, -past]
   'I will not eat./I do not eat.'

The negative morpheme nai changes its forms as any other adjectives do. That is, for example, if it is in the past tense, this changes into nakatta, as seen below:

(75) Tanaka-wa gakusei zya nakatta.
    Tanaka Top student copula+Top Neg[-polite, +past]
    'Tanaka was not a student.'

There are two ways for the Neg to bear the feature [+polite]. One is to put the politeness affix for adjectives -desu to it, and the other is to utilize
another politeness affix -mas and another negative morpheme, n. For the
elegation in the non-copula construction with the feature [+polite], only n is
permitted as shown in (76c), although the former (naí+desu) in copula
constructions are becoming more and more acceptable these days.

(76) a. Tanaka-san -wa gakusei zya nai desu / zya
   Tanaka Mr. Top student Copula+Top Neg [+polite, -past]
   arimasen.
   Copula Neg [+polite, -past]
   ‘Mr. Tanaka is not a student.’

b. Kono hon -wa omosiroku nakatta desu / omosiroku
   this book Top interesting Neg [+polite, +past]
   arimasen desita
   Copula Neg [+polite, +past]
   ‘This book was not interesting.’

c. Watasi-wa asita osemassen / *osie nai desu
   watasi Top tomorrow teach Neg [+polite, -past]
   ‘I will not teach tomorrow.’

Here, we will discuss the two kinds of negative formation presented above.

When the negation appears in yes-no questions in non-copula
constructions and the subject of the question is in the second person, the
sentences often have a function of invitation:
(77) Asita doebutuen-e ikimasen ka?
tomorrow zoo to go Neg[+polite,-past] Q

'Wouldn’t you like to go to the zoo tomorrow (with me) ?'

However, we do not consider the interrogative sentences with this function and focus on the information getting (non-rhetorical) questions.

In this section, we will examine the behavior of the interrogative sentences in the negative construction. This section is divided into two parts, and the former part deals with yes-no questions and the latter part wh-questions.

2.4.1. YES-NO QUESTIONS

In this section, the negative yes-no questions will be looked at. As mentioned above, there are two kinds of negative sentence formation, that is, one with nai and the other with n. The behaviors of the negative yes-no questions using nai and n are parallel to those of adjective predicate constructions and non-copula constructions, respectively. That is, for nai, the presence of question particle ka is obligatory when the Neg nai is in [+polite]. On the other hand, the negative yes-no questions with n (-masen) are all grammatical regardless of the tense and the presence or absence of question particle ka. In this section, first the negative yes-no questions with nai are examined, and then those with masen are discussed.

2.4.1.1. Negative Predicate with Nai

The behavior observed in the negative yes-no question with nai is parallel to that of yes-no questions with an adjective predicate. This means
that the original predicate before the negation does not affect the sentence's grammaticality. Consider the following sentences:

(78) a. Tanaka-wa asita osie-nai ka / ka?
Tanaka Top tomorrow teach Neg[-past, -polite] Q
‘Won’t Tanaka teach tomorrow?’

b. Tyuugokugo-wa muzukasuku-nai ka / ka?
Chinese Top difficult Neg[-past, -polite] Q
‘Isn’t Chinese difficult?’

c. Spot-wa mesu yua nai ka / ka?
Spot Top female Copula+Top Neg[-past, -polite] Q
‘Isn’t Spot a female?’

In (78a), the negated predicate is a non-copula predicate, in (78b) an adjective predicate, and in (78c) a nominal predicate. However, the grammaticality is the same when they are negated.

When the sentences are in [+past, -polite], [-past, +polite], or [+past, +polite], the same grammaticality is observed in this construction as that of the adjectival construction:

(79) a. Yamada-wa tamanegi-o tabesakatta ka / ka?
Yamada Top onion Acc eat Neg[+past, -polite] Q
‘Didn’t Yamada eat an onion?’
b. Doitugo, muzukasiku-nai desu ka /*ka?

German difficult Neg[-past, +polite] Q
‘Isn’t German difficult?’

c. Ano konyuutaa, benri zya nakatta desu ka /*ka?

that computer useful Copula+Top Neg[+past, +polite] Q
‘Wasn’t that computer useful?’

From the examples above, it can be concluded that the feature [±negative] does not affect the grammaticality of the yes-no questions. What affects the grammaticality of yes-no questions is the category of nai, which is an adjective.

2.4.1.2. Negative Predicate with n

As stated previously, in Modern Tokyo dialect, n is used with the politeness affix mas, and it makes the form of -masen. The grammatical behavior of the yes-no questions with masen is the same as those in non-copula constructions with the feature [+polite]. Here, again, the predicate type which is followed by masen does not change the grammaticality of the sentence:

(80) a. Inu-wa aisukuriimu-o tabemasen ka/ka?

dog Top ice cream Acc eat Neg[+polite, -past] Q
‘Doesn’t a dog eat ice cream?’
b. Ano hon-wa omosiroku arimasen ka / ka?¹⁰
that book Top interesting Copula Neg[+polite, -past] Q
‘Isn’t that book interesting?’

c. Nakamura san-wa gakusee zya arimasen ka / ka?
Nakamura Ms. Top student Copula+Top Copula Neg[+polite, -past] Q
‘Isn’t Ms. Nakamura a student?’

The same grammaticality is observed when the feature is changed into [+past]:

(81) Tanaka san-wa kinoo gakkoo-e ikimasen desita ka / ka?
Tanaka Mr. Top yesterday school to go Neg[+polite, +past] Q
‘Didn’t Mr. Nakamura go to school yesterday?’

The examples presented above show that, again, the feature [+negative] does not affect the grammaticality of yes-no questions. Here, what affects the grammaticality of the sentence is the politeness affix -mas, since the sentences above show the same behavior as those in non-copula predicate constructions with [+polite].

2.4.2. WH-QUESTIONs

As well as in yes-no questions, the behavior of the negative sentences is parallel to that in adjective predicate constructions and to that in non-

¹⁰ When -masen [+polite, +neg] is attached to copula constructions, the copula ar appears. This copula ar is not overt when the predicate is in [neg, -past], but when it is in [+past] or [+neg] with -masen, it is phonologically represented.
copula constructions with [+polite] (-masen). In other words, when the wh-questions are with the negative morpheme nai [-polite], the absence of question particle ka is obligatory, while with nai [+polite] -- naidesu or nakatta desu, the question particle must be present. When the wh-questions are with the negative morpheme with n, the presence of ka is optional. In this section, first the negative wh-questions with nai are examined, and then those with masen are discussed.

2.4.2.1. Negative Predicate with Nai

As observed in wh-questions of the adjective predicate constructions, when the sentence has the [-polite] feature, the absence of question particle ka is obligatory:

(82) a. Kono naka-no dare-ga tako-o tabenai *ka/ka?
    this among of who Nom octopus Acc eat Neg[-past, -polite] Q
    ‘Among these people, who does not eat octopus?’

b. Dono eiga-ga itiban omosiroku nakatta *ka/ka?
    which movie first interesting Neg[+past, -polite] Q
    ‘Which movie was most uninteresting?’

As seen in the sentences above, the tense feature [+past] or the predicate which precedes the negative morpheme does not affect the grammaticality of the wh-questions.

On the other hand, when the negative wh-questions with nai are in the [+polite], the presence of ka in the question is obligatory:
Here again, the grammatical behavior of the sentences is the same as that of the adjective predicate questions.

2.4.2.2. Negative Predicate with は

As briefly stated in the yes-no question section, the grammatical behavior of the wh-questions with は is the same as those in the non-copula construction with the feature [+polite]. Consider the following examples:

(84) a. Dare-ga aisukuriimu-o tabemasen ka/ka?
    who Nom ice cream Acc eat Neg[+polite, -past] Q
    'Who doesn't eat ice-cream?'

b. Dono hon-ga omosiroku arimasen ka/ka?
    which book Nom interesting Copula Neg[+polite, -past] Q
    'Which book is not interesting?'
c. Dare-ga gakusee zya arimasen ka / ka?  
  who Nom student Copula+Top Copula Neg[+polite, -past] Q  
  'Who isn't a student?'

The negative wh-questions with the features [+polite, +past] show the same grammatical behavior as that of the non-copula counterpart:

(84) Kenoo-wa dare-ga osie masen desita ka / ka?  
  yesterday Top who Nom teach Neg[+polite, +past] Q  
  'Who did not teach yesterday?'

Now it is clear that the feature [+negative] itself does not affect the grammaticality of the interrogative sentences. All that matter to the grammaticality is the adjective feature which nai has and the politeness affix -desu and -masu.

2.4.3. SUMMARY

In this section, the grammaticality of the interrogative sentences with negation were examined. In both yes-no and wh-questions, the grammatical behavior is decided according to the negative morpheme used in the sentence. When nai is used, the grammaticality is parallel to interrogative sentences of the adjectival predicate construction, and when n is used with the politeness affix mas, the behavior is the same as in the interrogative questions in non-copula predicate constructions. That is, when nai is used in yes-no questions, unless it has the [+polite] feature, all the sentences are grammatical regardless of the presence of question particle ka. When it has
the [+polite] feature, the presence of *ka* becomes obligatory. In wh-questions, on the other hand, when the sentence has [-polite] feature, the absence of *ka* is obligatory, and when it has the [+polite], it must have *ka*. When *n* is used with the politeness affix *mas*, all the negative questions are grammatical. This means that the presence of question particle *ka* is optional when *masen* is present in the sentence. All these facts show that the negative feature [+negative] does not affect the grammaticality of the interrogative sentences.

2.5.0. SUMMARY OF THE CHAPTER

As the summary of this chapter, I will present the table of the grammaticality of interrogative sentences below:
<table>
<thead>
<tr>
<th>Questions with Question Particle は</th>
<th>polite</th>
<th>-</th>
<th>+</th>
<th>+</th>
<th>Empty Copula</th>
</tr>
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<td><strong>Yes/No Questions</strong></td>
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<tr>
<td>V-sugi + Copula</td>
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<tr>
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<td>N/A</td>
<td>O</td>
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<tr>
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<tr>
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<tr>
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</table>

| Wh-questions                     |        |   |   |   |              |
| N / AN + Copula                   | X      | X | O | O | X            |
| V-sugi + Copula                   | X      | X | O | O | X            |
| Negative -nasen                   | N/A    | N/A| O | O | N/A          |
| Extended Predicate                | X      | N/A| O | N/A| X            |
| A + Copula                        | X      | X | O | O | N/A          |
| V-tai                            | X      | X | O | O | N/A          |
| V-yasui                          | X      | X | O | O | N/A          |
| Negative -nai                    | X      | X | O | O | N/A          |
| Non-copula                       | X      | X | O | O | N/A          |
| Causative                        | X      | X | O | O | N/A          |
| Passive                          | X      | X | O | O | N/A          |
Table 1 continuent

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<thead>
<tr>
<th>Questions without Question Particle き</th>
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The grammatical behavior presented above will be analyzed in the next chapter.
CHAPTER III
ANALYSIS OF INTERROGATIVE SENTENCES IN JAPANESE

3.0 Introduction

The behavior of interrogative sentences in Japanese were examined in the previous chapter. Interrogative sentences show different grammatical behavior depending on the presence of the question particle *ka* or wh-phrases, and also depending on the predicative features such as [+polite] and [+past]. In this chapter, we will present an analysis of the different types of interrogative sentences.

First we will look at Miyagawa (1987)'s analysis that captures the asymmetry between wh-questions and yes-no questions, and that between questions with and without the [+polite] feature. His proposal does have some insights for the analysis of interrogative sentences in Japanese, but there are also some inadequacies in accounting for the entire phenomenon.


3.1.1. Assumptions

Miyagawa (1987) argues using wh-question formation that there is affix raising at LF in Japanese. He explains some grammatical and ungrammatical interrogative sentences in terms of government of the question particle *ka* at LF. Although Miyagawa does not clearly state it, he appears to follow Chomsky (1986b: 8)'s definition of government:
(1) A governs B if and only if A m-commands B and every barrier for B dominates A.\(^1\)

Furthermore, Miyagawa (1987) assumes the following: (i) S-bar dominates Comp which does not have a specifier position; (ii) wh-phrases move to Comp at LF in Japanese; (iii) the question particle ka is in Comp at S-structure and remains in the position at LF, too; (iv) no is another question particle and is also in Comp at both S-structure and LF. Let us clarify these assumptions below.

Assumption (i) means that S' dominates S and Comp and Comp is a position where an element in it can take scope over the S that it dominates. According to this analysis, the Comp position of the S' analysis is the equivalent of both C and [Spec, CP] position of the CP analysis. The following are the schematic structures of the S' analysis and the CP analysis:

![Figure 2: S-bar Analysis](image)

![Figure 3: CP Analysis](image)

Following Lasnik and Saito (1984), Miyagawa assumes that wh-phrases move to the Comp at LF in Japanese. According Haegeman (1994 : 496), although it does not seem that wh-phrases undergo wh-movement at S-structure in Japanese as in English, Japanese has wh-movement at LF so that

\(^1\)A m-commands B if and only if A does not dominate B and every maximal projection that dominates A dominates B; barriers are restricted to maximal projections (Chomsky 1986 : 8).
the wh-phrases can take the sentential scope. Consider the following sentences: 2

(2) \[ CP \ [ il Hanako-wa nani-o tabemasita] ka ? \]
    Hanako Top what-Acc eat[polite, +past] Q
    ‘What did Hanako eat?’

(3) \[ CP Hanako-ga nani-o tabeta ka] sitte iru. \]
    Hanako-Nom what-Acc eat[-polite, +past] Q know
    ‘I know what Hanako ate.’

As Lasnik and Saito (1984: 242, fn.13) and Nishigauchi (1990: 19) point out, the question particle ka indicates the scope of the wh-constituent. In Lasnik and Saito (1984: 244, fn.15), which Miyagawa (1987) refers to, it is assumed that Japanese wh-phrases move rightward at LF because overt complementizers (including the question particle ka) occur sentence-finally. However, since we adopt the CP analysis in this thesis, we assume that wh-phrases move leftward (i.e., to [Spec, CP]), in the same way as wh-phrases in English do.

Miyagawa also assumes that ne is also a question particle, and treats it in the same way as ka. The status of ne is crucial in his analysis since ne as a question particle is included in the condition, and is treated as a governor of question particle ka, as will be discussed in the following section. Although

2 Watanabe (1992) proposes an alternative account; that is, there is non-overt wh-operator, OP, movement at S-structure in Japanese. This wh-operator is extracted from the wh-phrase. This suggests that both English and Japanese have wh-movement at S-structure, and the difference is that in English the wh-operator cannot be separated from the wh-phrase, but in Japanese it is possible.
the detailed discussion will be presented in the section 3.1.4, we will consider no in interrogative sentences as the cluse nominalizer in the extended predicate construction.

3.1.2. Miyagawa’s Proposal

The main purpose of Miyagawa (1987), is to give evidence for LF affix raising in Japanese. In so doing, he proposes that the question particle ka behaves differently when it is in wh-questions and when it is in yes-no questions.

Miyagawa (1987) proposes that the politeness affix -masu is raised to the position higher than Comp at LF, explaining the difference between the two sentences in (4):

(4) a. *Dare-ga kuru ka
   who-Nom come[-polite,-past] Q
   'Who will come?'

b. Dare-ga kimasu ka ?
   come [+polite,-past] Q

Miyagawa claims that the sentence with the verb with [-polite] feature above (i.e., (4a)) is ungrammatical because the question particle ka and the wh-phrase dare are not governed by politeness affix -masu. On the other hand, the politeness affix masu governs them in (4b).
He supports this proposal using wh-question formation. For example, consider the sentence below:

(5) *Dare-ga kimasu
     ka sitteiru
who-Nom come[+polite, -past] Q know
'I know who will come.'

He explains the ungrammaticality of the sentence as "affix raising (masu raising) inserts S' between the matrix verb (sitteiru) and the lower S' which has the Comp containing wh-phrase and ka," (1987: 367). The structure is shown below:

```
          VP
           |
 S'       V
           |
S          |
           |
  masu     sitteiru
           |
 Comp      ka
           |
    wh (dare)
```

Figure 4: Miyagawa's Structure for (5)

This structure will be taken up in the following section as one of the problems of his proposal.

As for the question particle ka, Miyagawa suggests the two different behaviors of ka, as follows:
(6) The question particle *ka* in yes-no question must be governed by something, such as another question particle *no*, politeness affix -masu, or matrix bridge verb (*sitteiru* 'to know;' *saru* 'to say', etc.), at LF.3

Keeping this in mind, let us look at the following sentences:

(7) * Hanako-ga kuru ka?
   Hanako Nom come[-polite, -past] Q
   'Will Hanako come?'

(8) Hanako-ga kuru no ka?
    Hanako Nom come [-polite, -past] Q Q
    'Will Hanako come?'

Miyagawa explains the grammaticality of the sentences above by the condition stated as (6); that is, in yes-no question, the question particle *ka* must be governed by something. (7) is ungrammatical because nothing governs *ka*. Whereas in (8) the question particle *no* in the same Comp as *ka* governs it, the sentence is grammatical. The LF representation of (8) would be presented below:

3Bridge verbs, according to Gowell (1981: 368), assign theta roles to their clausal complements, and optionally subcategorize for an indirect question. Miyagawa (1987: 367) states that a bridge verb *sitteiru* must govern the Comp with wh-phrases, when it contains them, to fulfill the subcategorization for an indirect question.
According to Miyagawa, the question particle *no* governs *ka* Comp-internally (since both of them are in Comp, according to Miyagawa). Politeness affix *-masu* governs *ka* from somewhere above the Comp (*-masu* is not in the Comp with *ka*), and a matrix bridge verb governs it from the position above $S'$. The structure is as shown below as (10):

Another behavior of the question particle is observed when it is found in wh-questions, as stated below:
(11) In a wh-question, not only the question particle は, but the Comp which contains は and a wh-phrase must be governed by something, such as politeness affix -masu, or a matrix bridge verb.

Example sentences are shown below:

(12) * だれが くる 言な か？
   who-Nom come [-polite, -past] Q Q
   'Who will come?'

(13) だれが きま す か？
   who-Nom come [-polite, -past] Q

(14) だれが くる か しとる。
   who-Nom come [-polite, -past] Q know
   'I know who will come.'

In wh-questions, the question particle か does not satisfy this condition of government, since か is in Comp as well as は. This "Comp-internal" government is insufficient for the condition that the Comp containing は and a wh-phrase must be governed, according to Miyagawa (1987: 366). On the other hand, wh-phrase and は are governed by masu and sitteiru in (15) and (16), respectively.

LF affix -masu raising explains the ungrammaticality and grammaticality of the sentences below:
(15) * Dare-ga kuru ka?
    who-Nom come[-poite, -past] Q
    'Who will come?'

(16) Dare-ga ki-masu ka?
    who-Nom come[+polite, -past] Q
    'Who will come?'

As stated in (11), in the wh-question, the Comp containing both a wh-phrase and the question particle ka must be governed. (16) is grammatical since -masu moves to the position that it can govern the Comp in LF. (15) is ungrammatical because nothing governs the Comp. The LF representation of the sentences above are shown below:

(17) *[S [S T [VP kuru]][Comp ka dare]]

(18) *[S [S T [VP ki-T]][Comp ka dare]] -masu]

In (17), the higher Comp which contains both ka and dare is not governed by anything, while in (18), the higher Comp is governed by the raised politeness affix -masu.

3.1.3. Translation of Miyagawa (1987) to the CP Analysis

In this section, the analysis in Miyagawa will be translated into the CP analysis. Unlike the S' analysis, the CP analysis contains the head C and
[Spec, CP]. The specifier position should be occupied by a phrasal category (a maximal projection) and C is a lexical category (a minimal projection). This distinction between a minimal projection and a maximal projection is crucial when a movement (substitution or adjunction) takes place. The following is the definition of substitution and adjunction:

(19) Substitution (Chomsky 1986b: 4)
   a. There is no movement to complement position.
   b. Only X₀ can move to the head position.
   c. Only a maximal projection can move to the specifier position.
   d. Only minimal and maximal projection (X₀ and X’) are “visible” for the rule Move - alpha.

(20) Adjunction (Chomsky 1986b: 73)
   a. Adjunction of a lexical category to a maximal projection is prevented.
   b. Adjunction to a maximal projection is an option restricted to maximal projections.

Upon the translation of S’ to CP, we adopt the assumption that the question particle ka is in C, and the wh-phrases are in the [Spec, CP] at LF, following Nishigauchi (1990: 152) and Haegeman (1994: 497). In the following, I will present the revised LF representations of some sentences in Miyagawa (1987). The LF representations of (21) and (22) are shown below in (23) and (24), respectively:
(21) * Dare-ga kuru ka?
   who-Nom come[-polite,-past] Q
   ‘Who will come?’

(22) Boku-ga dare-ga kuru ka sitteiru.
    I Nom who Nom come[-polite,-past] Q know
    ‘I know who will come.’

(23) [CP dare [C [IP t [r [VP kur] u]] ka]]

(24) [IP Boku-ga [r [VP [CP Dare-ga [C [IP t [r [VP kur] u]] ka]] sitteiru] u]]

In Miyagawa’s analysis, the Comp contains both a wh-phrase and the question particle ka. Thus, a statement such as (11) is possible. However, in the CP analysis, “Comp” does not exist any more. Therefore, the wh-phrase and ka are separated; that is, both are not dominated by C. In addition, the category and the position of the politeness affix -masu at LF also become problematic. We will discuss these problems below.

3.1.4. Problems of Miyagawa’s Proposal

As briefly mentioned in the previous sections, there are some crucial problems in Miyagawa’s analysis. Some major problems are in the assumptions, and some are empirical problems. The empirical problems include the difference in grammatical judgment of yes-no questions and a lack of the analysis of questions without ka and with Copula predicates. These problems can be resolved when those sentences are incorporated in the data.
for an analysis; however, the problems in assumptions should be clarified before the analysis is advanced. Thus, the major problems in Miyagawa’s assumptions will be presented so as to assist the analysis revised in the next section.

The major problems are: (i) the position of the politeness affix -masu after LF affix raising; (ii) the status of no in interrogative sentences. They are discussed separately in the following.

3.1.4.1. The Position of the Politeness Affix -masu after LF Affix Raising

In Miyagawa (1987), the position where the politeness affix -masu is raised at LF is not explicitly stated. Miyagawa says that the politeness affix -masu “is raised to a position that governs the Comp containing ka” (p.362). Moreover, he implies that -masu is adjoined to the S’ whose Comp has ka and a wh-phrase (p. 367). The LF representations of (25) and (26) are (27) and (28) respectively:

(25) Tanaka-san-wa asita ikimasu ka?
    Tanaka Mr. Top tomorrow go[+polite,-past] Q
    Will Tanaka go tomorrow?

(26) *Boku-wa dare-ga ki-masu ka sitte-i-masu.
    I Top who-Nom come[+polite,-past] Q know[+polite,-past]
    I know who will come.

(27) [S [S [Tanaka san wa [Adv asita][VP iki-ti]][Comp ka]] masu]
As shown in (27) and (28), -masu is adjoined to the S', governing the S' that immediately dominates Comp.

Now, when these are translated into the CP analysis, a moved wh-phrase is in [Spec, CP] and the question particle is in C. This means that the politeness affix -masu is adjoined to CP. However, in the current CP analysis, this means that the head of a category of -masu (i.e., -masu) joins to the CP, a maximal projection. This adjunction is prohibited by the Head Movement Constraint (Chomsky 1986:71):

(29) Movement of a zero-level category X is restricted to the position of a head Y that governs the maximal projection XP, where Y theta-governs or L-marks XP if Y \neq C.4

It is impossible for the head -masu to adjoin to the maximal projection CP. Since the head position of this CP is filled with the question particle ka, -masu should adjoin to C, the head of CP.

In Miyagawa, however, the position of -masu as the adjoined item of the CP containing ka and a wh-phrase is crucial when the ungrammatical sentences like (26) are accounted for:

---

4A theta-governs B if and only if A governs B and A theta-marks B. A L-marks B if and only if a lexical category that theta-governs B (Chomsky 1986:15).
(26) *Boku-wa dare-ga ki-masu ka sittei-masu.
    1 Top who-Nom come[+polite,-past] Q know[+polite,-past]
    'I know who will come.'

(30) (LF)

[in Boku-wa [r [VP [r [CP dare [c [up t [r [VP ki-tl]]]] ka]] masu]]
    sitteimasu]] u]]5

Miyagawa (1987: 367) claims that the verb sitteiru 'know', which optionally subcategorizes for an indirect question, must govern the lower Comp (now C and/or [Spec, CP]) to fulfill this subcategorization. (26) is ungrammatical since -masu, which is adjoined to the CP, makes the lower Comp or C inaccessible to the verb sitteiru. Thus, it is necessary to create the solution which satisfies the conditions of both (29) and subcategorized item's accessibility to the matrix bridge verb.

3.1.4.2. The Status of no in Interrogative Sentences

In Miyagawa (1987), no appearing in interrogative sentences such as (31) and (32) is considered as another question particle:

(31) Hanako-ga kuru no?
    Hanako-Nom come[+polite,-past] no
    'Will Hanako come?'

5 Boku-wa should be in CP, because it is a topic, but I disregard this here because it is irrelevant from the issue discussed here.
(32) Hanako-ga kuru no ka?
    come[polite, -past] no Q
    'Will Hanako come?'

He considers sentences like (32) have two question particles. Sentences like (31) are, on the other hand, treated as those which have one question particle. (32) is structurally parallel to (31), the interrogative sentence with one question particle, $ka$.

However, notice that (31) and (32) are the same in their meanings as that of the following sentence:

(33) Hanako-ga kuru no desu ka?
    Hanako Nom come no Copula [+polite, -past] Q
    'Will Hanako come?'

(33) is an extended predicate construction. Because they are the same, it seems more appropriate to treat this no as the nominalizer which is a part of extended predicate construction (no da construction). No in the extended predicate construction is a nominalizer (Makino 1968: 72, Kuno 1972: 223), not a question particle.

Considering that no in the interrogative sentences above is a nominalizer of the extended predicate constructions, the sentence (31) would be treated as an interrogative sentence of the extended predicate construction, whose Copula (da part of no da construction) and the question particle $ka$,

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6 This is suggested also in McGloin (1991) and Noda (1993).
which would supposedly follow *no da*, are phonologically empty. Then, (32) would be the one whose Copula *da/desu* is empty after *no*.

This analysis is also supported by the examples below. In these, no is a nominalizer rather than a question particle because the interrogative sentence [-polite] has to have *ka*, instead of *no*, when the polite equivalent of the sentence has *V masu ka* instead of *V no desu ka*. (34) and (35) are the discourse contexts where the utterance (34 a, b), and (35 a, b) would take place:

(34) Mizu wa tikiyu no ue de wa 100 C de huttoo simasu. Kore wa minasan sensyuu benkyyoo simasita ne. ('Water boils at 100°C on the surface of the earth. About this matter, all of you studied last week, didn’t you?')

(34) a. De wa, getumen-de mo 100 C-de huttoo-simasu ka?
   Then surface of the moon on also at boil[+polite,-past] Q
   ‘Then, would it boil at 100°C on the surface of the moon, too?’

b. #De wa, getumen-de mo 100 C-de huttoo-suru n desu ka?
   boil[-past] NM Copula[+polite,-past] Q

(35) Mizu wa tikiyu no ue de wa 100 C de huttoo suru. Kore wa minna sensyuu benkyyoo sita ne. ('Water boils at 100°C on the surface of the earth. About this matter, all of you studied last week, didn’t you?')

(35) a. Zyaa, getumen-de mo 100 C-de huttoo-suru -ka?
   Then surface of the moon on also at boil[+polite,-past] Q
   ‘Then, would it boil at 100°C on the surface of the moon, too?’
Sentences (34b) and (35b) are not ungrammatical, but they are inappropriate in the given context. As seen in (34b), the one which is in the extended construction is not acceptable in a discourse context in which a teacher asks students a question, and the teacher pretends not to know the answer or not to have any previous information about water’s boiling point on the moon surface. The non-polite equivalent (35b) shows the same result as (34b). Therefore, we conclude that so in the (35b) is not a question particle, but a nominalizer in the extended predicate construction.

If so is not a question particle, it cannot be in the head of C7 with ka unless it is moved in there for some reason. This matter as well as the positions of the wh-phrase and the politeness affix -masu at LF need to be reconsidered.

3.2. Analysis of the Structure of Interrogative Sentences in Japanese

In this section, we will propose the analysis of the structures of Japanese interrogative sentences at LF, considering the data discussed in Chapter II.

The focus of this section will be on the licensing conditions of the question particles, overt ka and empty ka (ό) at LF. The term "licensing conditions" refers to the conditions which enable an element to appear in a well-formed structure.7 As mentioned in the previous section of this chapter,

7 Chomsky (1986 a), p.93.
we assume that wh-phrases are raised to the [Spec, CP] position at LF in Japanese, and that a question particle is in the head position of CP, namely C.

In the following, we will first provide the basic assumptions on the status of Japanese sentences with the politeness affix -masu, and then present the S-structure of the sentence with it. Then, we will discuss the structural analysis of interrogative sentences in Japanese at LF. We will discuss yes-no questions with ka and kare, followed by the discussion of wh-questions.

3.2.1. Structures of Japanese Sentences

We will present the basic structures of Japanese sentences on which we will base the subsequent discussion. Following Nakayama and Koizumi (1991), we assume that the subject in a sentence with a transitive or an intransitive verb is base-generated above VP. We also hypothesize that the politeness affix -masu is a verb like passive and causative affixes. The tense feature is inflected to this -masu and phonologically realized at the end as -masu for non-past and -masita for past, as a parallel behavior to that observed in an ordinary verb. Observe the following examples:

(36) Megumi-ga tegami-o kaku / kaki-masu
    Megumi Nom  letter Acc  write [-polite, -past] write [+polite, -past]
    'Megumi writes the letter.'

(37) Megumi-ga tegami-o kaita / kaki-masita
    write [-polite, +past]  write [+polite, +past]
    'Megumi wrote the letter.'
We hypothesize that -mas is the head of VP as kak 'to write' is and it obligatorily selects VP as its complement. The VP projected by this head is a complement of I. In addition, following Lasnik and Saito (1992) and Fukui and Nishigauchi (1992), we assume the V-raising at S-structure; that is, V is raised to merge with I. Therefore, the S-structures of the sentences in (36) are as follows:

(38) a. [r Megumi-ga [r [VP tegami-o te]] [t [v kak]-u]]

b. [r Megumi-ga [r [VP tegami-o te]] [t [v kak]-masu]-u]]

(38a) is the structure of (36) without the polite verb whereas (38b) is the structure with the polite verb. As shown above, the sentences with [+polite] feature have two V2s, while those with [-polite] have just one.

The politeness feature morpheme for the nominal predicate constructions is considered in the same way; that is, the [+polite, -past] copula -desu is composed of two verbs, the copula -d and the politeness verb -es (plus tense). The politeness verb -es obligatorily selects VP whose head is the overt copula -d, and the VP projected by the head -es is a complement of I. The S-structures of nominal predicate constructions are shown below:

(39) Taro-ga gakusee da / gakusee desu.
   Taro Nom student Copula [-polite, -past] Copula [+polite, -past]

'Taro is the student.'
(40) a. [IP Taro-ga [i [VP gakusee ti]] [[[v d]; a]]]

b. [IP Taro-ga[i[VP gakusee ti] t] [[[[v[v d]; es]; u]]]

(40a) is the structure of (39) without the polite verb while (40b) is with the polite verb.

As for -desu in adjectival constructions, we treat this -desu in the same way as we treat the copula [+polite, -past], desu. This means that -es is also a V. However, the difference between these two desu lies in the tense-specification. That is, both of the two desu are [+tense] since they have a tense morpheme u, but only the u in desu of copula for nominal predicates is [+specified] (Nakayama, personal communication). This is a modification of Tomioka (1993), which formulates tense-specification so as to account for nominative Case assignment and temporal interpretations in the tenseless conjunction. Tomioka's conditions are as the following:

(41) Conditions for Tense Specification (Tomioka 1993 : 490)

a. An Inf has a [+tense] feature iff:
   i) it bears a tense morpheme or
   ii) it is tense-specified

b. An Inf is tense-specified iff:
   i) it is licensed and
   ii) it is tense-bound

c. An Inf is licensed for tense specification iff it is head-governed by a tense morpheme.

d. X tense-binds Y iff:
i) X is a potential tense-binder
ii) X c-commands Y and
iii) X is coindexed with Y

e. Potential tense-binders are a [+tense] Inf, temporal adverbs and temporal PPs.

According to Tomioka's conditions for tense specification, if an Inf bears a tense morpheme, it is always [+tense, +specified]. Also, if an Inf is tense specified, it is always [+tense]. Following Nakayama's suggestion, we modify his condition for tense specification by treating [+ tense] and [+specified] independently. That is, if an Inf has a tense morpheme, it is always [+tense], but the Inf [+tense] can be [+specified] or [-specified]. Only the [+ specified] Inf can have either [+past] or [-past] feature. Therefore, if the Inf is [-specified], it cannot have [+past] or [-past] feature. Consider the following sentences:

(42) Tanaka-san-ga  gakusee desu / gakusee desu.
    Tanaka Mr. Nom  student Copula[+polite, -past]  [+polite, +past]
    'Mr. Tanaka is / was a student.'

(43) Kookii-ga  atui desu / *atui desita / atukatta desu.
    coffee Nom hot[-past] Polite hot Polite[+past] hot [+past] Polite
    'The coffee is / was hot.'

As shown above, the Inf of the politeness verb es (in desu) in the adjectival predicate construction cannot take [+past] morpheme. This means that the
Infl is [-specified]. The tense specification occurs in the lower I with the adjective copula.

This analysis suggests that -des in the adjectival construction takes CP as its complement and the tense feature in the lower clause cannot adjoin to the highest Infl (where desu is) due to the clause boundary. The following is the S-structure of the adjectival construction:

(44) a. [IP Mizu-ga [i [VP .AP.ti]i](v [A tumetak] at) ta]].
    water Nom            cold [+past]
    The water was cold.

b. [IP e [i [VP [CP [IP Mizu-ga [i [VP .AP.ti]i](v [A tumetak] at) ta]]]]  v  ti  ] [v  [v  d]  es]  u]]
    cold [-past]           +polite
    The water was cold.

The structures above show that the sentences with [+polite] feature in adjectival constructions are bi-clausal.

Finally, we would like to present the structure of the extended predicate construction. The no in this construction is considered as the nominalizer (NM, in the gloss) as in the previous section. Thus, no is the head of NP, which is the complement of the copula da. It constitutes a complex NP. The S-structure of this construction is shown below:

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8 The highest [Spec, IP] position is filled with a null subject. This subject cannot be overt since the [-specified] Infl cannot assign the Nominative case to a NP in its Spec position.
(45) a. [NP e [i [VP [NP [CP [NP Megumi-san-ga ]i [VP sono hon-o ti ]]i [v kau] ta]]][no] vi][i [v d]a]]
    bought NM Cop [+polite, -past]

'It is that Megumi bought the book.'

b. [NP e [i [VP [VP [NP [CP [NP Megumi-san-ga ]i [VP sono hon-o ti ]]i [v kau] ta]]][no] vi][i [v d] e][u]]
    bought NM Cop [+polite, -past]

'It is that Megumi bought the book.'

(45a) is the structure of (45) without the copula [+polite], while (45 b) is that with the copula [+polite]. As shown above, the structure of the extended predicate construction contains the complex NP.

3.2.2. Yes-no Questions

In English, an interrogative sentence is made by the operation so-called Subject-Auxiliary inversion.

(46) John will go to school tomorrow.

(47) Will John go to school tomorrow?
Structurally, this phenomenon is explained as an example of head movement. That is, *will* is moved from the I to C, as shown below:

(48) [CP Willi [IP John ti go to school tomorrow]]

In Japanese, the question particle *ka* exists, and this indicates the scope of the interrogation. Following Watanabe (1992), we assume that the question particle is in the C position at S-structure, and stays there at LF. As we looked at the grammatical behaviors of Japanese interrogative sentences in Chapter II, the question particle *ka* and *ka* occur under a certain environment; it is not the case that they can freely appear in the C position of any interrogative sentence. In order to explain the behaviors of the question particles, we need to discuss the licensing conditions of the question particles. As indicated in the table presented at the end of Chapter II, it is the predicate of the sentence that seems to have much to do with the licensing condition of the question particle. In addition, as in the case of English interrogative sentences, we assume that the Infl moves to the C position in Japanese, too, so that we can discuss the licensing condition in terms of the I's government of C.9

3.2.2.1. Yes-no Questions with Overt *ka*

The condition where *ka* [-wh] cannot appear is when the predicate is an overt copula with the features [-polite, -past], that is, -da. Under any other environment, *ka* [-wh] can appear, regardless of the predicates' politeness feature or tense.

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9 In English, this head-to-head movement is adjunction in both English and Japanese, assuming that [+Q] is in C.
Here, we stipulate the licensing condition of *ka [-wh] as follows:

(49) *ka [-wh] is licensed by [+tense].

According to the condition (49), the copula *da can appear yes-no questions with *ka, which is contrary to the fact. However, we account for the ungrammaticality by saying that this is attributed to the modal feature that *da has and it is not a syntactic condition. According to Konomi (1994), *da / datta has dual function, namely the function of copula and the function of modal. Her conclusion is that the 'bare *da' (*da, which is not inflected to the past tense or the polite verb) is always a modal, whereas datta and desu have dual function. She supports her argument with sentences such as below:

(50) Mari-wa ga-kase *da daroo /

Mari Top student *da [-polite, -past] Modal(conjecture)

ø daroo / datta dazoo

Empty Cop [-polite, -past] Cop[-polite, +past]

'Mary is / was probably a student.'

As seen in (50), *da cannot appear with daroo. For the present tense, the empty copula must be used. This is because *da is not a copula, but rather a designative or determinate modal and it does not appear with the verb that indicates the conjecture. For example, *da cannot be overt with V kashira 'I wonder if S V...', V ni chigaisai 'must V', and V kamo shirenai 'maybe V', either, as shown below:

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10 Personal communication with Nakaya.
(51) Gakusei * da / ə / datta kashira
    student Copula[-polite,-past] Copula [-poite, -past] I wonder
    'I wonder if he is / was a student.'

(52) Gakusei * da / ə / datta ni tigainai
    must
    'He must be / must have been a student.'

(53) Gakusei * da / ø / datta kamo shirenai
    might
    'He might be / might have been a student.'

The conclusion that the bare da is always a modal (i.e. an auxiliary verb) and not a copula seems too strong, because if it is so, sentences like Boku-wa gakusei da 'I am a student' would not have a copula, that is, a verb; otherwise, we have to assume an empty copula between gakusei and the modal da. This does not seem to be the case, either, because sentences containing the non-copula verb such as * Boku-wa sake-o kai da 'I will buy sake' are ungrammatical. This indicates that the da has to have the copula function. However, her claim that da has a modal function is worth considering. Observe the following sentences:

(54) Question: Ima nan zi ? 'What time is it now ?'
    a. San    zi    ø.
    Three o'clock Empty Copula
b. San zi desu.
   Copula [+polite, -past]

c. # San zi da.\textsuperscript{11}
   da [-polite, -past]
   'It's three o'clock.'

As Konomi pointed out, (54c) is a marked answer to a simple question because it indicates a "deliberate emphasis on the statement's truthfulness".\textsuperscript{12}

Thus, we can conclude that the empty copula \( e \) is a pure copula, and that \( da \) is a copula with a modal function that indicates a deliberate emphasis on the statement's truthfulness, which affects the modality of the sentence.\textsuperscript{12}Desu, which has [+polite] feature, seems to have both copula function and modal functions, too. Its copula function is shown in (54b), while its modal function is shown in the following sentences:

(56) a."Tanaka-san-ga hannin desu kasira...
   Tanaka-Nom  criminal Cop[+polite, -past] I wonder
   'I wonder if Tanaka is the criminal...'

b.? Tanaka sensei-wa asita irassyaimasu kasira...
   Tanaka professor-top tomorrow Horific-com[+polite, -past]
   'I wonder Professor Tanaka will come tomorrow...'

\textsuperscript{11} If the reply is Sanzi \( \text{id}_o \), it is perfectly appropriate, even though \( da \) is overt. It is because of the sentence final particle \( \text{id}_o \), which indicates the speaker's assertion. \( da \) becomes more strong in the function of copula rather than that of modal under the particle's scope.

\textsuperscript{12} Konomi (1996), p.4.

\textsuperscript{12} Here, we adopt the definition of modality by Lyons (1977:452) : "[Modality is] the speaker's opinion or attitude towards the proposition that the sentence expresses or the situation that the proposition describes." That is, the sentence without \( da \) is free from the speaker's judgment about the truthfulness of the proposition, but \( da \) has the function to express the speaker's judgment about its truthfulness, so \( da \) affects the modality of the sentence.
c. Tanaka-san ga hannin ø kasira...

Empty Cop [+polite, -past]

'I wonder if Tanaka is the criminal...'

Although (56b) is not perfectly grammatical (because the [+polite] feature does not appear in an embedded clause), there is a clear difference in grammaticality between (56a) and (56b). If we compare (56a) with (56c), it becomes clear that desu has the modality because the sentence with the empty copula that does not have the modality is perfect. These indicate that desu is not simply a copula with the feature [+polite]. If it were only a verb (copula) with the feature [+polite], we could expect the same grammatical judgment for both (56a) and (56b) above. Thus, we conclude that desu has two functions as da has. The difference between desu and da appears to be the strength of the modality they have. For desu, the politeness feature that indicates the psychological distance between the speaker and the hearer seems to weaken its modality. This is explained below.

As observed previously, it is only da that cannot occur with ka in yes-no questions. This phenomenon can be explained by its modal function that affects the modality of the sentence, namely by the incompatibility between the nature of yes-no questions and the modality that da has. As Konomi claims, the modal function of da is to indicate "a deliberate emphasis on the statement's truthfulness." (That is, da indicates the strong designative modality.) On the other hand, yes-no questions are posed to inquire whether the statement under the scope of the question particle ka is true or not. Therefore, da, which indicates the strong assertion of the speaker, is not compatible with the nature of yes-no questions. The difference between da
and desu is that, the da’s modality is so strong that it causes the sentence-type incompatibility, while the desu’s modality is weaker and thus, it is suppressed in an interrogative sentence with ka, which clearly indicates the interrogativity of the sentence. This is the reason that da cannot occur in yes-no questions with ka.

Finally, the structures of yes-no questions at LF are presented in the following:

(57) a. [cr] c[ur] Tanaka-san-ga [t [vp [vp gakusee t] t] [t tis]] [c [i [v [v
    Tanaka    Nom    student
d] es] u]ka
    Copula[+polite, -past] Q
    ’Is Tanaka a student ?’

b. Tanaka-san-ga gakusee desita                ka
    Tanaka    Nom student Copula [+polite, +past] Q
    ’Was Tanaka a student ?’

c. Tanaka-ga gakusee o                    ka
    Empty Cop [-polite, -past] Q
    ’Is Tanaka a student ?’

d. [c[ir]Tanaka-ga [vp gakusee t] t] [c [i [v dat], ta] ka]]
    [-polite, +past] Q
    ’Was Tanaka a student ?’
(58) a. [CP [C [IP [VP [VP [CP Megumi-san-wa [VP [AP [A t] t]]
\hspace{1cm} Megumi Top
\hspace{2cm} [l [v [l [kawai]-i] i] ]] ta] t] to] [C [l [v [l [k] es] u]m ka]]
\hspace{2.5cm} Copula [+polite]
\hspace{2cm} cute[-past]
\hspace{1cm} 'Is Megumi cute?'

b. Megumi-san-wa kawai-katta desu ka?
\hspace{2cm} Megumi Top cute[-past] Copula [+past] [+polite] Q
\hspace{2cm} 'Was Megumi cute?'

c. Megumi-wa kawaii ka?
\hspace{3cm} cute [-past] Q
\hspace{2cm} 'Is Megumi cute?'

d. [CP [C [IP Megumi-wa [VP [AP t] t] ta] ta] k ka]]
\hspace{1cm} cute [-past] Q
\hspace{2cm} 'Was Megumi cute?'

3.2.2.2. Yes-no Questions with Empty ka

The environments under which ka [-wh] cannot appear are when the predicate for the sentence is: (1) an overt copula with [-polite, -past], (2) an adjectival predicate with [+polite], and (3) an overt copula with [+polite, -past].

(1) is -da, and (2) and (3) are -desu.

Considering the environments above, we propose the licensing condition for ka [-wh] as follows:
(59) ka[-wh] must be governed by [+tense, +specified].

As for the overt copula with [-polite, -past], da, the same account made in the previous section seems to hold. That is, the modality of da is against the nature of yes-no questions. Thus, the ungrammaticality is due to a semantic reason, not a syntactic one.

The phenomenon that da [-polite, -past] cannot occur in yes-no questions is observed when the question particle is either overt or empty. However, the copula desu [+polite, -past] in nominal predicate constructions behaves differently. When the question particle is overt, desu can appear in yes-no questions, but when it is empty, desu cannot appear.\(^{14}\) This indicates that the types of question particle -- whether or not it is overt-- have some effects on the modality of desu.

As mentioned in the previous chapter, when the question particle is empty, it is only the intonation that distinguishes the interrogative sentence from declarative sentences. In yes-no questions with N/AN desu, it is the interrogative marker that decides the function of desu. That is, when the question particle is overt, it is clear that the sentence is interrogative. Therefore, it suppresses the designative modality that desu has. If the sentence is declarative, the designative modality of desu stays, because there is no incompatibility. When the sentence is interrogative but the question particle is empty, that is, when the sentence-type indicator of the sentence is not overt, the modal function that desu has in declarative sentences is not suppressed. The dialect in which the empty ka does not have the strong

\(^{14}\) In Tokyo dialect, desu cannot appear in yes-no question with ka, but speakers of other dialects accept the sentence.
ability to indicate the interrogative mood of the sentence does not allow the
N/AN desu *ka? construction. However, for those who find the high ability
of indicating the interrogativity in *ka, the sentence becomes acceptable.15

As for desu in adjectival predicate constructions, it cannot occur in the
yes-no questions with *ka because it is [+tense, -specified], different from desu
in the nominal predicate constructions. Thus, we can conclude that [+tense,
+specified] is the licensor.

3.2.3. Wh-Questions

In wh-questions, not only the predicative head, but also the wh-phrase
is moved to a position which can take scope over the entire sentence at LF.
The position is [Spec, CP], as mentioned previously. This wh-movement is
move - alpha at LF, which is subject to certain conditions. According to
Huang (1982), Subjacency does not hold at LF, while the Empty Category
Principle does.16 Therefore, upon considering the structures of wh-questions,
we have to account not only for the licensing condition of the question
particles, but also for the movement of wh-phrases.

In English, there is an asymmetry in terms of extraction of the wh-
phrase between the subject position and the object position. Observe the
following sentences:

15 Shoji (1992) accounts for the asymmetry among da, desu, and a in interrogative
sentences by the difference in “resistance toward interrogation”. Da has the highest resistance,
and a has the lowest resistance.

16 Subjacency condition and ECT are defined as follows, according to Chomsky (1986);
Subjacency condition: Movement must not cross more than one barrier. A is a barrier for B
if and only if (a) A is a maximal projection and A immediately dominates C, C is a Blocking
Category for B, OR (b) A is a BC for B, A is not IP. C is a Blocking Category for B if and only if C
is not L-marked and C dominates B.
Empty Category Principle (ECP): A non-pronominal empty category must be properly
governed. A property governs B if and only if (a) A theta-governs B OR (b) A antecedent governs
B.
(60) a. `[CP Who do [IP you think [CP t': that [IP6 [VP ate an octopus]]]]]?

b. `[CP What do [IP you think [CP t': that [IP6 Mary [VP ate t]]]]]?

As shown above, when the wh-phrase is extracted from the subject position of the embedded clause, the sentence is ungrammatical, but when it is extracted from the object position, the sentence is grammatical. This is due to the ECP violation. In (60a), the trace is neither theta-governed (since the maximal projection VP intervenes between the trace and the V, and this prevents the V from governing the subject trace) nor antecedent-governed (the overt complementizer that prevents antecedent-government of the subject trace by the intermediate trace).

However, as Lasnik and Saito (1992) point out, subject traces and object traces behave alike in Japanese with respect to the ECP. Consider the following sentences:

(61) a. Dare-ga tako-o tabeta to omoimasu ka?
   who-Nom octopus.Acc ate that think Q
   Lit. 'Who do you think ate an octopus?'

b. Mari-ga nani-o tabeta to omoimasu ka?
   Mari-Nom what.Acc ate that think Q
   'What do you think that Mari ate?'

The LF representations for the sentences above are as follows:
Lasnik and Saito (1992) claim that the subject position in Japanese is properly governed, unlike in English, and that is why (62a) is grammatical while (60a) is not. They claim that InfL is a proper governor, and they base their argument on the property of Japanese phrase structure, which is strictly head-final. They hypothesize that the proper government can take place only "to the right" in English and only "to the left" in Japanese. We follow their hypothesis upon analyzing the data below.

3.2.3.1 Wh-Questions with Overt ka

The distribution of grammatical and ungrammatical wh-questions with the overt ka [+wh] is quite simple. The sentences with [-polite] feature are all ungrammatical. Thus, the following is the licensing condition of ka [+wh]:

(63) ka [+wh] must be governed by I with the features [+ tense] and [+polite].

Compared with the licensing condition of ka [-wh], this has one more restriction, that is, [+polite]. This shows that the question particle ka in yes-no questions and wh-questions are two different question particles. The reason
for the difference, that is, why ka [+wh] requires [+polite], is not clear. This awaits the future research.

In the following, the structures at LF are presented.

(64) a. Dare-ga gakusee desu ka / desita ka ?

  Copula [+polite, -past] Q [+polite, +past] Q

  'Who is / was a student ?'


Sentences in (64a) are grammatical since ka [+wh] is governed by Infl with [+tense, +polite]. 17

(65) a. Dare-ga *kawaii ka / *kawaikatta ka ?

  who cute[-past] Q cute[+past] Q

  'Who is / was cute ?'

b. Dare-ga kawaii desu ka / kawaikatta desu ka ?

  who cute[-past] [+polite] [+past] [+polite] Q

  'Who is / was cute ?'

(65) a. *[CP Dare-ga [C [IP ti [VP [AP ti] ti] ti] [C [I[v v a kawai]] ø] i] i] ka]] ?

17 The government is defined with m-command, not c-command.
b. [Cp Dare-ga [C [IP [VP [CP to [IP [C [ VP [ A' t]]]]]]]] t]] t tsu ] [ [t sem C [ [ [V [V d] [es]] u]] ka]] ka]

(66) a. Dare-ga *iku ka / *itta ka ?
who Nom go [-polite, -past] Q [-polite, +past] Q
'Who will go / went ?

b. Dare-ga ikimasu ka / ikimasita ka ?
who go [+polite, -past] Q go [+polite, +past] Q
'Who will go / went ?

These sentences above show that ka [+wh] is licensed by [+ tense, +polite] feature, not by the [+tense, +specified] as in ke [-wh]. All the sentences presented above do not violate the ECP; the traces are all properly governed. The ungrammatical sentences above are all due to the failure of licensing the question particle.

3.2.3.2. Wh-Questions with Empty ka

In wh-questions with ka, the predicate type that cannot occur is the adjectival predicate with [+polite] verbal desu. The copula da, with [-polite, -past], which can never occur in other three types of interrogative sentences, is possible in a wh-questions with ka.18 In addition, the copula desu, with [+polite, -past], which cannot appear in yes-no questions with the empty

18 In wh-questions, da is ill-formed because of [-polite], not because of its designative modality.
question particle, becomes possible, too. Thus, the generalization of the conditions where \textit{ka} [+wh] can appear is as follows:

(67) \textit{ka} [+wh] must be governed by \textit{I} with [+tense, + specified].

The licensing condition for \textit{ka} [+wh] is exactly the same as that for \textit{ka} [-wh]. The difference is that there is not the semantic exception that \textit{ka} [-wh] has, that is, the modality of \textit{desu} and \textit{da} in the nominal copula construction.

The adjectival constructions such as (68) were explained that the features [+tense, +specified] cannot govern \textit{ka} because they are bi-clausal, and the feature cannot move beyond the clausal boundary:

(68) Koohii-ga atui desu / atukatta desu / *atui desita.

\text{coffee-Nom hot[-past] [+polite] [+past] [-past] * [+past]}

'\text{The coffee is / was hot.}'

Therefore, the highest Infl in the adjectival sentence such as (66) is not [+tense, +specified].

In yes-no questions with the empty question particle, the copula \textit{da} is ruled out due to the modal function that \textit{da} has, that is, indicating the deliberate emphasis on the statement’s truthfulness. This seems not to hold in wh questions with \textit{ka}. This is attributed to the different nature between wh-questions and yes-no questions. What a yes-no question ask for is to inquire whether or not the whole statement is true. On the other hand, wh-questions’ focus of the interrogation is not the entire statement’s truthfulness, but the content of wh-phrases (e.g., variable \textit{x} — for which
person \( x \), for *dare*). Therefore, *da* is incompatible with the nature of the yes-no questions, but not with that of the wh-questions. Thus the predicate *da* and *desu* can occur with *ka* [+wh].

In the following, the structures of the wh-questions with *ka* are presented:

(69) a. Donata-ga kootyoo see desu *ka* / desita *ka* ?
   who Nom principal Cop [+polite, -past] Q Cop [+polite, +past]
   *Who is / was the principal?*

   b. Dare-ga kootyoo da *ka*- / datta *ka* / o *ka* ?
   who Nom principal Cop [-polite, -past] Q [-polite, +past] Empty Q
   *Who is / was the principal?*

(69) a. [CP Donata-ga [C [IP ti] [VP kootyoo see t] ti]
   [C [i [v [v d]] esk u] ka]]

   b. [CP Dare-ga [C [IP ti] [VP kootyoo t] ti [s: [i [v d]] a:k ka]]]

(70) a. Tanaka-wa nani-o kau *ka* / katta *ka* ?
   Tanaka Top what-acc buy[-polite, -past] Q buy[-polite, +past] Q
   *What will / did Tanaka buy?*

   b. Tanaka-san-wa nani-o kaimasu *ka*- / kaimasita *ka* ?
   buy[+polite, -past] Q buy[+polite, +past] Q
   *What will / did Tanaka buy?*
(70) a. \([\text{CP} \text{nani-} \text{to}: \text{ce} \text{[e Tanaka-wa \text{[v}] \text{t} \text{tu}: \text{c} \text{[i \text{v ka}: \text{u}: \text{ka}]}}]?)

(71) a. \(\text{Dono konpyuutaa-ga} \text{ \text{yasui desu ka} /}
\text{which computer-Nom cheap[-past] [+polite] Q}
\text{\text{yasukatta desu ka} ?}
\text{cheap[-past] [+polite] Q}
\text{Which computer is / was cheap?}

b. \(\text{Dono konpyuutaa-ga yasui ka / yasskatta ka} ?
\text{cheap[-past] Q cheap[-past] Q}
\text{Which computer is / was cheap?}

(71a) is ungrammatical because \text{ka [+wh]} is not governed by Infl with tense. The other sentences are grammatical, since Infl which governs \text{ka [+wh]} is tensed.
3.3. QuestionParticles in Embedded Questions

In this section, the behavior of question particles in embedded questions will be discussed. Different from the matrix questions, ka never appears in embedded questions in Tokyo dialect under any circumstances:

(72) Dare-ga iku *ka / ka sira nai.
    who Nom go [-polite, -past] Q know Neg
    'I don't know who will go.'

(73) a. Dare-ga gakusei da *ka / ka sira nai
    who-Nom student Copula [-polite, -past] Q
    'I don't know who is a student.'

b. Dare-ga gakusei Ø *ka / ka sira nai
    Empty Cop
    'I don't know who is a student.'

(74) Nani-ga oisii *ka / ka sira nai.
    what-Nom tasty [-past] Q
    'I don't know what is tasty.'

This phenomenon is parallel to the complementizer to in Tokyo dialect. The quotative to must be overt in the embedded clause in Tokyo dialect. In embedded wh-questions, both the empty copula and da can occur with overt ka, while da is not allowed in matrix questions.
In embedded yes-no questions, *ka doo ka* 'whether', not *ka* [-wh] must appear if it does not quote a direct question:

(75) a. Tanaka-ga gakusei da *ka / ka doo ka sitteiru.
    Tanaka-Nom student Cop[-polite,-past] Q whether know
    'I know whether Tanaka is a student.'

b. Tanaka-ga gakusei ø *ka / ka doo ka sitteiru.
    Tanaka-Nom student Empty Cop Q whether know
    'I know whether Tanaka is a student.'

c. Tanaka-ga gakusei datta *ka / ka doo ka sitteiru.
    Tanaka-Nom student Cop[-polite, +past] Q whether know
    'I know whether Tanaka was a student.'

(76) a. Inu-ga tyokoreeto-o taberu *ka / ka doo ka sitteiru.
    dog-Nom chocolate-Acc eat [-past] Q
    'I know whether a dog eats chocolate.'

b. Sono inu-ga tyokoreeto-o tabeta *ka / ka doo ka sitteiru.
    the dog-Nom chocolate-Acc eat [+past] Q
    'I know whether the dog ate chocolate.'

(77) a. Sono konyuyutaa-ga takai *ka / ka doo ka sitteiru.
    that computer-Nom expensive Empty Cop Q know
    'I know whether that computer is expensive.'
b. Sono konpyuutaa-ga takakatta *ka / ka doo ka sitteiru.

that computer-Nom expensive Cop [+past] Q know
'I know whether that computer was expensive.'

In both embedded yes-no and wh questions, politeness verbs -es and -mas can never appear under any circumstances. The Infl that governs the embedded question particle must be [-polite]. This phenomenon is observed in relative clauses, indirect quotes, temporal clauses, and so on. This can be explained by that the fact that politeness concerns the interlocutor. The awareness of the interlocutor for the clause depends on the matrix clause unless it is a direct quotation. In other words, speech style has to be expressed in the root clause. Therefore, the politeness verbs cannot appear there. Also, in (75a), the modality of da becomes irrelevant to the grammaticality of the sentence because it affects only the sentence type of the matrix sentence, and not that of the embedded clause. These are the phenomena that are different from the matrix questions.

3.4. Summary

In this chapter, the licensing condition of the question particles were analyzed. The conditions are summarized as follows:

(78)   a. ka [-wh] must be governed by [+tense].
   b. ka [+wh] must be governed by [+tense, +polite].
   c. ka [-wh] and ka [+wh] must be governed by [+tense, +specified].
d. In embedded clauses, *taaoko [-wh] and *ka [+wh] must be governed by [+tense, -polite].

In addition to these conditions, the modality of *da and *desu influences the grammaticality of yes-no questions.

The conditions above show that question particles of any type must be governed by [+tense] at least. This is parallel to the phenomenon in English; in English, an auxiliary verb with [+tense] is moved to C from Infl in an interrogative sentence. Therefore, if we assume [+Q] in C in English interrogative sentences, the [+Q] is governed by [+tense] auxiliary verb, and this seems the same as in the case of Japanese. In Japanese, however, the conditions slightly differ according to the types of interrogative sentences. The question marker with [+wh] and the one [-overl] have stricter requirement in terms of government.

In the embedded wh-questions, *ka [+wh] must be governed by [+tense, -polite]. Interestingly, *ka [+wh] in the matrix question and in the embedded question are in complementary distribution in terms of their licensing condition.
CHAPTER IV
CONCLUSION

In this thesis, the grammatical behavior of Japanese interrogative sentences was investigated. Some problematic phenomena such as interrogative sentences which obligatorily have the overt question particle *ka ((1)-(3) below) and those which obligatorily have the empty question particle *ka ((4)-(5) below) were especially our concern:

(1) Tanaka-san-wa gakusei desu *ka?  
   Tanaka Top student Copula Q  
   'Is Tanaka a student?'

(2) Kono kohii-wa atui desu *ka?  
   this coffee Top hot Polite Q  
   'Is this coffee hot?'

(3) Dono kompyuu-taa-ga yasui desu *ka?  
   which computer Nom cheap Polite Q  
   'Which computer is cheap?'

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In order to analyze the asymmetry observed above, the grammatical behavior of the entire set of Japanese interrogative sentences was examined in Chapter II. We observed the grammaticality of yes-no questions and wh-questions with various kinds of predicates — copula predicates (nominal and adjectival predicates), non-copula predicates, extended predicates (no da construction), and negative predicates. We found that what affects the grammaticality of an interrogative sentence is the feature that each predicate has, i.e., whether or not the question particle is overt, and whether or not the interrogative sentence has a wh-phrase.

In Chapter III, we first presented a review of Miyagawa (1987) followed by the translation of his analysis into the CP schema that this thesis adopts and the problems of his proposal. Assuming there are four kinds of question particles, *ka[-wh], *ka[+wh], ka[-wh], and ka[+wh], we proposed the following licensing conditions:

(6) Matrix clause:

a. *ka [-wh] must be governed by [+tense].

b. *ka[+wh] must be governed by [+tense, +polite].
c. *ka [-wh] and *ka [+wh] must be governed by [+tense, +specified].

Embedded clause:

d. ka dooka [-wh] and *ka [+wh] must be governed by [+tense, -polite]. The question particle must be overt.

In this thesis, we discussed that the licensing of the question particles took place at LF, following Miyagawa (1987). As stated in Section 3.1, Miyagawa (1987) explains the grammatical behavior of the interrogative sentences in terms of the politeness affix -masu's governent of the question particle ka. It states that only -masu, not the entire verb phrase, is raised to the position that governs ka at LF. However, in this thesis, we reexamined the interrogative sentences, and hypothesized, following Lasnik and Saito (1992) and Fukui and Nishigauchi (1992), that all the verbs are adjoined to the Infl inside the clause boundary, and that the adjoined Infl adjoins to the Comp, where a question particle is at S-Structure. It might be the case that all the licensing of the question particles occur at S-Structure, not at LF. Although this remains as a question, we followed Miyagawa (1987) and assumed that the licensing operation occurs at LF.

It was also found that the modality of da and desu influences the grammaticality of yes-no questions. Concerning the condition (6b), we raise the question of why the additional feature [+polite] is required in wh-questions. As for the overt ka, if it is the case that the ka with the feature [+wh] has to have more conditions than ka with the feature [-wh] —the number of the grammatical sentences is smaller in wh-questions than in yes-no questions when they have the overt ka --, the possible account would be as follows. The feature [+polite], which indicates psychological distance
between the speaker and the listener, does not affect the propositional content of the sentence. Moreover, it is only the politeness feature that every predicate can have. If we need more features for the licensing condition for ka [+wh], the politeness feature, which does not change the sentence's propositional content but adds an extra feature to the predicate, seems to be a good candidate. Therefore, this feature is required. The precise answer to this, however, awaits future research.
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