

## Interrogative Feature Checking in Japanese and Korean\*

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### Abstract

This paper discusses the feature checking mechanism of interrogative sentences in Japanese and Korean. We first focus on a phenomenon of omitting question markers in informal speech in Japanese and attempt to provide an account for it within the framework of Principles and Parameters approach. We argue that question markers can be omitted only if interrogative features of the sentence can be properly checked. In particular we claim that I-to-C head-movement is one of the options for interrogative feature checking in Japanese as well as languages without question markers. A close examination of Korean reveals certain differences between Korean and Japanese. Some theoretical consequences from this analysis are also discussed.

### 1. Introduction

It has been pointed out in the linguistic literature that Japanese allows question markers to be optionally omitted in informal speech (Lasnik & Saito, 1992; Inoue, 1996).<sup>1</sup>

- (1) a. John-wa doko-ni ik-imashi-ta (ka)? 'Where did John go?'  
John-Top where-to go-Polite-Past (Q)  
b. hon-o kat-ta (no)? 'Did you buy a book?'  
book-A buy-Past (Q)

The question marker drop (QM-drop) phenomenon is commonly observed in informal speech, but it is not the case that it applies freely without any constraint.<sup>2</sup> Our major goal is to provide an analysis of the QM-drop phenomenon within the framework of Principles and Parameters (P&P) approach. Adopting a standard assumption that the interrogative force is carried by C<sup>0</sup> with the LF interpretable feature [+wh] or [+Q],<sup>3</sup> we will argue that there are three basic ways to license the interrogative feature of the sentence in Japanese: (i) by overt realization of the [+wh] or [+Q] feature with morphological question markers, (ii) by dynamic agreement of Rizzi (1996), an instance of Spec-head agreement of [+wh] feature, and (iii) by I-to-C head-movement.

The paper is organized as follows. In the next section, we provide a brief description of the QM-drop phenomenon.<sup>4</sup> In section 3, we discuss QM-drop in *wh*-questions, based on Rizzi (1996). Section 4 focuses on QM-drop in *yes/no*-questions. Section 5 deals with embedded questions, and we discuss some theoretical consequences from our analysis of QM-drop. In section 6, we examine Korean data. The final section is a summary.

### 2. QM-Drop in Japanese

QM-drop is always possible with regular lexical verbs as in (1) above while it is sometimes blocked with copulative verbs (Inoue, 1996). Thus, the non-past tense copula presents a grammatical contrast with or without *wh*-elements as in (2), but the past tense copula does not as in (3).

- (2) a. sono hito-wa John desu \*(ka)?<sup>5</sup> 'Is that person John?'  
that person-T John Cop (polite) \*(Q)  
b. sono hito-wa dare desu (ka)? 'Who is that person?'  
that person-T who Cop (polite) (Q)

- (3) sono hito-wa John / dare deshi-ta (ka)?  
 that person-T John / who Cop-Past (polite) (Q)  
 'Lit. Was that person John / who?'

In embedded questions, QM-drop is completely banned (Lasnik & Saito, 1992).

- (4) John-wa [Mary-ga gakkoo/doko-ni ik-u \*(ka)] kii-ta.  
 John-T Mary-N school / where-to go-Pres \*(Q) ask-Past  
 'Lit. John asked Mary was going to school / where.'

(4) shows that a *wh*-element has no influence on grammatical judgment with regular lexical verbs. The same pattern is observed with copulative verbs as shown in (5). Notice also that the tense specification makes no distinction.

- (5) a. Mary-wa [sono hito-ga John / dare da \*(ka)] kii-ta.  
 Mary-T that person-N John / who Cop \*(Q) ask-Past  
 b. Mary-wa [sono hito-ga John / dare dat-ta \*(ka)] kii-ta.  
 Mary-T that person-N John / who Cop-Past \*(Q) ask-Past  
 'Lit. Mary asked if person was John / who.'

To summarize, in the matrix clause, QM-drop in Japanese is allowed with regular lexical verbs without any restriction (present or past, and with or without a *wh*-element). There is some complication with copulative verbs. Regardless of difference in the tense and politeness specifications, QM-drop is possible if the copulative sentence contains a *wh*-element. With no *wh*-element in the copulative sentence, only the past tense form can license QM-drop. No QM-drop is permitted in the embedded question.

### 3. *Wh*-Questions

In this section, we examine Rizzi's (1996) analysis of the *wh*-questions and see how it accounts for the fact that QM-drop is always possible in *wh*-questions in Japanese. Rizzi first elaborates May's (1985) Wh-Criterion.

- (6) *The Wh-Criterion* (Rizzi, 1996: 64):

- a. A *wh*-operator must be in a Spec-head configuration with [+wh] X<sup>0</sup>.  
 b. An [+wh] X<sup>0</sup> must be in a Spec-head configuration with a *wh*-operator.

Rizzi assumes that a "*wh*-operator" here is a *wh*-phrase in an operator position. The Wh-Criterion thus requires the configuration of Spec-head agreement (i.e., [+wh] in the head and a *wh*-operator in its Spec position.). Rizzi further argues that the Wh-Criterion and a mechanism called "dynamic agreement" together account for the contrast between English and French.<sup>6</sup>

- (7) a. \*She has seen who? (8) a. Elle a vu qui?  
 b. \*Who she has seen? b. Qui elle a vu?  
 c. \*Has she seen who? c. \*a-t-elle vu qui?  
 d. Who has she seen? d. Qui a-t-elle vu?

Let us assume the following D-structure (DS) for both English and French.

- (9) [CP C [IP Mary has seen who]]  
 ([+wh])

According to Rizzi, [+wh] is an optional feature that can be generated in I<sup>0</sup>. If [+wh] is base-generated in I<sup>0</sup>, (7a) violates the Wh-Criterion at SS since there is no operator in the IP Spec position. If [+wh] is not base-generated in I<sup>0</sup>, (7a) violates the Wh-Criterion at LF due to the fact that there is no X<sup>0</sup> [+wh]. (7b) and (7c) also are excluded for the same reason. In (7d), [+wh] in I<sup>0</sup> is moved to C<sup>0</sup> and the *wh*-operator is moved to Spec C, resulting in the required configuration at SS. Hence, (7d) satisfies the Wh-Criterion. It follows then that Subject-Aux Inversion is required in *wh*-questions by the Wh-Criterion.<sup>7</sup>

Rizzi accounts for the corresponding French examples by postulating an instance of Spec-head agreement, dynamic agreement, which allows a *wh*-operator in the Spec position to license its head to have the [+wh] feature.<sup>8</sup> If [+wh] is base-generated in I<sup>0</sup>, (8a) must be ruled out on a par with English (7a). If [+wh] is not base-generated, on the other hand, the *wh*-element *qui* is moved to the CP Spec position at LF and triggers dynamic agreement, satisfying the Wh-Criterion at LF. Hence, unlike the English counterpart, (8a) is grammatical due to dynamic agreement. In (8b) *wh*-movement takes place at SS and hence dynamic agreement is triggered at SS as well, satisfying the Wh-Criterion. (8c) is ungrammatical because *qui* is not in the Spec C position, if [+wh] is base-generated. If [+wh] is not base-generated, on the other hand, I-to-C movement must not occur in the first place. (8d) satisfies both conditions in the Wh-Criterion at SS. Thus, according to Rizzi, English and French differ only with respect to dynamic agreement. The latter has it but the former does not.

Turning to Japanese *wh*-questions, Rizzi argues that Japanese also utilizes dynamic agreement and claims that the Wh-Criterion applies only at LF in this language. Consider the following examples:

- (10) a. John-wa nani-o tabe-mashi-ta (ka)? 'What did John eat?'  
           John-T what-A eat-Polite-Past (Q)  
       b. sono hito-wa dare desu (ka)? 'Who is that person?'  
           that person-T who Cop (polite) (Q)

Rizzi assumes that the question marker *ka* is a manifestation of C<sup>0</sup>.<sup>9</sup> The *wh*-phrase moves to an operator position (i.e., the matrix CP Spec position) at LF. With *ka* manifesting C<sup>0</sup>, the Wh-Criterion is satisfied straightforwardly at LF. Notice that the Japanese examples in (10) contrast with examples in English (7c) and French (8c). Thus the assumption is a crucial one that LF is the only level at which the Wh-Criterion applies in Japanese. With QM-drop, dynamic agreement is called for, and C<sup>0</sup> gains the relevant [+wh] feature through Spec-head agreement from the LF moved *wh*-phrase. It follows then that QM-drop is always permitted in *wh*-questions due to dynamic agreement at LF.

#### 4. Yes/No-Questions

Rizzi's (1996) analysis nicely accounts for the English-French contrast as well as Japanese QM-drop in *wh*-questions. Since there is no *wh*-operator involved in *yes/no*-questions, however, the Wh-Criterion and dynamic agreement alone cannot account for the data with QM-drop in *yes/no*-questions. We thus need a new analysis for *yes/no*-questions.

We would like to propose a possible account here. The basic condition that we assume is that interrogative feature [+wh] or [+Q] in C<sup>0</sup> must be licensed in every interrogative sentence (both *wh* and *yes/no*-questions).<sup>10</sup> We take this condition to be a syntactic requirement to ensure the interrogative force specification in C<sup>0</sup>. For *wh*-questions, as we saw above, either overt realization of the question marker or dynamic agreement satisfies this condition with QM-drop. For *yes/no*-questions in languages with question markers, we claim that there are two ways to satisfy this condition: One is to overtly manifest a morphological question marker in C<sup>0</sup> at SS. The other is to utilize I-to-C head-movement to license the interrogative force in C<sup>0</sup>. The latter option must take place in the absence of an overt question marker.<sup>11</sup> Languages that lack question markers, on the other hand, have only the choice of utilizing I-to-C head-movement for the purpose of licensing the interrogative force specification.

Let us assume for Japanese *yes/no*-questions that (i) *ka* is a manifestation of  $C^0$ , (ii)  $C^0$  must have indication of interrogative force at SS or LF, and (iii) I-to-C head-movement must take place in *yes/no*-questions to satisfy (ii) since the dynamic agreement option is not available here due to the lack of *wh*-operators. Given these three assumptions, *yes/no*-questions with regular lexical verbs are accounted for in the following manner: With *ka* present in the sentence, the interrogative force is properly indicated in  $C^0$ , satisfying (ii) at SS. With *ka* omitted, V-movement to  $C^0$  is required due to the condition (ii). These are illustrated in the following.

(11) a. [CP [IP gakkoo-ni ik-imas-u] [ $C^0$  ka]]  
 school-to go-Polite-Pres Q  
 'Are you going to school?'

b. [CP [IP gakkoo-ni t<sub>i</sub>] [ $C^0$  ik-imas-u]<sub>i</sub>]

QM-drop is allowed with copulative *yes/no*-questions in the past tense form. If our analysis is on the right track, then, the relevant structures must be something like the following.

(12) a. [CP [IP sono hito-wa John t<sub>i</sub>] [ $C^0$  deshi-ta]<sub>i</sub> ]  
 that person-T John Cop-Past (polite)

b. [CP [IP sono hito-wa John t<sub>i</sub>] [ $C^0$  dat-ta]<sub>i</sub> ]  
 that person-T John Cop-Past

This contrasts with the non-past tense copulative forms, which do not allow QM-drop. Given the logic of our analysis, V-movement must somehow be blocked and  $C^0$  is left open for the required interrogative force indication.

(13) a. \*[CP [IP sono hito-wa John desu] [ $C^0$   $\emptyset$  ]]  
 that person-T John Cop (polite)

b. \*[CP [IP sono hito-wa John da] [ $C^0$   $\emptyset$  ]]  
 that person-T John Cop

Why is V-movement blocked in (13) but not in (12)? Although both *deshita* (polite past) and *datta* (plain past) in (12) are specified for past tense, *desu* (polite non-past) and *da* (plain non-past) in (13) are dummy elements with no tense specification. Thus we suggest that the dummy copulative elements with no tense specification play no role at LF, hence they cannot undergo V-movement to  $C^0$  at LF. In fact, cross-linguistically, it is common to have a null copula for present tense and overt copulas for other tenses. Russian (14) and Classical Arabic (15) are well known examples in this regard.

(14) a. ja student / ustal 'I am a student / tired.'  
 I student/tired

b. ty byla studentka / ustala  
 you were student (Fem) / tired  
 'You were a (female) student / tired.' (Franks, 1995: 298)

(15) a. muḥammad-u kabiir-un 'Mohammed is old.'  
 Mohammed-N old-N

b. kaana muḥammad-u kabiir-an 'Mohammed was old.'  
 was Mohammed-N old-A (Blake, 1994: 191)

One piece of evidence that indicates *desu* is not tense-marked comes from the following fact: When *desu* is used with an adjective, it is the adjective, rather than *desu*, that gets tense-marked as illustrated in (16).

(16) a. oishi-i (desu). 'It is delicious.'  
 delicious-Pres (Cop (polite))

b. oishikat-ta (desu). 'It was delicious.'  
 delicious-Past (Cop (polite))

Notice that *desu* here functions as a politeness marker and it is optional as indicated. This pragmatic status of *desu* as a politeness marker does not change its syntactic behavior with respect to QM-drop. The corresponding *yes/no*-questions require *ka* as shown in (17).

- (17) a. *oishi-i desu \*(ka)*                      b. *oishikat-ta desu \*(ka)*.  
       'Is it delicious?'                              'Was it delicious?'

Also, the following well-known construction (*unagi-bun* 'eel-sentence') supports the claim that the non-past tense copula in Japanese is a dummy element.

- (18) a. *boku-wa unagi desu.*                      'Lit. I am an eel.'  
       I-T            eel            Cop (polite)  
       b. *boku-wa unagi da.*                      'Lit. I am an eel.'  
       I-T            eel            Cop (non-polite)

These sentences can literally be interpreted as "I am an eel." It can also be used as an answer to questions such as "what did you eat for lunch?" or "which do you like better, eel or tuna?" In other words, *desu* and *da* in (18) may function as copula or as a kind of pro-verb. What is important here is that even with the pro-verb reading, QM-drop is not allowed as shown in (19).

- (19) a. *\*kimi-wa unagi desu?*                      b. *\*kimi-wa unagi da?*  
       you-T            eel            Cop (polite)                      you-T            eel            Cop

We have argued so far that an overt question marker in  $C^0$  in Japanese satisfies the condition at SS that requires [+wh] or [+Q] to be checked. If QM-drop applies in *yes/no*-questions, head-movement to  $C^0$  must take place to check and license the interrogative feature in  $C^0$ . Regular lexical verbs undergo movement to  $C^0$  since they are tense-marked and semantically significant. The copulative verb, however, unless it has (past) tense specification, is just a dummy element and cannot undergo movement, resulting in ungrammaticality.

What about *yes/no*-questions in languages without morphological question markers? Within the P&P approach, it is natural to assume that these languages also need to license the interrogative force specification in  $C^0$ . Let us limit our discussion to English. In informal speech, Subject-Aux Inversion in English is optional as shown below.<sup>12</sup>

- (20) a. Do you speak Chinese?                      (21) a. Were you a businessman?  
       b. You speak Chinese?                              b. You were a businessman?

In (20a) and (21a) the interrogative force specification is licensed by overt Subject-Aux Inversion. For (20b) and (21b), given the logic of our approach, we claim that V-movement to  $C^0$  at LF satisfies the interrogative force realization. Since there is no significant distinction in acceptability between lexical verbs and copula in English as shown in (20) and (21), the difference between English and Japanese must be attributed to the peculiar characteristics of the non-past tense copula *desu* and *da*, namely they have no tense specification nor semantic content. The English copulative verbs all have at least tense specification.

## 5. Indirect Questions

Let us turn to the lack of QM-drop in embedded questions in Japanese. We saw in section 2 that QM-drop is completely prohibited in indirect questions. Since complementizer-drop (Comp-drop) is virtually impossible in standard Japanese dialects as shown in (22), one might think that the prohibition of QM-drop in the embedded context is related to this fact.

- (22) a. *John-ga [Kobe-ni iku \*(to)] itta.*  
       John-N    Kobe-to    go    \*(that) said  
       'John said that he was going to Kobe.'

- b. John-ga [jibun-ga tensai da \*(to)] omotteiru.  
 John-n self-N genius Cop \*(that) think  
 'John thinks that he is a genius.'

There is evidence, however, that shows Comp-drop and QM-drop are independent of each other. Saito (1986) shows that Comp-drop is frequently observed in Kansai dialects as illustrated in (23).

- (23) a. John-ga [Kobe-ni iku (te)] yuuta.  
 John-N Kobe-to go (that) said  
 b. John-ga [jibun-ga tensai ya (te)] omooteru.  
 John-N self-N genius Cop that think

While the complementizer *te* can be dropped in embedded declarative sentences in these dialects, QM-drop results in ungrammaticality.

- (24) a. John-ga [doko iku \*(ka)] kiita.  
 John-N where go \*(Q) asked  
 'John asked if he was going to Kobe.'  
 b. John-ga [sono hito dare ya \*(ka)] kiita.  
 John-N that person who Cop \*(Q) asked  
 'John asked who that person is.'

We must therefore provide an independent explanation of why QM-drop is prohibited in the embedded context.

Rizzi (1996) accounts for the fact that indirect questions allow no QM-drop in Japanese in terms of the Projection Principle. The basic idea is that, unlike matrix CPs, embedded CPs must be lexically selected by the main verb and specified either as a declarative complement or as an interrogative complement. This lexical selection as well as other lexical properties must be held constant at all levels in syntax due to the Projection Principle. If the [+wh] or [+Q] feature is not overtly manifested in C<sup>0</sup> at SS, it does not satisfy the lexical selection from the matrix verb. Head-movement to C<sup>0</sup> at LF would not save the structure in this case since it would result in an inconsistent interrogative feature specification between SS and LF, a violation of the Projection Principle.

Given Rizzi's account for the restriction of QM-drop in indirect questions, our analysis has an interesting theoretical consequence. Contrary to the recent proposal that V-movement to C<sup>0</sup> takes place at SS in Japanese (cf. Whitman, 1991; Koizumi, 1995), our analysis suggests that it must not take place at SS at least in the embedded clause. Recall that, in our analysis, head-movement to C<sup>0</sup> is a possible option to mark the interrogative force in C<sup>0</sup> even in languages with morphological question markers. If V-movement to C<sup>0</sup> in the embedded question could occur at SS, the embedded interrogative CP would still satisfy the Projection Principle at the same level. In fact, in some dialects of English (e.g., Hiberno-English), for example, head-movement to C<sup>0</sup> is a legitimate option in the absence of overt complementizer as McCloskey, 1991: 294-5) points out.

- (25) a. Ask your father [CP does [IP he want his dinner]].  
 b. Ask your father [CP if [IP he wants his dinner]].  
 c. \*Ask your father [CP if does [IP he want his dinner]].

A question immediately arises within the P&P approach. If overt head-movement to C<sup>0</sup> is a possible option to license the embedded question in one language (i.e., Hiberno-English), why is it not a possible option in Japanese as well? The existence of this type of languages suggests then that QM-drop is not allowed in the Japanese indirect questions because head-movement can only take place in LF in this language.

Another theoretical consequence has to do with *wh*-movement in Japanese. The mere existence of *wh*-elements in indirect questions does not license the

interrogative force in the embedded C<sup>0</sup>. Thus, QM-drop is not permitted in the embedded sentence with *wh*-elements (Kim, 1989).

- (26) a. John-wa [Mary-ga doko-ni ik-u \*(ka)] kii-ta.  
 John-T Mary-N where-to go-Pres \*(ka)] ask-Past  
 b. Mary-wa [doko-ni Mary-ga ik-u \*(ka)] kii-ta.  
 Mary-T where-to Mary-N go-Pres \*(Q) ask-Past  
 'John asked where Mary is going.'

Note in particular that overt scrambling of the *wh*-element in (26) still does not license the interrogative feature properly to satisfy the lexical selection.<sup>13</sup> Overt syntactic *wh*-movement in English, on the other hand, does appear to be enough to indicate that the embedded CP has the interrogative force specification.

- (27) a. \*I wonder [CP [she has seen who]].  
 b. I wonder [CP who<sub>i</sub> [she has seen t<sub>j</sub>]].

It has been argued that Japanese has *wh*-movement at SS as well as LF. (cf. Watanabe, 1992; Takahashi, 1993). Our discussion of QM-drop might cast doubt on this claim. That is, if *wh*-movement takes place at SS with null-operators, then, it is not clear, given the possibility of dynamic agreement in Japanese, why it does not license QM-drop in (26). Since SS *wh*-movement in English (27b) is good enough to mark the embedded interrogative force, it is at least puzzling why examples in (26) are not on a par with (27b), if indeed SS *wh*-movement exists in Japanese. Of course, it might be the case that SS null-operator movement in Japanese, if exists, may be too "weak" in some sense to license the interrogative force in the embedded CP. Thus, this discussion is by no means conclusive.

## 6. Korean

In this section, we will take up Korean and compare it with Japanese. There are some interesting differences between these two typologically similar languages. Unlike Japanese, for instance, Korean does not allow QM-drop in the matrix clause at all.

- (28) a. John-un eti-ey ka-ass-supni-\*(kka)?  
 John-T where-to go-Past-Polite-Q  
 'Lit. John went to where.'  
 b. John-i chayk-ul sa-ass-\*(ni)? 'Did John buy a book?'  
 John-N book-A buy-Past-Q

The same is true with copulative verbs in both *wh*- and *yes/no*-questions.

- (29) a. ku salam-un nwukwu / John i-pni-\*(kka)?  
 that person-T who / John Cop-Polite-\*(Q)  
 'Lit. That person is who / John?'  
 b. ku salam-un nwukwu / John i-ess-supni-\*(kka)?  
 that person-T who / John Cop-Past-Polite-\*(Q)  
 'Lit. That person was who / John?'

The utter ungrammaticality with QM-drop in Korean appears to be due to the fact that Korean question markers are in complementary distribution with the declarative marker (Kim, 1989). Compare (28b) and (30). The sentence final particle *ta* must be present in the case of declarative sentences.

- (30) John-i chayk-ul sa-ass-ta. 'John bought a book.'  
 John-N book-A buy-Past-Dec

The sentence in (30) cannot be made into a question even if it is uttered with rising intonation. Thus, it seems to be the case that Korean must overtly mark the declarative or interrogative force with appropriate sentence final particles.

Once this force checking is done by overt markers at SS, there is no way to change it (even in the matrix clause).

This does not mean, however, that Korean interrogative sentences must always have the designated interrogative marker. Sentences with *yo*, for instance, can be a statement, question, command, or suggestion in the polite style (Martin, 1992).

- (31) John-un eti-ey / hakkyo-ey ka-ass-e-yo?  
 John-T where-to / school-to go-Past-e-Part  
 'Lit. John went to where / to school?'

The example in (31) therefore can be interpreted as a question with rising intonation. We can explain examples like these by assuming that the sentences with *yo* have no overt speech act force specification (declarative or interrogative), unlike sentences with overt force markers. Thus, we claim that *yo* in C<sup>0</sup> with rising intonation can license the required interrogative force indication in Korean.

Notice incidentally that the particle *yo* can be omitted in some cases.<sup>14</sup>

- (32) a. eti-ey / hakkyo-ey ka-(yo)?  
 where-to / school-to go-(Part)  
 'Lit. You are going to where / to school?'  
 b. mues-ul / pap-ul mek-e-(yo)?  
 what-A / rice-A eat-e-(Part)  
 'Lit. You eat what / rice?'

Just as in Japanese, some copulative forms block omission of *yo*.

- (33) a. ku salam-un nwukwu / John i-ess-e-(yo)?  
 that person-T who / John Cop-Past-e-(Part)  
 'Lit. That person was who / John?'  
 b. ku salam-un nwukwu / John iyey-\*(yo)  
 that person-T who / John Pol Cop-(Part)  
 c. ku salam-un nwukwu / John i-\*(yo)  
 that person-T who / John Cop-(Part)  
 'Lit. That person is who / John?'

At the superficial level, the pattern shown in (33) may look similar to Japanese. There is a crucial difference, however, between Korean and Japanese. Unlike Japanese, there is no distinction between *wh*- and *yes/no*-questions in Korean. Omitting *yo* in (33b) and (33c) are simply ungrammatical due to formation of an incomplete verbal complex. (33a) seems to survive without *yo*, but we speculate that the element *e* placed between the copula and *yo* somehow makes the verbal complex complete.

Turning finally to some similarities between Korean and Japanese. QM-drop is not allowed in indirect questions in Korean just as in Japanese.

- (34) a. John-un [Mary-ka chayk-ul sa-ass nya ko] mwul-ess-ta.  
 John-T [Mary-N book-A buy-Past Q Comp] ask-Past-Dec  
 'John asked if Mary bought books.'  
 b. \*John-un [Mary-ka chayk-ul sa-ass Ø ko] mwul-ess-ta.

Just like Japanese, the mere existence of a *wh*-element does not license QM-drop even with overt scrambling.

- (35) \*John-un [mues-ul<sub>i</sub> Mary-ka t<sub>j</sub> sa-ass Ø ko] mwul-ess-ta.  
 John-T [what-A Mary-N buy-Past Comp ask-Past-Dec

Therefore, Korean is parallel to Japanese in indirect questions, and hence we can suggest that (34) can be explained in terms of the Projection Principle. The ungrammaticality of (35) suggests that the interrogative feature checking must be done with elements in C<sup>0</sup> in Korean just as in Japanese.



## 7. Concluding Remarks

This paper has been an attempt to explain QM-drop phenomenon in Japanese within the P&P approach. The basic proposal was that QM-drop is allowed only if there is a way to successfully check the interrogative feature in C<sup>0</sup> to license the interrogative force specification of the sentence. Following Rizzi (1996), we showed that QM-drop is always possible in matrix *wh*-questions in Japanese due to dynamic agreement at LF. In *yes/no*-questions, we argued that QM-drop is permitted if head-movement to C<sup>0</sup> takes place at LF. The lack of QM-drop in the embedded question was accounted for in terms of the Projection Principle, following Rizzi's proposal. Two theoretical consequences were discussed that concern two of the recent influential proposals: SS head-movement to C<sup>0</sup> and SS *wh*-movement in Japanese. It was pointed out that our analysis may not be compatible with these proposals. Finally, the comparison of Korean with Japanese revealed some differences between these two languages.

## Notes

\*We would like to thank Kiyoshi Sudo for his assistance with the Korean data. All remaining errors are of course our own.

<sup>1</sup>It should be noted here that questions in Japanese under normal circumstances require rising intonation. This is also true in questions with QM-drop as well. For many (young) speakers, with QM-drop, this rising intonation is associated with lengthening of the final vowel.

<sup>2</sup>Our main focus is on the question marker *ka* in Japanese. Other particles such as *no* may be used in questions. Many linguists, however, do not consider *no* to be a question marker since it can only be used for matrix questions but not in embedded questions.

<sup>3</sup>For our purposes, the distinction between [+*wh*] and [+Q] does not play any significant role, and they might be considered the same in this paper.

<sup>4</sup>For a fuller description and discussion of QM-drop in Japanese, see Yoshida & Yoshida (to appear).

<sup>5</sup>The copula in (2a) can be omitted in casual speech. See Yoshida & Yoshida for discussion of the copula-less construction based on Carnie (1995).

<sup>6</sup>The French examples in (8) have roughly the same meaning and structure to the corresponding English examples in (7).

<sup>7</sup>We are of course ignoring the *wh*-question with the subject *wh*-elements. See Rizzi (1996) for discussion.

<sup>8</sup>Cheng (1991) independently proposes a similar mechanism for *wh*-questions.

<sup>9</sup>Kim (1989, 1991) argues that the question marker such as *ka* in Korean and Japanese is in I<sup>0</sup> not C<sup>0</sup>. Rizzi's analysis, however, is not inconsistent with Kim's approach.

<sup>10</sup>One may claim that [+*wh*] is for *wh*-questions and [+Q] for *yes/no*-questions.

<sup>11</sup>We assume either that C<sup>0</sup> has [+*wh*] or [Q] and I-to-C movement checks this interrogative feature in C<sup>0</sup> or that the interrogative feature is base-generated in I<sup>0</sup> as in Rizzi (1996) and the feature itself is moved to C<sup>0</sup> via I-to-C head-movement. We are not committing ourselves to either one of the two approach here.

<sup>12</sup>(20b) and (21b) both require interrogative rising intonation. Let us assume along the lines of Rizzi's analysis that these sentences have [+wh] or [+Q] base-generated in I<sup>0</sup>, which makes them questions, not declarative sentences.

<sup>13</sup>This may support the view that scrambling in Japanese is not movement to an operator position. See Rizzi (1996) for an interesting contrast between Japanese and German: While scrambling of *wh*-elements is allowed in Japanese, it is not allowed in German.

<sup>14</sup>The element *e* is deleted in (34a) for phonological reasons.

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