On Conjectural Questions in Japanese: With Special Reference to Speech Act Phrase*

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Abstract: This paper deals with two kinds of conjectural questions, which do not require the discourse role of Hear, and argues that they involve Speech Act Phrase (Speas & Tenny 2003), which, in these questions, is motivated for reasons related to Speaker, which serves to control the Point-of-View operator in these sentences. It also discusses the relevance of the Interrogative Flip (Tenny 2006) in polite conjectural questions, which are addressed to Hearer. The suggested analysis is shown to be able to handle other WH-sentences as well.

1. Introduction
Interrogative sentences have been extensively discussed in the generative literature since the earliest days of the generative approach to the theory of grammar (Chomsky 1955, 1957). Most of the studies deal with information-seeking questions, in which Hearer is expected to answer. There are other kinds of questions, one of which is conjectural questions, in which Speaker expresses uncertainty and does not expect Hearer to respond. According to Littell, Matthewson, & Peterson (2010), this type of questions are often found in languages with evidential morphemes. They discuss three American indigenous languages, St’át’imcets (Lillooet Salish), NiePkepmxcín (Thompson Salish), and Gitksan (Tsimshianic).

In this paper, I would like to discuss two types of conjectural questions in Japanese, namely, *yara*-conjectural questions and *daroo ka*-conjectural questions (Yokoyama 2013), and I argue that they involve Speech Act Phrase, which is a projection involving discourse roles such as Speaker and Hearer, which supports Miyagawa’s (2012) analysis of Japanese WH-questions as involving Speech Act Phrase. I also consider cases where conjectural questions are addressed to Hearer and some other sentences ending with the complementizer *ka*.

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2. **Basis Properties of Conjectural Questions**

This section briefly sketches basic interpretive and formal properties of conjectural questions which make them different from regular questions.

2.1. **Conjectural Questions Do Not Require Hearer**

One big difference between regular questions and conjectural questions is that regular questions require the presence of Hearer, but conjectural questions do not. For instance, when someone is in his room alone and is looking for the keys, regular questions like (1a) are not uttered, but conjectural questions like (1b) and (1c) are possible.

(1)

a. # Kagi-wa dokoni ari-masu ka?
key-TOP where be-POLITE Q
'Where are the key?'

b. Kagi-wa dokoni aru (no) yara
key-TOP where be C YARA
'(I'm not certain) where the keys are.'

c. Kagi-wa dokoni aru (no) daroo ka
key-TOP where be C MOD Q
'(I wonder) where the keys are.'

2.2. **Conjectural Questions Cannot Be Case-Marked**

Another peculiarity that separates conjectural questions from regular questions is that they fail to be Case-marked, while regular questions can, which is observed in Takamiya (2004).

(2)

a. Dare-ga kuru ka (o) yosoo dekinai
who-NOM come Q ACC predict cannot
'I cannot predict who will come.'

b. Dare-ga kuru yara (*o) yosoo dekinai
who-NOM come YARA ACC predict cannot
'I cannot predict who will come.'

c. Dare-ga kuru daroo ka (*o) yosoo dekinai
who-NOM come MOD Q ACC predict cannot
'I cannot predict who will come.'

2.3. **Conjectural Questions Involve a Modal**

Littell, Matthewson, & Peterson (2010) note that conjectural questions are observed in languages with evidential morphemes. When such morphemes are present in declarative sentences, these sentences express evidential assertion. When the morphemes are employed in questions, the questions are translated as statements of uncertainty. Their observation suggests that conjectural questions have some kind of modal element.

This seems to be true of Japanese conjectural questions. Daroo ka-conjectural questions involve both the modal element daroo, which expresses surmise and is assumed to be an evidential marker by Hara (2006), and the interrogative complementizer ka. It is then expected
that *yara*-conjectural questions also involve some modal element. In fact, there is reason to believe that it is the case. It is well known in the study of traditional Japanese linguistics that Japanese has two kinds of modals, genuine modals and quasi modals, as shown by Nitta (1991). *Daroo* is a representative genuine modal. One distinguishing character of genuine modals is that they cannot co-occur with each other. Here I provide the cases of *daroo*, which expresses surmise, and *mai*, which expresses negative surmise.

(3)  
   a. Kare-wa kuru daroo  
       he-TOP come MOD  
       ‘(I think) he will come.’  
   b. Kare-wa ko-nai daroo  
       he-TOP come-NEG MOD  
       ‘(I think) he will not come.’  
   c. Kare-wa kuru mai  
       he-TOP come MOD(NEG)  
       ‘(I think) he will not come.’  
   d. * Kare-wa kuru mai daroo/daroo mai  
       he-TOP come MOD(NEG) MOD/MOD MOD(NEG)  
       ‘(I think) he will not come.’  

The intended meanings of (3b), (3c), and (3d) are basically the same, but (3d) is ungrammatical, no matter which order is taken. The degraded status of (3d) comes from the anti-co-occurrence restriction on genuine modals.

Given this, let us see what happens if a *yara*-conjectural question and a *daroo ka*-conjectural question are combined. As is expected, the result is severely degraded.

(4)   
   * Dare-ga kuru daroo (ka) yara (ka)/yara daroo ka  
       who-NOM come MDO Q YARA Q /YARA MOD Q  
       ‘(I’m not sure) who will come.’  

Thus, it seems fair to say that *yara*-conjectural questions involve a modal element like *daroo*, on a par with *daroo ka* conjectural questions. I am going to offer an analysis of these conjectural questions in terms of Speech Act Phrase, but before that I outline Miyagawa’s (2012) analysis of Japanese WH-questions in a way that makes crucial reference to Speech Act Phrase.

Speech Act Phrase is a projection proposed by Speas & Tenny (2003) and further argued for by Haegeman & Hill (2013). It is located above CP and hosts pragmatic roles such as Speaker, Hearer, and Utterance Content.

Miyagawa assumes with Haegeman & Hill that Speech Act Phrase has the following structure.

(5)   
       [SAP Speaker [SA; SA0 [saP Hearer [sa; sa0 CP]]]]
Here the order is in the head first order for the sake of exposition. In this structure, Speaker occupies the Spec of the higher Speech Act Phrase, Hearer is in the Spec of the lower Speech Act Phrase, and Utterance Content, that is to say, CP, is in the complement position of the lower Speech Act Phrase.

He motivates Speech Act Phrase from the interaction of the two effects found in Japanese WH-questions, which were reported in Miyagawa (1987). For one thing, he proposed that the interrogative complementizer *ka* has the following property.

(6) *Ka* must be selected by a head.

This is motivated by the following contrast.

(7) a. Bill-wa [dare-ga kuru *ka*] kiita
    Bill-TOP who-NOM come Q asked
    'Bill asked who will come.'

   b. ?* Bill-wa [dare-ga kuru *ka*] donatta
       Bill-TOP who-NOM come Q shouted
       'Bill shouted who will come.'

In the fine (7a), the embedded WH-question ending with *ka* is selected by the matrix bridge verb. In the degraded (7b), the matrix verb is a non-bridge verb, failing to select the *ka*-question.

The other property found in WH-questions discussed by Miyagawa is the relevance of the politeness marker in WH-questions, which is illustrated in the following contrast.

(8) a. Dare-ga ki-masu *ka*?
    who-NOM come-POLITE Q
    'Who will come?'

   b. * Dare-ga kuru *ka*?
       who-NOM come Q

(8a), which involves the politeness marker, is fine. (8b) lacks the politeness marker and it is degraded. Miyagawa argues, by assuming the structure in (5), that the good (8a) satisfies (6), while the degraded (8b) does not. He claims that in (8a), *ka* is selected by a Speech Act head, while in (8b), it is not.

Miyagawa suggests that it is the presence of the politeness marker that is responsible for the presence of Speech Act Phrase. To be more precise, he suggests that Speech Act Phrase is motivated for agreement related reasons. He proposes that the politeness marker induces allocutive agreement, a kind of Hearer related agreement, which is independently observed in Basque (Oyharçabal 1993). He assumes that although the politeness marker appears inside TP, it actually originates in C, just like in Basque, and he also assumes that the allocutive probe searches for Hearer (Chomsky 2008). Let us consider (9).

(9) \[ SAP Speaker \langle SA, SA^0 \rangle \text{saP Hearer} \langle sa', sa'^0 \langle CP C^0[\text{allocutive probe]} \text{TP}] \rangle \]
In (9), the allocutive probe is located in the C head. It moves through the lower Speech Act head sa₀ to the higher Speech Act head SA₀, where it c-commands Hearer, thereby establishing the probe-goal relation.

It is important to note that the allocutive agreement that comes with the politeness marker is the motivation for Speech Act Phrase. If it is present, Speech Act Phrase is motivated, in which case the ka-question is successfully selected by the lower Speech Act head. If the politeness marker is absent, as in (8b), there is no element to motivate Speech Act Phrase. This means that CP is the highest projection in the sentential structure, which makes it fail to be selected by a head, thus violating the requirement in (6).

Assuming that Miyagawa’s analysis is basically on the right track, I offer an analysis of the conjectural questions in the next section.

4. Conjectural Questions and Speech Act Phrase

4.1. Motivating Speech Act Phrase in Conjectural Questions

Now that we have seen how Speech Act Phrase can be motivated in WH-questions under Miyagawa’s analysis, let us consider how it can handle conjectural questions. Miyagawa’s example in (8a) involves Hearer, which is the key to motivating Speech Act Phrase. Unlike (8a), conjectural questions like (1b) and (1c) involve only Speaker. Recall that these questions have another property: they involve a modal element. I assume, basically following Ono (2006), that modals like daroo have the following property.

(10) Modal elements such as daroo have a Point-of-View (POV) operator in its Spec which needs to be valued by the nearest c-commanding sentient element.

This idea is schematically expressed as in (11).

(11) \[ [\text{SAP} \text{ Speaker} [\text{SA}_0 \text{ SA}_0 \text{ CP}_0 \text{ [ModP POV [Mod}_0 \text{ [TP]}]]] \]

I assume with Ono (2006) that Japanese can have a modal projection headed by daroo, located higher than TP but lower than the C (=Force) projection. Since conjectural questions generally do not require Hearer, it is omitted in (11). Thus, in conjectural questions, what motivates Speech Act Phrase is the presence of the Point-of-View operator. Assuming (11), I suggest that daroo ka-conjectural questions and yara-conjectural questions have the following structures.

(12) a. \[ [\text{SAP} \text{ Speaker} [\text{SA}_0 \text{ CP}_0 \text{ [C}_0 \text{ [ModP POV [Mod}_0 \text{ [TP [Mod}_0 \text{ daroo]}]] [\text{C}_0 \text{ ka]}]] [\text{SA}_0]]] \]

b. \[ [\text{SAP} \text{ Speaker} [\text{SA}_0 \text{ CP}_0 \text{ [C}_0 \text{ [ModP POV [Mod}_0 \text{ [TP [Mod}_0 \text{ yara]}]] [\text{C}_0 \text{ yara]}]] [\text{SA}_0]]] \]

In (12a) daroo heads the modal projection, which is dominated by CP. In this structure, ka is successfully selected by the Speech Act head, satisfying (6). In (12b), yara is analyzed as being introduced to the structure as the modal head and then raised to the C head. In each structure, the Spec of the modal projection is occupied by a Point-of-View operator, which is valued by the c-
commanding sentient element, namely Speaker, which is an argument of Speech Act Phrase. Thus, Speech Act Phrase is motivated for Speaker-related reasons in conjectural questions.

4.2. The Ban on Case-Marked Conjectural Questions

Another distinguishing character of conjectural questions is that they cannot be Case-marked. Interestingly, this is true of polite WH-questions ending with *ka*.

(13) a. Dare-ga ki-masu ka sirabemasyo
    who-NOM come-POLITE Q check.let’s
    ‘Let’s check who will come.’

b. * Dare-ga ki-masu ka o sirabemasyo
    who-NOM come-POLITE Q ACC check.let’s
    ‘Let’s check who will come.’

Neither conjectural questions nor polite WH-questions can be Case-marked, which calls for a unified account.

As for the fine status of (13a), I suggest that WH-questions, when dominated by Speech Act Phrase, can be adjuncts, modifying the null nominal expression that follows it. In other words, (13a) has a structure like (14a). (14b) is the case where the nominal argument is realized, being Case-marked.

(14) a. [Dare-ga ki-masu ka] pro sirabemasyo
    who-NOM come-POLITE Q check.let’s
    ‘Let’s check who will come.’

b. [Dare-ga ki-masu ka] sore-o sirabemasyo
    who-NOM come-POLITE Q it-ACC check.let’s
    ‘Let’s check who will come.’

In each example in (14), the true argument is the nominal expression. In (13b), the WH-question itself is Case-marked, which makes it an argument, but it cannot be, because the predicate does not select Speech Act Phrase, hence deviance, which conforms to Miyagawa’s idea. The same story applies to the two conjectural questions. When they are Case-marked, they are arguments. Since the predicate does not select Speech Act Phrase, deviance arises.

Thus, it has been shown that conjectural questions involve Speech Act Phrase, which is motivated for reasons related to Speaker, just like polite WH-questions contain Speech Act Phrase, which is motivated for Hearer related reasons and it has also been shown that both types of questions fail to be arguments, thus supporting Miyagawa’s analysis.

5. Conjectural Questions Involving Hearer

5.1. Conjectural Questions Can Involve Hearer

As observed in the second section, conjectural questions do not require the discourse role of Hearer. However, it does not necessarily mean that these questions reject or disallow it. In fact there are cases where they involve it, as shown below.
(15) a. Dare-ga ki-masu yara
    who-NOM come-POLITE YARA
    ‘I am not certain who will come.’

b. Dare-ga kuru desyoo ka?
    who-NOM come MOD.POLITE Q
    ‘I wonder who will come.’
    ‘Who will come? What do you think?’

(15a) involves a politeness marker. This indicates that this question is addressed to Hearer. Quite interestingly, however, the presence of Hearer does not make (15a) an information-seeking question. It only has the conjectural question interpretation. Thus, in (15a), Speaker only expresses his/her own ignorance to Hearer and does not intend to get an answer. (15b) involves the modal desyoo, which is a polite version of the modal daroo. This question is two-way ambiguous. In one interpretation, it asks Hearer his/her view concerning who will come. This is an information-seeking question interpretation. The other reading is that of a polite conjectural question. In this reading, it expresses Speaker’s own wondering in the presence of addressees. This interpretation is often found in the speech of an anchorperson or an emcee of TV shows like quiz shows, game shows, and other shows. The paradigm in (15) raises two questions, as in (16).

(16) a. Why can polite conjectural questions be conjectural questions, though they are addressed to Hearer?

b. Why can desyoo ka-conjectural questions be ambiguous between the conjectural interpretation and the information-seeking interpretation, while yara-questions are always conjectural ones?

In this section, I attempt to answer these questions.

5.2. An Answer to (16a)
First, let us consider why conjectural questions can tolerate the presence of Hearer. In these questions, Speaker’s point of view is expressed, so, in terms of structure, Speaker must be the closest sentient element that c-commands the Point-of-View operator. We already have the structure for polite WH-questions, as in (9), and the structure for non-polite conjectural questions, as in (11).

(9) [SAP Speaker [SA; SA0 [saP Hearer [sa' sa0 [CP C0 [allocutive probe] TP]]]]]

(11) [SAP Speaker [SA; SA0 [CP C0 [ModP POV [Mod' Mod0 TP]]]]]

Obviously, neither of these qualifies as the structure for polite conjectural questions. (9) does not involve the modal projection, where the Point-of-View operator resides, and (11) lacks Hearer. Let us therefore posit a structure which has both the modal projection and Hearer, with Speaker being the closest sentient c-commander. We get (17).
In (17), Speaker is in the Spec of the higher Speech Act Phrase, CP is in the Spec of the lower Speech Act Phrase, and Hearer is in the complement position of the lower Speech Act Phrase. Here, Speaker is the only sentient c-commander of the Point-of-View operator in ModalP. The allocutive probe in C moves to the higher Speech Act head, where it c-commands Hearer, establishing the probe-goal relation.

One thing that needs to be mentioned about this structure is that CP, or the *ka*-clause, is not in the complement position, which does not exactly conform to Miyagawa’s original view of *ka* as being obligatorily selected by a head. His insight behind (6), however, is that the contrast in (7) shows that “bear” *ka*-clauses cannot be adjuncts. In (17), CP is an argument in Speech Act Phrase, so *ka*-clauses are not adjuncts, so the structure in (17) does not pose a problem.

One more thing that should be said concerning (17) is the hierarchical ordering of Hearer and CP. In (17), CP is higher than Hearer. In Miyagawa’s structure in (9), CP is lower than Hearer. The “flip” of the two discourse roles is suggested by Speas & Tenny (2003) and Tenny (2006). They claim that the flip takes place in certain clauses. The relevant clauses are given in (18).

(18)  
a. Declarative: Speaker > CP > Hearer  
b. Interrogative: Speaker > Hearer > CP  
c. Imperative: Speaker > Hearer > CP

In (18a), Hearer is located lower than CP. In (18b) and (18c), the flip takes place, so Hearer is located higher than CP. In (18b-c), Hearer is expected to respond to Speaker, verbally or otherwise. In interrogatives, Hearer is generally expected to respond by answering the question, and as for imperatives, Hearer is expected to respond by doing what he is told to do. In declaratives, there is no such expectation. Thus this flip takes place when Hearer is expected to respond to Speaker. In conjectural questions, on a par with declaratives, Speaker does not expect any response, which makes it natural to assume that the flip does not take place in conjectural questions. The following is the suggested classification of questions.

(19)  
a. Conjectural questions (in soliloquy): Speaker > CP  
b. Polite conjectural questions: Speaker > CP > Hearer  
c. Information-seeking questions: Speaker > Hearer > CP

Haegeman and Hill (2013) propose an alternative version of Speech Act Phrase. They base their ideas on the behavior of sentence final particles and do not assume the existence of the

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1 Technically, the flip, which is supposed to take place in questions like (8a) under Speas & Tenny’s approach, involves the movement of Hearer, to a position in the lower Speech Act shell where it c-commands CP. This suggests that CP cannot originate in the complement position. In the text, I abstract away from the “base” position of Hearer in (17).
interrogative flip. It seems unclear at this point whether the facts reported here can be captured by their analysis.

5.3. An Answer to (16b)
In this section I consider the source of the ambiguity of *desyoo ka*-questions and the unambiguity of *yara*-questions. I suggest that the difference between the two questions lies in the feature makeup of the Point-of-View operators in them. Specifically, I assume (20).

(20) a. The Point-of-View operator in *desyoo ka*-questions has the [udisc.prt.] feature, which must be valued by the closest discourse participant.

b. The Point-of-View operator in *yara*-questions has the [udisc.prt. uSpeaker] features, which must be valued by the closest discourse participant.

Let us see how (20) handles the polite versions of the questions.

(21) a. *Desyoo ka* information seeking question

\[
\text{SAP Speaker}_{[\text{disc.prt}]} [\text{SA'} [\text{saP Hearer}_{[\text{disc.prt}]} [\text{sa'} [\text{CP [ModP POV}_{[\text{udisc.prt}]} [\text{MOD} \text{ TP MOD}^0]] C^0 \text{ sa}^0]] \text{ SA}^0)]
\]

b. *Desyoo ka* conjectural question

\[
\text{SAP Speaker}_{[\text{disc.prt}]} [\text{SA'} [\text{saP \ CP [Mod POV}_{[\text{udisc.prt}]} [\text{MOD} \text{ MOD}^0 \text{ TP}]] C^0 \text{ [sa' Hearer}_{[\text{disc.prt}]} \text{ sa}^0\text{]} \text{ SA}^0])
\]

(22) a. *Yara*-information seeking question

\[
\text{SAP Speaker}_{[\text{disc.prt, Speaker}]} [\text{SA'} [\text{saP Hearer}_{[\text{disc.prt}]} [\text{sa'} [\text{CP [Mod POV}_{[\text{udisc.prt, uSpeaker}]} [\text{MOD} \text{ TP MOD}^0]] C^0 \text{ sa}^0\text{]} \text{ SA}^0\text{]})]
\]

b. *Yara*-conjectural question

\[
\text{SAP Speaker}_{[\text{disc.prt, Speaker}]} [\text{SA'} [\text{saP \ CP [Mod POV}_{[\text{udisc.prt, uSpeaker}]} [\text{MOD} \text{ TP MOD}^0]] C^0 \text{ [sa' Hearer}_{[\text{disc.prt}]} \text{ sa}^0\text{]} \text{ SA}^0\text{]})]
\]

In (21a), the Point-of-View operator has the perspective of Hearer because it is the closest c-commanding discourse participant, which makes the sentence ask the addressee’s view. In (21b), the operator reflects the viewpoint of Speaker, which is the only c-commanding discourse participant, yielding the conjectural question interpretation. In (22a), just like (21a), the closest discourse participant is Hearer, which must be the Point-of-View holder, but the operator demands Speaker as its holder to have its [uSpeaker] feature appropriately valued, leading to deviance. In (22b), which is fine, the property of the Point-of-View operator is satisfied.

6. Similar Cases
In the previous section, it was shown that conjectural questions reflect Speaker’s point of view even in polite ones, in which case Hearer is in the lowest position in Speech Act Phrase, thus failing to c-command the Point-of-View operator. In this section, I apply the suggested analysis to other sentences ending with *ka*, namely, WH-exclamatives and *mono ka* rhetorical questions, which are examined in Oguro (2015).

Examples of WH-exclamatives and *mono ka* rhetorical questions are given in (23).
(23) a. John-wa nanto kasikoi no daroo ka!
    John-TOP how smart FIN MOD Q
    ‘How smart John is!’

    b. Daremo kuru mono ka!
    anyone come MOD Q
    ‘No one will come!’

(23a) is a WH-exclamative sentence, which involves the modal daroo and nanto, which is a WH-expression typically found in exclamatives. This sentence expresses Speaker’s emotional attitude. (23b) is a case of mono ka rhetorical question. It cannot be interpreted as an information-seeking question but it only has the rhetorical interpretation, meaning that no one will come. The negative interpretation is clearly present, as shown by the presence of the negative polarity item daremo ‘anyone’. Speaker utters (23b) with some strong attitude, as evidenced by the exclamation point. What these sentences have in common is that Speaker’s point of view is expressed and Speaker does not expect any response, unlike in information-seeking questions or in imperatives.

It is thus expected that these sentences cannot reflect Hearer’s point of view even when Hearer is present, and this expectation is confirmed.

(24) a. John-wa nanto kasikoi no desyoo ka!2
    John-TOP how smart FIN MOD.POLITE Q
    ‘How smart John is!’

    b. Daremo kuru mono desu ka!
    anyone come MOD COP.POLITE Q
    ‘No one will come!’

The two sentences in (24) are addressed to Hearer, but they do not invite any response, on a par with yara-conjectural questions.

7. Concluding Remarks
In this paper, I have dealt with two kinds of conjectural questions in Japanese and argued that their behavior can be captured by assuming Speech Act Phrase, which lends support to Miyagawa’s (2012) analysis of WH-questions. I have also shown that Speas and Tenny’s (2003) view of Speech Act Phrase is empirically more desirable than Haegeman and Hill’s (2013) by examining polite conjectural questions and other sentences ending with ka.

2 An additional assumption would be that the item nanto contains the [uSpeaker] feature, on a par with yara, which blocks the flip.
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