

Japanese kana-questions as non-intrusive questions

Hitomi Hirayama

Proceedings of the 38th Pacific Asia Conference on
Language, Information and Computation (PACLIC 38)

Nathaniel Oco, Shirley N. Dita, Ariane Macalinga Borlongan, Jong-Bok Kim (eds.)

2024

© 2024. Hitomi Hirayama. Japanese kana-questions as non-intrusive questions. In Nathaniel Oco, Shirley N. Dita, Ariane Macalinga Borlongan, Jong-Bok Kim (eds.), *Proceedings of the 38th Pacific Asia Conference on Language, Information and Computation (PACLIC 38)*, 1287-1294. Institute for the Study of Language and Information, Kyung Hee University. This work is licensed under the Creative Commons Attribution 4.0 International License.

Japanese *kana*-questions as non-intrusive questions

Hitomi Hirayama

Keio University / Kanagawa, Japan

hhirayam@keio.jp

Abstract

This study analyzes *kana*-questions in Japanese. Specifically, they are analyzed as non-intrusive questions (Farkas, 2022) observed in Romanian. However, *kana*-questions have unique features that allow interactions with the intonation contours. This study discusses how we can obtain a variety of interpretations of *kana*-questions using the table model of the discourse and the interaction of discourse effects. *Kana*-questions are also compared to *daroo*-questions in Japanese and *wohl*-questions in German. This paper reveals that *kana*-questions should be analyzed as non-intrusive rather than just entertaining modality or conjectural questions.

1 Introduction

In Japanese, it is possible to construct various types of interrogative sentences using sentence-final particles. Their use varies depending on the context, and some have been analyzed as biased questions in the literature (Ito and Oshima, 2014; Sudo, 2013). This paper explores a different type of question, which consists of a sentence radical plus a combination of particles *ka* and *na*, which I call *kana*-questions (henceforth *kana*-Qs) in this paper.¹

Kana-Qs can appear in polar and constituent questions with rising and falling intonation,² as shown in (1-2).

¹Here *kana* is treated as a chunk of particles. Whether the effects could be reduced to the composition of each particle is a topic for future research.

²The rising intonation, shown by \uparrow in the example, involves a falling intonation at the beginning of *na* and rising intonation (i.e., \searrow/\nearrow). The falling intonation, shown by \downarrow has the opposite pattern (i.e., $\nearrow\searrow$). Although this paper only discusses these two intonation contours, there can be other variations. I leave the exact characteristics of the intonation contours compatible with *kana*-Qs for a future research.

- (1) a. Taroo-wa kuru ka na \downarrow
Taro-TOP come Q na
'I wonder if Taro will come.'
- b. Taroo-wa kuru ka na \uparrow
Taro-TOP come Q na
'Do you think Taro will come?'
- (2) a. Dare-ga kuru ka na \downarrow
who-GA come Q na
'Who would come, I wonder.'
- b. Dare-ga kuru ka na \uparrow
who-GA come Q na
'Who do you think would come?'

I argue that these *kana*-Qs are manifestations of non-canonical questions in Japanese. In particular, they are non-intrusive questions, such as *oare*-interrogatives in Romanian (Farkas, 2022): As a discourse effect marker, *kana* contributes to weakening the *Addressee compliance* assumption. This paper also aims to analyze the interaction between *kana* and other discourse effect markers.

The rest of the paper is structured as follows. Section 2 provides the background of this question type and the framework used in the analysis. Various interpretations of *kana*-Qs are also illustrated. Section 3 provides an analysis of *kana*-Qs, comparing them with Romanian non-intrusive questions. In particular, I argue that falling intonation modifies the anchor of discourse commitment. Section 4 discusses the derivations of the special interpretations of *kana*-Qs and compares them with similar questions in Japanese and German. Section 5 presents concluding remarks.

2 Background

This section provides a basic background on *kana*-Qs and the framework used in the analysis. The first section adds some more data points for the analysis. The second section introduces the discourse model of Farkas and Bruce (2010).

2.1 Properties of *kana*-Qs

In Japanese linguistics, *kana*-Qs are categorized as one of *questions with a doubt* (*utagai-no gimonbun* in Japanese) and are argued not to have the function of posing a question to an addressee (Nihongo Kizyutu Bunpo Kenkyukai, 2003). This unique characteristic is manifested in the fact that *kana*-Qs are often used as self-addressing questions. Furthermore, this type of *kana*-Q often accompanies a falling intonation. When such a *kana*-Q is uttered, there is no need for an addressee or an answer. With rising intonation, however, a *kana*-Q is degraded as a self-addressing question. This is reflected in the translation of (1) and (2). With falling intonations, it is more like an assertion with *I wonder*. In contrast, with rising intonations, it could be a bonafide question, and it is possible for the addressee to answer the question if they can.

In addition to the usage illustrated above, *kana*-Qs have a variety of interpretations, such as criticism (Nakanishi, 2015), as in (3). The cluster *kana* also interacts with other expressions, and with outer negation (Sudo, 2013; Ito and Oshima, 2014), *kana*-Qs can express the speaker’s desire (Takanashi, 2022), as shown in (4). Different intonation contours give them different connotations or acceptability.

- (3) Anata-ni sonna kenri-ga aru ka na ↓/↑
 you-DAT such right-NOM exist Q na
 ‘You have such a right? (I believe you don’t.)’
- (4) Ashita hare nai ka na ↓/?/? ↑
 tomorrow sunny NEG Q na
 ‘I hope it will be sunny tomorrow.’

For example, in (3), both rising and falling intonations can be used, and in either case, the question is understood as a rhetorical question and not an information-seeking one. The tone of criticism differs depending on the intonation. With a rising intonation, the criticism has an “inflaming” effect, which is not evident with a falling intonation.

Conversely, a rising intonation sounds infelicitous in (4). Note that as an expression of the speaker’s desire, *nai* in (4) cannot be interpreted as real negation. This is not a self-addressed question, by which the speaker asks themselves a question. Rather, as the English translation indicates, with *nai kana*, the speaker expresses their desire that the weather will be nice the next day. With this interpretation, only the falling intonation is compatible.

With rising intonation, the sentence could be felicitous as a question in which *nai* is interpreted as predicate negation. In other words, with rising intonation, (4) is interpreted as “Do you think it will not be sunny tomorrow?”

Even though some interpretations brought about by *kana* are not like questions but similar to assertions, semantically speaking, they are still questions. In Japanese, *sonnani* ‘very’ is a weak Negative Polarity Item (NPI) that can be licensed in an interrogative sentence (Matsui, 2011). Even with a falling intonation or an assertive interpretation, *kana*-Qs can accompany *sonnani*, as shown in (5).

- (5) Sono eega, sonnani omosiori ka na ↑/↓
 that movie very interesting Q na
 ‘Do you think that movie is very interesting? / I wonder if that movie is very interesting.’

With a falling intonation, it is possible to interpret the sentence sarcastically, where the speaker does not believe that the movie is interesting. In other words, this can be interpreted as a rhetorical question. This shows that the falling intonation does not change the semantics of the sentence given by the question particle *ka*.

2.2 Discourse model

I use the table model of Farkas and Bruce (2010) to explain the discourse effects of *kana*-Qs. This section introduces their model using an unmarked polar question. For the sake of simplicity, let us assume that there are only two discourse participants, A and B, where A is the speaker (who utters questions) and B is the addressee. Table 1 shows the output discourse after A utters a polar question with a sentence radical, *p*. For example, when *p* is *Taro will come*, Table 1 shows the status of discourse after A says, “Will Taro come?”

A	Table	B
DC _A :	{ <i>p</i> , ¬ <i>p</i> }	DC _B :
Common Ground: <i>s</i> ₁	ps: {DC _B ∪ { <i>p</i> }, DC _B ∪ {¬ <i>p</i> }}	

Table 1: Context structure after a polar question is uttered by A

In Table 1, DC_X refers to the discourse commitment of a discourse participant, X. In this case, both discourse participants make no commitment, so both DC_A and DC_B are empty. Table in the middle of Table 1 is where a set of propositions

under discussion is placed. When a polar question is asked, what is under discussion is whether p or $\neg p$. Consequently, a set of the two propositions are placed there. Common ground is the knowledge shared by all the discourse participants. In this case, s_1 does not include whether p or $\neg p$. Projected Set (ps) shows the future discourse move, modeled as a list of the addressee's DC by default, following Meriçli (2016). In this case, we have $\{DC_B \cup \{p\}, DC_B \cup \{\neg p\}\}$: Since A asks B a polar question, *Will Taro come?* B is supposed to answer the question by adding p or $\neg p$ to their discourse commitment at that time.

3 Analysis

I analyze *kana*-Qs as non-intrusive questions following Farkas (2022). That is, the *kana* particle as a whole contributes to weakening one of the default assumptions about the question acts: *Addressee compliance*. In other words, *kana* signals that the speaker does not assume that the addressee will provide the information sought in the question. The difference between Japanese *kana*-Qs and *oare* questions lies in the use of intonation contours. In this section, I first introduce *oare* questions in Romanian and the analysis by Farkas (2022). Then, an analysis of Japanese *kana*-Qs is provided based on her analysis.

3.1 Oare questions in Romanian

Similarly to *kana*, the Romanian particle *oare* can occur optionally in both constituent and polar questions, as shown in (6) (Farkas, 2022, 295).³

- (6) a. (Oare) ce a spus Amalia?
oare what has said Amalia
'What did Amalia say, I wonder.'
- b. (Oare) e acasă Amalia?
oare is home Amalia
'Is Amalia home, (I wonder).'

The English translation by *I wonder* is approximate, as so are the English translations of *kana*-Qs. In (6), *oare* is optional; however, in some contexts, *oare* questions are infelicitous. Such cases are 'interrogation' contexts, where addressees must resolve the issue, as exemplified in (7).

- (7) Context: *Policeman to drive he stopped*

³Unlike *kana*, which appears only in the sentence-final position, the syntactic position of *oare* has more freedom. I will not discuss these differences in this study in detail.

Oare cu ce viteză ai mers?
oare with what speed have gone.2SG

'What was your speed, I wonder.'

The behavior of *oare* is explained by regarding it as a discourse effect modifier. Farkas (2022) argues that *oare* weakens the addressee's compliance, which is one of the default discourse effects that accompany question acts, as defined in (8).

(8) Addressee's compliance

The speaker assumes that the addressee will provide this information in the immediate future of the conversation as a result of the speaker's speech act.

[Farkas (2022, 297)]

In interrogation contexts, the addressee's compliance cannot be weakened because of the conflict between the assumption and context. Consequently, the infelicity of (7) with *oare* is explained.

In the table model, the discourse effect realized by *oare* is reflected in the projected set (ps), as shown in Table 2. The addition is s_1 . This means that there is a possibility that the common ground will remain unchanged in future discourse.

A	Table	B
DC _A :	{ p , $\neg p$ }	DC _B :
Common Ground: s_1	ps: {DC _B ∪ { p }, DC _B ∪ { $\neg p$ }, s_1 }	

Table 2: Context structure after an *oare*-question is uttered by A

In other words, this question act leaves the possibility that the addressee does not give an answer to the question. Note that it is also possible for the addressee to answer the question if they want, which is the case with Romanian. It is acceptable to use an *oare* interrogative with *What do you think*, which explicitly asks the addressee for a possible answer.

3.2 Kana-Qs in Japanese as a non-intrusive question

In this section, I analyze *kana*-Qs as a non-intrusive questions following Farkas (2022). First, I illustrate one crucial difference between *oare*-questions and *kana*-Qs that need to be captured in the analysis: the intonation contour. Then, I add the necessary components to the discourse table model to handle the difference.

3.2.1 Intonation Contour

In the Introduction and in Section 2.1, I showed that *kana*-Qs are compatible with both falling and rising intonations. Differences in intonation can also lead to interpretable differences as well. However, in Romanian, *oare* is incompatible with falling intonation, as shown in (9), where a period is intended to indicate a falling intonation.

- (9) * (Oare) e acasă Amalia.
 oare is home Amalia
 ‘Amalia is home, (I wonder).’

Intonation primarily distinguishes declaratives and polar interrogatives (Farkas, 2022, 299) in Romanian. Consequently, the example in (9) indicates that *oare* cannot be used in declaratives.

Intonation also functions to distinguish declaratives and interrogatives in Japanese. However, as shown in the example with *sonnani* (5), falling intonation does not necessarily indicate that the sentence is semantically declarative. As a result, it is necessary to understand the intonation’s contribution to the question act and add it to our analysis.

3.2.2 Kana-Qs with rising intonation

I begin by laying out the analysis of *kana*-Qs with rising intonation. *Kana*-Qs with rising intonation can be analyzed in a similar way as *oare*-questions. In other words, their discourse effects are identical to those shown in Table 2. Remember that *oare*-questions can weaken the addressee’s compliance, which question acts assume by default. As a result, in the interrogation context, it is infelicitous (7). The same effect can be obtained in *kana*-Qs with rising intonation.

- (10) Context: Policeman to driver he stopped
 # Anata-wa nan-kiro dasiteta ka
 you-TOP what-kilometer speed Q
 na ↑
 na
 ‘(Intended:) How fast do you think you drove?’

In this context, the driver must provide a true answer to the police officer. Therefore, in a normal context, a police officer would not ask questions in this manner. However, it is not entirely impossible for a police officer to ask this question. If they believe that the driver will not give an answer and want to challenge them in a mean way, treating the

driver like a child, a *kana*-Q with rising intonation sounds fine. In fact, it is easy to imagine a pediatrician asking a *kana*-Q with the rising intonation of a crying child, as shown in (11).

- (11) Kyoo-wa doko-ga itai ka na ↑
 today-TOP where-NOM hurt Q na
 ‘Where do you feel the pain?’

Asking the same question this way of an adult patient is infelicitous. This effect is explained by the effect of weakening the addressee’s compliance. When a patient is a young child, even if apparently a doctor is talking to them, it is often the case that they do not expect the child to give them a satisfactory answer. Instead, their parents are expected to answer the doctor’s question. In a context where the discourse participant is expected to have the full capacity to answer, signaling that the speaker is weakening the addressee’s compliance is unnecessary.

3.2.3 Kana-Qs with falling intonation

Now, let us turn to *kana*-Qs with falling intonations. As shown in the Introduction, with falling intonation, *kana*-Qs function as self-addressed questions. I propose that this effect can be captured by arguing that falling intonation’s contribution is modifying the discourse commitment anchor in the projected set. Specifically, falling intonation changes the anchor from the addressee to the speaker, as shown in Table 3.

A	Table	B
DC _A :	{ <i>p</i> , ¬ <i>p</i> }	DC _B :
Common	ps:	
Ground: <i>s</i> ₁	{DC _A ∪ { <i>p</i> }, DC _A ∪ {¬ <i>p</i> }, <i>s</i> ₁ }	

Table 3: Context structure after a *kana*-polar question is uttered by A with falling intonation

Other than the project set, the output table is identical to that shown in Table 2. This change amounts to mean that the next move is the speaker’s answering *p*, ¬*p*, or doing nothing. With falling intonation, it is the speaker who is responsible for the next move, but because of the discourse effects of *kana*, they also have the freedom not to give an answer. In fact, the *kana*-Q with a falling intonation is compatible with any move in the projected set, as shown in (12a-c).

- (12) Will Taro come + *kana* ↓ ...
 a. Un, zettai kuru
 yes, for sure will come

- ‘Yes, he will come for sure.’ = p
- b. Iiya, zettai konai
no for sure come.NEG
‘Nah, he won’t come for sure.’ = $\neg p$
- c. Maa, doodemo ii ya
well whatever good
‘Well, never mind.’ = s_1

When the speaker provides an answer to a question, depending on the answer, the question as a whole can be interpreted as a rhetorical question. The speaker also has the option not to resolve the issue further, just ignoring what is put on the Table (12c).

Note that, even when *kana*-Qs accompany falling intonations, if there is a discourse participant around the speaker, they can also answer the question. This is not necessarily expected by the speaker and could be achieved by virtue of the cooperativeness of the addressee. When the speaker chooses not to resolve the issue, the addressee can interpret this as an invitation to participate in determining the answer.

4 Discussion

In this section, first, I first illustrate how the proposed analysis of *kana*-Qs leads to the interpretations shown in Section 2.1. Then, I compare *kana* with similar questions in Japanese and German.

4.1 Interpretation of *kana*-Qs

In Section 3, we discussed how *kana*-Qs are used as rhetorical questions or self-addressed questions, where the speaker knows the answer to the question, or there are no discourse participants other than the speaker. How is it possible to obtain an inflammatory effect or interpret a speaker’s desires? I argue that the former can be derived from the discourse effects of this special question, and the latter from the interaction between *kana* and outer negation.

4.1.1 “Inflaming” effect

When *kana*-Qs accompany rising intonation, the question sometimes has an “inflaming” effect, as seen in (3). Another example is provided in (13).

- (13) kore zenbu tabe-rareru ka na ↑
this all eat-able Q na
‘Do you think you can eat this up all?’

If the intonation in (13) is a falling intonation, there is no inflaming effect. It is possible that the speaker

is worried about whether they (the speaker and their peers) could eat up everything. However, rising intonation is more likely to have an inflaming effect, in which the speaker challenges the addressee.

I argue that the effect is the result of weakened addressee’s compliance. Remember that with canonical question acts, we assume that the addressee will provide the true answer to the question. However, as non-canonical questions, namely non-intrusive ones, *kana*-Qs weaken the assumption and allow the addressee not to say anything. What motivates the speaker to weaken the assumption even though they perform questioning acts?

Answering questions amounts to making a commitment to some proposition. For example, taking up the example (13), if the addressee (=B) says *yes* B makes a commitment that B can finish the dishes. Saying *no* indicates commitment to the negation of the proposition. Assume a context in which if B cannot finish the dishes, they have to pay a fine for that, and the portion of the dishes is very large. In this context, B may not want to commit immediately. B might not have enough confidence, but simultaneously, might not want to acknowledge that the portion is too large for them to handle. If the speaker imagines that B would be in such a situation, they could use *kana*-Qs with rising intonation to indicate that B has the option of being silent. From the addressee’s side, *kana*-Qs with a rising intonation sound like the speaker assumes that B cannot make an immediate commitment, which could be understood as B being challenged by the speaker. Consequently, B can become inflamed by the question.

4.1.2 *Nai ka na* as speaker’s desire

Kana-Qs can be used to express desire as seen in (4), repeated here as (14). Two components require an explanation. The first is the interaction between *nai* and *kana*. The other is infelicity with the rising intonation.

- (14) Ashita hare nai ka na ↓/? ↑
tomorrow sunny NEG Q na
‘I hope it will be sunny tomorrow.’

As mentioned in Section 2.1, when the whole sentence is understood as a desire, *nai* is interpreted as an outer negation. With an inner negation or predicate negation interpretation, the entire question retains the question interpretation. If we add *zenzen* ‘at all,’ which needs to occur with a

negation, as shown in (15), it does not convey the speaker’s desire.

- (15) Ashita zenzen hare nai ka na ↓/↑
tomorrow at all sunny NEG Q na
‘I wonder if it won’t be sunny at all tomorrow./Do you think it won’t be sunny at all tomorrow?’

It should be noted that the addressee has the option of answering (15) but not (14). (14) is similar to *daroo*-Qs discussed in Section 4.2.1, in that the addressee cannot react to the utterance by saying, *Why do you ask such a thing?* In other words, (14) cannot be a matrix question.

To understand the contribution of outer negation, let us review its functions. (16) summarizes the functions of outer negation in Japanese.

- (16) a. It is located outside of the proposition (i.e., it cannot license an NPI)
b. It conveys that the speaker’s positive private bias toward the prejacent (Sudo, 2013; Ito and Oshima, 2014; Hirayama, 2018)

Used with rising intonation, outer negation signals that the speaker has a private bias and the sentence radical is true. Here, private bias means that the bias is not available to other discourse participants. If we add this effect to our discourse table, we get Table 4.

A	Table	B
DC _A :	{ <i>p</i> , ¬ <i>p</i> }	DC _B :
PB _A : <i>p</i>	PB _B	
Common Ground: <i>s</i> ₁	ps: {DC _A ∪ { <i>p</i> }, DC _A ∪ {¬ <i>p</i> }, <i>s</i> ₁ }	

Table 4: Context structure after A utters (14)

In the middle of the table, we have a new row that indicates the private bias of discourse participant (PB_X). The table indicates that the speaker A has a bias that *p* is true. Simultaneously, due to the contribution of *kana*, A also indicates that they have an option not to pursue the issue further. Combining this private bias and weakening compliance to answer the question, *nai kana* questions as a whole indicate that the speaker signals that they hope the sentence radical is true but leave the possibility that the issue is not settled in either way.

Let us now turn to the infelicity brought about by the combination of rising intonation and *nai*

kana. As discussed in Section 3.2.2, with rising intonation as a default, the project set refers to the DC of the addressees (B). B can ignore the question because of *kana*. However, outer negation signals a speaker’s private bias. Here, there is a conflict among intonation, the discourse effects of outer negation, and *kana*. The speaker wants to indicate their bias, but at the same time, they give the addressee freedom to ignore the issue. If the speaker wants to see whether B agrees that their private bias matches the truth in the world, they could have simply used outer negation questions without weakening the addressee’s compliance. In summary, referring to the addressee’s private bias and granting the freedom not to do anything while expressing the speaker’s private bias creates a conflict between the discourse effects of outer negation and *kana*.

4.2 Comparison with similar questions

I analyzed *kana*-Qs as non-intrusive questions such as *oare*-questions. In this section, *kana*-Qs are compared with similar questions in Japanese and German to gain a deeper understanding of non-canonical questions.

4.2.1 Daroo-Qs

Daroo is a sentence-final auxiliary in Japanese. When used with the question marker *ka* and falling intonation, as shown in (17), the whole question could be understood as a self-addressed question (Hara, 2023) (henceforth *daroo*-Qs). *Daroo*-Qs can be either a polar or constituent question.

- (17) a. Taroo-wa kuru daroo ka * ↑ / ↓
Taro-TOP come Q
‘I wonder if Taro will come.’
b. Dare-ga kuru daroo ka * ↑ / ↓
who-NOM come Q
‘I wonder who will come.’

Daroo-Qs are similar to *kana*-Qs in that they have self-addressed interpretations. In other words, unlike canonical questions, they do not seem to have an addressee’s compliance assumption. In fact, *daroo*-Qs cannot be used in interrogation contexts like *kana*-Qs, as we observed in (7).

However, detailed comparison reveals that they are very different. The first crucial difference is that *daroo+ka* does not allow rising intonation at all. It renders ungrammaticality rather than infelicity.⁴

⁴Hara (2023) analyzes this infelicity comes from type-mismatch.

Another difference is that *daroo*-Qs are more speaker-oriented than *kana*-Qs are. Both *kana*-Qs and *daroo*-Qs have *I wonder* translation, but while *kana*-Qs can be matrix questions, *daroo*-Qs indicate that the speaker entertains multiple possibilities (Hara, 2023). As observed by Uegaki and Roelofsen (2018), *daroo*-Qs cannot be matrix questions. When a speaker utters (17), nobody can say anything like *Why do you ask me such a question?* By contrast, a discourse participant can challenge *kana*-Qs in an appropriate context. In summary, while *kana*-Qs weaken the addressee's compliance, *daroo*-Qs do not have such an assumption to begin with.

4.2.2 German *wohl*-Qs as a conjectural question

Farkas (2022) compares an *oare*-question with a *wohl*-question in German discussed in Eckardt (2020). In German, when a particle *wohl* is used and also the verb is placed in the sentence-final position, it is possible that the question does not request an answer from an addressee, unlike a canonical question.⁵ As a result, the English translation of a *wohl*-question is similar to the *oare*-question in Romanian and has *I wonder*.

- (18) Wo wohl der Schlüssel ist?
where wohl the key is
'Where might the key be, I wonder.'
[Eckardt (2020, 2)]

In Eckardt (2020), *wohl*-questions are analyzed as conjectural questions, which ask for answers entailed by the pooled knowledge of discourse participants. Farkas (2022) argues that conjectural questions are similar to non-intrusive ones but not identical. One striking difference is that conjectural questions weaken the addressees' competence assumptions rather than their compliance. *Wohl*-questions are infelicitous when the speaker believes that the addressee knows the answer to the question. For example, the question (18) is infelicitous when a child utters it to their mother, believing she would give an answer.

On the other hand, the *oare*-question can be felicitously used in a context where the speaker believes that the addressee knows the answer. The example (19) is a conversation on the phone, and the

addressee is present in the context. Moreover, the addressee should know if they are still thinking of the speaker of (19), and the speaker believes so.

- (19) Paul, oare te mai gândești la mine?
Paul, oare you still think.2 at me
'Paul, are you still thinking of me, I wonder.'
[Farkas (2022, 322)]

The Japanese *kana*-Q is acceptable in the same situation, as shown in (20).

- (20) Taroo, anata-wa mada watashi-no koto
Taro you-TOP still me-GEN matter
kangaeteiru ka na ↓
thinking Q na
'Taro, are you still thinking of me, I wonder.'

Furthermore, when a question has an ironic connotation, the speaker often believes that the addressee knows the answer. For example, (3), repeated here as (21), can be used in a context in which the speaker believes that the addressee acknowledges that they do not have rights under discussion. This question could be followed by an utterance such as '*You know you don't, right?*'

- (21) Anata-ni sonna kenri-ga aru ka na ↓/↑
you-DAT such right-NOM exist Q na
'You have such a right? (I believe you don't.)'

Overall, analyzing *kana*-Qs as non-intrusive rather than as conjectural questions is more plausible. *Kana*-Qs do not assume the weakened addressees' competence unlike *wohl*-questions in German.

5 Concluding remarks

In this paper, I argue that *kana*-Qs are a kind of non-intrusive questions, which weaken addressees' compliance. One crucial difference between *kana*-Qs and Romanian *oare*-questions is that *kana*-Qs allow for an interaction between the discourse effects of this cluster and intonation. Another difference is that *kana*-Qs can interact with other discourse particles that comprise non-canonical questions and provide more sophisticated effects for the discourse.

One immediate limit of this study is that *kana* is analyzed as a cluster rather than as a form of the combination of *ka* and *na*. *Na* itself can appear

⁵ *Wohl* can appear in a question with normal word order (a verb comes in the second position), but such an interrogative sentence is different from what can be classified as a conjectural question discussed here. In this paper *wohl*-questions refer only to interrogatives with sentence-final verbs.

without *ka* in a declarative. Future research should pursue the possibility of analyzing discourse effects of *kana*-Qs by combining the effect of the question particle *ka* and the sentence-final *na*. In order to do so, it would be necessary to analyze *na* in declaratives or other sentence types.

Another next step is to conduct deeper cross-linguistic research on this topic. As shown in Section 4.2, not only does Japanese have similar but also different non-canonical questions, but other languages, such as German, have a rich inventory of non-canonical questions. What default assumptions in questioning acts can be weakened using tools such as discourse particles in natural languages? Are there other methods to achieve the same goals in the absence of such tools? For what purpose do we weaken or waive the default assumptions when performing speech acts? More extensive cross-linguistics comparisons are required to answer these questions.

Acknowledgements

This study is supported by JSPS KAKENHI Grant Number 21K12985 (PI: Hitomi Hirayama).

References

- Regine Eckardt. 2020. Conjectural questions: The case of german verb-final *wohl*-questions. *Semantics & Pragmatics*, 13(9):1–54.
- Donka F Farkas. 2022. Non-Intrusive Questions as a Special Type of Non-Canonical Questions. *Journal of Semantics*, 39(2):295–337.
- Donka F. Farkas and Kim B. Bruce. 2010. On reacting to assertions and polar questions. *Journal of Semantics*, 27(1):81–118.
- Yurie Hara. 2023. **daroo ka* ↑: the interplay of deictic modality, sentence type, prosody and tier of meaning. *Natural Language and Linguistic Theory*, 42:95–152.
- Hitomi Hirayama. 2018. On Discourse Effects of Biased Questions in Japanese. In *Japanese/Korean Linguistics*, Vol. 25. CSLI Publications.
- Satoshi Ito and David Y. Oshima. 2014. On Two Varieties of Negative Polar Interrogatives in Japanese. In *Japanese/Korean Linguistics* 23.
- Ai Matsui. 2011. On the licensing of understating npis: Manipulating the domain of degrees for japanese *a(n)mari* and *sonnani*. In *Proceedings of SALT 21*, pages 752–769.
- Benjamin Merigli. 2016. Modeling indirect evidence. Master’s thesis, University of California, Santa Cruz.
- Kumiko Nakanishi. 2015. Shuujoshi *kana* no goyooronteki tokuchoo [pragmatic characteristics of a final particle *kana*]. *Musa*, 22:23–38.
- Nihongo Kizyutu Bunpo Kenkyukai, editor. 2003. *Gendai Nihongo Bunpo 4 Modaritii [Modern Japanese Grammar 4 Modality]*. Kuroshio Publishers.
- Yasutada Sudo. 2013. Biased Polar questions in English and Japanese. In *Beyond Expressives: Explorations in Use-Conditional Meaning*, volume Current Research in the Semantics/Pragmatics Interface (CRiSPI) 28. Brill.
- Shino Takanashi. 2022. “*Nai Kana*” Ganboo Hyoogen-no Hookatsuteki Kizyutu-ni Mukete [*Nai kana* as a Form that Expresses the Speaker’s Desire. *Journal of foreign language studies*, 27:15–31.
- Wataru Uegaki and Floris Roelofsen. 2018. Do modals take propositions or sets of propositions? evidence from japanese *darou*. In *Proceedings of SALT 28*, pages 809–829.