

Self-addressed questions and honorifications: The case of Japanese *daroo-ka/desyoo-ka*

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Received: November 24, 2020 • Accepted: December 5, 2021

Published online: January 27, 2022

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ABSTRACT

Japanese self-addressed questions (SAQs) are either marked with SAQ question particles (i.e. *kana*, *yara*) or marked with modals *daroo* or *desyoo*. The present paper argues that the pragmatic profile of Japanese SAQs should not be limited to solitary contexts. The paper presents an experiment examining whether *daroo-ka/desyoo-ka* can be perceived as SAQs in the accompanied contexts. The results of the experiment indicate that Japanese SAQs can be felicitously uttered in the presence of a second (socially higher) person. Apart from the experimental study, this paper also presents a pilot study of comparing *daroo-ka* questions and plain information-seeking questions (i.e. those without *daroo-ka*) in urgent situation contexts. The preliminary results shed light on the fact that Japanese native speakers interpret *daroo-ka* questions as canonical questions in the performance of indirect speech acts.

KEYWORDS

self-addressed questions, urgent questions, honorifics, contexts, speech acts

1. JAPANESE SELF-ADDRESSED QUESTIONS

Self-addressed questions (SAQs) are characterized as “uttered in the absence of an addressee” in the literature (Eckardt 2020, 2). Based on this characterization, the only difference between self-addressed questions and non-self-addressed questions is whether the speaker is alone or in the presence of others. However, many languages offer special lexical particles to indicate that a question is self-addressed. In the literature, we have seen examples such as Salish SAQs (Littell

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et al. 2010, calling them *conjectural questions*), German questions with verb-final structure and the discourse particle *wohl* (Truckenbrodt 2006; Zimmermann 2008, 2013; Eckardt 2020), the Korean question particle *-na* (Eckardt & Disselkamp 2019), Japanese *daroo*-questions (Hara 2019), and more. Therefore, the present paper, following previous Japanese SAQ studies (Hara 2006, 2018, 2019; Oguro 2017; Yokoyama 2013), investigates how Japanese SAQs interact with honorifications and the second person (bystander) in the context. Japanese is a *wh*-in-situ language and questions are marked as standard information-seeking questions (ISQs) with the question particle *ka* and the honorific marker *-mas*, shown in (1). The question in (2) without the honorific marker *-mas* is ungrammatical.

- (1) Dare-ga ki-mas-u ka?
 who-NOM come-HON-PRS Q
 'Who will come?'
- (2) *Dare-ga ku-ru ka?
 who-NOM come-PRS Q
 'Who will come?'

When it comes to forming Japanese SAQs, there are two common ways: (i) the use of self-addressed question particles *yara* or *kana* in the sentence-final position, shown in (3); (ii) the use of the modal *daroo/desyoo* (\pm honorific) with an optional question particle *ka*, as shown in (4).

- (3) Kagi-wa doko-ni aru kana/yara?
 key-TOP where-LOC be Q/Q
 '(I wonder) where the key is.'
- (4) Kagi-wa doko-ni aru daroo/desyoo (ka)?
 key-TOP where-LOC be modal/modal-HON Q
 '(I wonder) where the key is.'

On the basis of (3), (4), and similar examples, Hara (2006, 2018, 2019), Hara & Davis (2013), and Oguro (2017) have observed and discussed Japanese SAQs. The present paper only focuses on the modals *daroo* and *desyoo*. *Daroo*-questions are classified univocally as 'self-addressed questions' in the literature. According to Hara (2006) and Oguro (2017), *daroo*, as an evidential marker, expresses the speaker's surmise in declaratives, as shown in (5), and *daroo-ka* in questions like (6) can only be interpreted as a SAQ, not an ISQ (Hara 2018, 2019).

- (5) Kare-wa kuru daroo.
 he-TOP come modal
 '(I assume) he will come.'
- (6) Kagi-wa doko-ni aru no daroo ka?
 key-TOP where-LOC be NMLZ modal Q
 '(I wonder) where the key is.'



Oguro (2017), following Hara's previous studies, argues that *desyoo*,¹ an honorific form² of *daroo*, can also combine with the question particle *ka* to form a question, as shown in (7), with two interrogative readings: a SAQ reading and an ISQ reading.

- (7) Dare-ga kuru desyoo ka?
 who-NOM come modal.HON Q
 '(I wonder) who will come.' (=SAQ), 'Who will come? What do you think?' (=ISQ)

Examples like (7) show that Japanese can be polite in self-addressed questions. This also raises a puzzling question: if a self-addressed question is uttered to the speaker herself in the absence of an addressee, then to whom does this honorific marker refer? Miyagawa (2012) states that the politeness marker *-mas-* (or the formal copula *-des-*) occurs on the verbal inflection and indicates the intention of politeness from the speaker to the addressee. Therefore, it seems clear to us that the use of the honorific marker indicates that there should be an addressee in the context. Before we get to solve this puzzle, there are a few more examples of Japanese SAQs that we should take a look at. Yokoyama (2013) points out that conjectural (or self-addressed) *ka*-questions, shown in (8) and (9), are possible using neither an honorific marker nor the modal *daroo* or *desyoo*.

- (8) Dare-ga tugi-no daitooryoo-ni na-ru ka naa.
 who-NOM next-GEN president-P become-PRS Q NAA
 '(I wonder) who is going to be the next president.'
- (9) Kono kasetu-wa tadasii-n da ka.
 this hypothesis-TOP right-NMLZ CPL Q
 '(I wonder) if this hypothesis is right.'

Apart from the self-addressed *ka*-questions, Yokoyama (2013) also points out that the rhetorical *ka*-marked question, shown in (10), is grammatical without politeness markers.

- (10) (Konna tokoro-ni) dare-ga kuru ka?
 like.this place-to who-NOM come Q
 'Who would come (to a place like this)?' (= 'Nobody would come.')

As argued by Oguro (2017), as long as the question is uttered solitarily, even an ungrammatical question like (2) or a rhetorical question (10) should be acceptable. In other words, any question uttered alone can always be acceptable as a self-addressed question.

According to the literature, native speakers agree that *daroo/desyoo*-questions or *ka*-questions can be "used in the absence of an interlocutor, or usually uttered in monologue"

¹Since *desyoo* is an honorific form of *daroo*, *desyoo* in declaratives also expresses speaker's surmise. If we replace *daroo* in (5) with *desyoo*, the at-issue meaning of (5) remains the same 'I assume) he will come'. In addition, *desyoo* expresses the non-at-issue meaning, thus (5) would mean that the speaker respects the addressee.

²In the literature some authors use the term "polite version" instead of the term "honorific form". The discussion of whether *desyoo* should be the polite version or the honorific form of *daroo* is not the concern of this paper.



(Eckardt & Disselkamp 2019, 1; Eckardt 2020, 2) and that “the speaker does not expect the hearer to be able to provide an answer” (Littell et al. 2010, 4). Though I agree that SAQs fit with these descriptions and can be used in these situations without running into any problem, I argue that the pragmatic profile of Japanese SAQs should be more distinguishable than this. For instance, the puzzle concerning the multiple possible interpretations for (7) remains, specifically with regards to what role the honorific marker plays in this context. Therefore, I aim to translate these introspective judgments into a testable criterion in order to verify them through questionnaire studies.

The most critical issue of all is that any sentence in any language can be uttered when the speaker is alone. In other words, speakers can always soliloquize imperatives, optatives, standard declaratives, rising declaratives, and other speech acts to address themselves or imaginary selves. Unfortunately, the present literature still lacks a discussion of the second (socially higher) person in the context (i.e. Hara (2019) only offers the solitary self-addressed contexts in her experiment, and Oguro (2017) does not offer any context background to his *desyoo* examples). This motivates the present paper to investigate the pragmatic profile of SAQs in three directions. Firstly, most of the previous literature only discusses SAQs in the solitary context, which means that any question can be virtually categorized as “self-addressed”, no matter whether it contains *daroo/desyoo*. Therefore, checking whether it is acceptable to utter *daroo*-questions in the contexts where the speaker is not alone is the first goal of this paper. Secondly, it is also important to test whether native speakers disprefer *daroo/desyoo*-questions in canonical questioning situations. The canonical questioning context, also called ISQ context, is the context where the speaker wants to know the answer to the question, the speaker believes the addressee may know the answer, and the speaker aims to request the addressee to provide an answer to the question. The last goal of this paper is to test the honorifications in SAQ contexts. It remains unclear whether *daroo*-questions are acceptable when the second person in the SAQ context is socially higher than the speaker, and it also remains unknown whether *desyoo*-questions are acceptable when the second person is socially equal or lower than the speaker in the context. By adding the factor of honorifications in the study of SAQs, we can have a better, more comprehensive view of Japanese SAQs.

The present paper is structured as follows. Section 2 surveys the earlier analyses of Japanese SAQs with *daroo*, *desyoo*, and *ka*. Section 3 presents the data from the questionnaire study. Section 4 presents my account of Japanese SAQs. Section 5 demonstrates the follow-up study that I revised from the first study (presented in Section 3). Section 6 concludes the main points of the present paper and touches upon some discussions left for future studies.

2. PREVIOUS ANALYSES

I survey earlier analyses of Japanese SAQs with *daroo*, *desyoo* and *ka*. Here the analyses are presented in different sections, according to the focus of their topics. Section 2.1 considers the semantic analyses of *daroo*-questions. Section 2.2 discusses the syntactic analyses of *desyoo*-questions, and in the last Section 2.3 the analysis of *ka*-questions is presented.

2.1. Semantic approaches to *daroo*

Hara (2006, 2015, 2018, 2019) has made a detailed investigation in semantics and pragmatics of *daroo* with two different lines of research. Based on Hara (2006), it is confirmed that the



meaning of *daroo* is neither under the scope of question formation (i.e. rising intonation), nor under the scope of negation, as shown in (11).

- (11) a. *Ashita Taro-ga kuru daroo ka? (rising accent)
 tomorrow Taro-NOM come modal Q
 ‘What do you think? Taro is coming tomorrow?’
- b. Taro-wa ko-nai daroo.
 Taro-TOP come-NEG modal.
 ‘(I assume) Taro is **not** coming.’ (= acceptable reading; scope: *daroo* > NEG),
 *‘(I do **not** assume) Taro is coming’ (= unacceptable reading; scope: NEG > *daroo*)

Hara (2006) points out that (11a) can be grammatical if it is uttered with the final falling intonation and the interpretation of (11a) will be a SAQ, as seen in (4). Based on the data like (11b), it is clear that the speaker’s surmise is toward the proposition including the negation. Hara & Davis (2013) propose that *daroo-p* expresses that the speaker has inferred the proposition from the general knowledge about the world. This line of research shows a possible link to the typological generalization that evidential markers are often the cues to the conjectural questions (i.e. SAQs). In the other line of the research, Hara (2018, 2019) analyzes *daroo* with respect to inquisitive semantics; she proposes that *daroo* is an “expressive entertain modality”, so *daroo-p* expresses that the speaker is entertained with the issue *p*. Similar to Hara’s idea, Uegaki & Roelofsen (2018) also offer an analysis of *daroo* on the basis of inquisitive epistemic logic. Both analyses propose that the meaning of *daroo* can be entertained with an assertion or a question; however, the predictions are different. One saliently different point is that Hara (2018, 2019) predicts that the meaning of *daroo* is an at-issue implication, while Uegaki & Roelofsen (2018) predict that it is a non-at-issue implication. My account is in favor of Uegaki & Roelofsen’s arguments.³ Unquestionably, the studies of *daroo* that Hara, Davis, Uegaki and Roelofsen have done are elegant and detailed; nevertheless, the relation between the factor of the honorification (i.e. *desyoo*) and the flip interpretations (i.e. SAQ reading and ISQ reading) remains understudied. Hence, my research aims to fill in this gap.

2.2. Syntactic approaches to *desyoo*

Before talking about the analyses of *desyoo*-questions, first we need to take a look at the analysis proposed by Miyagawa (2012), because Oguro’s (2017) and Yokoyama’s (2013) analyses are based on Miyagawa’s account. Miyagawa (2012) proposes that the Japanese politeness marker *-mas-* induces the projection of Speech Act Phrase (Speas & Tenny 2003). The structure he proposed is shown in Fig. 1.

³The most prominent difference between Hara’s and Uegaki & Roelofsen’s proposals is that Hara (2018, 2019) predicts that *daroo*(=*daroo*)-*p* has at-issue implications, while Uegaki & Roelofsen (2018) argue that these implications are non-at-issue. The present paper does not offer any detailed comparison of these two accounts, but this paper also argues that *daroo-p* has a non-at-issue implication that the speaker assumes *p*, because *daroo* expresses the speaker’s surmise.



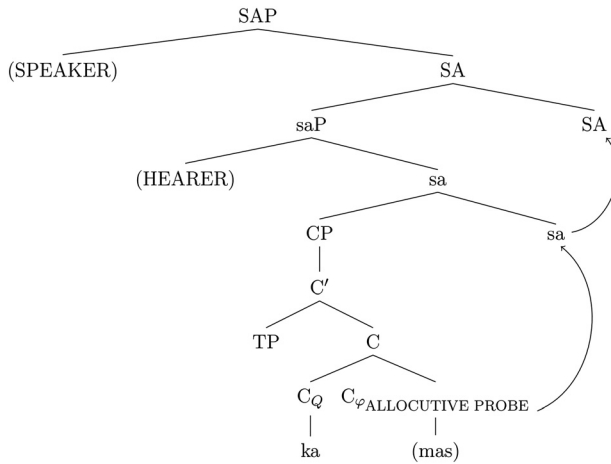


Fig. 1. The proposed SAP from Miyagawa (2012)

Miyagawa (2012) claims that the Japanese politeness marker is also a kind of allocutive agreement, and the allocutive probe moves to the highest position of SAQ (i.e. the head of SAP) to scope over the entire utterance. Oguro (2017), taking Miyagawa’s proposed SAP, analyzes *desyoo-ka* questions and explicitly explains their two interpretations (i.e. ISQ reading and SAQ reading) as coming from two different structures of SAP. The SAPs proposed by Oguro (2017) are shown in Figs 2 and 3.

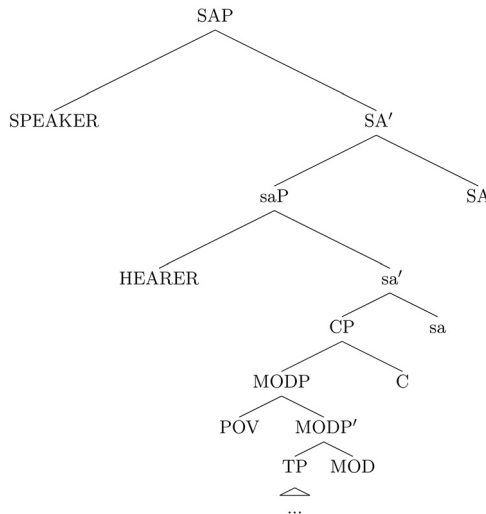


Fig. 2. SAP of *desyoo-ka* ISQs



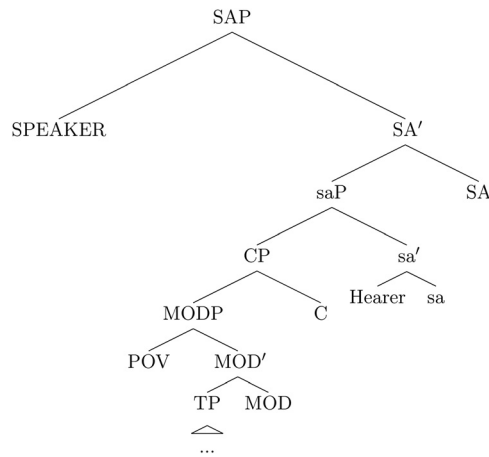


Fig. 3. SAP of *desyoo-ka* SAQs

When we take a careful look at Figs 2 and 3, we can observe the existence of flip readings based on the SAPs. Oguro (2017) introduced a point-of-view (POV) operator in the specifier position of the modal phrase and the value of POV is determined by the nearest sentient c-commander (i.e. SPEAKER or HEARER). In Fig. 2, it is the HEARER that c-commands the POV and thus we get the ISQ interpretation, while Fig. 3 shows that the SPEAKER c-commands the POV and we hence derive the SAQ reading. This flip reading comes from changing the position of the HEARER between the specifier and the complement positions of saP. As a result, Oguro concludes with three different SAPs of interrogative sentences in terms of the position of the HEARER, as shown in (12).

- (12) a. Plain Self-Addressed Questions: SPEAKER > CP
 b. Polite Self-Addressed Questions: SPEAKER > CP > HEARER
 c. Information-seeking Questions: SPEAKER > HEARER > CP

Nevertheless, there are still some unclear points in Oguro's implementation of SAP to SAQs. First of all, it is not completely explained why the HEARER and the CP switch positions between the specifier and the complement of saP. Is this only to explain the flip readings of ISQ and SAQ? Besides, Oguro (2017) does not explain the necessity of the POV operator. The POV operator seems to be intended to be interpreted semantically, but is it a variable that gets its value from either the SPEAKER or the HEARER, whichever c-commands it? On top of that, Oguro (2017) only draws a sketch of feature differences (i.e. [*udisc.prt.*] and [*udisc.prt., uSpeaker*]), and thus *desyoo*-questions are allowed to have ISQ and SAQ readings.⁴ But the features are not well explained in his paper. Lastly, if *desyoo-ka* questions can be SAQs, then

⁴Because of the feature difference between *desyoo* and *yara* (SAQ question particle), a *desyoo-ka* question, having [*udisc.prt.*] feature, can be interpreted as both ISQ and SAQ, yet a *yara*-question, having [*udisc.prt., uSpeaker*] feature, only allows the SAQ reading.



does the honorification in the solitary context refer to the speaker herself? The puzzle of the referent of the honorification in the SAQ context where the speaker is in the presence of others also remains unsolved.

2.3. Ka-questions

Yokoyama (2013) argues that there are two kinds of *ka*-questions. The conjectural (SAQ) *ka*-questions are possible without honorific markers and are pronounced with the final falling accent. Yokoyama proposes that the feature of *ka* in ISQs is [–assertive], while the feature of *ka* in the rest of *ka*-marked sentences (e.g. rhetorical questions, SAQs, imperatives, wh-exclamatives) is [+assertive]. However, Yokoyama’s analysis is not yet a semantic or pragmatic analysis.

2.4. Interim summary

The previous semantic theories of *daroo* (Hara 2006, 2018, 2019; Hara & Davis 2013; Uegaki & Roelofsen 2018) are detailed. According to the syntactic theories, the HearerP, triggered by the honorification, allows the epistemic referent of *desyoo* to switch from the speaker to the hearer/addressee (Oguro 2017), and this causes the readings to shift from SAQs to ISQs. However, neither the semantic approaches nor the syntactic approaches fully discuss the pragmatic profile of SAQs. Under the semantic approaches, the role of the honorification is not mentioned and therefore the epistemic referent of *daroo* remains limited to the speaker.⁵ The syntactic approaches explain the presence of the honorification; nevertheless, the epistemic referent of *desyoo* becomes more puzzling if the speaker in the context is in the absence of others. In other words, the statement that the honorification refers to the addressee (Miyagawa 2012) contrasts with Oguro’s (2017) analysis of *desyoo* in SAQs.

3. NEW DATA

In this section, I present a novel questionnaire study that tests the correlation between SAQs and the context with the second (socially higher) person. This study will be referred to as “SAQs study” in this paper.

3.1. SAQs study

The main purpose of this study is to see how *daroo-ka* questions interact with different illocutionary contexts. The study has two goals. First, it checks the acceptability of *daroo-ka/desyoo-ka* questions in ISQ contexts, since the previous studies only examined *daroo-ka* questions in talk-to-self contexts. Second and most importantly, this study aims to see if native Japanese speakers use *daroo-ka* questions as SAQs in contexts where the speaker is in the presence of a bystander⁶

⁵Here I use the term *speaker* in the general sense. Hara (2006) states that the agent of the bias created by *darou* (= *daroo*)-*p* can also be the speaker of the context *c*, (i.e. it does not have to be the speaker of the utterance); so *darou* contains a shiftable indexical. But the honorification and the flip interpretations that we see in (7) remain an open issue in her work.

⁶In order to differentiate the second person in the SAQ and ISQ context in the following sections, the second person in SAQ context is referred to as “bystander”, while the second person in ISQ context is called “addressee”.



and to capture the correlation between SAQs and honorifications (i.e. second, socially higher person in the context), since it remains unknown how a SAQ marker (i.e. speaker = addressee) can be consistent with an honorific marker (i.e. speaker \neq addressee). To sum up, there are two research questions:

- I. How well do native speakers accept *daroo-ka/desyoo-ka* questions in ISQ contexts, as opposed to talk-to-self contexts (i.e. the speaker equals the addressee)?
- II. What is the impact of the presence of a second person? In ISQ contexts an addressee is needed, while in talk-to-self contexts a bystander is optional.

The hypothesis is that it should be natural to use *daroo-ka* questions as SAQs in front of any bystander in the contexts. Even if the bystander is socially higher than the speaker in the contexts, it should still be felicitous and natural to utter *daroo-ka* questions as SAQs.

3.2. Methods and designs

The naturalness rating questionnaire using a 7-point Likert scale has been designed. Overall, there are 72 items, which are separated into six surveys with the Latin square design. Three factors are crossed in a $2 \times 2 \times 2$ & 1×2 design:⁷

- a. Illocutionary contexts: ISQ context, SAQ₁ context where the speaker is alone, SAQ₂ context where the speaker is with a bystander;
- b. Bystanders(\pm hon): bystander+hon means that the bystander is socially higher than the speaker, bystander-hon indicates that the bystander is socially lower or equal to the speaker;
- c. Expressions: *daroo-ka*, *desyoo-ka*.

Examples of the illocutionary contexts are presented below.

- a. **ISQ:**
Taro wants to watch TV, but he can't find the remote control. Taro's wife usually knows where it is. So, Taro goes to ask his wife: "Where is the remote *daroo-ka/desyoo-ka*?"
- b. **SAQ₁ (the speaker is alone; no bystander):**
Taro is alone at home. He wants to watch TV, but he can't find the remote. He asks himself: "Where is the remote *daroo-ka/desyoo-ka*?"
- c. **SAQ₂ (the speaker is with a bystander):**
Taro's friend Miyagawa is visiting Taro at home for the first time. They decide to watch TV, but Taro can't find the remote. Taro murmurs: "Where is the remote *daroo-ka/desyoo-ka*?"

The examples here only show the cases where the bystander is socially lower or equal to the speaker (i.e. the bystander may be the speaker's wife or friends). In examples where the social rank of the bystander is higher than that of the speaker the bystander in the context is replaced with the speaker's professor or boss. Each trial includes a short description that makes the speaker's illocutionary goal and the social status of the bystander in the context clear (i.e. the factors:

⁷Because there is no bystander in SAQ₁ context, the factors are crossed in a 1×2 design (SAQ₁ \times Expressions (*daroo-ka/desyoo-ka*)). The factors (Illocutionary contexts: ISQ, SAQ₂, Bystander(\pm hon), Expressions (*daroo-ka/desyoo-ka*)) are crossed in a $2 \times 2 \times 2$ design.



Illocutionary contexts \times Bystanders \pm hon). The last manipulated factor is whether the speaker in the context uses *daroo-ka* or *desyoo-ka* to express the question (i.e. factor: Expressions).

3.3. Procedure

Each subject saw 12 experimental items (10 target items with 2 distracting items).⁸ Each subject also had three training trials before answering the main questionnaire. The conditions were crossed in the Latin square design. 74 Japanese native speakers (age range: 21–66, average age: 35.2, SD = 12, 44 females, 30 males) were recruited online, and the study offered the participants a 5-yen Amazon coupon by lottery. At the end of each trial, participants were asked to answer the following question with a value between 1 and 7: “How natural does the speaker’s question sound in the context?” “1” indicated a completely unnatural question; “7” indicated a perfectly natural question. All items were presented in written form on the screen.

3.4. Results and statistical analyses

In this study, I ran separate linear mixed-effect regression models on the naturalness judgments with illocutionary contexts and Bystanders(\pm hon) as fixed factors and random intercepts for the subjects and items. Given the theoretical and pragmatic motivation of this study, I am especially interested in comparing the expressions of SAQs in the contexts where a bystander is socially equal/lower or higher than the speaker. To visualize the collected data, the data are plotted in Figs 4 and 5 below.

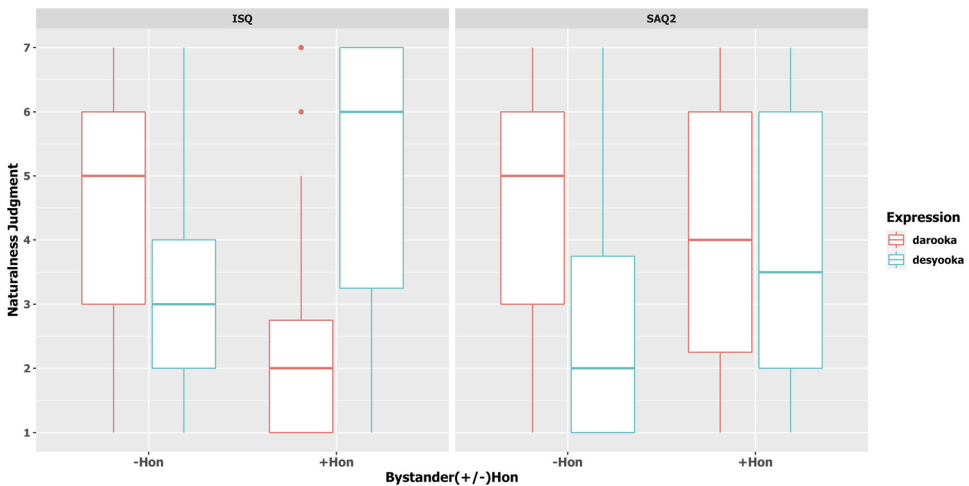


Fig. 4. The collected data of ISQ & SAQ₂ in SAQs study

⁸The distracting items are plain-form questions (without *daroo/desyoo*) in ISQ contexts and the addressees in the context are random, being socially higher, lower or equal to the speaker.



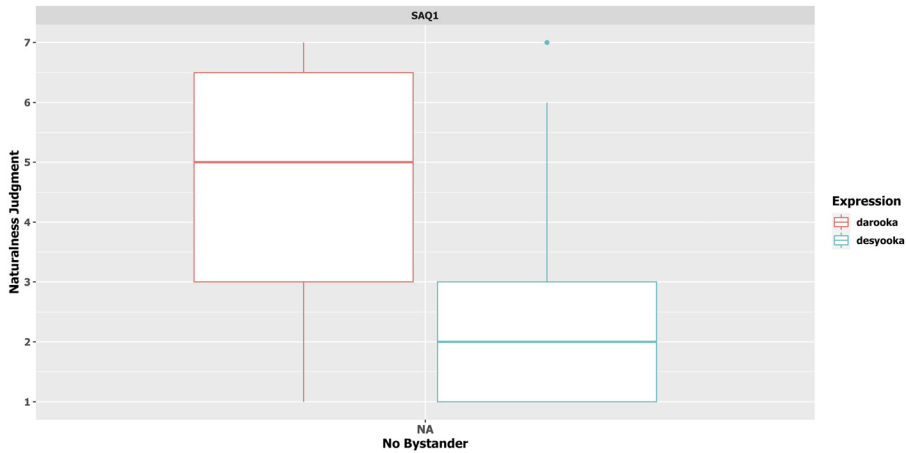


Fig. 5. The collected data of SAQ₁ in SAQs study

In general, Japanese native speakers seem to have a wide variety of judgments on the natural use of *daroo-ka/desyoo-ka* questions in the offered conditions (i.e. illocutionary context × Bystander, see Fig. 4); in other words, the same question in the same condition could be differently rated from 1 to 7. For instance, in SAQ₁ contexts (see Fig. 5), most native speakers found uttering *desyoo-ka* questions as SAQs unnatural, but a few participants still judged *desyoo-ka* questions as natural (i.e. above 4). If the overall median value is 4 in the offered condition, this means that it was difficult for the participants to evaluate the naturalness of the item (i.e. an expression *daroo-ka/desyoo-ka*). If the median value is higher than 4, the item is natural in the offered condition. Likewise, if the median is lower than 4, the item is unnatural. All the statistical models below were run with the lme4 package (v1.1–26; Bates et al. 2015).

Let us first take a look at the detailed statistical results for the ISQ contexts. Naturalness judgments, as the dependent variable, were analyzed with a linear mixed-effects regression model with Expressions and Bystander(±hon) as fixed factors, and Participants and Items as crossed random factors (random intercepts). The model's total explanatory power is substantial (conditional $R^2 = 0.46$) and the part related to the fixed effects alone (marginal R^2) is 0.25. The model's intercept, corresponding to Expression [*daroo-ka*] and Bystander(–hon), is at 4.67 (95% CI [3.92, 5.42], $t(289) = 12.21$, $P < 0.001$). Within this model: (i) the effect of Expression [*desyoo-ka*] is statistically significant and negative ($\beta = -1.28$, SE = 0.52, df = 18.9, 95% CI [–2.32, –0.25], $t(289) = -2.43$, $P < 0.05$; standardized $\beta = -0.58$, 95% CI [–1.06, –0.11]), (ii) the effect of Bystander(+hon) is statistically significant and negative ($\beta = -2.39$, SE = 0.52, df = 18.9, 95% CI [–3.42, –1.35], $t(289) = -4.51$, $P < 0.001$; standardized $\beta = -1.09$, 95% CI [–1.56, –0.61]), (iii) the interaction effect of Bystander(±hon) on Expression [*desyoo-ka*] is statistically significant and positive ($\beta = 4.08$, SE = 0.74, df = 18.9, 95% CI [2.62, 5.55], $t(289) = 5.46$, $P < 0.001$; standardized $\beta = 1.86$, 95% CI [1.19, 2.53]).

Next, the data are divided into Bystander(+hon) and Bystander(–hon); Naturalness Judgments are analyzed with the linear mixed-effects regression model with Expressions as the fixed factor, and Participants and Items as crossed random factors (random intercepts). The results show that Japanese participants accept *daroo-ka* questions as ISQs (median = 5) in the context



where the speaker is socially equal or lower to the bystander. This result unexpectedly contradicts Hara's (2019) claim that *daroo-ka* questions are unacceptable with ISQ interpretations. According to the statistical analysis with the model, there is a significant effect of Expressions ($\beta = -1.3$, $SE = 0.55$, $df = 9.8$, $t = -2.3$, $P = 0.04$) on the Naturalness Judgment in the context where there is no higher-ranked person ($ISQ \times -hon$). Likewise, it is found that there is a significant effect of Expressions ($\beta = 2.8$, $SE = 0.5$, $df = 9.4$, $t = 5.5$, $P < 0.0001$) on the Judgments in the situation where there is a higher-ranked person ($ISQ \times +hon$); in other words, participants prefer using *desyoo-ka* questions as ISQs (median = 6) to address socially higher people.

In contrast to the unexpected findings of the ISQ contexts, the results of SAQ_1 are as predicted. A linear mixed-effects model is fitted to predict Judgment with Expression. The model includes Participant and Item as random effects. The model's total explanatory power is substantial (conditional $R^2 = 0.31$) and the part related to the fixed effects alone (marginal R^2) is 0.24. The model's intercept, corresponding to Expression *daroo-ka*, is at 4.80 (95% CI [4.27, 5.33], $t(144) = 17.72$, $P < 0.001$). Within this model: the effect of Expression [*desyoo-ka*] is statistically significant and negative ($\beta = -2.11$, $SE = 0.37$, $df = 9.5$, 95% CI [-2.85, -1.37], $t(144) = -5.57$, $P < 0.001$; standardized $\beta = -0.98$, 95% CI [-1.32, -0.63]).

When the speaker is alone in the context, using *daroo-ka* is judged more natural than using *desyoo-ka* (the median value for *daroo-ka* is 5 and for *desyoo-ka* is 2). This result fits with Hara's previous studies; however, contrary to Oguro's study, this result shows that most participants do not seem to find it natural to utter questions with *desyoo-ka* as SAQs in the solitary context.

Now, turning to the main focus of this study, the results of SAQ_2 do not seem to be as decisive as those that we have seen previously in the ISQ and SAQ_1 conditions. A linear mixed-effects model is fitted to predict Judgment with Expression and Bystander(\pm hon). The model included Participant and Item as random effects. The model's total explanatory power is considerable (conditional $R^2 = 0.27$) and the part related to the fixed effects alone (marginal R^2) is 0.07. The model's intercept, corresponding to Expression [*daroo-ka*] and Bystander(-hon), is at 4.21 (95% CI [3.51, 4.92], $t(289) = 11.71$, $P < 0.001$). Within this model: (i) the effect of Expression [*desyoo-ka*] is statistically significant and negative ($\beta = -1.39$, $SE = 0.49$, $df = 18.2$, 95% CI [-2.36, -0.41], $t(289) = -2.78$, $P < 0.01$; standardized $\beta = -0.67$, 95% CI [-1.14, -0.20]), (ii) the effect of Bystander(+hon) is not statistically significant and negative ($\beta = -0.09$, $SE = 0.49$, $df = 18.2$, 95% CI [-1.07, 0.89], $t(289) = -0.18$, $P = 0.857$; standardized $\beta = -0.04$, 95% CI [-0.52, 0.43]), (iii) the interaction effect of Bystander(+hon) on Expression [*desyoo-ka*] is not statistically significant and positive ($\beta = 1.13$, $SE = 0.7$, $df = 18.2$, 95% CI [-0.25, 2.51], $t(289) = 1.61$, $P = 0.108$; standardized $\beta = 0.55$, 95% CI [-0.12, 1.22]). Next, the data are divided by the factor Bystander(\pm hon) and Naturalness Judgments are analyzed with linear-mixed effects regression models with Expressions as the fixed factor and Participants and Items as crossed random factors (random intercepts).

First, let us take a look at the results for the contexts where the bystander is not socially higher than the speaker (i.e. Bystander (-hon)). They are similar to the results for the ISQ contexts. Expressing questions with *daroo-ka* is still judged as more natural than with *desyoo-ka* (median = 5 vs. median = 2). There is a significant effect of Expressions on the Naturalness Judgments in the contexts where the speaker is in the presence of a socially equal or lower to the bystander ($\beta = -1.4$, $SE = 0.48$, $df = 10.34$, $t = -2.9$, $P < 0.05$). Nevertheless, the significant effect is not found in the contexts where the bystander is socially higher than the speaker ($\beta = -0.25$, $SE = 0.55$, $df = 9.7$, $t = -0.4$, $P = 0.7$); that is, the results become unclear in this case.



Based on the empirical results, it is difficult to tell whether participants find it natural to use SAQs with *daroo-ka* when the bystander is ranked higher than the speaker (median = 4), and the participants state that it is mildly unnatural to use *desyoo-ka* questions as SAQs in the presence of a higher-ranked person (median = 3.5). Comparing the results for *desyoo-ka* in the contexts of bystander±hon, it is observed that the judgments become slightly better when the social status of the bystander is higher than that of the speaker.

3.5. Discussion

While we see a clear statistical correlation between the social status of the second person in the context (i.e. the second person is socially higher than the speaker, or the speaker and the second person are socially equal) and the preference for *daroo* (informal) vs. *desyoo* (formal), there is no measurable statistical effect of ISQ vs. SAQ context. Participants judged *daroo* questions as equally felicitous in both illocutionary contexts in –hon cases.

This highlights a severe problem of empirical pragmatic studies, as opposed to those of grammaticality judgments, semantic oddness, and phonological deviance. Very often, there is more than one pragmatically felicitous way of conveying the same speech act, and often, indirect speech acts may have an additional benefit because they are interpreted as more polite, less face-threatening (Brown & Levinson 1978), or simply more sophisticated. The questionnaire study was not designed to exclude the reinterpretation of *daroo* questions as indirect question acts with the aim of requesting information. The study design was not suited to confirm the introspective intuition that *daroo*-questions (and their honorific counterparts with *desyoo*) are SAQs, as reported in the literature. Therefore, a second questionnaire study was run in order to have a better understanding of the introspective judgment. Before getting to the second study, first the proposed analysis with respect to the SAQs study will be presented, and the follow-up study will be discussed in Section 5.

4. THE ANALYSIS

Following the investigations of the semantics of *daroo* (Hara 2006, 2019; Hara & Davis 2013; Uegaki & Roelofsen 2018), the analysis of expressive content by Potts (2005), and McCready's (2019) analysis for Japanese honorifications, I propose that *daroo* contributes the non-at-issue meaning and that its honorific form, *desyoo*, presupposes that the speaker is socially distanced from the addressee in the context and the speaker respects the addressee. To resolve the epistemic referents, I follow Zimmermann's (2008) analysis for the German discourse particle *wohl* and propose that *daroo* inherits its epistemic reference point from the sentence type. The sentence type is determined by the feature content of the Force head. In Section 4.1, I discuss the LF and the lexical entries with the purpose of analyzing *daroo* questions. Section 4.2 presents the derivation of the interpretation of *daroo*-declaratives and *daroo/desyoo*-interrogatives in a compositional fashion. Finally, Section 4.3 summarizes the key points of the proposed analysis.

4.1. LF and lexical entries

In syntax, I propose that at LF *daroo* is located in the specifier position of ForceP, and *ka* is a spell-out of the interrogative Force. The proposed Logical Form is shown in Fig. 6.



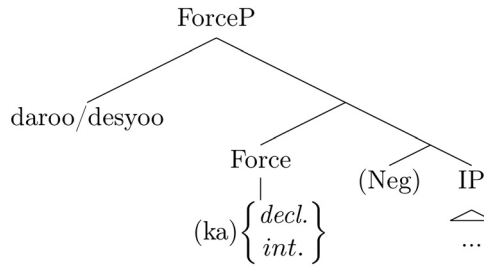


Fig. 6. The LF in *daroo*-sentences

In semantics, I argue that *daroo* contributes the non-at-issue meaning, as shown in (13); here I use ASSUME because *daroo* expresses the speaker's surmise. The epistemic reference point χ is determined by the feature content of the Force head. If the Force head hosts the declarative feature (*decl.*), then the epistemic reference point of χ is the speaker. Conversely, if it has the interrogative feature (*int.*), then the epistemic reference points of χ can be either the addressee or the speaker and the addressee together.

$$(13) \quad [[daroo]] = \lambda p. \lambda w. \text{ASSUME}(\chi, p, w)$$

Likewise, *desyoo*, the honorific form of *daroo*, essentially shares the same lexical entry with *daroo* but carries an additional presupposition from the honorification, as shown in (14). The symbol $<$ here means that the speaker in the context, $sp(c)$, is in a relation with the addressee, $ad(c)$, and that $sp(c)$ is formally distanced from $ad(c)$ and respects $ad(c)$.

$$(14) \quad [[desyoo]] = \lambda p. \lambda w. \text{ASSUME}(\chi, p, w) \text{ (presupposition: } [[desyoo-ka]](Q) \text{ is defined iff in context } c, \text{ there is a speaker and an addressee, } sp(c) \neq ad(c) \text{ and } sp(c) < ad(c))$$

Based on Zimmermann (2008), the semantic type of the clause is determined by the feature *decl.* or *int.* If the sentence is declarative (i.e. with *decl.* on Force), then it denotes a proposition; an interrogative sentence (i.e. with *int.* on Force) denotes a set of propositions. The question particle *ka* in Japanese behaves similarly to the feature *int.* in that its function is to take a proposition and to return a set of propositions (i.e. to make declaratives become interrogatives). Therefore, I propose that *ka* is a spell-out of interrogative Force, and its lexical entry is shown in (15).

$$(15) \quad [[ka]] = \lambda q. \lambda w. \lambda p. p = q \wedge p(w') = 1$$

The last piece of the puzzle is the final prosody of the clauses. The final prosody of *daroo*-sentences has been fully investigated by Hara (2019). Hara (2019) states that *daroo*-declaratives and *daroo-ka* interrogatives are pronounced with the final falling accent. One special case is quiz questions with *desyoo-ka*, which are pronounced with the final rising accent. I propose that *daroo/deysoo*-sentences represent different expectations from the speaker to the addressee when pronounced with the final rising or falling accent; the proposal is outlined in (16).



- (16) a. final rising accent (↗) = *sp(c)* expects an input from the *ad(c)*
 b. final falling accent (↘) = *sp(c)* does not expect an input from the *ad(c)*

4.2. Predictions

With all the ingredients that we need, we can now analyze *daroo/desyoo*-sentences. In the following sections I will demonstrate how *daroo* and *desyoo* are interpreted in a fully compositional fashion.

4.2.1. *Daroo* in declaratives. First let us take a look at *daroo*-declaratives. The example (5) is repeated in (17). The result of the interpretation is shown in (18).

- (17) Kare-wa kuru daroo. ↘
 he-TOP come modal
 ‘(I assume) he will come.’
- (18) a. [_{IP} kare-wa [_{VP} kuru]] = λw. he comes in w.
 b. [_{Force decl.} [_{IP} kare-wa kuru]] = λw. he comes in w.
 c. *decl.* determines the epistemic reference point to *speaker (sp.)*
 d. [_{ForceP daroo} [_{Force decl.} [_{IP} kare-wa kuru]]] = λw'.ASSUME(χ, λw. he comes in w, w')
 e. <λw. he comes in w • λw'. *sp* assumes in w' that he comes in w'.>
 (i) at-issue meaning: λw. he comes in w.
 (ii) non-at-issue meaning: λw'. *sp* assumes in w' that he comes in w'.
 f. *sp(c)* doesn't expect an input from *ad(c)*

The first step is to derive the interpretation of the proposition in IP (18a). (18b–c) show that *decl.* on the Force head determines that the sentence in (17) is declarative, which in turn determines that the epistemic reference point is the speaker. After completing the first three steps (18a–c), we can now see how *daroo* contributes the non-at-issue content of (17). As shown in (18b–c), *daroo* takes the proposition (18b) and contributes the two-dimensional meaning (18e); (18b) is the at-issue meaning and the non-at-issue meaning is that the speaker assumes that (18b) is true. At last, the final falling prosody (18f) means that the speaker does not expect an input from the addressee.

We should also not forget negative *daroo*-declaratives. A negated *daroo*-declarative is shown in (19): as noted by Hara (2006), *daroo* is not under the scope of negation. Therefore, the derivation of the interpretation of (19) proceeds essentially in a parallel fashion, except for the addition of one more step where the truth value of the proposition is reversed; the step-by-step interpretation is shown in (20).

- (19) Ame-wa furu-nai daroo. ↘
 rain-TOP fall-NEG modal
 ‘(I assume) it will not come.’



- (20) a. $[_{IP} \text{ ame-wa } [_{VP} \text{ huru}]] = \lambda w. \text{ it will rain in } w.$
 b. $[_{Neg} \text{ nai}_{(not)} [_{IP} \text{ ame-wa}_{(rain)} [_{VP} \text{ furu}_{(rain)}]]] = \lambda w. \text{ it will not rain in } w.$
 c. $[_{Force} \text{ decl. } [_{IP} \text{ kare-wa kuru}]] = \lambda w. \text{ it will not rain in } w.$
 d. *decl.* determines the epistemic reference point to *speaker (sp.)*
 e. $[_{ForceP} \text{ daroo } [_{Force} \text{ decl. } [_{Neg} \text{ nai}_{(not)} [_{IP} \text{ ame-wa}_{(rain)} [_{VP} \text{ furu}_{(rain)}]]]]] = \lambda w'. \text{ ASSUME}(\chi, \lambda w. \text{ it will not rain in } w, w')$
 f. $\langle \lambda w. \text{ it will not rain in } w \bullet \lambda w'. \text{ sp. assumes in } w' \text{ that it will not rain in } w'. \rangle$
 (i) at-issue meaning: $\lambda w. \text{ it will not rain in } w.$
 (ii) non-at-issue meaning: $\lambda w'. \text{ sp. assumes in } w' \text{ that it will not rain in } w'.$
 g. *sp(c)* doesn't expect an input from *ad(c)*

According to my native Japanese informant, uttering (19) is not acceptable when the speaker has no clue whether it will rain or not. For instance, if a person A is quarantined in a basement without any windows and a person B comes in and asks A if it will rain, it is not possible for A to respond with (19). This clearly shows that the negation does not scope over the meaning of *daroo*. If the speaker has no knowledge, evidence, or any epistemic reasoning about the question, it is unnatural to answer “I assume that it will not rain”. Therefore, the negation in LF is located between ForceP and IP, as shown in Fig. 6.

4.2.2. Daroo-ka in interrogatives. Now let us turn to the derivation of the interpretation of *daroo-ka* questions. Considering example (4), repeated here as (21), we can now derive the interpretation of it as shown in (22).

- (21) Kagi-wa doko-ni aru no daroo ka?
 key-TOP where-LOC be NMLZ modal Q
 ‘(I wonder) where the key is.’
- (22) a. $[_{IP} \text{ kagi-wa}_{(key)} [_{VP} \text{ doko-ka-ni}_{(somewhere)} \text{ aru}_{(be)}]]^9 = \lambda w. \text{ key is in somewhere in } w.$
 b. $[_{Force} \text{ ka } \textit{int.} [_{IP} \text{ kagi-wa}_{(key)} [_{VP} \text{ doko-ni}_{(where)} \text{ aru}_{(be)}]]] = \{ \{ \lambda w. \text{ Key-At-Home}(w) \}, \{ \lambda w. \text{ Key-On-Desk}(w) \}, \{ \lambda w. \text{ Key-In-Office}(w) \} \dots \}$
 c. *int.* determines the epistemic reference point to *addressee* or *addressee & speaker*

⁹Japanese wh-items with *-ka* attached allow existential reading (i.e. indefinite reading).

- (i) Dare-ka-ga hashitta.
 who-ka-NOM ran
 ‘Someone ran.’

When *ka* is in the sentence-final position, then the sentence constitutes a wh-question as we have seen in (1). I assume that *ka* first attaches to the wh-item (i.e. when we interpret the proposition in IP, we derive an indefinite reading, as shown in (22a)), and then *ka* moves to the Force head, takes a declarative (a proposition) and returns an interrogative (a set of propositions). For an analysis of *ka* I refer the reader to Uegaki (2018).



- d. [_{ForceP} daroo [_{Force} ka *int.* [_{IP} kagi-wa_(key) [_{VP} doko-ni_(where) aru_(be)]]]]
 = λw'. ASSUME(χ, {{λw.Key-At-Home(w)}, {λw.Key-On-Desk(w)}, . . . }, w')
- e. <{{λw.Key-At-Home(w)}, {λw.Key-On-Desk(w)}, . . . } • λw'. *ad or ad & sp* assume in w' that {{λw.Key-At-Home(w)}, {λw.Key-On-Desk(w)}, . . . } in w'.>
 (i) at-issue meaning: {{λw.Key-At-Home(w)}, {λw.Key-On-Desk(w)}, {λw.Key-In-Office(w)}, . . . }
 (ii) non-at-issue meaning: λw'. *ad or ad & sp* assume in w' that {{λw.Key-At-Home(w)}, {λw.Key-On-Desk(w)}, . . . } in w'
- f. *sp(c)* doesn't expect an input from *ad(c)*

The most important step in (22) that we should notice is (22b), where *ka (int.)* takes a proposition and maps it onto a set of alternative propositions (i.e. from declarative to interrogative). Here I use Hamblin question semantics, according to which the meaning of a question is the set of all possible answers to it. Due to *int.*, we can see that the epistemic reference point can be the addressee or the addressee and the speaker together, as shown in (22c). Therefore, when it comes to interpreting *daroo* in (22d), the at-issue meaning remains to be the set of propositions to the question, as shown in (22f), but we can now derive two different non-at-issue interpretations. One reading is that the addressee assumes all the possible answers to the question in w, and the other reading is that the addressee and the speaker assume all the possible answers to the question together. The results of non-at-issue interpretation are not odd. If (21) is interpreted as an ISQ as the data suggest, the at-issue meaning remains as an ISQ; yet the non-at-issue meaning triggers the answers that the addressee assumes to the question. If (21) is interpreted as a SAQ, the non-at-issue content implies that the speaker and the addressee speculate or assume the possible answers to the question together.

4.2.3. Desyoo-ka in interrogatives. Similar to the compositional interpretation of *daroo-ka* interrogatives, deriving the interpretation of *desyoo-ka* interrogatives essentially follows the same procedure. The only difference is that there is an additional presupposition coming from the honorification of *desyoo*. The steps of the compositional interpretation of *desyoo-ka* questions, such as (23), are presented in (24).

- (23) Dare-ga kuru desyoo ka?
 who-NOM come modal-HON Q
 '(I wonder) who will come.' (=SAQ), 'Who will come? What do you think?' (=ISQ)

- (24) a. [_{ForceP} desyoo [_{Force} ka *int.*]_{IP} dare-ga_(who) [_{VP} kuru_(come)]] is defined iff
sp(c) < *ad(c)* (i.e. *sp(c)* is formally distanced from *ad(c)*, and *sp(c)* respects *ad(c)*)
- b. [_{IP} dare-ka-ga_(someone) [_{VP} kuru_(be)]] = λw. someone comes in w.
- c. [_{Force} ka *int.* [_{IP} dare-ga_(who) [_{VP} kuru_(come)]]]
 = {{λw.Diego-Come(w)}, {λw.Vanya-Come(w)}, {λw.Luther-Come(w)}, . . . }
- d. *int.* determines the epistemic reference point to *addressee* or *addressee & speaker*



- e. $[_{\text{ForceP}} \text{desyoo} [_{\text{Force}} \text{ka } \text{int.} [_{\text{IP}} \text{dare-ga}_{(\text{who})} [_{\text{VP}} \text{kuru}_{(\text{come})}]]]]]$
 $= \lambda w'. \text{Assume}(\chi, \{\{\lambda w. \text{Diego-Come}(w)\}, \{\lambda w. \text{Vanja-Come}(w)\}, \dots\}, w')$
- f. $\langle \{\{\lambda w. \text{Diego-Come}(w)\}, \{\lambda w. \text{Vanya-Come}(w)\}, \dots\} \bullet \lambda w'. \text{ad or ad \& sp assume in } w' \text{ that}$
 $\{\{\lambda w. \text{Diego-Come}(w)\}, \{\lambda w. \text{Vanya-Come}(w)\}, \dots\} \text{ in } w' \rangle$
 (i) at-issue meaning: $\{\{\lambda w. \text{Diego-Come}(w)\}, \{\lambda w. \text{Vanya-Come}(w)\}, \{\lambda w. \text{Luther-Come}(w)\}, \dots\}$
 (ii) non-at-issue meaning: $\lambda w'. \text{ad or ad \& sp assume in } w' \text{ that } \{\{\lambda w. \text{Diego-Come}(w)\}, \{\lambda w. \text{Vanya-Come}(w)\}, \dots\} \text{ in } w'$
- g. *sp(c)* doesn't expect an input from *ad(c)*

In the case of *desyoo-ka* interrogatives, it is clear that the speaker is not talking to herself or the imaginary self, due to the presupposition of honorification, which means that the speaker is formally distanced from the addressee, as shown in (24a). Again, there are two readings of (23). The at-issue content of these two readings remains an ISQ interpretation (24c). The contrast comes from the non-at-issue content. If (23) is considered a formal ISQ, then the interpretation of the non-at-issue content will be “What do you, addressee, assume the possible answers to the question are?” Likewise, if (23) is a SAQ, then we should interpret the non-at-issue content as the speaker inviting the addressee to assume the possible answers together. Again, *desyoo-ka* interrogatives are pronounced with a final falling accent (24g), as the speaker does not expect an input from the addressee. ISQs are often characterized as questions where the speaker believes that the addressee may know the answer, requests the addressee to react, and ideally hopes that the addressee will offer an answer, but it can also be the case that the addressee does not know the answer; thus, pronouncing the interrogative with a final falling accent is an indirect way of requesting the addressee to respond to the question.¹⁰

4.3. Summary of the proposed analysis

I proposed that the interpretation of *daroo*-declaratives and *daroo*-interrogatives is two-dimensional. *Daroo* is located in the specifier of ForceP, and the feature content of the Force head determines the epistemic reference point of *daroo*. With *decl.* the epistemic reference point is the speaker, while with *int.* the epistemic reference point can be the addressee or the speaker and the addressee. The non-at-issue content of *daroo* pairs with the proposition

¹⁰Shortly before finalizing the current paper, I became aware of Hara's (2019) footnote that mentions a special case where *desyoo-ka* questions are purposely pronounced with the final rising accent; an example is shown in (i). The interpretation of (i) is compositionally derived in parallel with (23). The main difference, as stated, comes at the end of the final prosody. Since the context is a quiz show, it does make sense that the host expects an input from the participant or expects participants to react to the quiz question. Therefore, pronouncing *desyoo-ka* quiz questions with the final rising accent indicates that the host of the show requests the addressee to answer to the question.

(i) Doitsu-no syuto-wa doko desyoo ka? ↗
 Germany-GEN captial-TOP where modal.HON Q
 ‘Where is the capital of Germany?’ (in a quiz show)



(in declaratives) or the set of propositions (in interrogatives). The proposed analysis accounts for the results of the questionnaire study, presented in Section 3. If *daroo-ka* questions are regarded as ISQs in the contexts where the speaker is in the presence of others, the non-at-issue content resolves at the addressee's assumption about the possible answers. If the questions are SAQs instead, the non-at-issue content will be a possible answer that the addressee and the speaker assume. In other words, the speaker invites the addressee to find a possible answer to the question together.¹¹

5. FOLLOW-UP STUDY

In this section I present a follow-up study that uses a revised questionnaire from the SAQs study. The purpose of this follow-up study is to rule out the interpretation of *daroo*-questions as indirect question acts with the aim of requesting information. This study forces the participants to decide if uttering a *daroo*-question in an urgent situation, which disallows the possibility of performing indirect speech acts, is acceptable for requesting the information.

5.1. UrgentQs study

The unexpected results¹² in Section 3 have shown that *daroo-ka* questions are naturally used as ISQs; a second empirical study is therefore designed to test the contrast between *daroo-ka* questions and plain questions in a more specific type of context, where the urgency of a question disallows the possibility of interpreting it in the performance of indirect speech acts – be it for the sake of politeness or other reasons. I name these questions “urgent questions” (urgentQs) and call this pilot study “urgent questions study” (UrgentQs study). This helps us to differentiate urgentQs from ordinary ISQs. UrgentQs require the addressee to immediately react and respond to the question, while ordinary ISQs allow the addressee to contemplate an answer to the question and to refuse to provide it. To sum up, the goal of this pilot study is to better understand why Japanese speakers find *daroo-ka* questions as ISQs natural. I hypothesize that Japanese participants should judge the *daroo* questions as more marked in urgent situations, due to the extra pragmatic load they create for the interpretation, as opposed to plain questions that directly convey the speaker's request.

5.2. Methods and designs

A naturalness rating questionnaire on a 7-point Likert scale has been run. There are 12 items split into two surveys with a between-subject design. Since it is only a pilot study, there is only one control factor, i.e. plain-form questions vs. *daroo-ka* questions. In each context, an emergency happens and the speaker in the context asks the addressee a question

¹¹The point also matches the idea proposed by Eckardt (2020) that the pragmatic profile of SAQs allows joint speculations of the speaker and addressee.

¹²The findings contrast with Hara's (2019) claim that *daroo-ka* questions are prohibited with ISQ readings.



(plain-form question/*daroo-ka* question). An example of the urgent question context is shown below.

5.2.1. UrgentQs context. Friend A is now in the classroom. Suddenly, friend B runs into the classroom and yells: “The classroom in the corner is on fire.” Now friend B asks A:

- a. B asks: “Where is the fire extinguisher *daroo-ka*?”
- b. B asks: “Where is the fire extinguisher?”

5.3. Procedure

Each subject saw 6 experimental items (3 target items that are plain-form questions and 3 target items that are *daroo-ka* questions). The study was run in a between-subject design. 6 native Japanese participants were recruited online. At the end of each trial, participants were asked to answer the following question with a value between 1 and 7: “How natural does the question sound as asked by the character in the context?” “1” indicated a completely unnatural question; “7” indicated a perfectly natural question. All items were presented in written form on the screen. Given the pragmatic motivation of this study, I focus on comparing plain-form questions to *daroo-ka* questions in the urgent question contexts.

5.4. Results

The results are plotted in Fig. 7 below. Since only few data points have been collected, it is not possible to examine whether there is a significant effect statistically. Yet the results still clearly show that Japanese participants find it unnatural to use *daroo-ka* questions as urgentQs (median = 3.5). These preliminary results fit my hypothesis for this study.

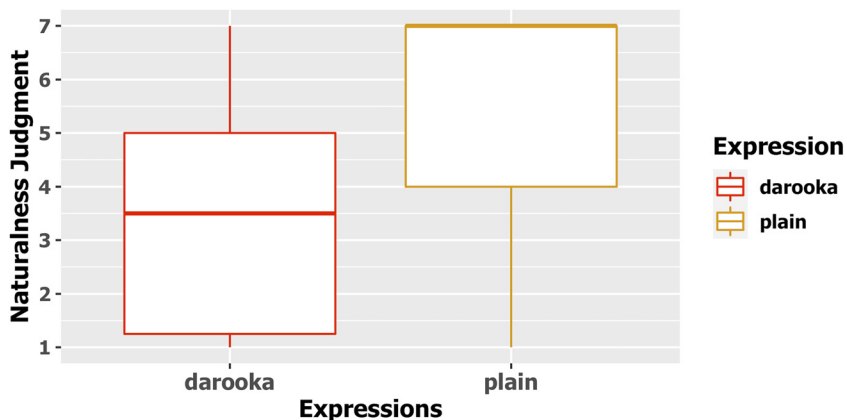


Fig. 7. The results of UrgentQs study



5.5. Discussion

Uttering a question in an urgent situation excludes the possibility of the participants interpreting a SAQ as an indirect canonical question. In other words, it does not make sense to utter a SAQ to request information in an urgent situation. The illocutionary context that I called “urgent question context” seems to be suitable for obtaining empirical evidence for the introspective judgments that *daroo*-questions are self-addressed. Compared to the first empirical study, where the median value of *daroo-ka* questions as ISQs was 5, the median of the naturalness judgment in this pilot study dropped to 3.5. I assume that the markedness effect on *daroo*-questions in the context of UrgQs shows that the reinterpretation of a self-addressed question as a request for information is not valid. If *daroo*-questions were simply information-seeking questions, this markedness would not be expected.

6. CONCLUSION AND REMAINING ISSUES

This paper presented two empirical studies with regard to the correlation between Japanese self-addressed questions, honorifications and urgent questions. Though in theory a single criterion should be able to differentiate between canonical and non-canonical questions, the delineation in fact turned out to be not as clear.

Based on the first empirical SAQ study, it was found that *daroo*-marked questions can be used as ISQs, which contradicted the literature according to which *daroo-ka* questions only allowed SAQ interpretations. Most importantly, it was found that the speaker, while using SAQs, is aware of the social status of the bystander. Uttering *daroo-ka* SAQs in the context where the bystander is not honorified is as highly preferred as in the context where the speaker is alone. However, when the bystander in the context is socially higher than the speaker, *daroo-ka* SAQs becomes less preferred and *desyoo-ka* SAQs becomes less unacceptable.

Due to the unexpected findings from the first empirical study, the second pilot study was run to test how natural it is to utter *daroo-ka* questions in the context where an urgent event/emergency happened. The preliminary results clearly showed that *daroo*-marked questions are unnatural as urgent questions.

There are two remaining issues. Firstly, the proposed analysis originally aimed to explain the ISQ interpretation of *daroo-ka* questions, which was demonstrated by the results of the first empirical study but contradicted the literature (Hara 2018, 2019). However, based on the evidence found in the pilot urgent question study, *daroo-ka* questions are dispreferred in urgent question contexts. Therefore, a new approach for excluding the reinterpretation of *daroo* questions as indirect questions aimed at requesting some information is needed. A follow-up study is to be designed and conducted in order to confirm whether urgent questions are a prosodically and pragmatically important category in Japanese grammar, since Hara also focused on the effect of intonation in her later work.

ACKNOWLEDGMENTS

This research would not have been possible without the support of Regine Eckardt. Also, I especially thank Maribel Romero, Naoya Fujikwa, Katsuko Yatsushiro and the audiences at JK



28, SinFonIJA 13, and FOSS 13, and the anonymous reviewers for the meaningful discussions from which I benefited a lot. Moreover, I thank Mizuki Satoh, who is never tired of offering the native intuitions and translating my questionnaire studies, and Chou Chien, who helps me in conducting questionnaire studies in Japan. I sincerely thank you all. The research was funded by the German Research Foundation DFG as part of the project FOR 2111 Non-canonical Questions at the Interfaces, which I gratefully acknowledge.

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APPENDIX A

Experimental Stimuli

Section A context

1. **ISQ**: Yurie is about to go shopping and her mother is watching a weather forecast on TV. Yurie wants to know if she should take an umbrella, so she asks her mother.
2. **SAQ₁**: Yurie is alone at home and is about to go shopping. Yurie wonders if she should take an umbrella, so she asks herself.
3. **SAQ₂**: This is Yurie’s friend John’s first time coming to Japan to visit Yurie’s home. Yurie is about to go shopping. John has no idea about the weather in Japan, so Yurie won’t ask John, but Yurie wonders if she should take an umbrella, so she murmurs close to him.

- (1) Atode ame-wa furu **daroo ka?**
 later rain-TOP fall modal Q
 ‘Will it rain later?’
- (2) Atode ame-wa furu **desyoo ka?**
 later rain-TOP fall modal-HON Q
 ‘Will it rain later?’
- (3) Atode ame-wa furu?
 later rain-TOP fall
 ‘Will it rain later?’

I tested (1) in ISQ, SAQ₁ and SAQ₂, (2) in ISQ and SAQ₂, and (3), as a distracting item, in ISQ.



Section B context

1. **ISQ:** Yurie is going to Taro's birthday party and she knows that Kenji, whom she loves, is also one of Taro's friends. So, Yurie wants to know if Kenji will come to the party. So, she asks Taro.
2. **SAQ₁:** Yurie is now on the way to the Taro's birthday party alone. She knows that Kenji, whom she loves, is also one of Taro's friends. So, she asks herself.
3. **SAQ₂:** Yurie is shopping for the birthday gift for Taro with her mother. Yurie suddenly remembers that Kenji, who she loves, is also one of Taro's friends. So, she murmurs.

(4) Kenji-wa kai-ni kuru **daroo ka?**
 kenji-TOP party-LOC come modal Q
 'Will Kenji come to the party?'

(5) Kenji-wa kai-ni kuru **desyoo ka?**
 kenji-TOP party-LOC come modal-HON Q
 'Will Kenji come to the party?'

(6) Kenji-wa kai-ni kuru?
 kenji-TOP party-LOC come
 'Will Kenji come to the party?'

I tested (4) in ISQ, SAQ₁ and SAQ₂, (5) in ISQ and SAQ₂, and (6), as a distracting item, in ISQ.

Section C context

1. **ISQ:** Shiro and Hanako are a couple. Today they invited their friend Takashi to come to their home and have dinner together. When Shiro is preparing dinner, Shiro is wondering if Takashi eats spicy food. So, Shiro asks Hanako.
2. **SAQ₁:** Shiro invites his friend Takashi to come to his home and have dinner together. When Shiro is preparing dinner alone, Shiro is wondering if Takashi eats spicy food. So, he asks himself.
3. **SAQ₂:** Shiro invites his friend Takashi and his new colleague Sarah to come to his home and have dinner together. Sarah is a newcomer to Japan, so she doesn't know Takashi. Now, Sarah already comes to Shiro's home and Shiro is preparing dinner. Shiro is wondering if Takashi eats spicy food. So, he murmurs.

(7) Takashi-wa karai-mono daijoobu **daroo ka?**
 takashi-TOP spicy-thing ok modal Q
 'Can Takashi eat spicy food?'

(8) Takashi-wa karai-mono daijoobu **desyoo ka?**
 takashi-TOP spicy-thing ok modal-HON Q
 'Can Takashi eat spicy food?'



- (9) Takashi-wa karai-mono daijoobu?
 takashi-TOP spicy-thing ok
 ‘Can Takashi eat spicy food?’

I tested (7) in ISQ, SAQ₁ and SAQ₂, (8) in ISQ and SAQ₂, and (9), as a distracting item, in ISQ.

Section D context

1. **ISQ:** Taro is now at home with his wife. Taro is about to watch a baseball game on TV in the living room, but he couldn’t find the remote. Taro’s wife often cleans the living room. So, Taro goes to ask his wife.
2. **SAQ₁:** Taro is alone at home. He is about to watch a baseball game on TV, but he couldn’t find the remote. So he asks himself.
3. **SAQ₂:** Today, Kenji is visiting Taro at Taro’s home for the first time. They decide to watch a baseball game together in the living room now but Taro can’t find the remote for the TV, so Taro murmurs.

- (10) Rimokon doko **daroo ka?**
 remote where modal Q
 ‘Where is my remote?’

- (11) Rimokon doko **desyoo ka?**
 remote where modal-HON Q
 ‘Where is my remote?’

- (12) Rimokon doko?
 remote where
 ‘Where is my remote?’

I tested (10) in ISQ, SAQ₁ and SAQ₂, (11) in ISQ and SAQ₂, and (12), as a distracting item, in ISQ.

Section E context

1. **ISQ:** The school is off and Yurie and her sister come back home to the entrance door but can’t find the key. Yurie thinks that, since her sister went to school with her this morning, her sister may know where she put the key. So, she asks her sister.
2. **SAQ₁:** When Yurie comes back from school, she is looking for the house key at the door. So, she asks herself.
3. **SAQ₂:** Today Yurie promised an exchange student named Sarah to meet at her (Yurie’s) home. Now, the school is off and they walk back to Yurie’s home. When they stand at the door, Yurie couldn’t find the house key. So, she murmurs.

- (13) Kagi doko **daroo ka?**
 key where modal Q
 ‘Where is the key?’



- (14) Kagi doko **desyoo** ka?
Key where modal-HON Q
'Where is the key?'
- (15) Kagi doko?
key where
'Where is the key?'

I tested (13) in ISQ, SAQ₁ and SAQ₂, (14) in ISQ and SAQ₂, and (15), as a distracting item, in ISQ.

Section F context

1. **ISQ:** Taro is about to go to school, but he cannot find his math homework he did yesterday. Taro's mom always helps Taro clean his room. So, Taro decides to ask his mom.
2. **SAQ₁:** Taro is alone in his room. He is about to go to school, but he cannot find his math homework he did yesterday. So, he asks himself.
3. **SAQ₂:** Saburo is Taro's best friend. Today Saburo comes to Taro's home and they decide to do homework together. It's Saburo first time in Taro's room. Taro cannot find his homework, so he murmurs.

- (16) Boku-no syukudai doko **daroo** ka?
my.M.INFORMAL homework where modal Q
'Where is my homework?'
- (17) Boku-no syukudai doko **desyoo** ka?
my.M.INFORMAL homework where modal-HON Q
'Where is my homework?'
- (18) Boku-no syukudai doko?
my.M.INFORMAL homework where
'Where is my homework?'

I tested (16) in ISQ, SAQ₁ and SAQ₂, (17) in ISQ and SAQ₂, and (18), as a distracting item, in ISQ.

Section G context

1. **ISQ:** Suzuki is invited to his boss' birthday party today. From the window of his boss' house, Suzuki and the boss see a flower van parked in front of the house. Now Suzuki asks his boss.
2. **SAQ₁:** Suzuki is invited to his boss' birthday party today. When Suzuki is on the way to his boss' house alone, he sees a flower van parked in front of the house. Now Suzuki asks himself.
3. **SAQ₂:** Suzuki is invited to his boss' birthday party today. When Suzuki and his colleague Yamashita are on the way to the boss' house together, Suzuki sees a flower van parked in front of it. Out of curiosity, Suzuki murmurs close to Yamashita.



- (19) Buchoo-ni hana-ga todoita-n **desyoo** **ka?**
 leader-LOC flower-NOM transported-NOM modal-HON Q
 ‘Was the flower transported to the boss?’
- (20) Buchoo-ni hana-ga todoita-n **daroo** **ka?**
 leader-LOC flower-NOM transported-NOM modal Q
 ‘Was the flower transported to the boss?’
- (21) Buchoo-ni hana-ga todoita-n **desu** **ka?**
 leader-LOC flower-NOM transported-NOM be-HON Q
 ‘Was the flower transported to the boss?’

I tested (19) in ISQ, SAQ₁ and SAQ₂, (20) in ISQ and SAQ₂, and (21), as a distracting item, in ISQ.

Section H context

1. **ISQ:** Jiro participated a chemistry competition last week. Yesterday the results were announced, but only his chemistry professor will first get notified about them. Jiro really wants to know the results, so he goes to ask his chemistry professor.
2. **SAQ₁:** Jiro participated in a chemistry competition last week. The results have not been announced yet. Jiro is now at home alone and thinks about this competition. So he asks himself.
3. **SAQ₂:** Jiro participated in a chemistry competition last week. The results will be announced soon. Now Jiro is having lunch with his English professor. Jiro suddenly recalls that the results of the chemistry competition will be announced soon, so he murmurs.

- (22) Watashi-wa taikai-ni katta-n **desyoo** **ka?**
 I-TOP competition-LOC won-NOM modal-HON Q
 ‘Did I win the competition?’
- (23) Watashi-wa taikai-ni katta-n **daroo** **ka?**
 I-TOP competition-LOC won-NOM modal Q
 ‘Did I win the competition?’
- (24) Watashi-wa taikai-ni kachi-mash-ita **ka?**
 I-TOP competition-LOC win-HON-PST Q
 ‘Did I win the competition?’

I tested (22) in ISQ, SAQ₁ and SAQ₂, (23) in ISQ and SAQ₂, and (24), as a distracting item, in ISQ.

Section I context

1. **ISQ:** Suzuki had a very bad stomach pain last week, so he went to see the doctor. The doctor forbade him to have any regular meal, but only allowed cooked vegetables. After a week, Suzuki comes back for a check-up, so he asks the doctor.



2. **SAQ₁**: Suzuki had a very bad stomach pain last week, so he went to see the doctor. The doctor forbade him to have any regular meal, but only allowed cooked vegetables. After a week Suzuki feels better and he is now alone on the way to see the doctor. He asks himself.
3. **SAQ₂**: Suzuki had a very bad stomach pain last week, so he went to see the doctor. The doctor forbade him to have any regular meal, but only allowed cooked vegetables. One day the neighbor who hasn't come to see Suzuki for a while, suddenly comes to visit Suzuki and Suzuki is about to make dinner. He really misses to have regular meals, so he murmurs close to the neighbor.

(25) Hutsuuno shokuji-o shite-mo ii **desyoo ka?**
 regular meal-OBJ do-too goo modal-HON Q
 'Can I eat the regular meal?'

(26) Hutsuuno shokuji-o shite-mo ii **daroo ka?**
 regular meal-OBJ do-too goo modal Q
 'Can I eat the regular meal?'

(27) Hutsuuno shokuji-o shite-mo ii **desu ka?**
 regular meal-OBJ do-too goo be-HON Q
 'Can I eat the regular meal?'

I tested (25) in ISQ, SAQ₁ and SAQ₂, (26) in ISQ and SAQ₂, and (27), as a distracting item, in ISQ.

Section J context

1. **ISQ**: Taro's boss' wallet was stolen on a business trip. The boss has just come back from the police station. Taro is still upset about this, so he asks his boss.
2. **SAQ₁**: Taro's boss' wallet was stolen on a business trip. The boss went to the police station. So, now Taro is waiting for his boss alone in the meeting room. Taro is upset about this, so he asks himself.
3. **SAQ₂**: Taro's boss' wallet was stolen on a business trip to Paris. The boss went to the police station. While Taro is waiting for his boss in the meeting room, a translator arrives. It's their first time seeing each other. Taro is still upset about the stolen wallet, so he murmurs close to the translator.

(28) Kachoo-no saifu, dare-ga nusunda-n **desyoo ka?**
 boss-GEN wallet who-NOM stolen-NOM modal-HON Q
 'Who has stolen the boss' wallet?'

(29) Kachoo-no saifu, dare-ga nusunda-n **daroo ka?**
 boss-GEN wallet who-NOM stolen-NOM modal Q
 'Who has stolen the boss' wallet?'



- (30) Kachoo-no saifu, dare-ga nusunda-n **desu ka?**
 boss-GEN wallet who-NOM stolen-NOM be-HON Q
 ‘Who has stolen the boss’ wallet?’

I tested (28) in ISQ, SAQ₁ and SAQ₂, (29) in ISQ and SAQ₂, and (30), as a distracting item, in ISQ.

Section K context

1. **ISQ:** Miki is going to take an English course, but she doesn’t know in which classroom the writing course will take place. So, Miki asks her English teacher.
2. **SAQ₁:** Miki is going to take an English course, but she doesn’t know in which classroom the writing course will take place. She is now alone and she asks herself.
3. **SAQ₂:** Miki is going to take an English course, but she doesn’t know in which classroom the English writing course will take place. She is now having lunch with her chemistry teacher. She suddenly recalls that she has an English writing course later. So she murmurs close to the teacher.

- (31) Dokode eigo-no jyugyoo aru-n **desyoo ka?**
 where English-GEN lesson be-NOM modal-HON Q
 ‘In which classroom will the English course take place?’

- (31) Dokode eigo-no jyugyoo aru-n **daroo ka?**
 where English-GEN lesson be-NOM modal Q
 ‘In which classroom will the English course take place?’

- (33) Dokode eigo-no jyugyoo aru-n **desu ka?**
 where English-GEN lesson be-NOM be-HON Q
 ‘In which classroom will the English course take place?’

I tested (31) in ISQ, SAQ₁ and SAQ₂, (32) in ISQ and SAQ₂, and (33), as a distracting item, in ISQ.

Section L context

1. **ISQ:** Miyagawa goes to a field trip to Singapore with his professor. The professor knows a lot about Singapore. Now, they are in a park and see a very tall statue. Miyagawa is curious about the statue and asks his professor.
2. **SAQ₁:** Miyagawa goes to a field trip to Singapore alone. This is his first time in Singapore. Now he is in a park and sees a very tall statue. Miyagawa is curious about the statue and asks himself.
3. **SAQ₂:** Miyagawa goes to a field trip to Singapore with his professor. It is Miyagawa and his professor’s first time visiting Singapore. They have no clue about the history of Singapore. Now, they are in a park and see a very tall statue. Miyagawa is curious about the statue and murmurs close to his professor.



- (34) Dare-ga kono-zo tsukutta-n **desyoo** **ka?**
 who-NOM this-statue made-NOM modal-HON Q
 'Who built this statue?'
- (35) Dare-ga kono-zo tsukutta-n **daroo** **ka?**
 who-NOM this-statue made-NOM modal Q
 'Who built this statue?'
- (36) Dare-ga kono-zo tsukutta-n **desu** **ka?**
 who-NOM this-statue made-NOM be-HON Q
 'Who built this statue?'

I tested (34) in ISQ, SAQ₁ and SAQ₂, (35) in ISQ and SAQ₂, and (36), as a distracting item, in ISQ.

