The Use Conditional Meaning of Japanese Discourse Particle *ittai* in Questions

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1 Introduction

Ittai is a discourse particle in Japanese that can be used in different types of non-canonical questions: extreme ignorance questions (EIQs), self-addressed questions (SAQs) and cornering questions (CorQs). None of the current accounts (of these question types) covers all uses of ittai, and hence the present paper offers a unified analysis of ittai and bridges the gap between the different uses of ittai in questions.

This paper focuses on the use of *ittai* in non-canonical questions. What are non-canonical questions? Pragmatic research on questions distinguishes canonical questions as opposed to non-canonical questions. Canonical questions, also called information-seeking questions (ISQs), are described in (1).

- (1) a. questions uttered by the speaker A, addressing to the hearer B,
 - questions where A does not know the answer and wants to know the answer.
 - c. questions where A believes that B might know the answer,
 - d. questions where A requests B to react to the question; ideally A expects that B will provide an answer.

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Questions are classified as non-canonical questions when they deviate in one or more ways from this scheme. The present paper focuses on three different types of non-canonical questions: extreme ignorance questions (EIQs), cornering questions (CorQs) and self-addressed questions (SAQs).

EIQs, known as English *wh-on-earth* questions (den Dikkens & Giannakidou 2002, Rawlins 2009), or "can't find the value" questions (Bayer & Obenauer 2011), convey the speaker's frustration about the lack of an answer in the context where a) the speaker has tried to look for an answer, b) possible answers were dismissed (Eckardt & Yu 2020), c) the speaker possibly has to consider unlikely possible answers (Rawlins 2009), and d) the speaker may believe that the addressee knows the answer. An English EIQ is shown in (2).

EIQ scenario A and B are parents. Their son, Eric, usually comes home around 9 p.m. at the latest, but it is midnight now and Eric is not home yet. A has tried to call Eric, but he did not answer the phone. A and B have tried to find Eric in all the possible places where he could be, yet they could not find him. A utters to B.

(2) Where on earth is Eric?

In a normal circumstance like in (1), it is odd to utter an EIQ directly to the addressee in the beginning of a conversation. The example (2) shows us that an EIQ is felicitously uttered when the speaker cannot find any possible answer and she is in desperate need of getting answers in the context. In other words, there must be a backstory for the speaker to utter an EIQ instead of an ISQ. CorQs, similarly, also require a backstory in the context so that they can be felicitously uttered.

CorQs, known as English *or-not*-alternative questions (*or-not*-AltQs), are used to put the discourse in a 'cul de sac', meaning to 'corner' the addressee into providing an answer (Biezma 2009). According to Biezma (2009), they are characterized by two properties (P1, P2)¹, shown in (3).

(3) a. **P1:** *or-not-*AltQs are inappropriate discourse initially. (Biezma 2009: 38)

Scenario A is in charge of coordinating the cooks for a banquet dinner. B is one of the cooks. Dinner is tomorrow.

A (to B): # Are you making pumpkin soup or not?

¹ Please also see Beltrama et. al (2018), which offers an experimental study on decomposing cornering effects.

 P2: or-not-AltQs do not license follow-up questions/'daugther' questions.

Scenario A is in charge of coordinating the cooks for a banquet dinner. B is one of the cooks. Dinner is tomorrow and A needs to know what is happening with pumpkin soup.

A: Are you making pumpkin soup?

B: (Silence and dubitative faces)

A: ✓ Are you making pumpkin soup or not?

B: (Silence and dubitative faces)

A: # Are you making pumpkin soup?

Thus, a CorQ can only be felicitously uttered if a) a plain ISQ was asked before, and b) the ISQ remained unanswered. These two conditions form the backstory for the speaker to ask a CorQ felicitously in the context.

SAQs, also called conjectural questions (Littell et al. 2010), are characterized as "uttered in the absence of an addressee" in the literature (Eckardt 2020, 2). While English SAQs are not marked by specific phrases, some languages provide specific lexical particles to indicate that a question is self-addressed; for instance, St'át'imcets =k\(\alpha\) (Littell et al. 2010), Cuzco Quechua-ch\(\alpha\) (Faller 2003), German discourse particle wohl (Zimmermann 2008, 2013; Eckardt 2020), Korean question particle -na (Eckardt & Disselkamp 2019), and Japanese evidential modal daroo (Hara 2006, 2018, 2019). SAQs, like EIQs, express that the speaker has difficulty to find answers. The difference between SAQs and EIQs lies in the belief of the speaker. The speaker in a SAQ context does not believe that the hearer may provide the answer; otherwise, the question should be seen as an EIQ. But the speaker may utter a SAQ to invite the hearer to speculate an answer to the question together (Eckardt 2020). A Japanese SAQ example is shown in (4).

SAQ scenario A and B are flatmates. A has been looking for her key for hours, but she cannot find it. A never tells B where she keeps her key. A utters next to B:

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

The example (4) can be roughly translated to English using 'I wonder'. The use of Japanese modal *daroo* in a question marks the question as conjec-

tural, not an ISQ to the addressee. As we have seen the three different types of non-canonical questions (i.e. EIQs, CorQs and SAQs), the present paper will discuss the data of Japanese discourse particle *ittai* that can be used in these types of questions in the next section.

2 Data

The Japanese particle *ittai* in a question like (5) conveys the speaker's impatience, annoyance and ignorance to the question (Oguro 2017, Kuroiwa 2019).

(5) Ittai nani-o John-wa wasureta no? ittai what-ACC John-TOP forgot Q 'What the hell did John forget?'

Though studies have investigated the syntactic position of ittai in interrogatives (Huang & Ochi 2004), and have also compared the syntactic similarities and differences between English wh-the-hell-questions and wh-ittai-questions (Oguro 2017, Kuroiwa 2019), to the best of my knowledge, very little literature has discussed the semantics or pragmatics of ittai. In the following, I show how ittai is used in EIQs, CorQs and SAQs, and this paper offers an insight into the pragmatic use of ittai in different non-canonical questions.

2.1 Ittai in EIQs

As we have seen before, English EIQs use phrases like *on-earth* or *the-hell*; Similary, Japanese questions can use *ittai* to express EIQs, shown in (6).

EIQ scenario A and B are a couple. A is hosting her birthday party today. A asked B to only order some drinks and chicken wings for the party. Now A sees that there is pizza on the table and A asks B if he ordered the pizza, but B says he did not. A utters in the party:

(6) Dare-ga ittai pizza-o chuumonshi-ta no? who-TOP ittai pizza-ACC order-PST Q 'Who the hell ordered the pizza?'

Without using *ittai* in (6), the question will be a plain information-seeking question, and it will be infelicitous in the EIQ scenario. The use of *ittai* conveys the difficulty in searching for an answer, since A cannot imagine anyone else but B to have ordered the food.

2.2 Ittai in CorQs

Ittai may also be used in CorQs which express cornering effects (Biezma 2009). Thus, ittai-CorQs serve a similar function as the English or-not-AltQs. Beyond the cornering effects, ittai in CorQs conveys the speaker's impatience and urgency towards an answer from the addressee, because it is difficult for the speaker to get the answer in the first place. An ittai-CorQ in a sample dialogue is shown in (8).

Dialogue of ittai-CorQs:

A utters:

(7) Konban nani tabe-tai no? (ISQ) tonight what eat-want.to Q 'What do you want for dinner tonight?'

B responds: 'I will need more time to think about it.' However, 3 hours have passed, and B still does not offer any answer. A is very hungry now and she utters to B:

(8) Bangohan ittai taberu no, tabe-nai no? (CorQ) dinner ittai eat Q, eat-not Q 'Do you still want to have dinner or not?'

Without using *ittai* in (8), the question will be a plain ISQ like (7). Then there will be no signal from A to B that A is running out of patience and that A demands an answer from B in the utterance time. Based on this example, we can see that the use of *ittai* in questions is beyond the purpose of having questions answered, but expresses the emotional attitudes (i.e. impatience, annoyance, dissatisfaction, etc.) from the speaker to the addressee.

2.3 Ittai in SAQs

SAQs convey that a) the speaker has difficulty finding an answer, and b) the speaker does not believe the addressee knows the answer. Furthermore, *ittai*-SAQs express the speaker's despair to get an answer, as shown in (9).

SAQ scenario A and B are flatmates. A has been looking for her ring for hours, but she cannot find it. A never tells B where she keeps her ring. A utters next to B:

(9) Yubiwa ittai doko-ni oi-ta kana? ring ittai where-LOC put-PST Q '(I wonder) where the hell the ring is.'

Without using *ittai*, the emotions of the speaker towards the question will not be expressed. Hence, the use of *ittai* in a SAQ expresses that the question is difficult to answer for the speaker and conveys that the speaker is desperately hoping for an answer.

2.4 Interim Summary

As the data (6), (8) and (9) have shown, *ittai* introduces two restrictions on the contexts of use; namely, a question (i.e. an ISQ) has been asked in the previous time, and the speaker has tried to search for an answer in the previous time before the utterance time. To felicitously utter an *ittai*-EIQ, the speaker must have searched for possible answers in the previous time, but she failed to have one. To felicitously ask an *ittai*-CorQ, the speaker must have asked an ISQ to the addressee in the previous time, but the addressee did not provide the answer; hence, the speaker needs to use *ittai* in questions to force the addressee to offer an answer. Last but not least, when uttering an *ittai*-SAQ, the speaker has tried to look for an answer, but she failed to find one. Therefore, firstly, when the speaker utters *ittai* in questions, she always expresses that a question has been asked but obtaining an answer to the question was not a success.

Secondly, using *ittai* in questions emphasizes the difficulty in obtaining an answer. Uttering *ittai*-EIQs means that the speaker is extremely ignorant to the question (i.e. the speaker has no clue what an answer may be); hence, it is obvious that finding answers to EIQs is difficult. If the speaker has gotten the answer when asking an ISQ in the beginning of the conversation, then she would not have to ask a CorQ to force an answer from the addressee. Consequently, *ittai*-CorQs also show that the speaker finds it difficult to get an answer. One may argue that it is not necessary to use *ittai* in SAQs, but the use of *ittai* conveys the speaker's despair towards the difficulty in finding answers to the hearer or whomever around her. Based on this summary of the felicitous use of *ittai* in contexts, an analysis on *ittai*-questions may be developed, which is also the goal of this paper.

3 Towards An Analysis

The analysis builds on the framework by Davis & Gutzmann (2015). I propose that *ittai* can be explained by a hybrid semantic framework that combines use- and truth-conditional content. While the truth-conditional content specifies the worlds where the sentence is true, the use-conditional content

specifies the contexts where the sentence can felicitously be uttered. Davis & Gutzmann (2015) used the superscripts t and u to distinguish truth-conditional from use-conditional content; t is established by the notion of truth and u connects the expression and the condition of felicity. Building on this framework, the semantics of ittai is shown in (10).

- (10) *ittai*: for questions. Taking arguments of type $\langle s,t \rangle$, t >.
 - a. Truth-conditional content: $[ittai]^t = \lambda Q.Q$, given Q is of type <<s,t>, t>. This ensures that ittai can only combine with questions.
 - b. Use-conditional content: *sets of contexts* (where c_s = speaker in context c)
 - [ittai]^u= {c: c_s emphasizes that the speaker has tried to search answers for Q in previous time, but answers for Q remain tremendously difficult to get in c_w}
 - (ii) $[ittai]^u = felicitous$, if $c_{@} \in \{c: c_s \text{ emphasizes that the speaker has tried to search answers for Q in previous time, but answers for Q remain tremendously difficult to get in <math>c_w\}$

I moreover suggest that *ittai* is a shunting use-conditional item (i.e. shunting UCI) in the sense of Gutzmann(2013). Shunting UCIs are words that shunt their argument to the use-conditional tier and derive the use-conditional content. In other words, the argument for a shunting UCI is used at the use-conditional level, but not reused at the truth-conditional level. Therefore, taking the proposed analysis, we can derive the interpretations of *ittai*-EIQ (6), *ittai*-CorQ (8) and *ittai*-SAQ (9) in the following:

- (11) a. $[(6)]^t = \{\{w: \text{ the neighbor next door ordered in } w\}, \{w: \text{ the delivery man ordered the pizza in } w\}...\}$
 - b. [(6)]^u= felicitous if c_@∈{c: c_s emphasizes that the speaker has tried to search answers for Q in previous time, but answers for Q remain tremendously difficult to get in c_w}
- (12) a. $[(8)]^t = \{\{w: \text{ the addressee wants to have dinner in } w\}, \{w: \text{ the addressee does not want to have dinner } w\}\}$
 - b. $[(8)]^u = felicitous$ if $c_{@} \in \{c: c_s \text{ emphasizes that the speaker has tried to search answers for Q in previous time, but answers for Q remain tremendously difficult to get in <math>c_w\}$
- (13) a. $[(9)]^t = \{\{w : \text{ the ring is in the kitchen in } w\}, \{w : \text{ the ring is in the bathroom in } w\}...\}$
 - b. $[(9)]^u = felicitous$ if $c_{@} \in \{c: c_s \text{ emphasizes that the speaker has } \}$

tried to search answers for Q in previous time, but answers for Q remain tremendously difficult to get in c_w }

I use Hamblin question semantics, according to which the meaning of a question is the set of all possible answers to it. For truth-conditional meanings of (6), (8) and (9), *ittai*, as a function, takes a question and returns the set of propositions (i.e. the possible answers to the question). As (a) of (11), (12) and (13) shows, *ittai* does not contribute any meaning to the truth-conditional contents at this point. (11-a), (12-a) and (13-a) show that the truth-conditional meanings of *ittai*-questions are a set of propositions.

Ittai contributes its meaning at the use-conditional level, presented in (11-b), (12-b) and (13-b). The use-conditional content describes the felicity conditions for an utterance, and the use-conditional content of ittai is a set of contexts where the speaker, c_s , has looked for answers to the question, but answers were very difficult difficult to obtain in the context. Therefore, for an ittai-question to be felicitously uttered, the context of evaluation, c_{\odot} , of that question must be in the set of contexts where the speaker has searched for answers to the question but it was very difficult to find answers for the question. In this way, EIQs, CorQs and SAQs can be characterized by a common set of properties. This explains why ittai can be used in all three senses.

4 Discussion

A reviewer pointed out that *ittai* in polar questions, illustrated in (14), sounds degraded in the scenario for (8).

(14) #Bangohan ittai taberu no? dinner ittai eat Q 'Do you WANT_F² to have dinner?'

(8) was an *ittai*-CorQ with A-or-not-A form. (14) is built from (8), by omitting the disjunct, "*tabe-nai no* (eat-not dinner)". It is puzzling that *ittai* works in the form of *or-not*-AltQs, not in that of polar questions, because logically speaking, polar questions and *or-not*-AltQs denote the same set of propositions, either $\{p, \neg p\}$. However, the native Japanese informant points out acceptable uses of bare polar *ittai*-questions as in the scenario (15).

(15) CorQ revised scenario A and B are a couple. They have promised

 $^{^2}$ Notice that English may use *focus* in polar questions to emphasize that the question has been asked and to request an answer from the addressee. For the better English translation of (14), *focus* is marked in the question.

each other that they will have dinner together. A asked B, "What do you want for dinner tonight?". However, B keeps playing games and does not respond to A's question. Overtime, A is getting very angry, so A utters to B: (16).

(16) Bangohan ittai taberu no? dinner ittai eat Q 'Do you WANT_F to have dinner?'

According to the informant's intuition, (16), repeated from (14), is acceptable when A strongly believes that she and B will have dinner and B knows the answer to (16) is affirmative. If this is correct, the acceptability of *ittai* in polar questions depends on A and B's beliefs in the context. The proposed analysis predicts that (16) is acceptable as in scenario (15), but fails to capture the additional restrictions on A and B's beliefs. I leave a proper analysis of bare polar *ittai*-questions for the future, expecting that the core content of *ittai* will remain as in (10).

5 Conclusion

This paper presents three different types of non-canonical questions (i.e. EIQs, CorQs and SAQs) in which Japanese discourse particle *ittai* is used, and a unified analysis of *ittai* in terms of its pragmatic usage is provided. The analysis adopts the framework from Davis & Gutzmann (2015) and proposes that *ittai*, used in questions, contributes a use-conditional meaning that the speaker in the context has tried to seek answers to the question before and answers for the question are tremendously difficult to obtain.

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