

# The Question Particle in Japanese and the Nature of Exhaustivity in Wh-questions

Shigeru Miyagawa  
MIT

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# Exhaustivity/maximality in wh-questions

(1) What are you bringing to the picnic?

(Baker 1968; Beck and Rullman 1999; Comorovski 1989, 1996; Dayal 1996; Engdahl 1986; Groenendijk and Stokhof 1982, 1984; Heim 1994, Karttunen 1977; among others)

Intuitive idea

Gricean maxim of quantity — be as informative as possible (Grice 1975, 1989)

Suspending exhaustivity

(Groenendijk and Stokhof 1984; Engdahl 1986; Karttunen 1977)

(2) a. Who, for example, came to the party?

b. Where can you buy the New York Times?

# Question particle drop

The Question particles *no/ka* clause-type both content and polarity questions.

(3) Dare-ga kuru no?

who-NOM come Q

‘Who will come?’

(4) Hanako-wa kuru ka?

Hanako-TOP come Q

‘Will Hanako come?’

It is possible to optionally omit the Q-particle in root clauses.

(Takahashi and Nakayama 1995, Ueyama 1992, Yoshida and Yoshida 1996)

(5) Dare-ga kuru (no)?

who-NOM come (Q)

‘Who will come?’

Dropping the Q-particle changes the meaning of the wh-question (Miyagawa 2001).

(6) Anata-wa pikunikku-ni nani-o mottekuru (no)?  
you -TOP picnic-to what-ACC bring (Q)

‘What will you bring to the picnic?’

With the Q-particle in place, the questioner is expecting an answer that would exhaustively list the items that the addressee plans to bring to the picnic.

By omitting the Q-particle, the questioner is not expecting an exhaustive answer, but instead, giving a partial list of items will satisfy as an answer, although it doesn’t exclude giving an exhaustive answer.

(7) The Q-particle in the root clause indicates that the speaker assumes that the hearer knows the complete answer.

(based on Miyagawa 2001)

Q-particle drop is a root phenomenon. The Q-particle is always required in the subordinate clause, so that exhaustivity is not overtly marked in subordinate clauses.

- (8) Taroo-wa [dare-ga kuru \*(ka)] sitteiru.  
Taro-TOP who-NOM come Q know  
'Taro knows who will come.'

The Q-particle differs from the so-called “exhaustive markers” in other languages (the following taken from Xiang 2016: section 2.2.)

- (9) English *all* (Texas English)  
Who **all** can teach Introduction to Linguistics?

- (10) German *alles*  
Wer kann **alles** Einfüung in die Sprachwissenschaft unterrichten?  
who can all introduction into the linguistics teach  
'Who all can teach Introduction to Linguistics?'

- (11) Mandarin *dou*  
Zai fujin women **dou** keyi zai nali mai dao kafei?  
at near we DOU can at where buy get coffee  
'Where all can we get coffee around here?'

# Pair-list questions and Q-particle drop

PL questions work the same way.

- (12) Dare-ga nani-o kau (no)?  
who-NOM what-ACC buy (Q)  
'Who will buy what?'

A striking demonstration: Dayal (1996: 105-106) gives two possible scenarios for multiple wh-questions -- the idea is that the left-most wh-phrase in a multiple wh-question must be answered exhaustively.

- (13) a. Which man is playing against which woman?
- b. We're organizing singles tennis games between men and women. There are three men interested in playing against women, namely Bill, Mike and John. But there are four women interested in playing against men, namely Mary, Sue, Jane, and Sarah. **3 men, 4 women**
- c. We're organizing singles tennis games between men and women. There are four men interested in playing against women, namely Harry, Bill, Mike and John. But there are three women interested in playing against men, namely Mary, Sue, and Sarah. **4 men, 3 women**

Yoshida (2012): the same holds in Japanese. For the scenario in (b), in which there are three men and four women, only the following, with “which man” as the left-most wh-phrase, is appropriate.

- (14) *Dono dansei-ga dono-zyosei-to tatakau no?*  
which man-NOM which woman-with match Q  
‘Which man is playing against which woman?’

To make this compatible with the scenario in (c), scramble the internal argument.

- (15) *Dono zyosei-to dono-dansei-ga tatakau no?*  
which woman-with which man-NOM match Q  
Lit.: ‘With which woman, which man is playing against?’

Or drop the Q-particle.

- (16) *Dono dansei-ga dono-zyosei-to tatakau?*  
which man-NOM which woman-with match  
‘Which man is playing against which woman?’

# Question Under Discussion (QUD)

In one instance, the Q-particle is not allowed to appear.

Sudo and Uegaki (2019) give the following scenario together with a wh-question.

(17) a. You and your co-author are giving a paper at a conference in a location neither of you have visited. After the first day, you ask your co-author the following question about dinner.

b. Tokorode kyoo yuuhan doko-de taberu (no)?

by.the.way today dinner where-in eat Q

‘By the way, where are we going to have dinner today?’

Sudo and Uegaki: the Q-particle is felicitous if it was the job of the co-author to pick a place for dinner, and you are now asking for the location of the dinner.

(18) A more interesting point is what Sudo and Uegaki don’t discuss about this example. This is a scenario in which you have not made a decision on the location of the dinner, and you assume that your co-author hasn’t, either; **in this scenario the Q-particle is infelicitous.**



(19) The presumption is that you believe that your co-author has not decided where to eat, and you are also indicating that you have not, either. Moreover, there is the assumption that both you and the co-author are unfamiliar with the local scene, so that there are no specific restaurants under consideration.

(20) In this scenario, the set of possible/true answers in the sense of Hamblin/Karttunen is **null**.

In English, the closest question to this is:

(21) Where do you want to eat?

This still implies a set of known restaurants.

(22) Let's figure out where to eat.

(17b) without the Q-particle in the context given is a pure form of Question Under Discussion.

(23) A conversational context is changing constantly as new information is added to the “common ground” (Stalnaker 1978). When one asks a question, it is put at the top of “the stack” (Farkas and Bruce 2010) as the “question under discussion” (QUD) (Roberts 1996). The addressee cooperatively chooses from among the set of possible answers denoted by the question, which goes into the common ground. There are two steps: first, the presentation of the question as being under discussion; and second, the commitment to answer it.

(24) As a wh-question with no specific set of possible answers, (17b) is posing a question for discussion without expectation of a direction answer. It is a pure form of QUD.

# Partial answer

Yoshida (2012) argues against treating the Q-particle as exhaustive marking because it can appear with questions that expect a partial answer.

- (25) a. Who, for example, came to the party? (Q-particle may occur)  
b. Where can you buy the New York Times? (Q-particle OK with mention-some)

## ***For example***

- (26) Tatoeba      dare-ga      paatii-ni kuru no?  
for.example who-NOM party-to come Q  
'Who, for example, will come to the party?'

This is not a contradiction because *for example* is not a part of the root denotation.

Xiang (2016) observes that *for example* is often ungrammatical in subordinate contexts (examples slightly changed).

- (27) a. Mary ate what (\*for example) John cooked.  
b. John knows who (\*for example) Mary invited to her party.

*For example* is most appropriately treated as a “discourse expression outside the root denotation: it signals that the questioner is tolerant of partial answers” (Xiang 2016: section 2.3.1).

Xiang's observation: *for example* is a main-clause phenomenon that describes the questioner's attitude towards the root denotation of the question.

Similar to style adverbs such as *frankly*, *truthfully*, and *honestly*, which are attitudinal adverbs that typically only occur in the main clause to indicate the speaker's attitude toward the proposition (Greenbaum 1969).

- (28) a. I *frankly/truthfully/honestly* don't know the answer to that question.  
b. \*I regret that I *frankly/truthfully/honestly* don't know the answer to that question.

(29) Q-particle and *for example*:

The underlying question is marked for exhaustivity; *for example* indicates the questioner's attitude towards the exhaustive list of answers —fine to pick a subset of the entire set.

Without the Q-particle

- (30) Tatoeba      dare-ga      paatii-ni    kita?  
for.example    who-NOM    party-to    came  
'Who, for example, came to the party?'

# Partial answer: mention-all vs. mention-one

Exhaustivity may be suspended by pragmatic context (Groenendijk and Stokhof 1984, Rooj 2004).

(31) Where can you buy the New York Times around here?

- a. List every store that sells the *Times* in the neighborhood.
- b. That corner store.

But is mention-one “non-exhaustive”? I suggest that there is no difference between “mention-all” and “mention-one”; both are exhaustive answers.

Xiang (2016: section 2.2): a prosodic difference between partial and exhaustive answers. An exhaustive answer is associated with a falling prosody (“¥”). A partial answer has a rise-fall-rise prosody, marked below by “/”, which marks uncertainty or incompleteness,

Xiang (2016): mention-all, mention-one, mention-intermediate

(32) Who can chair this committee?

(Only John, Mary, and Sally can; it is a single-chair committee)

- a. John, Mary, and/or Sally can¥
- b. John can¥
- c. John and/or Mary.../

(33) Fox's generalization of mention-some (2013)

A question takes a mention-some reading only if it can have multiple maximally informative true answers.

See Xiang (2016) for some important extensions.

(34) Dare-ga kono-iinkai-no gityoo-ni nar-e-ru no?  
who-NOM this-committee-GEN chair-DAT be-can-PRES Q

‘Who can be the chair of this committee?’

(Only Taro, Hanako, and Yukiko are candidates to become the chair)

a. Taroo-to/ka Hanako-to/ka Yukiko ¥

Taro-and/or Hanako-and/or Yukiko

b. Taroo ¥

c. Taroo-to/-ka Hanako.../

Taro-and/-or Hanako

(35) Mention-all and mention-one fulfill the expectation for an exhaustive answer as indicated by the falling intonation. Mention-intermediate does not.

(36) Mention-all = mention-one

Singleton indefinites (Schwartzchild 2002) and mention-one

Specific indefinite (Fordor and Sag 1982, Cooper 1979, Barker 1998, etc.)

(37) a. I have a friend in every class this semester.

b. I had dinner with a friend last night.

(38) Schwartzchild (2002): the meaning of the existential quantification is the same in both types of indefinites. The difference between them arises from the nature of the extension of the restrictor. A restrictor of existential quantification contains bound variables, which themselves do not impose any limitation on the possible set of items that the quantifier quantifies over beyond the meaning of the restrictor. However, the extension of the restrictor is typically bounded by either overt or covert means.

(39) a. Mention-all: the extension of the restrictor bounded by “around here”;

b. Mention-one: the extension of the restrictor is limited to one.

Both count as fully exhaustive, contra Fox, Xiang.



# Structure with and without the Q-particle

Yoshida and Yoshida (1996) point out that the *naze* 'why' question does not easily allow omission of the Q-particle.

(40) Hanako-wa naze Bosuton-ni iku ??(no)?

Hanako-TOP why Boston-to go Q

'Why is Hanako going to Boston?'

One possibility is somehow to tie this to anti-superiority (Saito 1982, 1985):

(41) a. Taroo-wa nani-o naze katta no?

Taro-Top what-Acc why bought Q

'Why did Taro buy what?'

b. ??Taroo-wa naze nani-o katta no?

Taro-Top why what-ACC bought Q

NOTE:

(42) Taroo-wa nani-o naze katta ??(no)?

Taro-Top what-Acc why bought Q

'Why did Taro buy what?'

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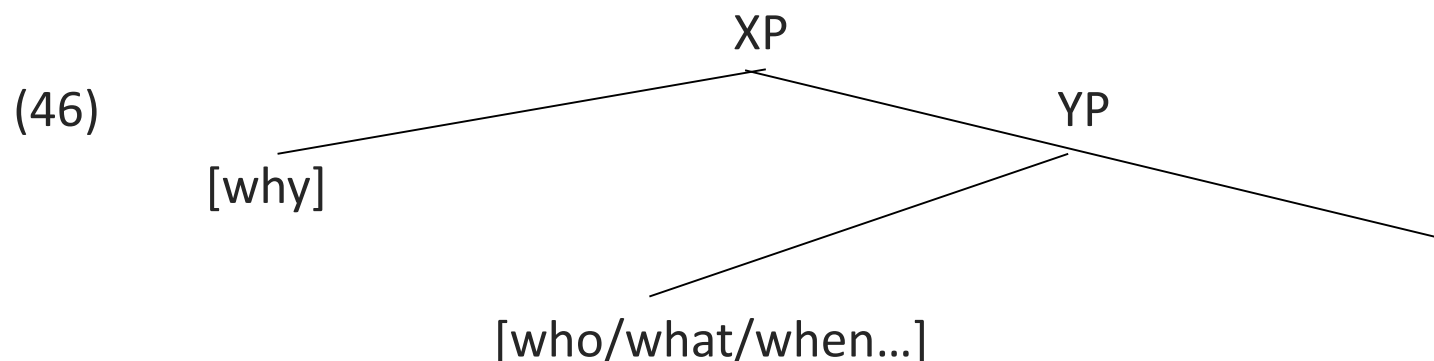
'Why is Hanako going to Boston?'

Wh-infinitives (Shlonsky and Soare 2011)

- (44) I asked Bill
- a. who to serve.
  - b. what to buy.
  - c. when to go.
  - d. how to fix the car.
  - e. ??why to read the book.

(45) I asked Bill why I should read the book.

*Why* raises to a higher position than the other *wh*-phrases (Rizzi 1997, 2001)



(46) With *no*, the projection can go all the way to XP. Without *no*, “YP” cannot be labeled, thus blocking XP from projecting (see Miyagawa, Wu, Koizumi 2019).

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