

On the Q-particles in embedded declaratives and the clausal complementation in Japanese

Teruyuki Mizuno (University of Connecticut) – teruyuki.mizuno@uconn.edu

‘Q-particles’ are functional items that play a role in forming questions, disjunctions, indefinites (Hagstrom 1998; Cable 2010; Szabolci 2015; Uegaki 2018; a.o.). Japanese ‘*ka*’ illustrates this.

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| (1) <i>Jo-wa kita ka?</i> | (2) <i>Dare-ga kimasita ka?</i> | (3) [<i>Jo ka Bo</i>]- <i>ga kita.</i> | (4) [<i>Dare-ka</i>]- <i>ga kita.</i> |
| Jo-TOP came Q | who-NOM came Q | Jo Q Bo-NOM came | who-Q-NOM came |
| ‘Did Jo come?’ | ‘Who came?’ | ‘Jo or Bo came.’ | ‘Someone came.’ |

However, there are hitherto understudied phenomena in which *ka* appears in embedded declaratives (5).

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| (5) <i>Jo-wa [jibun-ga erabareru (ka)]-to kitaisiteita.</i> | (6) * <i>Jo-wa [jibun-ga erabareru ka] kitaisiteita.</i> |
| Jo-TOP self-NOM is.elected Q-COMP hoped | Jo-TOP self-NOM is.elected Q hoped |
| (lit.) ‘Jo hoped that if she would be elected.’ | (lit.) ‘Jo hoped if she would be elected.’ |

While the presence of *ka* is optional, a pre-theoretical intuition is that it ‘weakens’ the commitment of the attitude holder toward the complement. *Ka* here thus seems to reflect what the epistemic state of an attitude holder looks like. Due to this I call the instances of Q-particle like in (5) **MFQs (Modally Functioning Q-particles)**. Notice also that omitting the complementizer ‘*-to*’ would create the form of the standard interrogative embedding, but (6) is ungrammatical for the predicate ‘*kitaisuru (hope)*’, implying that (5) is not on a par in status with interrogative embedding. This study investigates the distribution and semantic nature of MFQs and considers the implications that they bring to the theory of clausal complementation.

Classifying attitudes It has been a consensus that the semantics of embedding predicates determines modal environments in embedded clause. This has been mostly discussed in relation to (i) the distribution of indicative/subjunctive mood in Romance languages (Farkas 1985,1992; Portner 1997,2018; Giannakidou 1998; Villalta 2009; a.o.), and (ii) the (in)compatibility with embedded epistemic modals (Anand and Hacquard 2013; Ippolito 2018). Among the authors, Anand and Hacquard (2013; henceforth AH), assuming that (i) and (ii) are reflexes of some deeper classification, proposed to capture their distribution by resorting to two criteria regarding the semantic properties of attitudes: **representationality** and **preference-basedness**. Representational attitudes convey a ‘mental picture’ (Bolinger 1968), describing the content of a propositionally consistent state; preference-based attitudes build on an ordering among alternatives provided from context (e.g., ‘*want p*’ is standardly analyzed as comparing *p* and $\neg p$ and asserting that *p* is preferred over $\neg p$; see Heim 1992). AH’s classification is summarized in the table below: it is purely representational attitudes that are typically indicative-governors and allow embedded epistemics, the class that they dub ‘attitudes of acceptance’ (Stalnaker 1984), including ‘*know*’, ‘*believe*’, ‘*report*’, etc.; it is purely preference-based attitudes that are typically subjunctive-governors and disallow embedded epistemics, such as directives (e.g., ‘*order*’, ‘*request*’) or desideratives (e.g., ‘*want*’, ‘*wish*’); and it is the third class, attitudes that are both representational and preference-based, that show cross-linguistic variation in mood selection and only allow embedded *possibility* epistemic modals, such as emotive doxastics (e.g., ‘*hope*’, ‘*fear*’) and dubitatives (e.g., ‘*doubt*’).

	Non-preference-based	Preference-based
Representational	Attitudes of acceptance	Emotive doxastics / Dubitatives
Non-representational	—	Directives / Desideratives

Distribution of MFQs We observe that MFQs only appear under **emotive doxastics** and **dubitatives**. Note first that Japanese does not have a mood system like in Romance, but complementizers seem to encode the divisions above to some extent. Japanese has a relatively rich inventory of complementizers (Yamada 2018,2019; Yamada and Kubota 2018). Here we focus on ‘*-to*’ and ‘*-yoo*’ for the sake of argument. The two complementizers exhibit the (non-)representational cut very clearly: *-to* is incompatible with non-representational attitudes (8); *-yoo* is incompatible with representational attitudes (7).

- (7) *Jo-wa [Bo-ga kuru]-{to / *yoo} sinjiteiru / hookokusita / kitaisiteiru / utagatteiru.*
 Jo-TOP Bo-NOM come-COMP **believe reported hope suspect**
 ‘Jo {believes / reported / hopes / suspects} that Bo will/would come.’

Now observe that *ka* cannot appear under *-yoo* (9), and that *ka* can appear under *-to* only when the embedding predicates are emotive or dubitative (10).

- (8) ... [Bo-ga kuru]-{*to / yoo} *negatteiru / yooseesita*. (9) *... [Bo-ga kuru ka]-yoo *negatteiru / yooseesita*.
 Bo-NOM come-COMP **wish** **demanded** Bo-NOM come Q-COMP **wish** **demanded**
 ‘(Jo) {wishes / demanded} that Bo would come’ (lit.) ‘(Jo) {wishes / demanded} that Bo would come’
- (10) *Jo-wa [Bo-ga kuru ka]-to *sinjiteiru / *hookokusita / kitaisiteiru / utagatteiru*.
 Jo-TOP Bo-NOM come Q-COMP **believe** **reported** **hope** **suspect**
 (lit.) ‘Jo {believes / reported / hopes / suspects} that if Bo will/would come.’

Proposal Back to the proposal of AH, they argued that the reason why ‘*hope p*’ or ‘*doubt p*’ only allow possibility epistemics in the complement is that they presuppose that *p* or $\neg p$ is not settled in the attitude holder’s doxastic state. The semantics of ‘*Jo hopes that p*’ that AH proposed is roughly as follows:

- (P) It presupposes that Jo’s doxastic state entails neither *p* nor $\neg p$ (i.e., Jo is uncertain whether *p* or $\neg p$)
 (A) It asserts that *p* is a possibility and Jo considers *p* more desirable than $\neg p$

AH assumes that (P) is encoded as part of the lexical semantics of *hope*, together with (A). I argue that in Japanese, unlike in English, (P) is encoded separately by MFQs as their semantic contribution. (11) confirms this (here I use ‘is excited’ instead of ‘hope’). Recall that *ka* is optional in the licensing predicates, but there is an intuition that the commitment to the complement is ‘weakened’. I suggest that this intuition is derived exactly from (P). In the context (a), whether Jo’s university will be elected is objectively unsettled at the utterance time. Here the lack of *ka* in the complement leads to infelicity (as marked by #). In contrast, in the context (b), in which the election has been settled, the presence of *ka* leads to infelicity.

- (11) [a. Jo has wanted to hold the conference at her university. The venue next year will be decided by raffle tomorrow. / b. Jo’s university has been elected as the venue next year.]
- a. *Jo-wa [jibun-no daigaku-ga erabareru # (ka)]-to wakuwakusiteiru*.
 Jo-TOP self-GEN univ.-NOM is.elected Q-COMP **is.excited**
 (lit.) ‘Jo is excited that if her university will be elected.’
- b. *Jo-wa [jibun-no daigaku-ga erabareta (#ka)]-to wakuwakusiteiru*.
 Jo-TOP self-GEN univ.-NOM was.elected Q-COMP **is.excited**
 Jo is excited that her university was elected.’

That is, the Japanese clausal complementation seems to separate the assertive and presuppositional contents of emotives and dubitatives, and distributes them to different lexical items in the sentential structure.

A paraphrase of a direct question? Syntacticians have independently noticed the ‘*ka-to*’ alignment in Japanese, but approached it from a different perspective. In particular, Saito’s (2012, 2015) cartographic approach treated *ka* in ‘*ka-to*’ as a FORCE head and ‘*-to*’ as a REPORT head, and argued that they conspire to form a ‘paraphrase of a direct question’, drawing analogy to the behavior of Spanish ‘*que*’ (Lahiri 2002). However, while this may capture the behavior of communicative predicates like ‘*tazuneru (ask)*’ or ‘*iu (say)*’, which Saito mainly used, I argue that the analogy to Spanish *que* does not maintain for the predicates we have been concerned with. Firstly, ‘*que + interrogative*’ is bad under emotives and dubitatives (12).

- (12) *Ellos preguntan / *esperan / *temen / *dudan de [que [si se puede curar el SIDA]]*.
 they ask hope fear doubt QUE whether CL can be.cured the AIDS
 ‘(lit.) They {ask / hope / fear / doubt} that if the AIDS can be cured.’

Secondly, if *ka* is a FORCE head and creates a question, we predict that *wh*-questions can similarly be headed by ‘*-to*’ for ‘hope’ or ‘suspect’, but they cannot be, as shown in (13) (compare this with ‘ask’). These data suggest that, *pace* Saito, MFQs should not be regarded as introducing a paraphrase of a direct question.

- (13) *Jo-wa [dare-ga erabareru ka]-to tazuneta / ?? kitaisiteiru / *utagatteiru*.
 Jo-TOP who-NOM is.elected Q-COMP asked hope suspect
 (lit.) ‘Jo {asked / hopes / suspects} that who will/would be elected.’

Selected Refs: Anand and Hacquard 2013. Epistemics and attitudes; Lahiri 2002. *Questions and Answers in Embedded Contexts*; Portner 2018. *Mood*; Saito 2015. Cartography and selection; Stalnaker 1984. *Inquiry*; Uegaki 2018. A unified semantics for the Japanese Q-particle *ka*; Villalta 2009. Mood and gradability; Yamada 2019. Embedded moods in Japanese