

Japanese-type alternative questions in a cross-linguistic perspective

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Introduction: One of the ongoing debates pertaining to the syntax and semantics of alternative questions (AltQs) is whether they involve deletion/movement, and if they do, what the elided/moved materials are. For example, there are (at least) three analytic possibilities existing in the literature for the compositional semantic derivation of an English AltQ. One possibility is to analyze the disjunction as undergoing some form of covert scoping operation (Quantifying-in in Karttunen 1977, Larson 1985; focus semantics in Beck & Kim 2006), making it to take scope over the question-forming operator. The other two possibilities involve deletion in the second disjunct whose underlying structure is larger than its surface appearance. In one analysis, the underlying structure of the AltQ is a coordination of two questions, and no covert scoping operation is needed to derive the AltQ meaning (Pruitt & Roelofsen 2011). The other way is to assume both deletion and a covert scoping operation (Han & Romero 2004). This paper contributes to this debate by focusing on AltQs in Japanese, arguing that they are underlyingly disjunctions of polar questions along the lines of the second analysis above. After presenting an argument for the analysis, I will situate the Japanese-type AltQs in the new cross-linguistic typology of AltQs, which is structured in terms of the $[\pm WH]$ feature on the Disj head.

Data: Korean and Japanese AltQs are known to be syntactically more constrained than their English counterparts (Han & Romero 2004). E.g., disjunction of object DPs with the Disj marker *ka* in Japanese only allows an Yes/No-question (YNQ) reading, and does not license an AltQ reading:

- (1) boku-wa [Taro-ga koohii-ka ocha-o non-da-ka] shitteiru
I-Top Taro-Nom coffee-Disj tea-Acc drink-Past-Q know
'I know whether it is the case that Taro drank coffee or tea.' [*AltQ; ✓YNQ]

On the other hand, what looks like a VP (or possibly clausal) disjunction licenses an AltQ reading:

- (2) boku-wa [Taro-ga koohii-o non-da ka (~~T~~-ga) ocha-o non-da-ka] shitteiru.
I-Top Taro-Nom coffee-Acc drink-Past KA tea-Acc drink-Past-Q know
'I know whether Taro drank coffee or Tea.' [✓AltQ; ?✓YNQ]

Another piece of data that needs attention is that materials above TP cannot scope over the entire (VP/clausal) disjunction in an AltQ where the item appears once preceding the Q-particle:

- (3) Taro-wa koohii-o nomu ka (~~T~~-ga) ocha-o nomu-**beki**-ka?
Taro-Top coffee-Acc drink KA tea-Acc drink-should-Q
*‘Which is true: Taro should drink coffee or he should drink tea?’ [AltQ]
✓‘Is it true that Taro should drink coffee or tea?’ [YNQ]
✓‘Which is true: Taro drinks coffee or he should drink tea?’ [AltQ]

In (3), the modal *beki* cannot scope over the disjunction in the AltQ reading. Thus, the only available readings are (i) the YNQ reading and (ii) the AltQ reading in which the modal takes scope only over the second disjunct. The parallel fact holds when we replace *beki* with a politeness-marker *desu*.

Syntactic analysis: This paper proposes that the structure of Japanese AltQs is always disjunction of polar questions. The disjunction marker in such a structure is either covert or realized as the designated marker *soretomo*. Thus, the structure of a Japanese AltQ looks as follows:

- (4) boku-wa [[T.-ga koohii-o non-da-ka] (soretomo) [~~T~~-ga ocha-o non-da-ka]] shitteiru
I-Top Taro-Nom coffee-Acc drink-Past-Q Disj tea-Acc drink-Past-Q know

One important claim behind this analysis is that the first *ka* in (2) under the AltQ reading is a Q-marker rather than the disjunction marker *ka*. A piece of support for this comes from the fact that the clause-final particle in the first disjunct has to match the particle of the second disjunct in an AltQ. (Here, *no* is a particle that can be used in place of the Q-particle *ka* in an informal speech.)

- (5) a. Taro-wa koohii-o nonda-**no** ~~T~~-wa ocha-o non-da-**no**?
Taro-Top coffee-Acc drink-Q tea-Acc drink-Past-Q [only AltQ]

- b. Taro-wa koohii-o nonda-**ka** Taro-wa ocha-o non-da-**no**?
 Taro-Top coffee-Acc drink-Disj tea-Acc drink-Past-Q [only YNQ]

This fact is mysterious if the first *ka* in an AltQ is a Disj-marker while the second one is a Q-particle. However, this can be accounted for in the current analysis if we assume that there is a parallelism condition that requires the Q-particles to be the same in the two polar questions composing an AltQ.

Accounting for the data: In this view, there is a natural account for why (1) does not have the AltQ reading: the deletion operation that would be needed to derive (1) from structure in (4) involves a deletion of the verb *non-da*, stranding the Q-particle *ka*, as in the following structure.

- (6) *boku-wa [Taro-ga koohii-o non-da-ka] [Taro-ga ocha-o non-da-ka] shitteiru
 I-Top Taro-Nom coffee-Acc drink-Past-Q tea-Acc drink-Past-Q know

Whatever the status of the deletion may be, the deletion fails to satisfy the general constraint on ellipsis that it is allowed only if there is a suitable linguistic antecedent. Thus, we predict the deletion in (6) to be illicit. The modal fact in (3) also falls out straightforwardly from the current analysis. Since each disjunct in an AltQ is underlyingly as big as a CP, it has to include the modal projection. This means that, in order for the modal to be interpreted in both disjuncts, it has to be underlyingly present within each of the disjuncts. (3) does not have the relevant AltQ interpretation since the modal would have to undergo a deletion in the first disjunct (violating the condition on ellipsis) in order for it to be derived from the disjunction of two CPs each involving the modal.

Compositional Semantics: As the semantic proposal, I analyze the denotation of a polar question as the singleton set of the proposition denoted by the embedded TP: $[[Q\ TP]] = \lambda p.[p = [[TP]]]$. The designated disjunction marker *soretomo* is syntactically restricted to coordinate CPs, and it semantically takes the union of the proposition-sets denoted by each CP disjunct. As a result, the denotation of an AltQ comes out as the set of two propositions, each expressed by a clausal disjunct: $[[TP_1\ Q\ soretomo\ TP_2\ Q]] = \lambda p.[p = [[TP_1]] \vee p = [[TP_2]]]$. This question denotation corresponds to that in Hamblin (1973), i.e., the set of possible answers to the question. The Hamblin denotations can be converted into the strongly exhaustive answer by the Answer2 operator from Heim (1984), which can be further modified to encode the uniqueness presupposition of AltQs.

Cross-linguistic typology: We have seen that Japanese AltQs are always underlyingly disjunctions of polar questions. This means that a disjunction underlyingly c-commanded by a Q-operator can never receive an AltQ reading in Japanese. This is in contrast with a language like English, where a disjunction can covertly move above the Q-operator to derive an AltQ reading (See Nicolae 2013 for a recent argument for this view). This means that languages differ in whether they allow DisjPs to out-scope the Q-operator at LF. In fact, this variation in the scopal property can be found *within* a language: *who* and *someone* in English are both existentials in Karttunen's semantics, but the former always scopes out a Q-operator while the latter never does. Taking the presence of the WH-feature as the necessary and sufficient condition for an item to scope-out the Q-operator at LF, we can capture the cross-linguistic difference in terms of the [WH]-feature on the Disj-head. Japanese is a language where the Disj does not bear the feature while English is a language where it optionally does. To push the view further, this typology predicts that there are languages with two disjunction markers, one with and one without [+WH], i.e., a Disj-head that only occurs in an AltQ and a Japanese *ka*-type Disj-head that never licenses an AltQ. This is what we observe in languages like Basque and Arabic (Haspelmath 2007, George 2011). The typology can be summarized as follows:

(7)	[+WH]	[-WH]	examples
English, German	α	α	$\alpha = or$
Basque, Arabic	β	α	$\alpha = edo, \beta = ala$
Finnish, Mandarin	α, β	α	$\alpha = tai, \beta = vai$
Japanese, Korean	—	α	$\alpha = ka$

The contribution of the current paper with respect to this typology is to show that Japanese AltQs exhibit a typological feature that has not been explicitly described before. Namely, there is no Disj-head in the language that bears the [+WH] feature, and thus the AltQ-interpretation can be derived only by way of disjoining PolQs.

Selected References: Beck & Kim 2006. J. Comp. German. Linguist 9 ◊ George 2011. UCLA diss. ◊ Han & Romero 2004. *NLLT* 24 ◊ Nicolae 2013 NELS 44 ◊ Pruitt & Roelofsen 2011. Online ms.