The movement of question particles

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1. The proposal

The question particle undergoes syntactic movement from a clause-internal position (by the wh-word) to the clause periphery (in the complementizer system).

2. Evidence, part one: Intervention effects in Japanese

Assume:
Movement obeys Attract Closest.

Scheme:
Put an eligible alternative to Q along the path of movement.

This should interfere with the movement.

Some intervenors for attraction of ka 'Q':

- disjunction particle ka
- indefinite-forming particle ka

And, indeed: Another -ka cannot be on the path of Q-movement (noticed by Hoji 1985).

3. Evidence, part 2: Island effects in Japanese—or a lack thereof

Islands block movement, yet Japanese allows wh-words in islands...

So if ka is moving, it must be moving from outside...

Whoa—does this mean islands are useless for diagnosing movement?

Well, no—but we have to be more clever.

Suppose: Emphatic ittai locates the launching site of ka.

(11) ill-formed as expected.

(12) is fine.

4. Combining islands and intervention effects

Idea:
- Independent -ka blocks Q-movement (“intervention effect”)
- Q-movement takes place from outside of islands.
- Therefore, Q-movement should be insensitive to intervenors inside island

Embed “intervention effect” in an island and it becomes well-formed, cf. (4) on previous page.

(13) Mary-wa [John-ka Bill-ga nani-o katta ato de] dekakemasita ka?
Mary-TOP John-NOM Bill-ACC what-ACC bought after left.POLITE Q
5. Ok, maybe you’re right about Japanese, but so what?

Well, this isn’t just about Japanese.

- “Q-movement” happens in other languages.
- There may be a semantic motivation for it.

**Sinhala**: Indo-European (Sri Lanka),
SOV language with scrambling,
wh-in-situ

| (14) Mary-wa [nani-o, John-ka Bill-ga t, katta ato de] dekakemasita ka? | Question word remains in situ | Japanese 
Mary-TOP what-ACC John- or Bill-NOM bought after left.POLITE Q

| (15) Chitra mokak do gatta? | Premodern Japanese and (Shuri) Okinawan look a lot like Sinhala in these respects too.

| Chitra what Q bought-E | ‘What did Chitra buy?’

Sinhala do (16) corresponds to Japanese ka (17): Reason one: Wh+Q = Indefinite


| Chitra what Q bought | Who-Q-NOM book-ACC bought.POL

Sinhala do (18) corresponds to Japanese ka (19): Reason two: declarative+Q = y/n question


| Chitra that book bought Q | Taroo-NOM book-ACC bought.POL Q

Sinhala do (20) corresponds to Japanese ka (21): Reason three: Q used for disjunction

| (20) mahunattea tee da koopi da oona? | (21) John-ka Bill-(ka)-ga hon-o katta. | ‘Do you (sir) want tea or coffee?’ ‘John or Bill bought books.’

| gentleman-DAT tea Q coffee Q necessary | John-ka Bill-(ka)-gaga hon-o katta. | ‘John or Bill bought books.’

So: We have identified do as an analog in Sinhala to Japanese ka.

But do sits inside the clause, while Japanese ka sits at the periphery.

6. Evidence for Q-movement in Sinhala

First of all, sometimes do appears overtly at the clause periphery in Sinhala—
but at the expense of -e morphology on the verb.

| (22) Ranjit [kau do aawe kiyala] dannawa. | da ... aawe | Also: notice that the -e morphology only appears when do is not after the verb.

| Ranjit who Q came-E that know | ‘Ranjit knows who came.’

| (23) Ranjit [kauru da aawa kiyala] dannawa. | ... aawa da |

| Ranjit who came Q that know | ‘Ranjit knows who came.’

That -e morphology determines the scope of the question word

| (24) Ranjit [kau da aawe kiyala] dannawa. | -e marks embedded verb => embedded question |

| Ranjit who Q came-E that know | ‘Ranjit knows who came.’

| (25) Ranjit [kau da aawe kiyala] dannawa. | -e marks matrix verb =>matrix question |

| Ranjit who Q came-E that know | ‘Who does Ranjit know came?’

What could look more like feature-driven movement?

**Idea:** -e is a morphological reflex of the feature which will drive movement (attraction) of Q. Where Q goes is tied to its semantic scope.
So | do in Sinhala and ka in Japanese are the same thing, following the same route.
But | we can see in Sinhala where Q moves from, something we can’t see in Japanese.
Well | when a wh-word is inside an island, does Q really move from outside?
We deduced that it must from looking at Japanese—but in Sinhala we can see it directly:

Sinhala: Question words allowed in islands—but only if do is immediately outside the island.

(26) * [Chitra monawa do kana ko] Ranjit pudumane eee?
  Chitra what Q ate when Ranjit surprise became-E
  (‘Ranjit was surprised when Chitra ate what?’)

(27) [Chitra monawa kana ko] da Ranjit pudumane eee?
  Chitra what ate when Q Ranjit surprise became-E
  ‘Ranjit was surprised when Chitra ate what?’

Look… Sinhala provides overt evidence for the syntactic structure we could only infer in Japanese.

7. Multiple questions

If Q “starts by the wh-word,” what happens in multiple questions?

Specifically, there’s only one ka in (28). Where does it move from? By which wh-word?

(28) dare-ga nani-o kaimasita ka?
  who-NOM what-ACC bought.POLITE Q
  ‘Who bought what?’

Again, we can turn to Sinhala to help answer this question—

(29) a. [kauru mokak do kieue kiyola] dannawa do?
    who what Q read-E that know Q
    ‘Do (you) know who read what?’

(27) da

(27) b. * [kau do mokak kieue kiyola] dannawa do?
    who Q what read-E that know Q
    (‘Do (you) know who read what?’)

7. Q and the pair-list question

Suppose we force the situation in Japanese by putting two wh-words inside an island.
We know Q can’t get out of an island—it can’t start by either wh-word in this case. Rather, it will have to start outside of the island.

(32) Taroo-ga [dare-ga nani-o katta toki-ni] okotta no?
  Taro-NOM who-NOM what-ACC bought when got.angry Q
  ‘Taroo got angry when who bought what?’ (*PL, SP)

(32) is grammatical—
  but can only be answered with a single pair of person and purchased item.

It appears that having Q start out by the lower wh-word is crucial to getting the PL reading.

How is it that Q has to start with the lower wh-word? Why must it be attached there?

Speculative answer: It’s an economy condition, which works like this:

If a wh-word is merged into the representation (the structure being built from the bottom up) and a Q is available in the “numeration”, merge it immediately.

The intuition: Introducing a wh-word causes a great deal of “work” until Q is merged.
That’s pretty vague—what is Q anyway? And what’s so hard about a wh-word?

Recall that Q appears (16–21) in several contexts. It is not directly linked to interrogativity:
- questions in Japanese need not have ka—recall (9).
- ka can appear in non-questions—e.g. in the declarative (17) (with dareka ‘someone’).

A rapid sketch of the semantics of Q and wh-words developed in Hagstrom (1998).

Following Hamblin (1973),
- interpret a wh-word as a set of individuals.
- interpret a question as a set of propositions.
- allow function application to be “flexible”

Since dare ‘who’ and ka ‘Q’ are both in wh-questions and in indefinites (like dareka ‘someone’), and I dare || is a set of individuals, what must ka mean?

Proposal: Q introduces existential quantification over choice functions.

So:  
\[ \lambda p.\exists f.p=f(\ [\ [\ [\ {\ \text{who} } ] ] ) \left\text{left,} \right. \]
and 
\[ \lambda p.\exists f.p=f(\ [\ [\ [\ {\ \text{someone} } } ] ] ) \left\text{left.} \right. \]

Syntactic movement of Q creates a chain. The syntactic location of the top of the chain (where Q moves to) determines the scope of the existential quantifier ( \( \exists f \)), and the syntactic location of the bottom of the chain (where Q starts from) determines where the choice function variable ( \( f \)) is (e.g., by who).

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8. So...

Q-movement…
- seems to happen in several—unrelated—languages.
- may be a crucial part of the semantics of questions and indefinites.

So, it may in fact be a general fact about language(s)—even where you can’t see it happening.
(See Bošković 1998 for an attempt to extend this to English).

References and pointers


This poster is a condensed version of parts of Hagstrom (1998)—see there for elaboration.


91.
92.
93.
9. More languages

Navajo Q: “Second position” or on the wh-word. In multiple questions only one Q allowed:

(33) a. Jáan háí-lá yiyiiltsą?  
  John who-Q 3.3.saw  
  ‘Who did John see?’  
  (Schauer 1979:197)

b. Jáan lá háí yiyiiltsą?  
  John Q who 3.3.saw  
  ‘Who did John see?’  
  (Barss et al. 1991:34)

(34) a. * háí-lá ha’át’íí nayiisnii’?  
  Who-Q bought what-
  ‘Who bought what?’  
  (Peggy Speas, p.c.)

b. háí-lá ha’át’íí nayiisnii’?  
  Who-Q what bought  
  ‘Who bought what?’  
  (Schauber 1979:197)

(35) a. sisi husu-to tare-ka kono koto oomae-ni maosu.  
  beast lie-PAST-C book-NOM tell-
  ‘Who reported to the Emperor that beasts were lying?’  
  (Nihon Shoki [720]:75, Ogawa 1977:221)

b. tare-ka mata hanatatibana-ni omoi-idenu.  
  Who-Q again flower.orange-DAT remember-PAST-C  
  ‘Who will again remember (me) at the time of the mandarin orange flower?’  
  (Shin Kokin Wakashū [1205]:3, Ogawa 1977:222)

(36) tare-ka mata hanatatibana-ni omoi-idenu.  
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  ‘Who will again remember (me) at the time of the mandarin orange flower?’  
  (Shin Kokin Wakashū [1205]:3, Ogawa 1977:222)

(37) [ika yoo naru kokorozasi aramu hito-ni]-ka awamu to obsu.  
  [What kind of love, do you think you would want to marry a person that has t]  
  (Taketori Monogatari [c. 900], Ogawa 1977:216, Whitman 1997:166)

Shuri Okinawan: Has kakari-musubi like premodern Japanese (in embedded questions—matrix questions like Japanese, with Q at the end).

(38) a. wan-ya [Taruu-ga nuu-GA kam-yi-ra] chichibusaN.  
  I-TOP Taru-NOM what-Q eat-PRES -C want-to hear-
  ‘I want to hear what Taru eats.’  
  (~Sugahara 1996:236-7)

  I-TOP what-NOM-Q apple eat-PRES -C want-to hear-
  ‘I want to hear who eats apples.’  
  (Schauber 1979:197)

  I-TOP who-Q write-PAST-C book-PAST-C want-to listen-while-
  ‘(I wonder) who Taru is reading the book written by.’  
  (Sugahara 1996:240-2)

  I-TOP who-Q listen-while study doing-
  ‘Who is studying while listening to.’  
  (Sugahara 1996:240-2)

  I-TOP what listening-while-Q study doing-
  ‘(I wonder) what Taru is studying while listening to.’  
  (Sugahara 1996:240-2)

  I-TOP what-Q study doing-
  ‘Who is studying while listening to.’  
  (Sugahara 1996:240-2)

  who-TOP what-Q listen-while-Q study doing-
  ‘Books that who wrote did you read?’  
  (Miyara 1998:34)
10. Morphology?

In Japanese and Sinhala, things were very pretty.

**Sinhala:** dą is Q.
- Q forms yes-no questions.
- Q forms wh-questions.
- Q forms indefinites with wh-words.
- Q forms disjunctions in alternative questions.

**Japanese** -ka is Q
- Q forms yes-no questions (suppose no=no desu ka)
- Q forms wh-questions.
- Q forms indefinites with wh-words.
- Q forms disjunctions.

**Obvious hypothesis:** Q is a universal category that:
- forms yes-no questions
- forms wh-questions
- forms indefinites with wh-words
- forms disjunctions.

However, the crosslinguistic morphological evidence is not so clear.

Already, there's a question in Sinhala:

- Why is the disjunctive capacity of Q limited to alternative questions?

In declaratives, you use -hari, e.g., “A-hari B-hari” “either A or B”.
- WH+hari = ‘someone or other (nonspecific)’
- This probably means WH+dą at least can mean ‘someone (specific)’.
- Japanese dareka can mean ‘someone (specific)’
- Maybe Q is specific, alternative questions use specific disjunction.

So, Japanese fails to make a distinction that Sinhala makes.

That is, the nonspecific indefinite (analog of -hari) accidentally happens to be “-ka” too.

Quite a bit of variation… WH or WH+PRT as ‘anyone’; someone not morphologically related to who, etc., … Many questions here. E.g., does WH+OR yield indefiniteness inherently, or did X (perhaps be or want) evolve separately to indefinites and to ‘or’? (Hасpelmath 1997).

11. Korean ≠ Japanese…?

**nwukwu** ‘who’ **nwukwuna** ‘anyone (free choice)’

- A-(i)na B-(i)na ‘A or B’
- **Maybe** Korean -na corresponds to Sinhala -hari.
- **nwukwu-nka** ‘someone’ suggests that Q is -nka.

**Alternative questions seem not to exist in Korean—[according to a grammar]**

- (formed another way: i cha-nun mikwuk cha ni, yengkwuk cha ni? ‘this car America car Q England car Q’ ‘Is this car American or British?’)
- [Note: we’d have expected -nka to do disjunction in alternative questions.]
- [Note also: we’d expect nwukwu-nka to (be able to) mean ‘someone (specific)’]
- Matrix Q (familiar): -na, -((nu)nka. [there are several others though…]
- [I don’t know what conditions -na vs. -nunka—is this a problem?]