

Building questions

Workshop

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1 Preliminaries

1.1 The plan

Foolish optimism about the passage of time

- Variation in question formation (introducing *wh*-in-situ)
- “Q” particles and their movement in questions
- Intervention effects and their source
- Interpretation and types of Q
- Brief notes on *wh*-movement

1.2 Variation in question formation

Question formation in English

In English, *wh*-questions are formed by moving the *wh*-word to the front.

- (1) a. Pat called Chris.
b. $\overbrace{\text{Who}_i \text{ did Pat call } t_i}^{\downarrow}$?

Why does this happen?

Wh-movement in service of the semantics?

The commonly accepted semantic interpretation of questions (Karttunen 1977) winds up looking something like this:

- (2) $\lambda p. \exists x. \text{human}(x) \wedge p = \text{Pat called } x$
who did Pat call t

Of note: The x after *called* is where the syntactic trace is, and the contribution of *who* ($\exists x. \text{human}(x)$) is “outside” the proposition. The logical form seems to line up with the semantics. Maybe *who* moves in order to provide the right logical structure for interpretation.

Variation in syntactic *wh*-movement

However, languages differ with respect to *wh*-movement.

***Wh*-movement** English: move one *wh*-word, leave the rest behind.

Multiple *wh*-movement Bulgarian: move all *wh*-words.

***Wh*-in-situ** Japanese: leave all *wh*-words in their usual position.

If just semantics were driving *wh*-movement, all languages would be like Bulgarian.

Are all languages abstractly like Bulgarian?

For a long time, the tradition has been to suppose that all languages *are* like Bulgarian, but secretly (Huang 1982): All *wh*-words *do* move to the front (say, to the specifier of CP), but in some languages, this movement is abstract, “covert.” Derivationally:

- Structure is built using grammatical roles and argument structure
- Some syntax may happen (movement, etc.)
- A picture is taken of the tree in progress (“S-structure”).
- If there are still things to do to enable interpretation, they are done (“covert movement”).
- The tree is submitted for interpretation (“Logical Form”).
- The picture is submitted for pronunciation (“Phonetic Form”).

Variation as timing

This way, language variation can be explained in terms of how languages compose the interrogative scene—what needs to be in place before the picture is taken?

English Take the picture once you’ve got a *wh*-word in SpecCP.

Bulgarian Take the picture once all the *wh*-words are where they belong.

Japanese I’m in a hurry, just take the picture now.

Ultimately, on this view, the structure at LF is the same across these languages, but the “window” we get into the derivation is placed differently.

1.3 Discrepancies between overt and covert movement

Is covert movement “movement”?

Overt movement cannot escape syntactic “islands”—yet *covert* movement seems able to.

- (3) a. Pat choked [after Chris introduced Tracy to Robin].
b. * Who_i did Pat choke [after Chris introduced t_i to Robin]?
c. Who choked [after Chris introduced who(m) to Robin]?
- (4) a. Pat kissed the guy who introduced Chris to Tracy.
b. * Who_i did Pat kiss [the guy who introduced t_i to Tracy]?
c. Who kissed the guy who introduced who(m) to Tracy?

Segue

Fully *wh*-in-situ languages like Japanese also have this property—*wh*-words are allowed in islands.

- (5) Mary-wa [John-ga nani-o yomu mae-ni] dekaketa no?
Mary-TOP John-NOM what-ACC read before left Q
‘Mary left before John read what?’

The remainder of this workshop will focus primarily on how to understand the connection between the syntax, semantics, and morphology in *wh*-in-situ languages, with the hope that we can bring it back to *wh*-movement languages as well. First: the morphology.

2 Q-movement

2.1 A “question particle” in Japanese and Sinhala

The starting point here is the observation of how questions and indefinites are formed in Japanese as compared to Sinhala. Both languages form polar questions and *wh*-questions with the help of a question particle (*ka* in Japanese, *də* in Sinhala), and both languages form indefinite pronouns by attaching this question particle to a *wh*-phrase. The different positioning of the question particle in the *wh*-questions in (8) and (12) will be of some interest as we move forward.

Questions and indefinites in Japanese

- (6) Taroo-ga hon-o kaimasita.
Taro-NOM book-ACC bought.POL
'Taro bought a book.'
- (7) Taroo-ga hon-o kaimasita ka?
Taro-NOM book-ACC bought.POL Q
'Did Taro buy a book?'
- (8) Taroo-ga nani-o kaimasita ka?
Taro-NOM what-ACC bought.POL Q
'What did Taro buy?'
- (9) Taroo-ga nani-ka-o kaimasita.
Taro-NOM what-Q-ACC bought.POL
'Taro bought something'

Questions and indefinites in Sinhala

- (10) Siri potək gatta.
Siri book-INDEF bought
'Siri bought a book.'
- (11) Siri ee potə gatta də?
Siri that book bought Q
'Did Siri buy that book?'
- (12) Siri mokak də gatte?
Siri what Q bought-E
'What did Siri buy?'
- (13) Siri mokak də gatta.
Siri what Q bought
'Siri bought something.'

Equating *ka* and *də*

The similarities in the distribution of *ka* in Japanese and *də* in Sinhala suggest that it is—abstractly—the same morpheme.

- (14) John-ka Bill-(ka-)ga hon-o katta. Japanese
John-Q Bill-(Q-)NOM book-ACC bought
'John or Bill bought books.'
- (15) mahatteəṭə tee də koopi də oonə? Sinhala
gentleman-DAT tea Q coffee Q necessary
'Do you want tea or coffee?'

2.2 Movement of *ka* in Japanese

Japanese *ka* can be in various places (indefinite meaning)

The component parts of *dareka* are relatively independent (Nishigauchi 1990; Yatsushiro 2001; Takahashi 2002; Shimoyama 2006)

- (16) [[Dare-ka-o hihansita] hito]-ga John-o hometa.
who-Q-ACC criticized person-NOM John-ACC praised
'A person who criticized someone praised John.'
- (17) [[Dare-o hihansita] hito]-ka-ga John-o hometa.
who-ACC criticized person-Q-NOM John-ACC praised
'Someone or other who had criticized someone praised John.'
- (18) [[Dare-no hahaoya-ka-no] kaban]-wa koko-ni aru.
who-GEN mother-Q-GEN bag-TOP here-LOC is
'The bag of the mother of someone or other is here.'

And if *ka* is at the end, it's a question.

Q-movement

- (8) Taroo-ga nani-o kaimasita ka?
Taro-NOM what-ACC bought.POL Q
'What did Taro buy?'

Syntactic proposal (Hagstrom 1998) for questions in Japanese is that *ka* moves (cf. also Tonoike 1992; Yanagida 1995; Cable 2007):

- (19) dare-ga t_j hon-o kaimasita ka_j

This would make Sinhala a “Q-in-situ” language:

- (12) Siri mokak də gatte?
Siri what Q bought-E
'What did Siri buy?'

2.3 Japanese, Sinhala, islands, and history

Earlier stages of Japanese had a question-forming construction called *kakari-musubi*, which could be construed as a kind of “Q-in-situ” version of modern Japanese (modern generative discussions of this connection can be found in, e.g., Tonoike 1992; Sumangala 1992; Yanagida 1995; Hagstrom 1998. See also Whitman (1997).

A descriptively similar construction exists in Sinhala, which employs the particle *də* in much the same range of cases as Premodern Japanese employs *ka*. This connection has been widely remarked on, as has the similarity to Premodern Japanese. (Gair 1970, 1983; Gair & Sumangala 1991; Sumangala 1992; Kishimoto 1992, 2005; Yanagida 1995; Kariyakarawana 1998)

Q-moved or in situ: Sinhala

- (20) kiidenek də enne?
how.many Q come-E
'How many (animate) are coming?'
- (21) kiidenek enəwa də?
how.many come Q
'How many (animate) are coming?'
- (22) Ranjit [kau də aawe kiyəla] dannəwa.
Ranjit who Q came-E that know
'Ranjit knows who came.'
- (23) Ranjit [kauru aawa də kiyəla] dannəwa.
Ranjit who came Q that know
'Ranjit knows who came.'

In “Q-in-situ” languages: Q can’t be in an island

Kishimoto (1992, 2005) shows that *də* can’t be inside an island (only on the beach).

(24) *oyaa [kau də liyəpu potə] kieuwe?
you who Q wrote book read-E
(‘You read the book that who wrote?’)

(25) oyaa [kauru liyəpu potə] də kieuwe?
you who wrote book Q read-E
(‘You read the book that who wrote?’)

- Covert movement (at least of this) must respect islands.
- The fact that the *wh*-word is in island seems not to matter.
- The interrogative complementizer has some connection to Q.

Q-in-situ: Premodern Japanese

In earlier stages of Japanese, questions were formed with *ka* inside the clause, and with the verb in a special form.

(26) sisi husu-to tare-ka kono koto oomae-ni maosu.
beast lie-QUOT who-Q this thing Emperor-DAT say-M
(‘Who reported to the Emperor that beasts were lying?’)

And—look where *ka* is when the *wh*-word is in an island.

(27) [ika yoo naru kokorozasi aramu hito-ni]-ka awamu to obosu.
how kind is love have person-DAT-Q wed that think-M
(‘[What kind of love]_i do you think you would want to marry a person that has *t_i*?’)

Accounting so far

In support of the idea that *wh*-in-situ languages involve movement of this Q-particle that appears at the end of, e.g., Japanese questions, we have so far:

- Identified *ka* in Japanese with *də* in Sinhala (and *ka* in Premodern Japanese).
- Seen that these particles are inside the clause in the latter two.
- Seen that when the particle is inside the clause, the verb has a special inflection.
- Seen that they cannot be within movement islands—suggesting movement.

3 Intervention effects

3.1 The interference

Another piece of evidence of movement are “intervention effects.” Hoji (1985) may have been the first to notice these in Japanese. Japanese is generally relatively free with its word order (although heads are quite strictly final). The subject and object can be flipped around freely. Unless one is an intervenor, like “John-ka Bill”.

Freedom, curtailed

- (28) a. John-ga nani-o nomimasita ka?
John-NOM what drank Q
'What did John drink?'
- b. nani-o John-ga nomimasita ka?
what John-NOM drank Q
'What did John drink?'
- (29) a. ?* [John-ka Bill]-ga nani-o nomimasita ka?
John-or Bill-NOM what-ACC drank Q
'What did John or Bill drink?'
- b. $\sqrt{\text{[John-ka Bill]-ga } t_i}$ nanimasita ka?
what John-or Bill-NOM drank Q
'What did John or Bill drink?'
- c. dare-ga [sake-ka biiru(-ka)]-o nomimasita ka?
who-NOM sake-or beer(or)-ACC drank Q
'Who drank either sake or beer?'

Accounting for the intervention effect

There are a couple of ways the intervention effect has been accounted for.

Syntactic A syntactic minimality constraint. (Hagstrom 1998)

Semantic A semantic problem related to focus. (Beck 2006)

Pragmatic A pragmatic problem involving topicalizing something ineligible. (Tomioka 2007)

3.2 The syntactic account

The intervenors in Japanese

Looking in Japanese at what the intervenors are, it seems that things containing *ka* are intervenors (Miyagawa 1998).

- *Dareka* 'someone'
- *X-ka Y* 'X or Y'
- *X-sika...nai* 'except...not' ['only']

Another way to say that might be: *ka* (Q) can't cross another *ka* on its way to the clause edge. That sounds like syntactic intervention.

C-command

Also: the intervenor must c-command the *wh*-word:

- (29a) ?* [John-ka Bill]-ga nani-o nomimasita ka?
John-or Bill-NOM what-ACC drank Q
(‘What did John or Bill drink?’)
- (30) [[John-ka Bill-ga] atta hito]-ga nani-o motte kita no?
John-or Bill-NOM met person-NOM what-ACC brought Q
(‘What did the man John or Bill met bring?’)

Expectations about islands

Given the previous observation that Q starts at the edge of islands, if intervention effects arise from movement of Q over an intervenor, they should disappear in islands.

- (31) ... [island ... *wh* ...] t_j ... ka_j

Expectations met

- (32) Mary-wa [[John-ka Bill]-ga nani-o katta ato de] dekaketa no?
Mary-TOP John-or Bill-NOM what-ACC bought after left Q
(‘Mary left after John or Bill bought what?’)
- (33) Mary-wa [nani- o_i [John-ka Bill]-ga t_i katta ato de] dekaketa no?
Mary-TOP what-ACC John-or Bill-NOM bought after left Q
(‘Mary left after John or Bill bought what?’)

What is an intervenor?

It is not just *ka* that acts as an intervenor

- (34) a. ?? daremo-ga nani-o kaimasita ka?
everyone-NOM what-ACC buy Q
(‘What did everyone buy?’)
- b. nani- o_i daremo-ga t_i kaimasita ka?
what-ACC everyone-NOM buy Q
(‘What did everyone buy?’)
- (35) a. ?* John-wa Mary-ni-sae nani-o okutta no?
John-TOP Mary-DAT-SAE what-ACC sent Q
(‘What did John send even to Mary?’)
- b. nani- o_i John-wa Mary-ni-sae t_i okutta no?
what-ACC John-TOP Mary-DAT-SAE sent Q
(‘What did John send even to Mary?’)

What isn't an intervenor?

But figuring out what exactly makes an intervenor may be difficult. We *hope* it isn't simply diacritic.

- (34a) ?? daremo-ga nani-o kaimasita ka?
everyone-NOM what-ACC buy Q
(‘What did everyone buy?’)
- (36) ano mise-de-wa minna-ga nani-o katta no?
that store-at-TOP everyone-NOM what-ACC bought Q
(‘What did everyone buy at that store?’)
- (37) ?* [dare-no tegami-sae]-ga nakunatta no?
who-GEN letter-even-NOM disappeared Q
(‘Even whose letter disappeared?’)
- (38) [dare-no tegami-made]-ga nakunatta no?
who-GEN letter-even-NOM disappeared Q
(‘Even whose letter disappeared?’)

And also—the intervention effect occurs well beyond just Japanese.

Qs in a pod

Beck (1996); Beck & Kim (1997) originally considered the intervention effect as being a property of quantifiers. But they vary somewhat across languages. Beck (2006) gives the list in (39) as the most cross-linguistically stable set.

- (39) only, even, also, not, (almost) every, no, most, few (and other nominal quantifiers), always, often, never (and other adverbial quantifiers)

Other intervention effect examples

A couple of samples from a list in Beck (2006):

- (40) a. * Kim-se kim-ı görmedi? Turkish
who-COND who-ACC see-NEG-PAST
(‘Whom did nobody see?’)
b. Kim-ı kim-se görmedi?
who-ACC who-COND see-NEG-PAST
(‘Whom did nobody see?’)
- (41) a. ?? koi nahiiN kyaa paRhaa Hindi
anyone not what read-PERF.M
(‘What did no one read?’)
b. kyaa koi nahiiN paRhaa
what anyone not read-PERF.M
(‘What did no one read?’)

3.3 The semantic account

Intervenors involve focus (Beck 2006)

- Beck (2006) (following Beck & Kim 1997) proposes that intervenors are **focused**.
- Specifically, the semantic interpretation of focus interferes with the semantic interpretation of questions.
- Note: This requires that everything that appears to be an intervenor is focus-related (makes use of focus alternatives) and everything that isn't doesn't. It's not completely clear that this cuts things the right way.

The basics of the focus-interference account

- Rooth (1985) proposes a mechanism for interpreting focus marking (a diacritic feature on a constituent) that triggers the creation of a “focus value”—a semantic value that is maintained in parallel to the “ordinary” semantic value describing the truth conditions of a sentence.
- Rooth was also concerned with building up the meaning compositionally in a way that did not require movement of the focused constituent, because association with focus does not seem to be constrained by syntactic islands.

Focus interpretation

(42) Pat only invited CHRIS.

(43) $[[\text{CHRIS}]]^0 = \text{Chris}$

(44) $[[\text{CHRIS}]]^f = \{\text{John, Mary, ...}\}$

(45) $[[\text{invited CHRIS}]]^0 = \text{invited Chris}$

(46) $[[\text{invited CHRIS}]]^f = \{\text{invited John, invited Mary, ...}\}$

Rooth's idea was that the ordinary predicate here is just *invited Chris*, true of people who invited Chris. But the focus on *Chris* induces a set of alternatives to *Chris*, such that the focus value of *CHRIS* is a set of individual alternatives: $\{\text{John, Mary, Tracy, ...}\}$. Composing *invited* with a set of alternatives (instead of a single individual) yields a set of predicates: $\{\text{invited John, invited Mary, ...}\}$ —this is the focus value.

The \sim operator

(42) Pat only invited CHRIS.

The semantics of *only* makes use of the \sim operator. Here the \sim operator:

- takes the ordinary value and the focus value and passes the focus value to *only*
- provides an ordinary value that matches the ordinary value
- provides a focus value that is reset to the ordinary value.

So *only* uses the focus value passed to it by \sim and will be true if the alternatives to *Pat invited Chris* are all false.

A Hamblin semantics for questions

Meanwhile, let's consider what a question means. Hamblin (1958) proposed that we take questions to characterize the propositions that can serve as answers to the question. The implementation from Hamblin (1973) takes the semantic value of (47) to be essentially a set of propositions, one for each alternative invitee: {Pat invited Chris, Pat invited John, ...}.

(47) Who did Pat invite?

In other words, it's basically the ultimate focus value of *Pat invited CHRIS* if there were no \sim to collapse it.

Beck's (2006) proposal

- *Wh*-words are a very special case of focus: They are intrinsically focused items whose ordinary semantic value is undefined.
- Interrogative C is an operator like \sim that takes the focus semantic value and turns it into an ordinary semantic value.
- Crucially: Interrogative C doesn't care what the ordinary semantic value is, it just takes the focus value. \sim , on the other hand, refers to the ordinary value—and so its result will be undefined if what it is interpreting has no defined ordinary value.
- Conclusion: You cannot grammatically have a \sim between a *wh*-word and an interrogative C.
- Conclusion: Intervenors are focus-related, they introduce a \sim , that will crash the semantics if between the *wh*-word and C.

3.4 The pragmatic account

Tomioka's take

Tomioka (2007) claims that intervention effects are essentially pragmatic (kind of in cahoots with prosody), although that may not be entirely the right characterization. What he actually claims is that the property that intervenors share is an inability to be topics.

Tomioka points out that the grammaticality judgments on intervention effects are “notoriously subtle, and the variability among native speakers is vast. Although there is no denying that the scrambled version is better than the unscrambled counterpart, some feel that the unscrambled example is merely marginal, while others find them bad enough to label them as ‘ungrammatical’.”

Antitopicality

- Intervenors are things that can't be topics (“anti-topic items”).
- Japanese sentences are organized thus: (topic)... focus... tail.
- *Wh*-word signals the focus.
- Putting an ATI before *wh*-words forces them into a topic position.

- This explains the flaky judgments.
- And the ameliorating effect of embedding.

Embedded

Tomioka claims that intervention effects disappear in *all* embedded contexts (not just in islands). Judgments according to Tomioka (2007):

- (48) ? Kimi-wa [_{CP} daremo nani-o yom-ana-katta-to] omotteiru-no?
 you-TOP anyone what-ACC read-NEG-PAST-COMP think-Q
 ‘What do you think that no one read?’
- (49) Kimi-wa [_{CP} daremo-ga nani-o yon-da-to] omotteiru-no?
 you-TOP everyone-NOM what-ACC read-PAST-COMP think-Q
 ‘What do you think that everyone read?’
- (50) Kimi-wa [_{CP} [John-ka Bill]-ga nani-o yom-ana-katta-to] omotteiru-no?
 you-TOP John-or Bill-NOM what-ACC read-NEG-PAST-COMP think-Q
 ‘What do you think that John or Bill read?’

But what are islands anyway?

The disappearance of intervention effects in embedded clauses, then, is just due to the disappearance of “topic-focus articulation” below the matrix clause. ST says that embedded subjects are not topic marked, but then footnotes that

According to a judgment often reported in the literature, topic-marking in embedded clauses is not so bad if the embedded clauses are complement CPs (of attitude verbs). In contrast, topic-marking within other embedded clauses, such as relative clauses, is significantly worse. This contrast is not so surprising if one believes in the ‘quotation’ theory of attitude verbs. If an embedded sentence is really an embedded quotation, the information structure might well survive under embedding.

3.5 Taking stock

Having looked at the syntactic, semantic, and pragmatic accounts, there are interesting points made by each of them, but I think the syntactic account still has some things in its favor.

- The syntactic account is the only one that gets the c-command and island facts.
- ... if they are in fact real—there is also a data dispute involved in the pragmatic account. I think they’re real though. Would be good to try to do some kind of experiment, maybe.
- The semantic account might paint too broad a stroke—though pretty much all of these accounts seem to ultimately need to rely on a diacritic.
- The pragmatic account relies a lot on what seems very Japanese-specific, but intervention effects seem to be quite broadly found.

4 Atomic morphosyntactico semantics

Back to *ka*: What does it mean?

Not only is *Q* at the end in Modern Japanese, and in the middle in Premodern Japanese and Sinhala, but that question particle seems to do a (same) bunch of other things too.

- (11) Siri ee potə gatta də?
Siri that book bought Q
'Did Siri buy that book?'
- (12) Siri mokak də gatte?
Siri what Q bought-E
'What did Siri buy?'
- (13) Siri mokak də gatta.
Siri what Q bought
'Siri bought something.'
- (15) mahatteatə tee də koopi də oonə?
gentleman-DAT tea Q coffee Q necessary
'Do you want tea or coffee?'

Focus constructions

- (51) Siri ee potə tamay gatte.
Siri that book FOC bought-E
'It was that book that Siri bought.'
- (52) Siri ee potə də gatte?
Siri that book Q bought-E
'Was it that book that Siri bought?'
- (53) Chitra ee potə kieuwa də?
Chitra that book read Q
'Did Chitra read that book?'
- (54) Chitra də ee potə kieuwe?
Chitra Q that book read-E
'Did *Chitra* read that book?'

Morphological series(es) in Japanese

Table from Shimoyama (2006).

Interrogative–indefinite affinities

In fact, this—having the same base for indefinites and question words—seems to be very common across languages (Ultan 1978; Haspelmath 1997; Bhat 2000).

E.g., Ryukuan (Shuri, Okinawan) (Sugahara 1996; Whitman 1997; Miyara 1998); Malayalam (Jayaseelan 2001); well, actually, more languages than not probably. So I won't list them all. In fact, I'll stop listing here.

interrogative			universal	existential	NPI <i>any</i>	FC <i>any</i>
da're	... ka	'who'	da're-mo	da're-ka	dare-mo	dare-de-mo
na'ni	... ka	'what'	(na'ni-mo)	na'ni-ka	nani-mo	nan-de-mo
do're	... ka	'which (one)'	do're-mo	do're-ka	dore-mo	dore-de-mo
do'no N	... ka	'which _{Det} '	do'no N-mo	do'no N-ka	dono N-mo	dono N-de-mo
do'tira	... ka	'which of the two'	do'tira-mo	do'tira-ka	dotira-mo	dotira-de-mo
do'ko	... ka	'where'	do'ko-mo	do'ko-ka	doko-mo	doko-de-mo
i'tu	... ka	'when'	i'tu-mo	i'tu-ka	—	itu-de-mo
na'ze	... ka	'why'	—	na'ze-ka	—	—
do'o	... ka	'how'	(do'o-mo)	(do'o-ka)	(doo-mo)	doo-de-mo

Table 1:

Existential *ka* and universal *mo*

Let's suppose that this is the same *ka* and the same *dare* in each of these places that we see it. What are they that they can do all of these things?

There is at least a simple sense in which *ka* is some kind of existential operator and *mo* is some kind of universal operator. Intuitively, this is easy to grasp. (I think Kuroda (1965) also said this.)

Something—what?

The specific proposal I made in Hagstrom (1998) was essentially that—it derived 'there is an x from the set of things such that Taro bought x ' for "Taroo ga nani-ka-o kaimasita" and '{ x : Taro bought x }' for "Taroo ga nani-o kaimasita ka?"—but yet, things aren't *really* that straightforward. It seems like Japanese collapses some distinctions that exist in Sinhala.

Some series in Sinhala

- (55) a. monəwa hari dannəwa.
 what hari know
 '(I) know something (and I'm not going to tell you what it is).'
- b. # monəwa də dannəwa.
 what Q know
 '(I) know something (but I can't remember what).'
- (56) a. Chitra kauru-t ekkə kataa kəlaa.
 Chitra who-T with talk did
 'Chitra talked with everyone.'
- b. Ranjit kaurun-ʈə-t gəhuwa
 Ranjit who-DAT-T hit
 'Ranjit hit everyone.'

- (57) miniha mokak-vat gatte nææ.
man(def.) what-T took-E NEG
'The man did not take anything.'
- (58) miniha mokak də gatta.
man(def.) what Q took
'The man took something.'

Morphological breakdown?

	Sinhala	Japanese
Form polar question Form <i>wh</i> -question Form alternative question Form specific indefinite from <i>wh</i> -word	<i>də</i>	<i>ka</i>
Form disjunction Form nonspecific indefinite from <i>wh</i> -word	<i>hari</i>	
Form universal quantifier from <i>wh</i> -word 'also' when suffixed to a noun 'both...and' when forming a coordination	<i>t</i>	<i>mo</i>
Form NPI from <i>wh</i> -word (under negation)	<i>vat</i>	

Distinctions among indefinites

There's more to indefinites than just "∃"—there can be restrictions on them that are more complex.

Farkas (2002) discusses a couple of cases; she proposes that English *a(n)* is an unconstrained indefinite. She notes other indefinites that have constraints: In Hungarian, reduplicated indefinites (*egy-egy ismerőst* 'an-an acquaintance') must be dependent on another quantifier. In Russian, the *nibud'* series (e.g., *kogo-nibud'* 'who-NIBUD') seems to have similar properties, according to Yanovich's (2005) description.

Haspelmath's categorization Haspelmath (1997) distinguishes several kinds of indefinites, including...

Negative English *nobody* seems to be in this category as well as *anybody*—which we'd also want to distinguish, presumably.

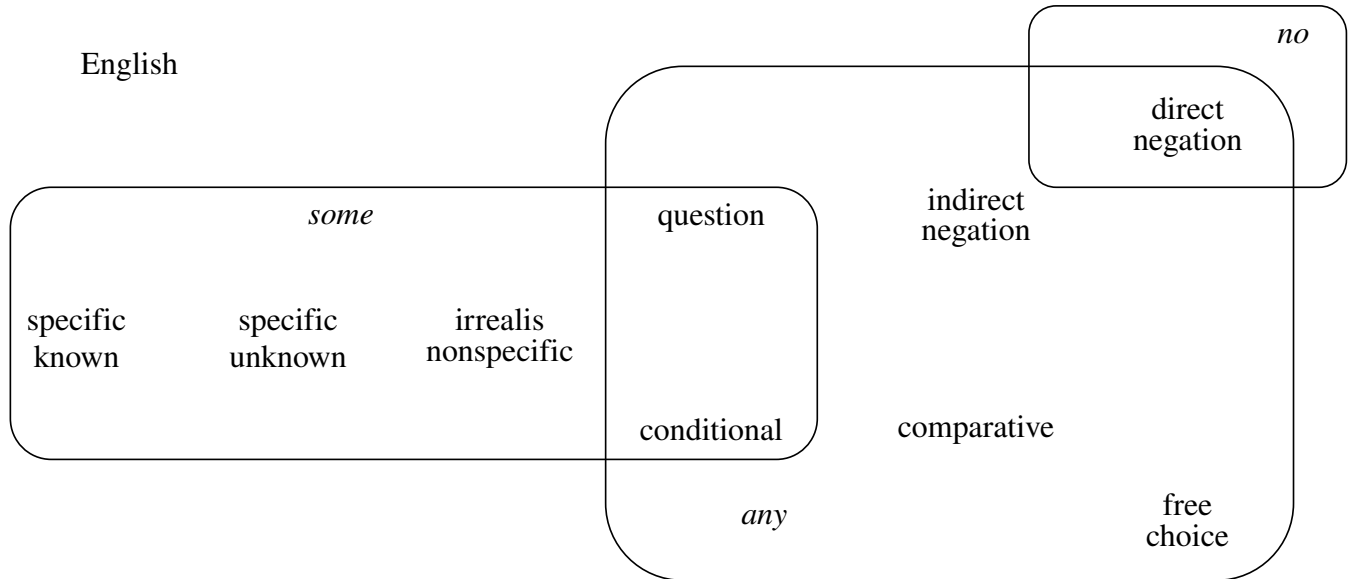
Specific Like English *a certain*, arguably...

Nonspecific Like English *someX or other*, arguably...

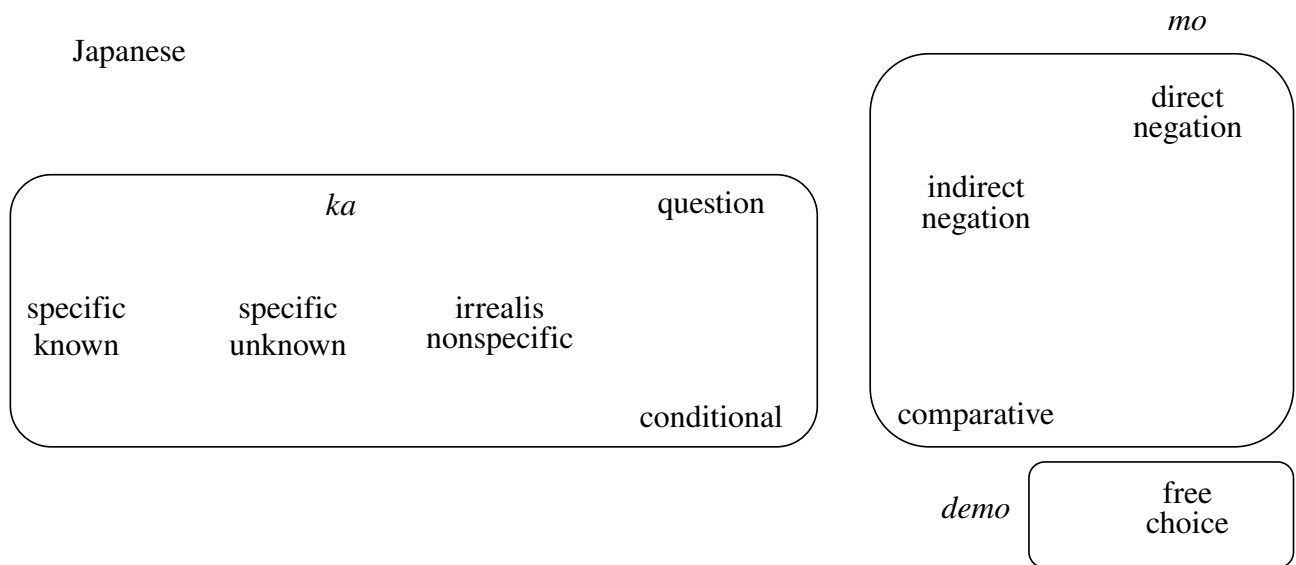
Unknown to the speaker Russian *wh-to* series

Free choice Pick any card.

Haspelmath's (1997) implicational map: English



Haspelmath's (1997) implicational map: Japanese



Er...

Ultimately, I don't at this point have much to offer but this observation: There must be many kinds of Q.

- How many kinds of Q are there?
- How do they interact?
- Which one is the one that forms questions? (Can we make a cross-linguistically reliable generalization?)
- Are different ones (ever) involved in different kinds of questions? Are they ever morphologically distinguished?

5 Beyond *wh*-in-situ

Back to English?

If Q is something general about question formation, what do we say about *wh*-movement languages like English?

Clearly, English has no audible Q particle. But can we find evidence of it?

Boskovic (2003) proposes that it is responsible for the pair-list reading required in English.

Correlations with the readings

There's very little chance that we'll actually make it to this point, so let me just be brief here.

In Hagstrom (1998), I proposed that the distinction between single-pair readings and pair-list readings of multiple-*wh* questions arose from different underlying positions of Q. Since there is only one Q per interrogative clause, it has to start by one of the *wh*-phrases, and if it starts by the lowest one, then the reading is pair-list.

Simple English multiple-*wh*-questions seem to require a pair-list reading, and Boskovic (2003) derived this by supposing that Q shares the feature of *wh*-phrases that causes them to move into SpecCP, the result being that a *wh*-phrase that moves to SpecCP must do so from above the Q particle.

Cable's Q

Cable (2007) has a somewhat different take on English—for Cable, *wh*-movement itself arise from Q-movement of a sort. It's Q-movement that takes the whole phrase that the Q is attached to. However, Cable assumes that there is an Q on every *wh*-phrase (not just one per clause) and doesn't have any proposal about what differentiates single-pair and pair-list readings.

The question here is perhaps open—perhaps too this is another place where we might be looking at different Qs—this time differentiated by whether they are associated with the interrogative clause or whether they are associated with the *wh*-phrases themselves. Notice, for one thing, they are *wh*-phrases. What is the *wh* part? (Cf. *where* vs. *there*, *when* vs. *then*, ...)

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