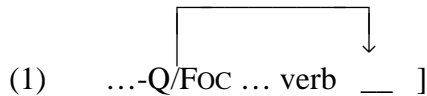


Particle movement in Sinhala and Japanese*

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In Sinhala (Indo-Aryan, Sri Lanka), focus and question constructions are formed with particles that attach to the focused phrase or question word. Although on the surface these particles are usually clause-internal, this paper presents evidence that these particles move before interpretation to the periphery of the clause. The idea is illustrated below in (1).



Along with strictly Sinhala-internal evidence, we will also consider evidence from Japanese, which (I will argue) shows the hypothesized particle movement in the surface syntax. That is, Sinhala and Japanese form a minimal pair with respect to whether the movement shown in (1) is “overt” (Japanese) or “covert” (Sinhala).

The syntactic structure of the focus and question constructions in Sinhala have been discussed in the previous literature, as has the potential similarity to Japanese. This paper builds on these works to varying degrees, primarily on Gair (1983), Gair & Sumangala (1991), Sumangala (1992), Kishimoto (1991, 1992, 1997, 1998), and Whitman (1997).¹

Questions in Sinhala are generally formed with the use of the ‘question particle’ *də*. Compare the declarative sentence in (2), the yes-no question in (3), and the *wh*-object question in (4). The yes-no question differs from the declarative only in that the yes-no question has a clause-final *də*. As for the *wh*-question in (4), there are three things to notice. First, there is no obligatory movement of the *wh*-word; it appears in canonical object position. Second, the question word—which remains clause-internal—is followed by the question particle *də*. Third, the verb in (4) appears in a special form, with a suffix that is glossed as ‘-E’.

- (2) Chitra ee potə kieuwa. *Sinhala*
Chitra that book read
‘Chitra read that book.’
- (3) Chitra ee potə kieuwa də?
Chitra that book read Q
‘Did Chitra read that book?’
- (4) Chitra **mokak də** kieuwe?
Chitra **what Q** read-E
‘What did Chitra read?’

Sinhala also has a focus construction which is formed in the same way as the *wh*-question above. In (5), the focus particle *tamay* follows the focused constituent, and the verb is marked with the ‘-E’ morphology.

* Acknowledgments to be added.

¹ It is worth indicating that Kishimoto (1998) has independently arrived at several of the same conclusions we reach here (for the most part unchanged from the proposal in Hagstrom 1998).

- (5) Chitra ee potə **tamay** kieuwe. Sinhala
 Chitra that book **FOC** read-**E**
 ‘It was *that book* that Chitra read.’

1. Cases where particle movement is overt

Under certain circumstances, the focus and question particles can appear at the right edge of the clause instead of in their clause-internal position. We will begin the argument for particle movement by looking at these cases; these are situations in which the proposed movement has happened overtly.

The next few examples are intended to show two things. First, there are two positions in which the question particle *də* can appear, clause-finally and clause-internally. Second, there is a correlation between the ‘-E’ marking on the verb and the clause-internal position for *də*. We will look at three cases in which *də* appears to have both positional options, internal or final. In each of these cases, we see that the ‘-E’ morphology appears when (and only when) *də* is clause-internal.

When a question is embedded under certain verbs, including *dannəwa* ‘know’,² *də* can appear either internally by the *wh*-word (6a) or peripherally (6b).^{3,4} Notice that the embedded verb is marked with ‘-E’ only in the first case.

- (6) a. Ranjit [**kau də** aawe kiyəla] dannəwa. Sinhala
 Ranjit **who Q** came-**E** that know
 ‘Ranjit knows who came.’
- b. Ranjit [**kauru** aawa **də** kiyəla] dannəwa.
 Ranjit **who** came **Q** that know
 ‘Ranjit knows who came.’

Yes-no questions can also appear with a clause-internal *də*. Compare (7a) (repeating (3)) and (7b). In (7b), the question particle appears clause-internally, and simultaneously the verb is marked with the ‘-E’ morphology. The question in (7b) is interpreted as having focus on the constituent to which *də* is attached.

- (7) a. Chitra ee potə kieuwa **də**? Sinhala
 Chitra that book read **Q**
 ‘Did Chitra read that book?’
- b. Chitra **də** ee potə kieuwe?
 Chitra **Q** that book read-**E**
 ‘Did *Chitra* read that book?’

² Kishimoto (1998) also cites *sækə-kəranəwa* ‘doubt’, and *parikṣaa-kəranəwa* ‘look into’ as verbs which have this property of allowing overt movement of *də* in their complement, and *əhuwa* ‘asked’ as verb which does not. Gair & Sumangala (1991) characterize the clauses in which *də*-movement can happen overtly as expressing ‘general doubt’ although they do not elaborate further.

³ *Kauru* ‘who’ is shortened to *kau-* when immediately followed by the question particle. With the previous literature on Sinhala question formation, I assume that this is an arbitrary morphological fact with no syntactic consequences.

⁴ If there is a difference in meaning between (6a) and (6b), it is very subtle. Kumara Henadeerage (p.c.) suggested that (6a) is more likely to involve a single, specific person than (6b). This requires more systematic investigation.

Finally, consider the questions in (8), which involve a scalar *wh*-word.⁵ With this class of *wh*-words (including *kiidenek* ‘how many (animate)’, *kiiyak* ‘how many (inanimate)’, *koccarə* ‘how much’), the *də* marker can either appear clause-finally (8a), or clause-internally (8b). Where *də* is clause-internal, the ‘-E’ morphology appears on the verb. The clause-internal *də* has a focusing effect in (8b) just as it did in (7b) above.

- (8) a. **kiidenek** enəwa **də**? *Sinhala*
how.many come **Q**
‘How many (animate) are coming?’
- b. **kiidenek** **də** enne?
how.many **Q** come-E
‘How many (animate) are coming?’

The focus particle has a flexibility in position similar to the question particle discussed above. The focus particle *tamay* can appear clause-internally (9a) (repeating (5)), marking the focused element directly, or it can appear clause-finally (9b). Notice two things. First, only when the focus particle is clause-internal does the ‘-E’ morphology appear. Second, when the focus particle is clause-final, there are several available interpretations; the focused element is not unambiguously marked. This is expected under the view that the focus particle has moved to its surface position in (9b), since it might have moved from any of several positions; that is, (9b) is (structurally) ambiguous.

- (9) a. Chitra ee potə **tamay** kieuwe. *Sinhala*
Chitra that book **FOC** read-E
‘It was *that book* that Chitra read.’
- b. Chitra ee potə kieuwa **tamay**.
Chitra that book read **FOC**
‘It was *that book* that Chitra read.’
‘It was *read that book* that Chitra did.’
‘It was *read* that Chitra did with that book.’

In both questions and focus constructions, the ‘-E’ morphology determines the “scope” of the question or focus. So, (10a) is an embedded question, with ‘-E’ marking on the embedded verb, and (10b) is a matrix question, with ‘-E’ marking on the matrix verb. Similarly, ‘-E’ determines the scope for focus marking in (11).

- (10) a. Ranjit [**kau də** aawe kiyəla] dannəwa. *Sinhala*
Ranjit **who Q** came-E that know
‘Ranjit knows who came.’
- b. Ranjit [**kau də** aawa kiyəla] danne?
Ranjit **who Q** came that know-E
‘Who does Ranjit know came?’
- (11) a. Ranjit [Chitra ee potə **tamay** kieuwa kiyəla] kiiwe.
Ranjit Chitra that book **FOC** read that said-E
‘It was *that book* that Ranjit said that Chitra read.’

⁵ Gair & Sumangala (1991) refer to these *wh*-words as ‘quantificational’ but the term ‘scalar’ seems to capture the property these *wh*-words have more transparently. We will return to discussion of these *wh*-words in section 10.

- b. Ranjit [Chitra ee potə **tamay** kieuwe kiyəla] kiiwa.
 Ranjit Chitra that book **FOC** read-**E** that said
 ‘Ranjit said that it was *that book* that Chitra read.’

The purpose of this section has been to highlight the connection between the particles (e.g., the question particle *də*, the focus particle *tamay*) and the ‘-E’ morphology on the verb. The connection is manifested both by the fact that either ‘-E’ or the particle itself must be next to the verb in these constructions, and by the fact that -E (when the particle is clause-internal) determines the scope of the focus/question.

Notice also that, from a more theory-internal perspective, the connection between the particle and ‘-E’ looks like a movement relation insofar as movement is assumed to be driven to “check” morphological features (Chomsky 1995). We can view the ‘-E’ as an overt morphological reflex of an unchecked morphological feature that will drive movement of the particle. When this movement happens overtly, the feature corresponding to ‘-E’ is checked (deleted) and so the morphology does not appear. In the other cases, the presence of ‘-E’ indicates that the movement is “yet to happen”—that is, that it will happen in covert syntax.

2. Island effects

Gair (1983) observed that although *wh*-words are allowed inside complex noun phrase islands, the particle *də* cannot appear inside but must appear at the edge of the island. This is illustrated in (12–13), taken from Kishimoto (1997). (12a) is ill-formed because *də* appears inside a complex noun phrase, while (12b) is fine, with *də* appearing just outside the complex noun phrase. The same point is made for adjunct islands by the examples in (13).

- (12) a. * oyaa [Chitra **kaa-ṭe** **də** dunnə potə] kieuwe? *Sinhala*
 you Chitra **who-DAT** **Q** gave book read-**E**
 (‘You read the book that Chitra gave to whom?’)
- b. oyaa [Chitra **kaa-ṭe** dunnə potə] **də** kieuwe?
 you Chitra **who-DAT** gave book **Q** read-**E**
 ‘You read the book that Chitra gave to whom?’
- (13) a. * [Chitra **monəwa** **də** kanə koṭə] Ranjit pudumə unee?
 Chitra **what** **Q** ate when Ranjit surprise became-**E**
 (‘Ranjit was surprised when Chitra ate what?’)
- b. [Chitra **monəwa** kanə koṭə] **də** Ranjit pudumə unee?
 Chitra **what** ate when **Q** Ranjit surprise became-**E**
 ‘Ranjit was surprised when Chitra ate what?’

Assuming that adjuncts and complex noun phrases are islands for movement, this generalization supports the proposal that the question particle moves to the clause periphery covertly. In the (b) examples above, this movement is unimpeded, whereas in the (a) examples this movement would have to cross an island boundary.

The generalization about islands holds for focus particles as well; a focus particle separated from ‘-E’ by an island boundary results in an ill-formed sentence (14a), but a focus particle which appears at the edge of an island is fine (14b).

- (14) a. * [Chitra maalu **tamay** kanə koṭə] Ranjit pudumə unee. *Sinhala*
 Chitra fish **FOC** ate when Ranjit surprise became-E
 ('It was *fish* that Ranjit was surprised when Chitra ate it.')
- b. [Chitra maalu kanə koṭə] **tamay** Ranjit pudumə unee.
 Chitra fish ate when **FOC** Ranjit surprise became-E
 'It was *when Chitra ate the fish* that Ranjit was surprised.'
 * 'It was *eat fish* that Ranjit was surprised when Chitra did.'
 * 'It was *fish* that Ranjit was surprised when Chitra ate it.'
 * 'It was *eat* that Ranjit was surprised when Chitra did it to fish.'

It is worth noticing that in (14b) the only available reading is the one in which the entire island is focused; it cannot be interpreted as having focus on a subconstituent of the island. This is interesting in comparison with (9b) from before, in which the overt movement of the focus particle rendered the utterance ambiguous because the particle could have moved from any of several positions. The non-ambiguity of (14b) suggests that we are seeing the focus particle in its original position; that is, it did not move from inside the island to the position in which we see it on the surface.⁶

Assuming that focus particles and question particles behave in essentially the same way, we can also deduce from the readings in (14b) that the question particle in (12–13) did not move to the clause periphery from inside the island but started that movement from a position already outside the island.

3 Question formation in Japanese

At this point, we will turn to consider the properties of question formation in Japanese. We have seen in Sinhala that there is a connection between the question/focus particle and the clause periphery that has the properties of a movement relation. We will see that we can view Japanese as a case in which the hypothesized particle movement in Sinhala is overtly realized.⁷ Japanese provides a well-studied example which forms a near-minimal pair with Sinhala.

In Japanese, the question particle *ka* (which, as we discuss in more detail below, corresponds to Sinhala *də*) appears at the end of questions, both yes-no questions (16) and *wh*-questions (17) (to be compared with the declarative in (15)).

- (15) John-ga hon-o katta. *Japanese*
 John-NOM book-ACC bought
 'John bought a book.'

⁶ Actually, I believe the statement in the text is literally false, but a close enough approximation for the present purposes. As discussed in Hagstrom (1998, chs. 4 and 8), there is evidence from Japanese that the question particle corresponding to Sinhala *də* is base-generated *inside* such islands. This then requires positing a movement operation ("Migration") that is not feature-driven and does not feed interpretation in order to bring the particle from inside the island to the edge of the island, at which point standard feature-driven, semantically active movement can take place. I will not attempt to defend this further here; the interested reader is referred to Hagstrom (1998). To make the statement in the text more accurate, substitute "in the position from which it moves to the clause periphery" for "in the original position." For the purposes of this paper, however, we will simply pretend that the particles are base-generated outside islands.


⁷ Of course, we already saw (section 1) that question particles in Sinhala themselves sometimes move overtly. The difference between Sinhala and Japanese is that Japanese *always* moves the particle overtly.

(16) John-ga hon-o kaimasita **ka**?
 John-NOM book-ACC bought.POLITE **Q**
 ‘John bought a book.’

(17) John-ga **nani**-o kaimasita **ka**?
 John-NOM **what**-ACC bought.POLITE **Q**
 ‘What did John buy?’

An obvious way to think of the structure of questions like (17), in light of the preceding discussion, is as involving a movement like that diagrammed in (18), where the question particle starts in a clause-internal position by the *wh*-word and moves to the clause-final position in overt syntax.

(18) John-ga nani-o t_{ka} kaimasita ka =(17)



In support of the idea that Japanese *ka* corresponds to Sinhala *də*, we note a few facts. First, of course, this is the particle used in yes/no and *wh*-question formation as we have already seen. However, there are deeper parallels as well. In both Sinhala and Japanese, indefinites can be formed by appending the question particle to a *wh*-word. Thus in (19), the same question particle—in each language—is used in combination with the *wh*-word meaning ‘what’ to form a word meaning ‘something’.⁸

- (19) a. Chitra **mokak də** gatta. *Sinhala*
 Chitra **what Q** bought
 ‘Chitra bought something.’
- b. Taroo-ga **nani-ka**-o katta. *Japanese*
 Taro-NOM **what-Q**-ACC bought
 ‘Taro bought something.’

Further, the question particle in both languages can be used to signal disjunction. In (20a), *də* is used to delimit alternatives in an alternative question in Sinhala, and in (20b), *ka* is used to signal disjunction in a Japanese declarative.⁹

- (20) a. mahatteaṭə tee **də** koopi **də** oonə? *Sinhala*
 gentleman-DAT tea **Q** coffee **Q** necessary
 ‘Do you want tea or coffee?’
- b. John-**ka** Bill-(**ka**-)ga hon-o katta. *Japanese*
 John-**Q** Bill-(**Q**-)NOM book-ACC bought
 ‘John or Bill bought books.’

⁸ Another way to form an indefinite meaning ‘something’ in Sinhala is to append *hari* to a *wh*-word, as in *mokak-hari* ‘what-HARI’ = ‘something’. The *hari* particle can also be used to signal disjunction outside of alternative questions, as in *Chitra-hari Siri-hari* ‘Chitra or Siri’ (which would be *Chitra-ka Siri(-ka)* in Japanese). This suggests that Japanese *ka* might actually be analogous to both Sinhala *də* and Sinhala *hari*, collapsed, although the details of the relation between *ka* and *hari* have not yet been mapped out fully.

⁹ Note that in Sinhala, *də* is only used to signal disjunction in alternative questions of this sort; for disjunction in other contexts, the particle *hari* can be used. Cf. footnote 8 above.

Lastly, it is also worth pointing out that in an earlier stage in the history of Japanese, the question particle was positioned clause-internally (21a)—but island-externally (21b)—just like in modern Sinhala.¹⁰

- (21) a. **tare-ka** mata hanatatibana-ni omoi-idemu. *Premodern Japanese*
who-Q again flower.orange-DAT remember-M
 ‘Who will again remember (me) at the time of the mandarin orange
 flower?’ (Shin Kokin Wakashū [1205]:3, Ogawa 1977:222)
- b. [**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?’ (Taketori Monogatari [c. 900], Ogawa 1977:216,
 Whitman 1997:166)

4. Island effects in Japanese

If Japanese is really parallel to Sinhala in the way proposed above, then we predict that Japanese questions will also show island effects of the path of the particle movement. There is an inherent difficulty with testing this prediction, however, since the proposed movement is always overt. Since the particle always reaches its destination, and since it is possible (as we have seen in Sinhala) for the particle to start from a position outside an island, simply placing a *wh*-word inside an island does not guarantee that the question particle itself moved from within the island. What we need is some way to unambiguously determine the point from which the question particle moved.

Fortunately, Japanese has a particle which appears to allow us to do this test. The emphatic particle *ittai* associates with *wh*-words to give a meaning approximating ‘*wh* in the world’. Importantly, although it seems to be base-generated together with the question particle, it is stranded when the question particle moves away.¹¹ Hence, we can use the position of *ittai* to indicate where the question particle was before it moved to the clause periphery in *wh*-questions.

Running the test, we see first a simple question with *ittai* but without any islands in (22a).¹² If *ittai* appears inside an island as in (22b), the question is ill-formed, whereas if *ittai* appears at the edge of an island as in (22c), the question is fine.

- (22) a. Mary-wa John-ni **ittai** *t*_{no} **nani-o** ageta **no?** *Japanese*
 Mary-TOP John-DAT **ittai** **what-ACC** gave **Q**
 ‘What in the world did Mary give to John?’

¹⁰ There were several particles in Premodern Japanese that participated in this construction (referred to as *kakari-musubi*), most of them with an emphasizing function, again like Sinhala.

¹¹ The full details of the distribution of *ittai* are slightly more complicated because *ittai* itself can be scrambled (like a numeral quantifier can; see Miyagawa 1989). It also appears that *ittai* can be stranded in intermediate positions (either because *ittai+ka* move together part of the way or because *ittai* is base-generated next to a derived position of *ka*). See Hagstrom (1998, ch. 2).

¹² The question particle in Japanese is sometimes (in matrix questions) realized as *no* rather than as *ka*. Which one is chosen depends primarily on the politeness marking on the verb; *ka* goes with verbs marked with polite morphology, *no* goes with unmarked verbs. *No* is usually thought to be short for *no desu ka* (*no* = nominalizer, *desu* = ‘be’). Here (with nearly all of the syntactic literature on Japanese) we will make the probably harmless assumption that the variation between *no* and *ka* is essentially contextual allomorphy, a fact about morpho-phonology and not about syntax or semantics.

- b. * Mary-wa [John-ni **ittai** t_{no} **nani-o** ageta hito-ni] atta **no**?
 Mary-TOP John-DAT **ittai** **what**-ACC gave man-DAT met Q
 ('Mary met the man who gave what (in the world) to John?')

- c. Mary-wa **ittai** t_{no} [John-ni **nani-o** ageta hito-ni] atta **no**?
 Mary-TOP **ittai** John-DAT **what**-ACC gave man-DAT met Q
 'Mary met the man who gave what (in the world) to John?'

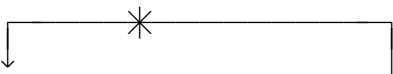
Thus, with the help of *ittai*, we have replicated in Japanese the island effects that motivated the particle-movement analysis of Sinhala questions.

5. Intervention effects in Japanese

There is a second argument for the particle-movement analysis of Japanese questions that can be made from "intervention effects." Hoji (1985) observed that, although word order in Japanese is generally free, questions like (23a) and (24a) are ill-formed where *nani* 'what' follows the indefinite *dareka* 'someone' or the disjunction *John-ka Bill* 'John or Bill'. However, the desired meanings can be perfectly well expressed by reversing the order of the *wh*-word and indefinite/disjunct, as in (23b) and (24b).

- (23) a. ?? dareka-ga **nani-o** nomimasita **ka**? Japanese
 someone-NOM **what**-ACC drank Q
 ('What did someone drink?')
- b. **nani-o**_i dareka-ga t_i nomimasita **ka**?
what-ACC someone-NOM drank Q
 'What did someone drink?'
- (24) a. ?* [John-ka Bill]-ga **nani-o** nomimasita **ka**?
 John-or Bill-NOM **what**-ACC drank Q
 ('What did John or Bill drink?')
- b. **nani-o**_i [John-ka Bill]-ga t_i nomimasita **ka**?
what-ACC John-or Bill-NOM drank Q
 'What did John or Bill drink?'

Notice that the things which intervene (*dareka*, *John-ka Bill*) actually contain the question morpheme *ka*. If, as has been proposed above, the question particle in questions like (24a) moves overtly to the clause periphery, it will have to cross this second instance of *ka* contained within *John-ka Bill*. This is illustrated in (25a), and (25b) shows the well-formed case (where left-to-right order indicates hierarchy rather than linear surface order).

- (25) a.  ka [John-ka Bill]-ga [nani-o t_{ka}] nomimasita =(24a)

- b. ka [nani-o t_{ka}]_i [John-**ka** Bill]-ga t_i nomimasita = (24b)
-

We suppose that movement is driven by a need to check a feature (in Sinhala, recall, this feature being morphologically realized as ‘-E’), and that the closest available element capable of checking the feature is the one which undergoes movement (basically following Chomsky 1995). This then gives us a ready explanation for why (24a) is ill-formed. We know of course that *ka* is capable of checking the relevant feature, but if the “wrong” *ka* (a *ka* which is being used for something else in the interpretation, e.g. disjunction or formation of an indefinite) is moved to the clause periphery, the result will not be semantically interpretable.¹³

6. Preliminary report on possible intervention effects in Sinhala

Sinhala also may exhibit intervention effects, although the facts are not yet clear. We might consider (26) to be an intervention effect, where *-t* (like Japanese *mo*, cf. footnote 13) intervenes for the movement of *də* to the clause periphery.

- (26) a. ?? kauru-**t** mokak **də** kiiwe? *Sinhala*
 who-**T** what **Q** said-**E**
 (‘What did everyone say?’)
- b. mokak **də** kauru-**t** kiiwe?
 what **Q** who-**T** said-**E**
 ‘What did everyone say?’

For the consultants I have asked, however, it turns out that embedding (26) seems to ameliorate the intervention effect. So, although (27b) is reportedly preferred to (27a), both are equally grammatical.

- (27) a. Siri dannəwa [kauru-**t** mokak **də** kiiwe kiyəla]. *Sinhala*
 Siri knows who-**T** what **Q** said-**E** that
 ‘Siri knows what everyone said.’
- b. Siri dannəwa [mokak **də** kauru-**t** kiiwe kiyəla].
 Siri knows what **Q** who-**T** said-**E** that
 ‘Siri knows what everyone said.’

This is not *necessarily* a systematic difference between Sinhala and Japanese, however, given the fact that many Japanese consultants report that the intervention effects in Japanese are, although perceptible, fairly weak contrasts. Further investigation will be

¹³ Two things that are worth pointing out about intervention effects in Japanese: First, words containing the morpheme *mo* (e.g., *daremo* ‘everyone’) also induce intervention effects, although perhaps slightly less dramatically. For this account to carry over to the intervention by *daremo*, it must be assumed that *mo* is relevantly like *ka*; that is, *ka* and *mo* both have the feature which is being attracted when *ka* is moved to the clause periphery in questions. Second, given that *John-ka Bill* ‘John or Bill’ intervenes for *ka*-movement, we must assume that it is a phrase headed by *ka* (in something like a CoordP) if “closer” for the purpose of intervention is stated only in terms of c-command.

needed to ascertain whether these effects should be categorized as instances of the same kind of intervention effect discussed in the previous section with reference to Japanese.

7. Predicting the interaction between island effects and intervention effects

Recall (14b), repeated below. We took this example to indicate that question/focus particles which appear at the edge of islands have not moved there from an island-internal position.¹⁴ Connecting this with the intervention facts discussed in the previous section provides us with an interesting and unusual prediction: If intervention effects are due to movement of the particle over an intervenor (such as *kaurut* ‘everyone’), and if particles do not start inside islands at whose periphery they appear, then there should not be any detectable intervention effects inside an island.

- (14) b. [Chitra maalu kanə koṭə] **tamay** Ranjit pudumə unee. *Sinhala*
 Chitra fish ate when FOC Ranjit surprise became-E
 ‘It was *when Chitra ate the fish* that Ranjit was surprised.’
 * ‘It was *eat fish* that Ranjit was surprised when Chitra did.’
 * ‘It was *fish* that Ranjit was surprised when Chitra ate it.’
 * ‘It was *eat* that Ranjit was surprised when Chitra did it to fish.’

As we saw in the previous section, the existence and nature of intervention effects is not particularly clear in Sinhala. However, we can test this prediction in Japanese, where it indeed appears to be borne out. (28a) is ill-formed, just like (23a) from before, the reason being that the path of movement of the question particle must cross the *ka* of *dareka*. However, if the *wh*-word and quantifier are embedded inside an island, as in (28b–c), the order between them no longer affects their grammatical status. In other words, the intervention effect disappears inside of islands, just as predicted if the question particle in Japanese moves to the clause periphery from the edge of islands.

- (28) a. ?? dare**ka**-ga nani-o katta no? *Japanese*
 someone-NOM **what**-ACC bought Q
 (‘What did someone buy?’)
- b. Mary-wa [dare**ka**-ga nani-o katta ato de] dekaketa no?
 Mary-TOP someone-NOM **what**-ACC bought after left Q
 ‘Mary left before someone bought what?’
- c. Mary-wa [nani-o_i dare**ka**-ga t_i katta ato de] dekaketa no?
 Mary-TOP **what**-ACC someone-NOM bought after left Q
 ‘Mary left before someone bought what?’

The same holds for the intervenor *John-ka Bill* ‘John or Bill’, as shown in (29). Notice also that if the intervenor is outside of the island, as in (29d), the intervention effect returns, supporting the proposal that it is the path between the island and the clause periphery (i.e. the path of the proposed movement of the question particle) that matters for the intervention effect.

- (29) a. ?* [John-**ka** Bill]-ga nani-o katta no? *Japanese*
 John-or Bill-NOM **what**-ACC bought Q
 (‘What did John or Bill buy?’)

¹⁴ But recall footnote 6.

- b. 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?’
- c. 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?’
- d. ?* [John-**ka** Bill]-wa [Mary-ga **nani**-o katta ato de] dekaketa **no**?
 John-or Bill-TOP Mary-NOM **what**-ACC bought after left **Q**
 ‘John or Bill left after Mary bought what?’

8. Summary to this point

Let us take a moment to recap the proposal and the evidence that has been discussed so far, before we turn to the remaining sections, which are much more speculative.

The proposal is that in focus/question constructions in both Sinhala and in Japanese, a particle moves from a clause-internal position (next to the focus or the *wh*-word) to a clause-final position, as illustrated in (30) (elaborating on (1)).

- (30) [XP] - Q/FOC ... verb] where XP is *wh*-word or focused phrase
-

In cases where the *wh*-word or focused phrase is contained within an island, the particle moves from a position just outside the island.

- (31) [_{island} ... XP ...] - Q/FOC ... verb] where XP is *wh*-word or focused phrase
-

Evidence for this relation being a movement relation came from (a) the inability of islands to intervene on the path, (b) the fact that sometimes this movement is overt (under certain circumstances in Sinhala, and invariably in Japanese), and (c) the fact that the movement must be of the closest eligible element (that is, the path of movement cannot cross another instance of the moving morpheme—the “intervention effect”).

In the next few sections, we will address a few of the questions that are left open by the proposal made so far. For the most part, the discussion remains at a speculative level, but provides directions future research might take.

9. Multiple questions

The hypothesis that the question particle in questions moves (in *wh*-questions) from next to the *wh*-word to the clause periphery immediately leads us to wonder about the structure of questions with more than one *wh*-word. More specifically, in a multiple question, is there one particle per *wh*-word, or one particle per interrogative clause? And if one particle per clause, by which *wh*-word does it begin?

The evidence bearing on this issue is unfortunately quite murky. A first thing to notice is that multiple questions in Japanese like (32) have only a single question marker clause-finally. This suggests that there is not one *ka* per *wh*-word, but rather one *ka* per interrogative clause.

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

If there is a single question particle per clause, the next question is where does that particle start? In questions with a single *wh*-word, the particle starts by the *wh*-word, as we learned from the various Sinhala examples discussed earlier.

To answer this question, consider (33).¹⁵ In (33a), the question particle *də* follows the second *wh*-word, and the result is a grammatical question, while in (33b), *də* follows the first *wh*-word and produces an ill-formed question.

- (33) a. [kauru mokak **də** kieuwe kiyəla] dannəwa də? *Sinhala*
 who what **Q** read-E that know Q
 ‘Do (you) know who read what?’
- b. * [kau **də** mokak kieuwe kiyəla] dannəwa də?
 who **Q** what read-E that know Q
 (‘Do (you) know who read what?’)

What (33) tells us is that, if we were right to conclude from (32) that there is one question particle per clause, this question particle must be attached to the lower *wh*-word. However, there is a potential problem posed by the acceptability of (34). In (34), both *wh*-words are marked with an overt question particle. So, our problem is that (32) and (34) seem to point us toward exactly opposite conclusions.

- (34) kau **də** monəwa **də** kieuwe? (stress on both *kaudə* and *monəwadə*) *Sinhala*
 who **Q** what **Q** read-E
 ‘Who read what?’

In Hagstrom (1998), I present a network of arguments (primarily Japanese-internal) for taking the view that (32) suggests, namely that there is only a single question particle per clause. The arguments and evidence will not be reviewed here, but were in large part based on the availability of “pair-list” readings for multiple questions of this sort. Given a reasonable representation of the semantics of pair-list questions, and with a proposal for the compositional contribution of the question particle to the semantic representation, we arrive at the conclusion that pair-list readings are dependent on a single question particle originating by the lower of the two *wh*-words. In fact, the configuration that (33) suggests.

As for Sinhala-internal evidence, Sumangala (1992) argued against the one-particle-per-*wh*-word view by providing a possible alternative analysis for (34). Crediting Jim Gair for the suggestion, Sumangala proposes that (34) is actually elliptical for (35), which is taken to be biclausal. In support of this position, Sumangala indicates that although (33a) allows a pair-list answer,¹⁶ (34) does not, nor does (35).

¹⁵ We are using an embedded question in (33) because in general multiple *wh*-questions in Sinhala sound better when embedded than they do as simple matrix questions. The matrix clause (‘Do (you) know...?’) is irrelevant to the point being made.

¹⁶ Actually, the example Sumangala discusses is (i), which differs from (33a) in that the question marker has already moved to the periphery of the embedded clause (something which is allowed here because *dannəwa* ‘know’ allows overt movement of the question particle; recall (6)).

- (35) kau **də** kiewe monəwa **də** kiewe? Sinhala
 who **Q** read-E what **Q** read-E
 ‘Who read, what did s/he read?’

Though falling somewhat short of conclusive proof, the available evidence seems to indicate that in multiple questions, a single question particle (per interrogative clause) moves from the lower of two *wh*-words to the clause periphery; that is, that (33) shows us the basic structure of multiple questions.

10. Scalar *wh*-words and yes-no questions in Sinhala

One point which has not been addressed concerns the origin of the question particle in yes-no questions. Recall that yes-no questions in Sinhala can surface either with a clause-final *də*, or with a clause-internal *də*, but in the latter case the question takes on an additional focalized meaning. This is shown in (36) (repeating (7)).

- (36) a. Chitra ee potə kieuwa **də**? Sinhala
 Chitra that book read **Q**
 ‘Did Chitra read that book?’
- b. Chitra **də** ee potə kieuwe?
 Chitra **Q** that book read-E
 ‘Did *Chitra* read that book?’

In this respect, questions with “scalar” *wh*-words like *kiidenek* ‘how many (animate)’ behave in the same way, as we are reminded below in (37) (repeating (8)).

- (37) a. **kiidenek** enəwa **də**? Sinhala
how.many come **Q**
 ‘How many (animate) are coming?’
- b. **kiidenek** **də** enne?
how.many **Q** come-E
 ‘*How many* (animate) are coming?’

In both cases, a focus-neutral reading arises from a clause-final *də*.

Here, I have only speculative remarks to offer. In neutral yes-no questions, the answers allowed vary only at the level of the whole proposition; i.e. *Chitra read that book* or *not(Chitra read that book)*. The only natural place to suppose that *də* originates in cases like (36a) is at a fairly high position in the structure, for example attached to the IP. Presumably *də* still moves in a yes-no question, but it moves a very short distance to reach its surface position.¹⁷

...continued:

- (i) mokak kauru kiewa də dannəwa də? Sinhala
 what who read **Q** know **Q**
 ‘Do you know who read what?’

¹⁷ Another logical possibility is that in yes-no questions (and probably “scalar” *wh*-questions) *də* is simply base-generated in the position it would have moved to in a *wh*-question. However, if the *chain* of movement is playing a role in the interpretation (i.e. if there is an operator-variable structure involved), then the “short movement” is presumably necessary. Although I did not treat the semantics of yes-no questions in Hagstrom (1998), the system there does rely on such an operator-variable relation.

Another very interesting question is why scalar *wh*-questions act like yes-no questions and not like other *wh*-questions. Note that non-scalar *wh*-words do not allow for clause-final *də* placement, as shown in (38).

- (38) a. * **kauru** ee potə kieuwa **də**? *Sinhala*
who that book read **Q**
 ('Who read that book?')
- b. **kau də** ee potə kieuwe?
who Q that book read-E
 'Who read that book?'

The primary thing which seems to differentiate scalar from non-scalar *wh*-questions is in the implication relation between the answers. In a scalar *wh*-question like (37), an answer like '5 (people) are coming' implies also that 4 people are coming, 3 people are coming, and so on (as well as conversationally implicating that there aren't 6 or more people coming). Given this, the most promising place to look for an explanation of the behavior of scalar *wh*-words in Sinhala would seem to be in the partitioning of the answer space in the semantics of scalar questions as compared to that in yes-no questions. However, this will not be further explored in this paper.

11. The size of the moving element

Kishimoto (1992), analyzing mostly the same Sinhala facts reviewed in this paper, concluded not that *də* moves to clause periphery itself, but rather that it marks the constituent which as a whole moves in covert syntax (adapting an influential proposal put forth by Nishigauchi 1990). Thus, in cases like those reviewed in section 2, where a *wh*-word is inside a movement island and *də* is attached outside, Kishimoto's proposal was that the entire island (marked by *də*) moves (covertly) to the appropriate position for interpretation (i.e., SpecCP). Of course, the island data presented there does not distinguish between the two proposals (particle movement and movement of the whole island).¹⁸

Notice, however, that having argued for a correlation between Sinhala *də* and Japanese *ka*, we have also gained an argument for the particle-movement view (against the "LF pied piping" view that would move the whole island), since in Japanese we can see the movement overtly and it is only the particle that moves. Moreover, we had cases even from within Sinhala (e.g., embedded under *dannəwa* 'know') that show essentially the same thing.¹⁹

¹⁸ Kishimoto (1992), using Sinhala data translated from parallel Japanese and Korean examples discussed by Choe (1987), *does* provide an argument that the whole island moves based on Weak Crossover effects. However, as pointed out by von Stechow (1996), the facts presented there do not argue for movement of the whole island in the *general* case, only in the cases in which a pronoun needs to be bound by something which does not c-command it on the surface (an criticism which itself is based on a parallel criticism made by Rooth 1985 against Weak Crossover evidence for movement-based accounts of focus interpretation).

¹⁹ As alluded to in footnote 1, Kishimoto (1998) takes a view much closer to that proposed here, although he does not explicitly argue against his proposal from 1992. His more recent work proposes that *də* is a clitic which moves to fix the scope of *wh*-phrases. Though differing in more subtle details, his 1998 analysis is quite close to the proposals advanced here and in Hagstrom (1998).

12. The destination of movement

Throughout this paper I have remained noncommittal about the place to which the question/focus particles move, referring to it as the “clause periphery.” My reason for doing so is that it is not clear that movement is to the complementizer projection. For example, recall sentences like (39) (repeating (6)). These are cases in which a question is embedded under *dannəwa* ‘know’ and in which the particle movement happens overtly (checking off the feature that would otherwise result in the ‘-E’ morphology). In this situation, *də* appears below the complementizer *kiyəla*.

- (39) b. Ranjit [**kauru** aawa **də** *kiyəla*] *dannəwa*.
 Ranjit **who** came **Q** that know
 ‘Ranjit knows who came.’

The fact that this movement checks a feature which is realized on the verb suggests that *də* in (39) is attached to the verb (rather than, say, head-adjoined to *kiyəla*).

In response to this fact, Kishimoto (1998) proposes a recursive CP structure for Sinhala, with the higher CP being responsible for clause typing (and headed by *kiyəla*) and the lower CP being the destination for operator movement. Translated into the terminology of Rizzi’s (1997) “split CP” structure, this is the solution I would at least tentatively adopt as well. *Kiyəla* represents the head of “ForceP” (though note that it does not distinguish interrogative from non-interrogative clauses, which might be somewhat suspicious), while *də* moves to a lower “FocusP”.²⁰

13. Closing remark

While there are clearly many issues left open (most notably with respect to the points brought up in the previous few sections), the particle-movement perspective on Sinhala focus and question constructions not only holds promise in explaining the patterns within the Sinhala data, but also leads us to ask questions we would not otherwise have thought to ask in languages like Japanese where the same structures are detectable but in a certain sense more obscured.

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²⁰ I assume that movement of these particles is movement to a head-adjoined position (i.e. perhaps adjoining to the Focus^o head), though it is probably worth pointing out that this assumption entails that the Head Movement Constraint (Travis 1984), if it exists, does not apply to this movement. Given that Sinhala and Japanese are head-final (SOV) languages, the canonical position for heads is on the right edge of the structure; if these particles are moving into a specifier position, we must either allow for rightward specifiers or abandon the SOV hypothesis, and derive the structures from underlying SVO structures à la Kayne 1994. At this point, I have no real evidence to decide between these alternatives.

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