

Wh Questions in Dholuo

Anisa Schardl

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Dholuo, or Luo is a Nilo-Saharan language spoken in Kenya. In this paper, I will present data on wh movement in Dholuo. Dholuo is interesting in that it allows for wh items to be *in situ*, fronted, or moved to an intervening clausal edge. In multiple questions, one or more wh items may be moved, but if a subject and object are fronted, they appear in an “anti-superiority” surface order: object first, followed by subject. Islands are also interesting in Dholuo. Some English islands are not islands in Dholuo, some are, and others are islands for extraction, but allow wh items *in situ*.

In this paper, I will first introduce the wh items by showing them *in situ*. I will then show examples of wh fronting. This will include a discussion of why the morpheme *ma* appears after fronted wh items and also why subject wh items cannot appear *in situ*. Then, I will present new data on partial wh movement in Dholuo and compare it to other simple partial movement languages. Then, I will present data on multiple wh items, briefly addressing the anti-superiority effects. Finally, I will do a brief survey of islands in Dholuo, and conclude.

1 Wh items *in situ*

1.1 Argument wh items

Dholuo allows for wh items to be in any of several different places. In this section, I will introduce the wh words of Dholuo by showing them *in situ*. (1) shows an example of *ng'a* ‘who’ *in situ*, and (2) shows *ang'o* ‘what’.

- (1) Achieng' oneno ng'a?
Achieng' saw who
'Who did Achieng' see?'
- (2) nyo Pamba otedo ang'o?
PST Pamba cooked what
'What did Pamba cook yesterday?'¹

¹The tense morpheme *nyo* indicates that the topic time is yesterday (the more “literal” meaning) or possibly a couple days ago.

Dholuo is an SVO language, meaning that the object *wh*-item appears in the normal surface position. This is evidenced by the answers to the above questions, shown in (3) and (4).

- (3) Achieng' oneno Onyango
 Achieng' saw Onyango
 'Achieng' saw Onyango.'
- (4) nyo Pamba otedo rech
 PST Pamba cooked fish
 'Pamba cooked fish yesterday.'

(5) shows an indirect object *wh* item *in situ*, and (6) shows a direct object. Here, it is unclear whether the two are disambiguated by animacy or word order.

- (5) Ochieng' omiyo ng'a buk?
 Ochieng' gave who book
 'Who did Ochieng' give a book (to)?'
- (6) Ochieng' omiyo Onyango ang'o?
 Ochieng' gave Onyango what
 'What did Ochieng' give Onyango?'

(7) and (8) show a ditransitive verb *nyis* 'introduce' for which all the arguments are animate. We can see that the role of *ng'a* 'who' is understood through word order.

- (7) Onyango onyiso Pamba ng'a?
 Onyango introduced Pamba who
 'Who did Onyango introduce to Pamba?'
- (8) Onyango onyiso ng'a Pamba?
 Onyango introduced who Pamba
 'Who did Onyango introduce Pamba to?'

1.2 Adjunct *wh* items

In the *in situ* position, *sa adi* 'when' and *kanye* 'where' are found at the end of the sentence. This is shown in (9) and (10).

- (9) Ochieng' ochopo sa adi?
 Ochieng' arrived time how.many
 'When did Ochieng' arrive?'
- (10) Onyango ochung' kanye?
 Onyango stands where
 'Where is Onyango standing?'

Accordingly, the adjunct appears sentence-finally in the answers to the questions, as shown by (11) and (12).

- (11) Ochieng' ochopo sa achiel
 Ochieng' arrived time one
 'Ochieng' arrived at 7 o'clock.'
- (12) ochung' e od nendo
 3SG.stands in room sleep
 'He is standing in the bedroom.'

There are at least two ways to say 'how'. One is *nade*², which appears at the end of the sentence, and the other is *ere kaka*, which appears at the beginning. This is shown in (13) and (14).

- (13) iyawe nade?
 you.open.it how
 'How did you open that?'
- (14) ere kaka iyawe?
 how you.open.it
 'How did you open that?'

(15) can be an answer to (13) or (14), showing that instrumental adjuncts appear sentence-finally.

- (15) ayawe gi pala ni
 I.open.it with knife this
 'I opened it with this knife.'

These two *wh* items are also used to express 'how do you say that?' sorts of questions.

- (16) ere kaka anyalo wacho ni "table" gi Dholuo?
 how I.should say for "table" in Dholuo
 'How should I say "table" in Dholuo?'
- (17) anyalo wacho ni "table" gi Dholuo nade?
 I.should say for "table" in Dholuo how?
 'How should I say "table" in Dholuo?'

The answer is a paraphrase.

- (18) iluongo "table" ni "mesa" gi Dholuo
 you.call "table" as "mesa" in Dholuo
 'You call "table" "mesa" in Dholuo.'

²Or *nadi*, according to Omondi (1982).

‘why’ is represented in a few different ways. In (19), we see *go ang’o*, meaning something like “for what”. In (20), we see *nang’o*, which may be an abbreviation of *ni ang’o*, also meaning “for what”. In any case, ‘why’ appears sentence-finally.

- (19) iyua go ang’o?
 you.cry for what
 ‘Why are you crying?’
- (20) iyuak nang’o?
 you.cry for.what
 ‘Why are you crying?’
- (21) iyuak ni (kech) ang’o?
 you.cry for (reason) what
 ‘Why are you crying?’

1.3 DP-internal wh items

The Dholuo phrase meaning ‘which’ is *ma ne*. *ne* may or may not be related to *ni* ‘this’. *ma* is a mysterious function word that seems to appear before attributive adjectives as well as many other places. I will return to the issue of what *ma* is later, but I will not settle the issue. For the purposes of this paper, I will gloss *ma ne* as ‘which’.

- (22) Ochieng’ osomo buk ma ne?
 Ochieng’ read book which
 ‘Which book did Ochieng’ read?’
- (23) iloso gi wuoi ma ne?
 you.talk with boy which
 ‘Which boy were you talking to?’

nade ‘how’ may also be part of the ‘how many’/‘how much’ expression, as exemplified in (24).

- (24) wanyew busa ma rom nade?
 we.buy busa equal how
 ‘How much busa should we buy?’

Dholuo also uses the word *adi* to indicate ‘how many’. We have already seen this as part of the phrase *sa adi* ‘what time’.

- (25) iduaro guen adi?
 you.want fowls how.many
 ‘How many fowls do you want?’

Omondi (1982)

Finally *nadi* ‘how’ can be used in place of an attributive adjective (Omondi (1982)).

- (26) iduaro sabun ma nadi’
you.want soap how
‘What sort of soap do you want?’ Omondi (1982)

This strategy also applies for describing actions. In Dholuo, adverbial modifiers actually look like adjectives modifying a nominalized verb, as in (27).

- (27) John pado le pat ma rach
John slap animal slapping bad
‘John is slapping the animal poorly.’

nadi can be used here to question the modifier (Omondi (1982)), as in the pair below.

- (28) a. utugo tugo ma ber
you.play playing good
‘You are playing well.’
b. utugo tugo ma nadi?
you.play playing how
‘How are you playing?’ Omondi (1982)

Now that we have familiarized ourselves with the inventory and usage of *wh* items in Dholuo, we may address the question of word order. In the next section, I will address the issue of *wh* movement in this language.

2 Total *wh* movement

In this section, I will begin to address the issue of word order optionality in Dholuo. I will present questions in which the *wh* item is fronted. I will also address the issue of what this fronting is: *wh* movement, clefting, or focus movement.

2.1 Fronting of *wh* arguments

In the last section, we saw that argument *wh* items can appear *in situ*. As it turns out, they can also appear at the front of the sentence. In (29), we see a *wh* object *in situ* (reproduced from (1),) and its counterpart with *wh* fronting.

- (29) a. Achieng’ oneno ng’a?
Achieng’ saw who
‘Who did Achieng’ see?’
b. ng’a ma Achieng’ oneno?
who Achieng’ saw
‘Who did Achieng’ see?’

There are two differences between (29-a) and (29-b). In (29-a), the *wh* item is *in situ*. In (29-b), the *wh* item has been fronted and it is followed by the elusive function word *ma*. We have seen *ma* previously as part of the nominal modifier strategy, but its function is unclear. We will return to this shortly.

Indirect object *wh* items (30) and direct object *wh* items (31) can also be fronted. These are also followed by *ma*.

- (30) ng'a ma Ochieng' omiyo buk?
 who Ochieng' gave book
 'Who did Ochieng' give a book (to)?'
- (31) ang'o ma Ochieng' omiyo Onyango?
 what Ochieng' gave Onyango
 'What did Ochieng give Onyango?'

Objects of prepositions can also be fronted, and are followed by *ma*, as in (32).

- (32) a. ng'a ma Ochieng' onyewo ni buk?
 who Ochieng' buy for book
 'Who did Ochieng' buy a book for?'
- b. ??ni ng'a ma Ochieng' onyewo buk?
 for who Ochieng' buy book
 'Who did Ochieng' buy a book for?'

We see from (32) that Dholuo resists pied-piping of prepositions when the *wh* item is moved. This is supported by the next examples, in which prepositions are stranded.

- (33) ang'o ma Ochieng' onyewo go buk?
 what Ochieng' buy with book
 'What did Ochieng buy a book with?'
- (34) ng'a ma Ochieng' omiel go?
 who Ochieng' danced with
 'Who did Ochieng' dance with?'
- (35) ang'o ma Ochieng' obiro go?
 what Ochieng' come with
 'What did Ochieng' come with?'

The *wh* item *ma ne* 'which' does pied-pipe its accompanying noun, as in (36).

- (36) buk ma ne Ochieng' osomo?
 book which Ochieng' read
 'Which book did Ochieng' read?'

Adjunct wh items can also front. These are followed by *ma*, exactly like all the other fronted wh items we have seen. An example is (37).

- (37) sa adi ma Ochieng' ochope?
 time how.many Ochieng' arrive
 'When did Ochieng' arrive?'

Unlike the other wh items we have seen, subject wh items can only appear in a fronted position. An example is (38).

- (38) a. ng'a ma oneno Onyango?
 who saw Onyango
 'Who saw Onyango?'
 b. *ng'a oneno Onyango?
 who saw Onyango
 'Who saw Onyango?'

In (38-a), the subject wh item is followed by *ma*, as we have seen for other fronted wh items. In (38-b), we see that if the subject wh item is not followed by *ma*, then the sentence is ungrammatical. This seems to indicate that subject wh items cannot appear in situ, but can only appear in the position before *ma*.

2.2 Discussion of *ma*

2.2.1 *ma* as focus marker

As I mentioned earlier, *ma* appears in many constructions, all mysterious. Regardless of the other uses of *ma*, the word orders in (38) are strikingly similar to the word order possibilities in Bahasa Indonesian, show in (39) (Saddy (1991, 1992); Fanselow (2006)).

- (39) a. Bill tahu Tom men-cintai siapa
 Bill knows Tom loves who
 'Who does Bill know that Tom loves?'
 b. siapa yang Bill tahu Tom cintai
 who FOC Bill knows Tom loves
 'Who does Bill know that Tom loves?' Fanselow (2006)

In (39-a), the wh item is *in situ*, while in (39-b), the wh item is moved to the front and followed by a morpheme analyzed as a focus marker. If Dholuo is behaving like Bahasa Indonesian, then *ma* in this case may function as a focus marker. In fact, Okoth-Okombo (1997) analyzes *ma* as a focus marker.

There are some discrepancies between the data in Okoth-Okombo (1997) and the data that we elicited. In particular, Okoth-Okombo (1997) states that (40-b) is not an appropriate answer to (40-a).

- (40) a. ng'a ma kelo kong'o
 who brings beer
 'Who is bringing beer?'
 b. Juma e ma kelo kong'o
 Juma COP brings beer
 'It is Juma who is bringing beer.' Okoth-Okombo (1997)

In our elicitation, we asked for the answer to (41-a), and the first answer offered to us was (41-b).

- (41) a. ng'a ma oneno Onyango?
 who saw Onyango
 'Who saw Onyango?'
 b. Achieng' e ma oneno Onyango
 Achieng' COP saw Onyango
 'It is Achieng' who saw Onyango.'

This appears to be the exact sort of discourse that Okoth-Okombo (1997) claims to be infelicitous. There must be some dialect variation here.

Regardless, we might analyze *ma* in these questions as a focus marker. It is true that it follows wh items, which are focused. However, our elicitations have not revealed any other focus marking involving fronting of a focused element or marking with *ma*. (For example, we have not seen *ma* marking on answers to wh questions, as in (42).) So if it is focus marking, it seems to only mark moved wh items. This brings into question the reasoning behind labeling *ma* as focus marking.

- (42) *Achieng' ma oneno Onyango
 Achieng' saw Onyango
 'Achieng' saw Onyango.'

Another problem with the analysis of *ma* as a focus marker is that although *in situ* wh items are also focused, they are not marked with *ma*.

2.2.2 *ma* as part of a cleft

In Dholuo, cleft structures involve a copula and *ma*. (43) is an example.

- (43) Pamba e ma Ochieng' konye
 Pamba COP Ochieng' helped.him
 'It is Pamba who Ochieng' helped.'

Since *ma* is present in clefts, we might wonder whether fronted wh items are really clefts in which the copula is not pronounced. Indeed, sometimes a copula can be pronounced when the wh item is fronted, as in (44-b).

- (44) a. ng'a ma nyo ok omiel?
 who PST NEG danced
 'Who didn't dance yesterday?'
 b. en ng'a ma nyo ok omiel?
 COP who PST NEG danced
 'Who was it that didn't dance yesterday?'

The consultant reported that the two questions in (44) bring about different meanings. (44-b) is only good if you have a single person in mind who didn't dance. For example, you heard that someone got injured and could not dance, but you didn't hear who. (44-a) does not have this reading. (44-a) is possible if you don't know how many people did and did not dance. It could be the case that everyone danced.

If the fronted wh item construction was a cleft with a missing copula, then we would expect it to have the same semantics as a cleft in Dholuo. (44-b) shows that clefts in Dholuo have the existence and uniqueness conditions that clefts in English have, but questions like (44-a) do not have these conditions. Therefore, it seems unlikely (44-a) is a cleft.

Fronting of wh items is also fully compatible with "mention some" type questions. (45) and (46) are examples.

- (45) ang'o ma dhiga ma ber gi ring diel?
 what goes good with meat goat
 'What goes well with goat?'
 (46) ang'o ma nyitendo ohero chamo?
 what children like eat
 'What do children like to eat?'

In (45), the obligatorily fronted subject is the wh item in the "mention some" question. This shows that the uniqueness presupposition that usually accompanies clefts is absent in this question. In (46), we see the same result from an object wh item, which is not obligatorily fronted. This shows further that fronted wh items do not always have the semantics of clefts.

Furthermore, if the fronted wh item construction was a cleft with a missing copula, then we would expect to be able to speak the copula overtly. However, this is not possible in every situation. It is possible in some questions, but not possible in the pair in (47).

- (47) a. nyo ng'a ma omiel?
 PST who danced
 'Who danced yesterday?'
 b. *nyo en ng'a ma omiel?
 PST COP who danced
 'Who danced yesterday?'

- c. *en nyo ng'a ma omiel?
 COP PST who danced
 'Who danced yesterday?'

It is possible to front *nyo* before subjects, even subjects that are wh items, as in (47-a). However, it is impossible to speak the copula before *ng'a*, as in (47-b), or at the front of the sentence, as in (47-c). This supports the claim that fronting of *ng'a* is not (always) a cleft.

2.2.3 Subject wh items

There is one more mystery about wh fronting in Dholuo. Why is it that subject wh items can only appear in a fronted position (before *ma*) and cannot appear in their *in situ* position (without *ma*)?

It seems more likely that *ma* is a focus particle than part of a cleft structure. If *ma* is a particle that indicates focus, then the fact that subject wh items cannot appear without *ma* might be simply because it is difficult to focus a subject. Cross-linguistically, subjects are often topics, given in discourse. Wh items should be inherently focused, but maybe in Dholuo, wh subjects need additional support in order to be focused. The subject position is a topic position, and subjects must move in order to be focused.

So far, we have seen examples of wh items *in situ* and examples in which wh items are fronted. Dholuo also exhibits a variety of partial movement known as simple partial movement. We will observe this in the next section.

3 Partial wh movement

3.1 Basic facts about partial movement

In addition to wh *in situ* and wh fronting, Dholuo exhibits what is called simple partial movement (SPM) (Fanselow (2006)). This means that a wh item can move to a position that is neither the front of the sentence, but rather some intermediate clausal edge. As with total wh movement, the wh item is followed by *ma*. An example of the three possible positions of wh items is in (48).

- (48) a. Onyango duaro ni Pamba ogwe **ng'a**?
 Onyango wants that Pamba kick who
 'Who does Onyango want Pamba to kick?'
 b. Onyango duaro ni **ng'a** ma Pamba ogwe?
 Onyango wants that who Pamba kick
 'Who does Onyango want Pamba to kick?'
 c. **ng'a** ma Onyango duaro ni Pamba ogwe?
 who Onyango wants that Pamba kick

‘Who does Onyango want Pamba to kick?’

(48-a) shows the *wh* item *in situ*, (48-b) shows the *wh* item in the intermediate clausal edge, and (48-c) shows the *wh* item at the front of the sentence. In the intermediate position, the *wh* item *ng’a* appears to be after the C head *ni* ‘that’. This shows that the *wh* item must be located in a specifier position in the left periphery below *ni* ‘that’, or it may be in the specifier position of a lower phase head, such as *v*.

Simple partial movement also occurs with other embedding verbs such as *wacho* ‘think’. This is exemplified in (49).

- (49) a. Pamba owacho ni Onyango ogweo **ng’a**?
Pamba said that Onyango kicked who
‘Who did Pamba say Onyango kicked?’
b. Pamba owacho ni **ng’a** ma Onyango ogweo?
Pamba said that who Onyango kicked
‘Who did Pamba say Onyango kicked?’
c. **ng’a** ma Pamba owacho ni Onyango ogweo?
who Pamba said that Onyango kicked
‘Who did Pamba say Onyango kicked?’

Since subject *wh* items can never be found *in situ*, there are two possible positions in a sentence with one layer of embedding.

- (50) a. Onyango duaro ni **ng’a** ma ogwea?
Onyango wants that who kick.me
‘Who does Onyango want to kick me?’
b. **ng’a** ma Onyango duaro ni ogwea?
who Onyango wants that kick.me
‘Who does Onyango want to kick me?’

With more layers of embedding, more positions are available.

- (51) a. Onyango paro ni Ochieng’ owacho ni Achieng’ ohero **ng’a**?
Onyango thinks that Ochieng’ said that Achieng’ loves who
‘Who does Onyango think Ochieng’ said Achieng’ loves?’
b. Onyango paro ni Ochieng’ owacho ni **ng’a** ma Achieng’ ohero?
Onyango thinks that Ochieng’ said that who Achieng’ loves
‘Who does Onyango think Ochieng’ said Achieng’ loves?’
c. Onyango paro ni **ng’a** ma Ochieng’ owacho ni Achieng’ ohero?
Onyango thinks that who Ochieng’ said that Achieng’ loves
‘Who does Onyango think Ochieng’ said Achieng’ loves?’
d. **ng’a** ma Onyango paro ni Ochieng’ owacho ni Achieng’ ohero?
who Onyango thinks that Ochieng’ said that Achieng’ loves

‘Who does Onyango think Ochieng’ said Achieng’ loves?’

These many word order options are also possible for adjunct questions, as shown in (52).

- (52) a. Pamba paro ni nyasi chakre **sa adi**?
Pamba thinks that party starts time how.many
‘When does Pamba think the party starts?’
- b. Pamba paro ni **sa adi** ma nyasi chakre?
Pamba thinks that time how.many party starts
‘When does Pamba think the party starts?’
- c. **sa adi** ma Pamba paro ni nyasi chakre?
time how.many Pamba thinks that party starts
‘When does Pamba think the party starts?’

There are some restrictions on how far wh items can move. wh items cannot move past a non-bridge verb like *nyero* ‘laugh’. This is shown in (53).

- (53) a. Ochieng’ onyero ni Achieng’ ohero **ng’a**?
Ochieng’ laughed that Achieng’ likes who
‘Who did Ochieng’ laugh that Achieng’ likes?’
- b. Ochieng’ onyero ni **ng’a** ma Achieng’ ohero?
Ochieng’ laughed that who Achieng’ likes
‘Who did Ochieng’ laugh that Achieng’ likes?’
- c. ***ng’a** ma Ochieng’ onyero ni Achieng’ ohero?
who Ochieng’ laughed that Achieng’ likes
‘Who did Ochieng’ laugh that Achieng’ likes?’

Some word order possibilities are ambiguous between matrix questions and embedded questions. This is shown in (54) and (55).

- (54) a. iparo ni Pamba owacho ni Amolo ochamo **ang’o**?
you.think that Pamba said that Amolo ate what
‘What do you think Pamba said Amolo ate?’
- b. aparo ni Pamba owacho ni Amolo ochamo **ang’o**
I.think that Pamba said that Amolo ate what
‘I think Pamba said what Amolo ate.’
- (55) a. iparo ni Pamba owacho ni **ang’o** ma Amolo ochamo?
you.think that Pamba said that what Amolo ate
‘What do you think Pamba said Amolo ate?’
- b. aparo ni Pamba owacho ni **ang’o** ma Amolo ochamo
I.think that Pamba said that what Amolo ate
‘I think Pamba said what Amolo ate.’

In (54) and (55), the only difference between the a. examples and the b. examples is the choice of matrix subject. In the a. examples, ‘you’ was picked as the matrix subject to help bring out the matrix question reading. In the b. examples, ‘I’ was picked to help bring out the declarative reading. The word order is otherwise the same. In (54), the *wh in situ* order can be used in the matrix question ‘What do you think Pamba said Amolo ate?’ and in the declarative ‘I think Pamba said what Amolo ate.’ In (55), the partially moved *wh* item can be used in the matrix question or in the declarative.

So far, we have seen that Dholuo allows for *wh in situ*, total *wh* movement, or partial *wh* movement to an intervening clausal edge. Dholuo can move the *wh* item past any number of verbs, as long as those verbs are bridge verbs like ‘think’ and not non-bridge verbs like ‘laugh’. We have also seen that in cases of *wh in situ* and in partial *wh* movement, sentences are ambiguous between matrix questions and embedded questions.

The partial *wh* movement data above are new. To my knowledge, they have not appeared in any previous grammars or papers on Dholuo. It is possible that the partial movement construction is fairly recent in the history of Dholuo, and this is why it has not been observed before now. One of our consultants commented that the partial movement constructions sound like something younger people say.

In the next section, I will compare Dholuo SPM to other cases of SPM reported in the literature.

3.2 Comparison to other languages

Fanselow (2006) compares a number of languages with simple partial movement. He states several generalizations about simple partial movement. In this section, I will briefly discuss these generalizations and show that Dholuo follows all of them.

- (56) Generalization S1: If a language tolerates SPM, it also tolerates *wh* elements *in situ* and allows full *wh* movement. (Fanselow (2006))

We have already seen that Dholuo allows *wh* items *in situ* and full *wh* movement. Therefore, Dholuo satisfies Generalization S1.

- (57) Generalization S2: If a construction is grammatical with SPM, it can also be constructed with a *wh* phrase *in situ*. (Fanselow (2006))

So far, we have not seen any examples where partial *wh* movement is possible and *wh in situ* is impossible. Later, we will see that there are a few islands for *wh* movement that are possible with *wh in situ*. We will not see any examples that are reversed, giving us no evidence that Dholuo violates Generalization S2.

- (58) Generalization S3: If a language allows SPM, wh phrases can move to focus positions and can bear focus markers in that language. (Fanselow (2006))

This generalization is motivated by languages such as Bahasa Indonesian, where a focus marker appears after a moved wh item.

- (59) a. Bill tahu Tom men-cintai **siapa**
 Bill knows Tom loves who
 ‘Who does Bill know Tom loves?’
 b. Bill tahu **siapa** yang Tom men-cintai
 Bill knows who FOC Tom loves
 ‘Who does Bill know Tom loves?’
 c. **siapa** yang Bill tahu Tom men-cintai
 who FOC Bill knows Tom loves
 ‘Who does Bill know Tom loves?’ Fanselow (2006)

The word orders in Bahasa Indonesian are remarkably similar to Dholuo, if *yang* is the same thing as *ma*. As discussed before, there are some problems with analyzing *ma* as a focus marker. In particular, Dholuo does not seem to have focus movement other than wh movement, and *ma* does not seem to appear as a focus marker in any other context. However, it is still possible that *ma* is a focus marker when it appears in wh questions. Therefore, to the extent that Dholuo has focus movement and focus marking, it seems to satisfy Generalization S3.

- (60) Generalization S4: A wh phrase that has undergone (partial) wh movement must not be separated from its scope position by an island for movement. (Fanselow (2006))

Generalization S4 simply means that wh movement is impossible out of islands, and that partial wh movement is no exception. I have not yet discussed islands in this paper, but we will see later that islands for wh movement are rarer than islands for wh movement in English. I will not present any data specific to partial movement and islands.

There is a notable point of variation among languages with SPM. This involves the ambiguity we noted before between matrix questions and embedded questions, reproduced in (61) and (62).

- (61) a. iparo ni Pamba owacho ni Amolo ochamo **ang’o**?
 you.think that Pamba said that Amolo ate what
 ‘What do you think Pamba said Amolo ate?’
 b. aparo ni Pamba owacho ni Amolo ochamo **ang’o**
 I.think that Pamba said that Amolo ate what
 ‘I think Pamba said what Amolo ate.’

- (62) a. iparo ni Pamba owacho ni **ang'o** ma Amolo ochamo?
 you.think that Pamba said that what Amolo ate
 'What do you think Pamba said Amolo ate?'
 b. aparo ni Pamba owacho ni **ang'o** ma Amolo ochamo
 I.think that Pamba said that what Amolo ate
 'I think Pamba said what Amolo ate.'

The a. and b. examples are only different with respect to the matrix subject in order to make the intended readings a little easier. I claimed that sentences of these types, both with wh words *in situ*, as in (61), and with wh words partially moved, as in (62), were ambiguous between matrix and embedded questions. This is different from Bahasa Indonesia, as in the data below (Fanselow (2006)).

- (63) a. kamu meng'gira Jon men-ceritakan Mary tahu Tom mem-beli **apa**?
 you think John mentioned Mary know Tom bought what
 'What do you think that John mentioned that Mary knows that Tom bought?'
 b. kamu gira Jon ceritakan Mary tahu **apa** yang Tom beli?
 you think John mentioned Mary know what FOC Tom bought
 'What do you think that John mentioned that Mary knows that Tom bought?'
 'You think that John mentioned what Mary knows that Tom bought'
 'You think that John mentioned that Mary knows what Tom bought' Fanselow
 (2006)

We see that the ambiguity in Dholuo does not occur in Bahasa Indonesia. However, this ambiguity does exist in Singaporean Malay (Fanselow (2006); Cole and Hermon (1998)). This is simply a point of variation among SPM languages.

In the next section, I will discuss multiple wh questions in Dholuo and what word orders are possible. The section after that will discuss islands in Dholuo.

4 Multiple wh questions

Dholuo allows for multiple wh questions. We only tested questions with two wh items which were both arguments. (64) is an example in which the wh items are the object and indirect object.

- (64) a. ?Ochieng' omiyo **ng'a ang'o**?
 Ochieng' gave who what
 'Who did Ochieng' give what?'
 b. **ng'a** ma Ochieng' omiyo **ang'o**?
 who Ochieng' gave what
 'Who did Ochieng' give what?'
 c. **ang'o** ma Ochieng' omiyo **ng'a**?
 what Ochieng' gave who

‘Who did Ochieng’ give what?’

(64) shows that it is possible to have both wh items in situ, or move one of them to the front. (65) shows that not all word orders are possible.

- (65) a. *Ochieng’ omiyo **ang’o ng’a**?
Ochieng’ gave what who
‘Who did Ochieng’ give what?’
- b. ***ang’o ma ng’a** ma Ochieng’ omiyo?
what who Ochieng’ gave
‘Who did Ochieng’ give what?’
- c. ***ng’a ma ang’o** ma Ochieng’ omiyo?
who what Ochieng’ gave
‘Who did Ochieng’ give what?’

(65-a) shows that the *in situ* positions are rigid. The direct object cannot precede the indirect object. (65-b) and (65-c) show that it is impossible to move both the indirect object wh item and the direct object wh item.

However, it does not appear that only one wh item can move, as shown by (66).

- (66) a. **ng’a** ma ochamo **ang’o**?
who ate what
‘Who ate what?’
- b. **ang’o** ma **ng’a** ma ochamo?
what who ate
‘Who ate what?’

(66-b) shows that both the subject and object can be fronted, with the result that the object precedes the subject. The reverse order, in which the subject and the object are both fronted with the subject first, is unavailable, as seen in (67).

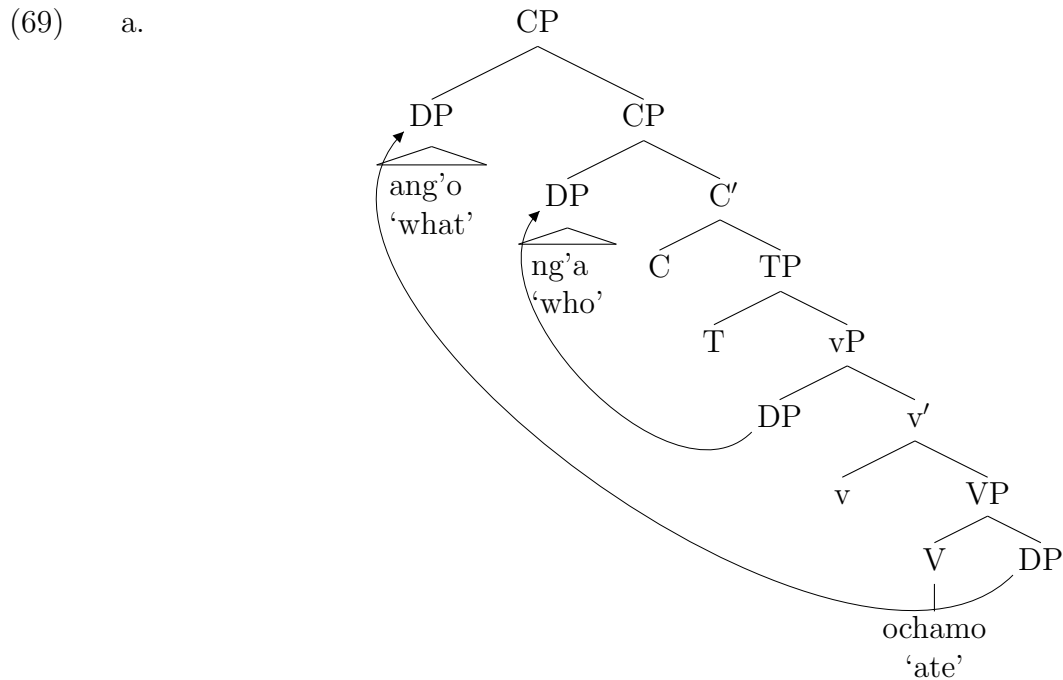
- (67) **ng’a** ma **ang’o** ma ochamo?
who what ate
‘What ate who?’, #‘Who ate what?’

The word order facts here are something of a mystery. When both the subject and object are fronted, the object comes first. This is something of an anti-superiority effect, and is the opposite of what happens with multiple wh fronting in Bulgarian (Bošković (1998)). One explanation might be that the *ma* that follows subject wh items is something different from wh movement, and really the object wh item is the only thing that moves. This might also explain why subject wh items can never appear without *ma*. However, the anti-superiority holds even when the subject and object are both moved from a lower clause, as in (68).

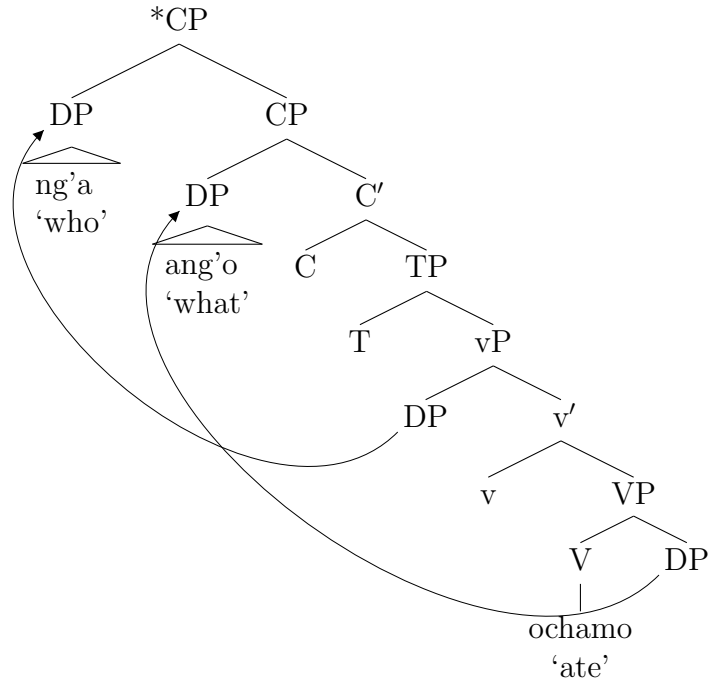
- (68) a. iparo ni ng'a ma ochamo ang'o?
 you.think that who ate what
 'Who do you think ate what?'
 b. ang'o ma ng'a ma iparo ni ochamo?
 what who you.think that ate
 'Who do you think ate what?'
 c. *ng'a ma ang'o ma iparo ni ochamo?
 who what you.think that ate
 'Who do you think ate what?'

In (68-a), the embedded subject and object are wh items. In (68-b), both are fronted and the object precedes the subject. In (68-c), both are fronted and the subject precedes the object. The consultant judged that (68-b) was grammatical, and judged (68-c) as ungrammatical.

The word order of multiple wh fronting in Dholuo might be explained by a general ban on crossing dependencies. The trees in (69) show that the illicit word order of (68) involves nested dependencies, while the licit word order involves crossing dependencies. I have left *ma* out of the tree, since I do not know what it is.

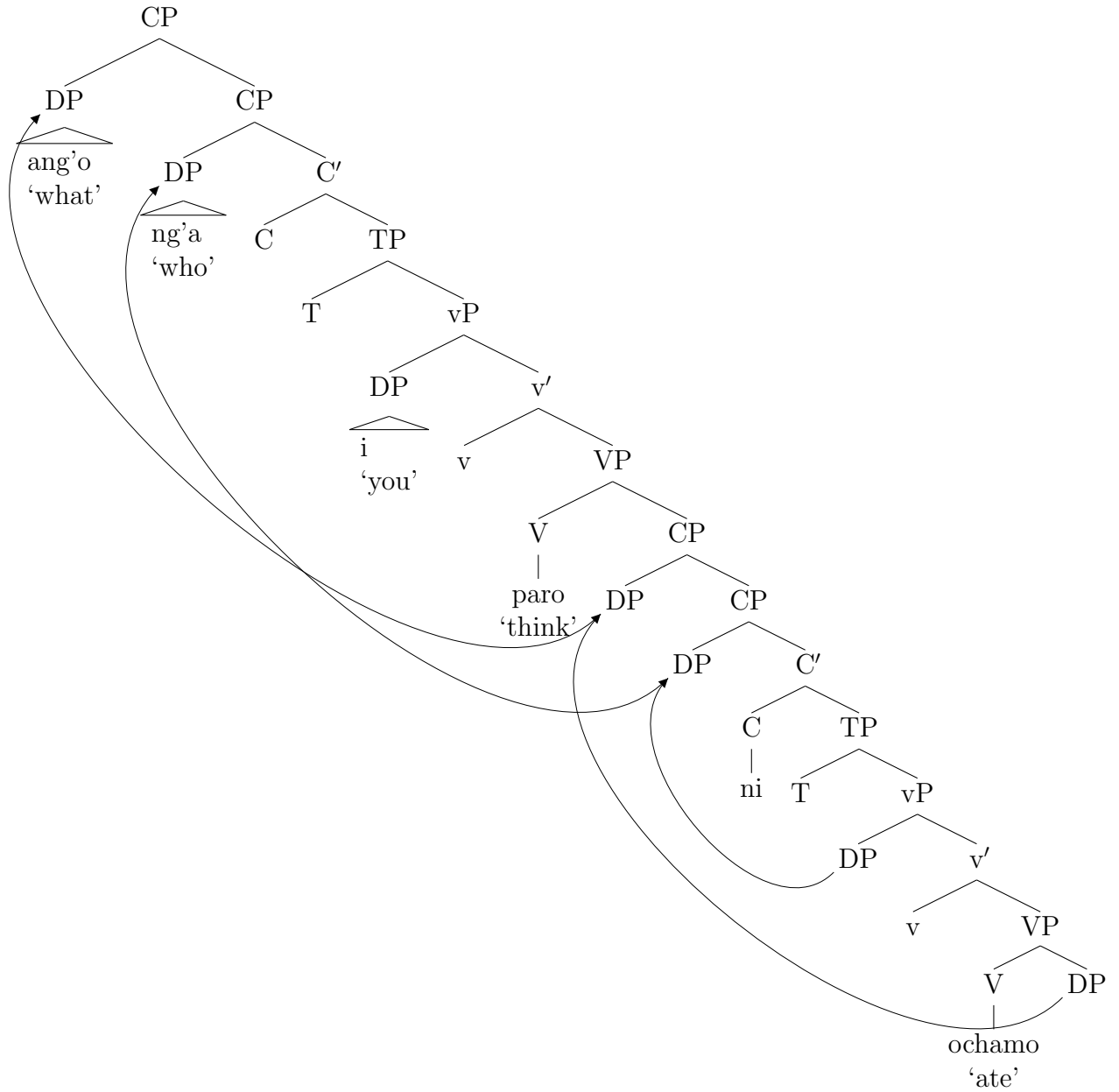


b.



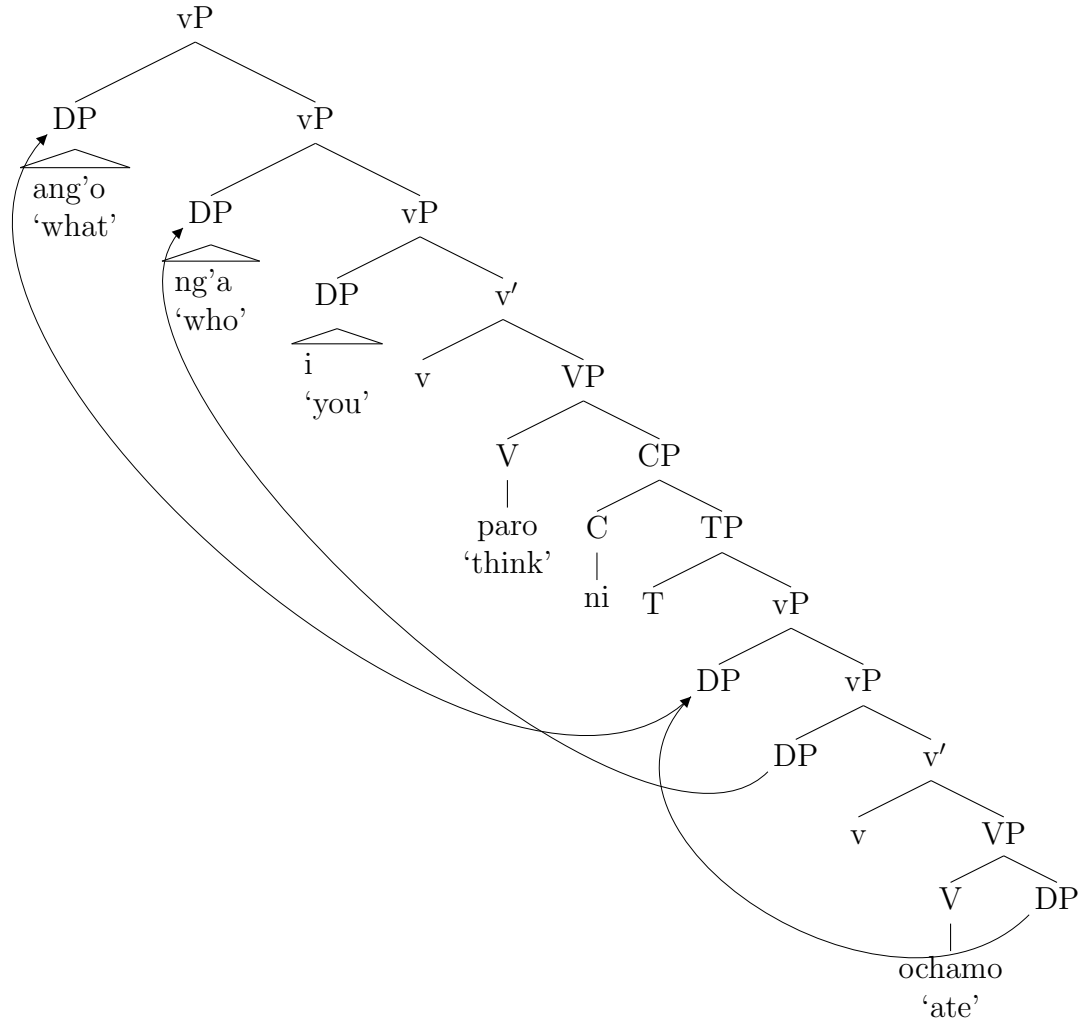
Based on just these sentences, we might attribute the anti-superiority effect to a general ban on crossing dependencies, which many languages have (Stabler (2004)). However, as soon as another clause is added, there will be crossing dependencies after all.

(70)



Another possible analysis is that wh movement in Dholuo passes through Spec,vP positions (Richards (2005)). The object wh item must raise to the lower Spec,vP position successive cyclically, above the base position of the subject. Then, any further movement obeys superiority.

(71)



The solution to this problem may very well depend on what happens with adjunct wh items. However, I leave this to further research.

5 Islands

No survey of wh movement in a language is complete without some discussion of islands. In this section, I will briefly survey the islands in Dholuo. We will see that some islands in English are also islands in Dholuo, some are not, and some are only islands if the wh item is extracted.

5.1 An island in Dholuo

The first conjunct is an island in Dholuo, for wh extraction and for wh in situ.

- (72) a. ?*Pamba ogoyo ng'a (ma) gi Ochieng'?
 Pamba hit who and Ochieng'
 'Who did Pamba hit -- and Ochieng'?'
 b. *ng'a ma Pamba ogoyo gi Ochieng'?
 who Pamba hit and Ochieng'
 'Who did Pamba hit -- and Ochieng'?'

In (72), we see that whether or not you extract the first conjunct *ng'a*, the question is ungrammatical.

5.2 Not islands in Dholuo

Wh-islands are not islands in Dholuo, as in (73).

- (73) a. Achieng' openjo ni ng'a ma ohero ng'a?
 Achieng' asked that who loves who
 'Who did Achieng' ask who loves --?'
 b. ng'a ma Achieng' ni openjo ng'a ma ohero?
 who Achieng' that asked who loves
 'Who did Achieng' ask who loves --?'

In (73-b), we can extract *ng'a* 'who' out of an embedded question.

Complex noun phrases are not islands in Dholuo, as in (74).

- (74) a. Pamba owinjo wach ni ng'a ma oyombo?
 Pamba heard news that who won
 'Who did Pamba hear the news that -- won?'
 b. ng'a ma Pamba owinjo wach ni oyombo?
 who Pamba heard news that won
 'Who did Pamba hear the news that -- won?'

In (74), we can have *ng'a* in the subject position of the complement to a noun, whether *in situ* or extracted.

Dholuo does not show Weak Crossover Effects, as in (75).

- (75) ng'a ma min-gi ohero?
 who mother-their loves
 'Who₁ does their₁ mother love?'

In (75), we can extract *ng'a* 'who' over a coindexed pronoun *gi* 'their'.

5.3 Islands in Dholuo for extraction only

Wh items within relative clauses are possible, but relative clauses are islands for extraction. This is evidenced in (77).

- (76) Achieng' oneno wuoi ma ohero Atieno
Achieng' saw boy loves Atieno
'Achieng' saw the guy who loves Atieno.'
- (77) a. Achieng' oneno wuoi ma ohero ng'a?
Achieng' saw boy loves who
'Who did Achieng' see the boy who loves __?'
- b. *ng'a ma Achieng' oneno wuoi ma ohero?
who Achieng' saw boy loves
'Who did Achieng' see the boy who loves __?'

(77-a) shows the wh item within a relative clause. (77-b) shows that this wh item cannot be extracted.

The second conjunct is an island for extraction, but wh *in situ* is possible.

- (78) a. Pamba ogoyo Onyango gi ng'a?
Pamba hit Onyango and who
'Who did Pamba hit Onyango and __?'
- b. *ng'a ma Pamba ogoyo Onyango gi?
who Pamba hit Onyango and
'Who did Pamba hit Onyango and __?'

We have seen that in several environments that are islands for wh extraction in English, extraction is allowed in Dholuo. These include wh islands, complex noun phrases, and Weak Crossover environments. In some environments, wh extraction is impossible in Dholuo, but wh *in situ* is possible. These include relative clauses and extracting a second conjunct. Finally, a wh item is impossible as a first conjunct, even when it is left *in situ*.

Notably, we have not seen any environments where extraction is possible but wh *in situ* is impossible. This is consistent with generalizations S2 and S4 of Fanselow (2006).

6 Conclusion

We have seen that in Dholuo, wh items can appear *in situ*, fronted, or at an intermediate clausal edge through SPM. The exception is that subject wh items cannot appear *in situ*, which may be due to information structure. When a wh item is partially or totally moved, it is followed by the mysterious function word *ma*. We discussed two different ideas about

ma. It was unlikely that *ma* was (always) part of a cleft. It is more likely that *ma* in this case indicates focus.

We also saw that in multiple wh movement, Dholuo exhibits a word order opposite to that of Bulgarian: in Dholuo, the subject wh item follows the object wh item. We saw that this might be due to superiority if wh items in Dholuo move through the Spec,vP layer of the lower clause. Finally, we saw a brief description of different islands in Dholuo. Some positions are impossible for wh extraction or wh *in situ*. Some positions are good for wh items *in situ*, but bad for wh extraction. Finally, some positions that are islands in English are not islands in Dholuo for wh extraction.

Since Dholuo has so many word order options for wh questions, it is an interesting case study in word order optionality. Dholuo would be a good place to look for further research in successive cyclicity and phases, islands, and partial movement.

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