The focus marker in Kîîtharaka: Syntax and semantics*

Abstract

This paper investigates a morpheme central to the clausal syntax of Kîîtharaka (SVO, Bantu, E54, Kenyan). The first sections of the paper offer a careful description of three functions of this morpheme, which marks information structure and cyclic movement. We show that the syntactic and semantic properties of the three functions fall into a neat hierarchy. Rather than treating the different uses of the morpheme as distinct, accidentally homophonous items, we suggest an account that needs to postulate only one morpheme, allowing it to realize different amounts of features in its different uses. Building on ongoing work in morphological theory by Starke (class lectures) and Caha (2007), we make the crucial assumption that the features in the lexical entry of a morpheme are hierarchically structured.

Keywords: Bantu, focus, late insertion, exhaustivity, cyclicity, left periphery, accidental homophony

1 Introduction

In this paper we discuss the syntax and semantics of the Kîîtharaka (SVO, Bantu, E54, Kenyan) focus marker (to be referred to as FOC). We discuss three different uses of this morpheme: a preverbal use indicating non-exhaustive focus, a prenominal use indicating exhaustive focus, and a preverbal use indicating successive cyclic movement. FOC in the three uses shows the same phonologically conditioned allomorphy (n vs. i), follows the same distributional law (the one-FOC-per-clause restriction, FOC never occurs postverbally, clauses in environments that allow one type of FOC also allow the other types), and triggers the same present tense allomorphy ($k\hat{u}$ as opposed to $r\hat{\imath}$). As we will show, these three observations make a treatment in terms of accidental homophony extremely unlikely. A further argument which militates against assuming accidental homophony comes from the fact that close scrutiny allows us to describe the three uses in terms

of a neat hierarchy of syntactic and semantic properties: the preverbal use is the simplest case, the marker of cyclicity adds some complexity, and the exhaustive focus marker on a fronted DP is the most complex.

In our account of these facts we treat FOC as the realization of a number of syntactic heads in the left periphery of the clause (Rizzi (1997)). The positioning in the left periphery essentially follows Clements' (1984a) and Schwarz' (2003) treatment of a similar particle, $n\tilde{\imath}$, in Kikuyu. Rizzi (1997) suggested that the left periphery of a clause should be decomposed as in (1). This model has been profitably applied to the syntax of Kîîtharaka previously in Muriungi (2003, 2005).
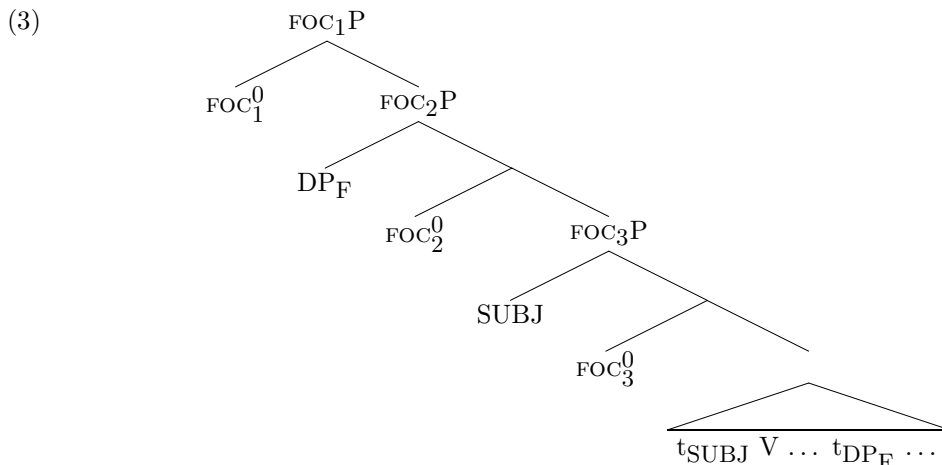
(1)   [Force [Top* [Foc [Top* [Fin]]]]][1]

We claim that FOC can realize three – possibly even more – different, locally related heads. We suggest to decompose Rizzi's Foc-head into the three components, $FOC_{1\text{-}3}$ in (2). The Kîîtharaka focus marker may realize either Foc_3 alone, or both of Foc_3 and Foc_2, or all three of the focus heads – as indicated by the ovals in (2). This, we claim, results in the simple preverbal focus marker, the preverbal marker of cyclicity, and the prenominal focus marker, respectively. When FOC realizes only one or two of the lower heads, the higher ones are assumed to be absent in the syntax.

(2)   [Force [Top* [FOC_1 [FOC_2 [FOC_3]] [Top* [Fin]]]]]]]

The word order facts we discuss are explained as follows. When Foc_3^0 is introduced, it attracts the subject, which is the closest DP, to its specifier, leaving FOC immediately adjacent to and preceding the verb. This is represented by the Foc_3P constituent in (3). When Foc_2^0 is introduced it attracts a DP with a focus feature, 'F' in the tree in (3), to its specifier. Phrases containing an exhaustive focus and wh-phrases carry the feature 'F.' Thus, Foc_2^0 triggers focus movement and successive cyclic wh-movement. We assume that the combination of Foc_3^0 and Foc_2^0 is realized in the position of Foc_3^0, explaining why FOC, when used as a marker of cyclicity, occurs immediately preverbally. Finally, Foc_1^0 gives rise to the semantics of exhaustivity associated with the prenominal use of FOC. The specifier of Foc_1^0 seems never to be filled. The combination of all three focus heads is realized in the position of Foc_1^0, which accounts for the prenominal placement of FOC in this use.

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[1] Rizzi (1997) uses the asterisk here as a notation for recursion borrowed from the Kleene star operator.

(3)

$$
\begin{array}{c}
\text{FOC}_1\text{P} \\
\end{array}
$$

[Tree diagram:]

- FOC$_1$P
  - FOC$_1^0$
  - FOC$_2$P
    - DP$_F$
    - FOC$_2^0$
    - FOC$_3$P
      - SUBJ
      - FOC$_3^0$
      - t$_{\text{SUBJ}}$ V $\cdots$ t$_{\text{DP}_F}$ $\cdots$

This is meant merely as a sketch of the proposal, which is explained in more detail in section 5 of the paper.

The structure of the paper is as follows. In section 2 we discuss in some detail the distribution of FOC. In particular, we establish in subsection 2.1 that there is at most one occurrence of FOC per clause. Subsection 2.2 illustrates that in all its uses FOC gives rise to the same restrictions regarding the clauses it can appear in. In subsection 2.3 we show that FOC never occurs postverbally; it is always preverbal. Section 2.4 shows that all three uses trigger the same present-tense allomorphy. In subsection 2.5 we demonstrate that FOC always occurs immediately in front of a nominal agreement marker. In cases where it appears on a moved focus, the constraint is even more stringent: only DPs can undergo the process.

In section 3 we discuss the interpretation of FOC. We claim that in its prenominal use FOC gives rise to an exhaustive focus interpretation while in its preverbal use it gives rise to a non-exhaustive focus interpretation. In subsection 3.1 we use the possibility of giving incomplete "for-example" answers as a test for lack of exhaustivity. In subsection 3.2, we use focus marking in single-pair versus pair-list answers to multiple questions as a test for exhaustivity. Finally in subsection 3.3 we use tests adapted from the literature (E. Kiss (1998)) to corroborate our findings.

The very short section 4 introduces the third use of FOC: its use as a marker of cyclicity. In this section we simply report conclusions from Muriungi (2003, 2005). In section 5 we develop our account of the main generalizations. Section 6 compares our account to the previous account in Harford (1997) and to accounts of the partially similar particle nĩ in Kikuyu, we also touch upon similarities and differences between FOC and the morpheme ra found in Kirundi. The last section provides a summary and mentions some open questions.

One major disclaimer is in order here. Kîîtharaka is a tone language, but we do not understand the grammar of tone sufficiently to be able to say if and how tone interacts with the focus-related phenomena studied in this paper. In fact, following the orthographic style of the Kîîtharaka bible, we do not indicate tone in our examples at all.

All data reported here reflect the native intuitions of the second author and a second infor-

mant, Colomba Kaburi.

2 The Distribution of foc

In Kîîtharaka there is a morpheme, which we call FOC, the focus marker, and which has two allomorphs. It occurs as *n* prevocalically, (4a-b), and as *i* preconsonantally, (4c-d).[2,3]

(4) a. Maria *n*- a-   gûr- ir-   e   î- buku
        1.Maria FOC- 1.SM- buy- PERF- FV 5- book
        'Maria bought a book.'

   b. *N*- Aana a-   gûr- ir-   e   î- buku
        FOC- 1.Ana 1.SM- buy- PERF- FV 5- book
        'Ana bought a book.'

   c. Kî- ûra *i*- kî-   rûm- ir-   e   î- ngoi
        7- frog FOC- 7.SM- bite- PERF- FV 5- donkey
        'The frog bit the donkey.'

   d. *I*- Maria a-   gûr- ir-   e   î- buku
        FOC- 1.Maria 1.SM- buy- PERF- FV 5- book
        'Maria bought a book.'

We call this morpheme a focus marker, because the felicity of the sentences above, (4), depends directly on information structure; thus, sentences with the focus marker adjacent to the verb, (4a, c), allow a wide range of interpretations: they are felicitous, for example, in all-new contexts, as answers to VP questions, but infelicitous as answers to narrow object questions. Sentences with the focus marker left-adjacent to the subject DP on the other hand, (4b, d), are infelicitous as answers to VP questions or narrow object questions, but this form is required in

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[2]Glosses are as follows: ADJ (adjective), APPL (applicative), ASS (associative marker), FOC (focus marker), FV (final vowel), FUT (future), HAB (habitual), LOC (locative), NEG (negation), OM (object marker), PASS (passive), PERF (perfective), PERS (person), PL (plural), PREF (prefix), PRES (present), PRON (pronoun), RECPST (recent past), REMPST (remote past), SG (singular), SM (subject marker), STAT (stative). A numeral on the gloss of a noun indicates the noun class, a numeral on SM, pronoun or nominal modifier indicates agreement with a noun of a particular class. ˆ marks tense vowels. This is the orthographical style used in the Kîîtharaka Bible and will be used in this paper. Diacritics on vowels do not indicate tone. In certain cases where the noun-class prefix is null or the morphological analysis is unclear, we do not gloss the two items individually, see, e.g., 'Maria' – 1.Maria in example (4a).

[3]Historically the morpheme might be related to a copulative verb in an earlier stage of the language, but a synchronic analysis of FOC as a copula is untenable (Muriungi (2005)). This is so despite the fact that there are sentences like (i), where FOC appears to act as the copula. We assume that there is a null copula present in these cases. The situation in Kîîtharaka is essentially the same as in Kikuyu (for which see Clements (1984a)).

Given the assumption that there is a null copula present in (i), we can treat FOC in (i) as a regular instance of the preverbal use of FOC. We do not know why it is obligatory in this kind of sentence.

(i)   Maria *(n-) û-   mû-   ajie
        1.Maria FOC- 1.SM- 1PREF- sick
        'Maria is sick.'

answers to narrow subject questions. We discuss and exemplify these patterns extensively in section 3.

In addition to its use as focus marker, FOC, that is, a morpheme with the two phonologically conditioned allomorphs *i* and *n*, is used in Kîîtharaka to introduce *by*-phrases in passive sentences, (5). FOC also occurs initially on moved *wh*-phrases (many examples below), and it occurs preverbally along the path of successive cyclic movement (see section 4, for detailed discussion see Muriungi (2005)). This paper concentrates for the most part on FOC's function as a focus marker. We leave aside the morpheme that introduces a *by*-phrase. A major reason for this is that although this morpheme shows the *n/i*-allomorphy exhibited by FOC, the morpheme that introduces by-phrases fails to conform to the one-FOC-per-clause restriction, as shown in (5).

(5)   a.   Maria   n-   a-   gûr- î-   îr-   w-   e   î- buku *i*- Mfana
           1.Maria FOC- 1.SM- buy- APPL- PERF- PASS- FV 5- book (?)- 1.Mfana
           'Maria was bought a book by Mfana.'
      b.   Maria   n-   a-   gûr- î-   îr-   w-   e   î- buku *n*- îî- gûna
           1.Maria FOC- 1.SM- buy- APPL- PERF- PASS- FV 5- book (?)- 5- monkey
           'Maria was bought a book by a monkey.'

We will now describe in some detail the distribution of FOC in its focus-marking function. The generalizations that emerge are as follows: (i) there is never more than one occurrence of FOC per clause; (ii) whenever FOC can appear in a clause in one of its functions, then it can also appear in its other functions; (iii) FOC never occurs postverbally, that is, it is always to the left of the canonical position of the verb; (iv) FOC always gives rise to a present tense allomorphy; and (v) FOC only occurs immediately left-adjacent to morphemes that express nominal ϕ-features, that is, noun-class markers and subject-agreement markers on the verb. In this section, we demonstrate these properties one by one. We account for them by assuming that FOC occupies a designated contiguous set of positions within the functional hierarchy of the clause. Assuming that the functional projections that make up the clause are linearly ordered – an assumption underlying most cartographic work, see for example Cinque (1999, 2002); Rizzi (2004); Belletti (2004); Cinque (2006) – we derive why there can only be one occurrence of FOC per CP. Furthermore, if this position is fairly high within the functional hierarchy, in Rizzi's (1997) left periphery, we can explain why the verb always follows FOC and why FOC never breaks up a focused DP. Based on a suggestion about deficient left peripheries in Haegeman (2006), we can also account for the distribution of FOC in various types of embedded clauses.

2.1   One foc per clause

FOC in Kîîtharaka obeys the generalization that there can be at most one instance of it per clause. This generalization is illustrated in (6). The moved *wh*-phrase in (6a) must be focus marked. This rules out the appearance of the focus marker on the verb, on the subject, and on the beneficiary. Example (6b) represents a possible answer to (6a) and again, focus marking on the fronted object precludes focus marking on the subject, the verb, and the beneficiary.

(6) a. *I- mbi* (* *i-*) Maria (* *n-*) a-   gûr- î-   îr-   e (* *i-*) mw-
         FOC- what FOC- 1.Maria FOC- 1.SM- buy- APPL- PERF- FV   FOC- 1-
         arimû
         teacher
         'What did Maria buy for the teacher?'
     b. *N- î- buku* (* *i-*) Maria (* *n-*) a-   gûr- î-   îr-   e (* *i-*) mw-
         FOC- 5- book   FOC- 1.Maria FOC- 1.SM- buy- APPL- PERF- FV   FOC- 1-
         arimû
         teacher
         'Maria bought the teacher a book.'

In a different kind of context, *book* in (6b) might be topicalized and thus not FOC-marked. In this case focus marking on the subject or on the verb is possible but not on both, (7).

(7) a. *Î- buku i-*   Maria (* *n-*) a-   gûr- î-   îr-   e (* *i-*) mw- arimû
         5- book FOC- 1.Maria   FOC- 1.SM- buy- APPL- PERF- FV   FOC- 1- teacher
         'The book, Maria bought it for the teacher.'
     b. *Î- buku* (* *i-*) Maria *n-* a-   gûr- î-   îr-   e (* *i-*) mw- arimû
         5- book   FOC- 1.Maria FOC- 1.SM- buy- APPL- PERF- FV   FOC- 1- teacher
         'The book, Maria bought it for the teacher.'

Finally, two separate focus markers are possible as long as they occur in different clauses, (8).

(8) N-   ûû (* *n-*) a-   ug- ir- e n-   *î- buku* (* *i-*) Maria (* *n-*) a-
     FOC- who   FOC- 1.SM- say- PERF- FV FOC- 5- book   FOC- 1.Maria   FOC- 1.SM-
     gûr- î-   îr-   e (* *i-*) mw- arimû
     buy- APPL- PERF- FV   FOC 1-   teacher
     'Who said that it is a book that Maria bought for the teacher?'[4]

The generalization that no clause may contain more than one focus marker is exceptionless (for discussion of an apparent counterexample, see subsection 2.3 below). It also holds when FOC is attached to the verb and acts as a marker of successive cyclicity. On the other hand, there is nothing wrong with a clause containing no focus marker at all, (9). Such sentences are typically interpreted with narrow object focus. We discuss these cases in section 3. Where narrow object focus is impossible, for example with intransitive verbs, a focus marker must appear either on the verb or on the subject, (10a-b). Note though that a postverbal adverbial can license the disappearance of the focus marker just in case it is narrowly focused, (10c). This is not the case when FOC precedes the null copula. In this case it remains obligatory, see fn. 3.

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[4]Sometimes, like in this example, we translate sentences with focus fronting by clefts in English. While we do not assume a cleft analysis for sentences with prenominal FOC, clefts often represent the interpretation of the examples well. We discuss the drawbacks of the cleft analysis in section 6.

(9) Maria   a-   gûr- ir-   e   î- buku
     1.Maria 1.SM- buy- PERF- FV 5- book
     'Maria bought a book.'

(10) a. Maria   *(n-) a-   kiny- ir-   e
        1.Maria   FOC- 1.SM- arrive- PERF- FV
        'Maria arrived.'
     b. *(I-) Maria   a-   kiny- ir-   e
        FOC- 1.Maria 1.SM- arrive- PERF- FV
        'Maria arrived.'
     c. Maria   a-   kiny- ir-   e   rû- kîîrî
        1.Maria 1.SM- arrive- PERF- FV 11- morning
        'Maria arrived in the morning.'

The generalization in this subsection, that there can be at most one instance of FOC per clause, follows under our account, from the assumption that FOC has a designated position in the functional hierarchy of the clause.

2.2 External distribution of clauses with foc

There are two important generalizations we would like to point out concerning the external distribution of clauses with FOC. First, the clauses that may contain FOC form a restricted set – part of a larger cross-linguistic pattern. Second, all uses of FOC pattern together in this respect: if preverbal FOC is possible in a particular environment, then so is prenominal FOC, and if preverbal FOC is impossible, then so is prenominal FOC.

We need to introduce two taxonomies to be able to give our description. First we need to distinguish between different types of clause-embedding predicates. Following Hooper and Thompson (1973) we distinguish between *strongly assertive* predicates ('say'), *weakly assertive* predicates ('believe'), *non-assertive* predicates ('deny'), *factive* predicates ('know'), and *semifactive* predicates ('discover'). It turns out that clauses containing FOC are fully acceptable under strongly and weakly assertive verbs, as well as in the complement clause of semifactives. Clauses containing FOC under non-assertive and factive verbs are dubious. We exemplify these observations here only with strongly assertive verbs, (11), and non-assertive verbs, (12).

(11) a. John   a-   ug- ir-   e atî Maria   n-   a-   and- ir-   e ma- ûa
        1.John 1.SM. say- PERF- FV that 1.Maria FOC- 1.SM- plant- PERF- FV 6-   flowers
        'John said that Maria planted flowers.'
     b. John   a-   ug- ir-   e atî i-   ma- ûa   Maria   a-   and- ir-   e
        1.John 1.SM. say- PERF- FV that FOC- 6-   flowers 1.Maria 1.SM- plant- PERF- FV
        'John said that Maria planted flowers.'

(12) a. ??Maria n-   a-   kan- ir-   e atî John   n-   a-   un- ir-   e mû-
        1Maria FOC- 1.SM- deny- PERF- FV that 1.John FOC- 1.SM. break- PERF- FV 3-
        rango
        door
        'Maria denied that John broke the door.'

b. ??Maria n- a- kan- ir- e atî i- mû- rango John a- un-
1Maria FOC- 1.SM- deny- PERF- FV that FOC- 3- door 1.John 1.SM. break-

ir- e
PERF- FV

'Maria denied that John broke the door.'

The second distinction we need to draw is between what Haegeman (2006) calls central and peripheral adverbial clauses. Typical examples of central adverbial clauses are temporal adverbial clauses, which modify the event of the matrix clause. A typical example of a peripheral adverbial clause would be a concessive; concessives do not modify the event of the matrix clause, but specify how the information in the matrix clause is to be fitted into the larger discourse. Example (13) (Haegeman, 2006, p. 29 ex. 3) illustrates both types, showing also that the same conjunction, here *while*, can sometimes embed a central adverbial clause, (13a), and sometimes a peripheral one, (13b).

(13) a. These men worked for Clinton <u>while</u> he was governor.
      b. <u>While</u> [Dr Williams'] support for women priests and gay partnerships might label him as liberal, this would be a misleading way of depicting his uncompromisingly orthodox espousal of Christian belief. (Guardian 02.03.02, 9, col. 1-2)

In Kîîtharaka FOC may appear in clear cases of peripheral adverbial clauses and may not appear in clear instances of central adverbial clauses, (14) vs. (15).

(14) a. Kinya û- ka- îgu- a Maria n- a- ring- ir- e John n-
         even AGR- if- BE- FV 1.Maria FOC- 1.SM- hit- PERF- FV 1.John 1.PERS.SG-

         ka- mu- reker- a
         FUT- 1.OM- forgive- FV
         'Even though Maria hit John, I will forgive her.'
      b. Kinya û- ka- îgu- a i- John Maria a- ring- ir- e n-
         even AGR- if- BE- FV FOC- 1.John 1.Maria 1.SM- hit- PERF- FV 1.PERS.SG-

         ka- mu- reker- a
         FUT- 1.OM- forgive- FV
         'Even though Maria hit John, I will forgive her.'

(15) a. Rira Maria (*n)- a- ku- rug- ag- a nyama John n- a- ku-
         when 1.Maria FOC- 1.SM- PRES- cook- HAB- FV 9.meat 1.John FOC- 1.SM- PRES.

         thamb- ag- a
         bathe- HAB- FV
         'When Maria was cooking meat, John was bathing.'
      b. *Rira i- nyama Maria a- ku- rug- ag- a John n- a- ku-
         when FOC- 9.meat 1.Maria 1.SM- PRES- cook- HAB- FV 1.John FOC- 1.SM- PRES.

         thamb- ag- a
         bathe- HAB- FV
         'When Maria was cooking meat, John was bathing.'

FOC is also impossible in infinitival complements and finally it is disallowed in the highest

clause of a relative clause but is possible in more deeply embedded clauses within a relative. In all cases, the prenominal and the preverbal use of FOC pattern together, suggesting that a unifying analysis is called for. The sensitivity to clause-type suggests that FOC is part of the functional structure of the clause.

Interestingly, facts like those found in Kîîtharaka have been discovered in other languages. Judging from the examples in Clements (1984a) and Bergvall (1987), the distribution of the particle *nĩ* in Kikuyu closely mirrors that of FOC in Kîîtharaka. Also, argument topicalization is disallowed in English in exactly those environments where FOC-marking is disallowed (see Haegeman (2006) for discussion and references). Topicalization in Japanese appears to be restricted to the same types of environments where FOC is found (Maki et al. (1999); Yamato (2007)). These are also the same environments where embedded V2 is found in the Scandinavian languages (see Yamato (2007); Bentzen et al. (2007) for discussion and references). Haegeman (2006, p. 36-37) suggests that structures that allow embedded argument topicalization in English have a full-fledged structure in the left periphery, as in (16a), whereas those that do not have the impoverished structured in (16b).

		Subordinator	Topic	Focus	Force	Modality*	Finiteness
(16)	a.	Subordinator	Topic	Focus	Force	Modality*	Finiteness
	b.	Subordinator				Modality*	Finiteness

We tentatively adopt this proposal (though the alternative in terms of operator movement proposed in Haegeman (2007) would also do the job), noting only that on our account the Focus projection is decomposed further. Treating the impossibility of FOC in certain contexts in terms of an impoverished left periphery of the clause is, to be sure, an update of Clements' proposal for Kikuyu according to which those environments where *nĩ* is impossible lack a COMP node.

2.3   foc never occurs postverbally

As mentioned at the beginning of this section, the focus marker never occurs postverbally. Thus, although Kîîtharaka allows the question word *what* in (17a) to remain in situ, it may not be marked morphologically with FOC in the postverbal position. Likewise, the focused object in the answer to (17a), (17b), may remain in situ but must not be focus marked.

(17)   a.   Maria   a-   gûr- ir-   e   (*i)- *mbi*
            1.Maria 1.SM-   buy- PERF- FV   FOC- what
            'What did Maria buy?'
       b.   Maria   a-   gûr- ir-   e   (*n)- *iî- buku*
            1.Maria 1.SM-   buy- PERF- FV   FOC- 5- book
            'Maria bought a book.'

There is however one apparent counterexample both to the generalization that FOC cannot occur postverbally, and that there can be maximally one focus marker per clause. This is the *wh*-phrase 'why'. In situ this *wh*-phrase occurs as 'because of what', ex situ as 'what because', (18b). The crucial word is *nûntû*, which is apparently made up of the noun *ûntû* 'thing' and FOC.

(18) a. Maria   a-   gw- îîr- e kî- gerio *nûntû bw- a   mbi*
          1.Maria 1.SM- fall- PERF- FV 7- exam because 14- ASS what
          'Why did Maria fail the exam?'

      b. *I-   mbi nûntû* Maria   a-   gw- îîr- e kî- gerio
          FOC- what because 1.Maria 1.SM- fall- PERF- FV 7- exam
          'Why did Maria fail the exam?'

      c. *I-* Maria   a-   j-   ir-   e nûntû n- a-   kw- end- ag- a kû-
          FOC- 1.Maria 1.SM- come- PERF- FV because FOC- 1.SM- PRES- like- HAB- FV 15-
          on- a   John
          see- FV 1.John
          'Maria came because she wanted to see John.'

The decomposition of *nûntû* into the noun *ûntû* 'thing' and FOC flies in the face of the generalization that FOC never occurs postverbally, (18a), and it also violates the generalization that there can be no more than one focus marker per clause, (18b-c). The easiest way to deal with this case is to be to assume that *nûntû* is simply not morphologically complex and, in particular, that the initial *n* should not be analyzed as FOC. However, we believe that the decomposition of *nûntû* into two morphemes, *n* and *ûntû* 'thing', is strongly supported by the following observations. Kîîtharaka links possessed nouns and their possessors together using a linking morpheme, glossed as ASS (for the traditional term "associative marker"), which agrees in class with the possessed, that is, the head noun, (19).

(19) a. Gî kombe gî- / *rî- a   ka- ana
          7- cup   7- / 5- ASS 12- child
          'The cup of the child'

      b. Î- ngoi   rî- / *gî- a   ka- ana
          5- donkey 5- / 7- ASS 12- child
          'The donkey of the child'

In (18a), we see *nûntû* triggering class 14 agreement. This is expected given our decomposition; the noun *ûntû* 'thing' belongs to class 14, as shown in (20). Thus, if *nûntû* is decomposed into *n* 14- *ntû*, the agreement is regular. On the other hand, if the initial *n* is not treated as a separate morpheme, then we would have to treat it either as part of the noun (with a zero class 1 prefix) or as a class 9/10 prefix (most nouns that start with *n* in Kîîtharaka belong to class 9, or the plural of class 9, which is class 10). Class 1 is ruled out, because then agreement on the linking morpheme would be realized as *w*, as in (21a), rather than *bw*, as in (20). Moreover, most nouns in class 1 denote humans, professions, etc. Class 9 and 10 agreement on ASS is *j* and *ci* respectively, as shown in (21b) and (21c). (18a) and (20) clearly show class 14 agreement, which forces us to decompose *nûntû* into *n* and *ûntû*.

(20) û- ntû   bw- a   ma- gegania
      14- thing 14- ASS 6- miracle
      'a miraculous thing'

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(21) a. ∅ Mfana w- a   Kînyua
          1- Mfana 1- ASS 1.Kinyua
          'Mfana of/son of Kinyua'
      b. n- jogu   j- a   ∅- Maria
          9- elephant 9- ASS 1- Maria
          'Maria's elephant'
      c. n- jogu   ci- a   ∅- Maria
          10- elephant 10- ASS 1- Maria
          'Maria's elephants'

The solution appears to be that *n* in (18) should be related to the morpheme introducing *by*-phrases, (5), rather than the focus marker. Support for this analysis comes from the fact that *by*-phrases in Kîîtharaka can also be used as free cause adjuncts, as in (22b), which is synonymous with (22a).

(22) a. Maria   n-   û-   mû- nog- u   nûntû bw- a   wîîra
          1.Maria FOC- 1.SM- pref1- tire- ADJ because 14- ASS 9.work
          'Maria is tired because of work.'
      b. Maria   n-   û-   mû- nog- u   i- wîîra
          1.Maria FOC- 1.SM- pref1- tire- ADJ ? 9.work
          'Maria is tired because of work.'

The preverbal form of *why* in (18b), with its inversion of *nûntû* and *mbi* is, at least synchronically, apparently a frozen form akin to English *how come*. The appearance of the morpheme *n/i* in (18) is not dictated by information structure but by the semantics which it shares with the *by*-phrase.

We consider the generalization that FOC never occurs postverbally as solid and account for it by assuming that the functional heads related to information structure are located fairly high, in the left periphery of the clause.

2.4   foc and present tense allomorphy

We have seen some reason to treat FOC in the three uses as the same morpheme. A further argument for treating all uses of FOC uniformly can be derived from the interaction of FOC with the present tense prefix. Kîîtharaka has two present tense allomorphs, *kû* and *rî*. *rî* occurs when there is no focus marker in the clause; thus, whenever there is a *wh* or focus in situ, the tense allomorph must be *rî*. The question-answer pair in (23) illustrates this.

(23) a. Maria   a-   {✓rî- | *kû-} rug- a   mbi
          1.Maria 1.SM- PRES- PRES- cook- FV what
          'What is Maria cooking?'
      b. Maria   a-   {✓rî- | *kû-} rug- a   mboco
          1.Maria 1.SM- PRES- PRES- cook- FV 10.bean
          'Maria is cooking beans.'

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On the other hand, whenever there is a focus marker present, the tense allomorph has to be *kû*. This holds for the preverbal use of FOC (24), its use as a cyclicity marker – in the embedded clause in (25)– and in its prenominal use, (26).

(24) Maria   n-   a-   {✓kû- | *rî-} rug- a
      1.Maria FOC-   1.SM-   PRES- PRES-   cook- FV
      'Maria is cooking.'

(25) I-   mbi û-   {✓kû- | *rî-} thugani -a Maria   n-   a-   {✓kû- | *rî-}
      FOC- what 2.PERS.SG-   PRES- PRES-   think   -FV 1.Maria FOC-   1.SM- PRES- PRES-
      thugani -a John   n-   a-   {✓kû- | *rî-} rug- a
      think   -FV 1.John FOC-   1.SM-   PRES- PRES-   cook- FV
      'What do you think Maria thinks John is cooking?'

(26) a. I-   mbi Maria   a-   {✓rî- | *kû-} rug- a
          FOC- what 1.Maria 1.SM-   PRES- PRES-   cook- FV
          'What is Maria cooking?'
      b. I-   mboco Maria   a-   {✓kû- | *rî-} rug- a
          FOC- bean 1.Maria 1.SM-   PRES- PRES-   cook- FV
          'Maria is cooking beans.'

These facts strengthen the claim that the three uses of FOC are manifestations of the same morpheme, and calls for an analysis that unifies the three uses.[5] In the next section we provide a further argument for treating all manifestation of FOC as the same morpheme: the fact that all use uses of FOC appear adjacent to nominal ϕ-features.

2.5 The affinity of foc to nouns

As stated at the beginning of this section, the focus marker always occurs immediately left-adjacent to a morpheme expressing nominal ϕ-features. Furthermore, it never appears inside of complex noun phrases but always at the very beginning of a major clausal constituent, (27). In other words, (27b) is impossible even in a context where there is narrow focus on the possessor, as in an answer to the question "Whose parents did Maria see?".

(27) a. *N-*   aa- ciari   b- a   John   Maria   a-   on- ir-   e
          FOC - 2- parent 2- ASS 1.John 1.Maria 1.SM-   see- PERF- FV
          'Maria saw John's parents.'
      b. **A- ciari   b- a   *i-*   John   Maria   a-   on- ir-   e
          2-   parent 2- ASS FOC   1.John 1.Maria 1.SM-   see- PERF- FV
          'Maria saw John's parents.'

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[5]We thank an anonymous reviewer who pointed to us the relevance of the tense allomorphy for a unification of the three occurrences of FOC. We do not have an account of this allomorphy, though. We should also note here that there are some other interesting interactions between tense and FOC. On the one hand, there are tenses that FOC cannot co-occur with. These are the present perfect tense, and the future. On the other hand, the present progressive requires FOC. We do not have an account of these interactions either. For full details regarding the interaction between tense and FOC, see Muriungi (2005, p. 46-47).

We account for the impossibility of FOC in DP-medial position by assuming that FOC is part of the functional structure of the clause rather than the DP. In other words, the fact that FOC does not occur medially in complex DPs suggests to us that FOC and DP are generated in separate positions and that DP does not move together with FOC to the preverbal position. Nevertheless, FOC has a close affinity to nouns, as the discussion below demonstrates. Preverbally FOC occurs only on verbs that show agreement with the subject. The agreement marker carries nominal ϕ-features (it shows class marking) and is the first prefix on the verb after the focus marker. FOC thus ends up adjacent to a morpheme carrying nominal ϕ-features. The same is true when FOC apears on a moved constituent: FOC is always immediately adjacent to a morpheme expressing nominal ϕ-features. When it attaches to a moved focus, FOC additionally requires the moved constituent to be a DP. Inflected verbs do not undergo focus fronting in Kîîtharaka, only their nominalized counterparts do. We show first that FOC never attaches to modified DPs unless they come with an initial class-agreement prefix. We then discuss the interaction of FOC with adpositions, adverbials, and finally show that predicate fronting (predicate cleft constructions) require a categorial shift of the verb to DP.

2.5.1 foc and nominal modifers

Nouns in Kîîtharaka can take a wide range of postnominal modifiers and a small number of prenominal modifiers. They come in the following neutral order (see Muriungi (2006)).[6]

(28) **Focus particle** > **Quantifier** > *NOUN* > **Demonstrative** > **Genitive** >
      even/also   every   N   that   of-mine
      Numeral > **Adjective** > **AssociativeP** > **Relative-clause** > **Quantifiers**
      two   red   of-maths   only/alone/all

Genitives are typically possessors or agents while associative phrases are typically nominal complements, materials, origins, etc. The above order is illustrated in the following examples.

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[6]There is a structure where the demonstrative precedes the noun, (ic). Such noun phrases are obligatorily interpreted as topics. Evidence for this comes from the following facts: Unlike ordinary noun phrases, demonstrative initial noun phrases cannot remain in situ, (ia) versus (ib); they must undergo a process which looks like topicalization or clitic left dislocation, (ic), where the object marker on the verb is obligatory; extracted foci do not allow the insertion of the object marker, unless the gap and the extracted focus are separated by a syntactic island; demonstrative initial noun phrases cannot appear with FOC attached to them, (id).

(i)   a. ✓A- ritwa   ba-   ga- tur- a   mw- arimû   û- jû   ntugu imwe
           2- student 2.SM- FUT- beat- FV 1-   teacher 1- this day   one
           'The student will beat this teacher one day.'
       b. ??A- ritwa   ba-   ga- tur- a   û- jû   mw- arimû   ntugu imwe
           2- student 2.SM- FUT- beat- FV 1- this 1-   teacher day   one
           'The student will beat this teacher one day.'
       c. ✓Û- jû   mw- arimû, a- ritwa   ba-   ka- mû- tur- a   ntugu imwe
           1- this 1-   teacher 2- student 2.SM- FUT- OM1- beat- FV day   one
           'This teacher, the student will beat him one day.'
       d. **N-   ûû- jû   mw- arimû a- ritwa   ba-   ka- mû- tur- a ntugu imwe
           FOC- 1-   this 1-   teacher 2- student 2.SM- FUT- OM1- beat- FV day   one

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(29) Maria a- ri- ij- îît- e *i- kombe bi- bi bi- a kwa bi- tano bi- tune*
1.Maria 1.SM- PERF- steal- STAT- FV 8- cup 8- this 8- ASS mine 8- five 8- red
bi- a n gûrûndi
8- ASS 9- gold
'Maria had stolen these five red cups of mine of gold.' (N>Dem>Gen>Num>Adj>AsP)

(30) John a- ra- gur- ir- e *i- kombe bi- a n- gûrûndi bi- ra bi-*
1.John 1.SM- RECPST- buy- PERF- FV 8- cup 8- ASS 9- gold 8- that 8-
ra- ij- îît- w- e bi- onthe
RECPST- steal- stative- PASS- FV 8- all
'John bought all the cups of gold that were stolen.' (AsP>Rel>Q)

(31) a. *Kinya kîra* mw- arimû n- a- aj- ir- e patî- ni
even every 1- teacher FOC- 1.SM- come- PERF- FV party- LOC
'Even all of the teachers came to the party.'
b. Maria n- a- on- ir- e *kinya kîra* mw- arimû
1.Maria FOC- 1.SM- see- PERF- FV even every 1- teacher
'Maria saw even every teacher.'

The focus marker may immediately precede all and only those modifiers that show agreement. All postnominal modifiers except for *akî* - 'only' show some form of noun-class agreement.[7] None of the prenominal modifiers show noun-class agreement.[8] Thus, FOC may precede a demonstrative, (33i), or a demonstrative introducing a relative clause, (33ii), an adjective, (35), a numeral, (37), and one of the postnominal quantifiers, 'all' (39). But, as shown below, it cannot precede any of the prenominal modifiers.

(32) **Q:** I- mû- ritwa û- rikû w- eend- eet- e mûno
FOC- 1- student 1- which 2.PERS.SG- love- STAT- FV very
'Which student do you love a lot?'

(33) **A:** (i) ✓n- ûû- yû
FOC- 1- this
'This one'

(ii) N- ûû- ra a- coor- ir- e mbica j- a njogu
FOC- 1- that 1.SM- draw- PERF- FV 9.picture 9- ASS 9.elephant
'The one that drew a picture of an elephant.'

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[7]The two expressions *nka* - 'alone' and *nthe* - 'all' come with a full pronoun agreeing in class with the head noun of the construction instead of with the usual class agreement morphology.

[8]Our use of the term prenominal modifier might seem too loose to some. We wish to include in this term not only the quantifiers but also the focus sensitive particles 'even' and 'also'.

(34) **Q:** I- nkarî j- a rangi î- rîkû w- eend- eet- e mûno
FOC- 9.car 9- ASS 9.color 9- which 2.PERS.SG- love- STAT- FV very
'A car of which color do you like most?'

(35) **A:** ✓n- îi- njirû
FOC- 9- black
'A black one'

(36) **Q:** I- tû- ramu tû- gana û- gûr- ir- e
FOC- 12- pen 12- many 2.PERS.SG- buy- PERF- FV
'How many pens did you buy?'

(37) **A:** ✓i- tû- îrî
FOC- 12- two
'two'

(38) **Q:** I- mbûri i- gana mb- ajie
FOC- 10.goat 10- many 10.PREF- sick
'How many goats are sick?'

(39) **A:** ✓i- cio- nthe
FOC- 10.PRON- all
'all'

Interestingly, while FOC can attach to *nka* 'alone' which is preceded by a strong pronoun that varies with the noun class of the head noun, FOC cannot attach to *akî*, (41). The two items are quite similar semantically, the main difference lies in the morpho-syntax: with or without class agreement. At the moment we see no way of going beyond the descriptive generalization here, which we incorporate into our account: FOC, in all its incarnations, procliticizes to morphemes that express nominal ϕ-features.

(40) **Q:** N- ûû John ba- rî n- wee î- kûmbî- ni
FOC- who 1.John 2.SM- be with- 1PRON 5- granary- LOC
'Who is John in the granary with?'

(41) **A:** (i) ✓n- wee- nka
FOC- 1PRON- alone
'alone'
(ii) *n- aakî
FOC- only
'only'

Though the main difference between *nka* and *aakî* lies in the presence versus absence of agreement, the fact that (41ii) is ungrammatical, is probably independent of the syntax of FOC. The non-agreeing nominal modifiers never license NP-ellipsis.[9] The prenominal non-agreeing modifiers are therefore the more telling case. Thus FOC cannot attach to *kîra* 'every' or the noun following *kîra*. Note interestingly that *kîra* can be embedded in a fronted focus marked phrase, (43). This confirms that the failure of *kîra* to co-occur with FOC is not based on semantic incompatibility.

(42) a. *Kira* mû- ritwa n-   a-   cor- ir-   e   mbica
          every 1-   student FOC- 1.SM- draw- PERF- FV 9.picture
          'Every student drew a picture.'
      b. **I-*   *kira* mû- ritwa   a-   cor- ir-   e   mbica
          FOC- every 1-   student 1.SM- draw- PERF- FV 9.picture
          'It is every student drew a picture.'
      c. ***Kira* i-   mû- ritwa   a-   cor- ir-   e   mbica
          every FOC- 1-   student 1.SM- draw- PERF- FV 9.picture
          'It is every student drew a picture.'

(43) I-   mbica   j- a   kîra mû- ritwa   w-   end- eet- e   mûno
      FOC- 9.picture 9- ASS every 1-   student 2.PERS.SG. like- STAT- FV very
      'Is it the picture of every student (as opposed to every teacher) that you like most?'

Similarly, FOC cannot attach to *kinya* 'even' and 'also', or the noun following these modifiers, (44b-c). This follows directly from two of our assumptions; FOC always precedes and element bearing nominal ϕ-features, and FOC is part of the projection line of the clause, not the noun phrase.

(44) a. *Kinya*   Maria   (*n-*) a-   cor- ir-   e   mbica
          even/also 1.Maria (FOC) 1.SM- draw- PERF- FV 9.picture
          'Even Maria drew a picture.'
      b. **I-*   *kinya*   Maria a-   cor- ir-   e   mbica
          FOC- even/also 1.Maria 1.SM- draw- PERF- FV 9.picture
          'Even Maria drew a picture.'
      c. ***Kinya*   i-   Maria a-   cor- ir-   e   mbica
          even/also FOC- 1.Maria 1.SM- draw- PERF- FV 9.picture
          'Even Maria drew a picture.'

All cases where FOC attaches to a moved phrase (including subjects, which undergo focus movement string vacuously) are covered under the surface-true generalization that FOC always occurs immediately to the left of a morpheme indicating nominal ϕ-features.

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[9]For a possible account of this behavior see Lobeck (1990, 1995); Saito and Murasugi (1990). The main idea would be that only heads that agree with their specifiers can license ellipsis of their complements.

2.5.2 foc and adpositions

Kîîtharaka has a very impoverished adpositional system. There are three morphemes that one might call prepositions and a single postposition. First, there is the morpheme *rî*, which in other contexts acts as the copula verb but also occurs with directional verbs to indicate goals and sources. In this case it displays class 7 or class 17 agreement showing that there is potentially a null noun which *rî* agrees with, (45a). As a matter of fact, the noun inducing this agreement on *rî* can be realized overtly, (45b-c). Presumably, we are dealing with another case of NP-ellipsis. Given the presence of nominal ϕ-features and possibly the presence of a null noun, the phrases introduced by *rî* in its adpositional use can bear the focus marker, (46).

(45)   a.   Maria n- a-   ir-   ir-   e barûa *kî- rî/ kû- rî* mw- arimû
            1.Maria FOC- 1.SM- take- PERF- FV 9.letter 7- be/ 17- be 1-   teacher
            'Maria took the letter to the teacher.'
   b.   Maria n- a-   ir-   ir-   e barûa kî- eni *kî- rî* mw- arimû
            1.Maria FOC- 1.SM- take- PERF- FV 9.letter 7- place 7- be 1-   teacher
            'Maria took the letter to a place with the teacher.'
   c.   Maria n- a-   ir-   ir-   e barûa *gû- ntû* *kû- rî* mw- arimû
            1.Maria FOC- 1.SM- take- PERF- FV 9.letter 17- place 17- be 1-   teacher
            'Maria took the letter to a place with the teacher.'

(46)   *I-* (*kî- eni*) *kî- rî/ I-* (*gû- ntû*) *kû- rî* mw- arimû Maria a-   ir-
       FOC- (7   place) 7- be/ FOC- (17 place) 17- be 1-   teacher 1.Maria 1.SM- take-
       ir-   e barûa
       PERF- FV 9.letter
       'Maria took the letter to the teacher.'

The second adposition in Kîîtharaka is the linking morpheme *a*, which we encountered before. This morpheme links the head noun and another noun indicating possession, material make-up, location, time, origin among other functions. In (47a) we find the head noun 'home' elided. It is present in (47b). Expectedly, FOC can attach to this DP when fronted, (47c) and (47d).

(47)   a.   Maria n- a-   thi- ir-   e *kw- a* mw- arîmû
            1.Maria FOC- 1.SM- go- PERF- FV 17- ASS 1-   teacher
            'Maria went to the teacher's place.'
   b.   Maria n- a-   thi- ir-   e mûciî *gw- a* mw- arîmû
            1.Maria FOC- 1.SM- go- PERF- FV 17.home 17- ASS 1-   teacher
            'Maria went to the teacher's place.'
   c.   *I-* *kw- a* mw- arîmû Maria a-   thi- ir-   e
        FOC- 17- ASS 1-   teacher 1.Maria 1.SM- go- PERF- FV
        'Maria went to the teacher's place.'
   d.   *I-* mûciî *gw- a* mw- arîmû Maria a-   thi- ir-   e
        FOC- 17.home 17- ASS 1-   teacher 1.Maria 1.SM- go- PERF- FV
        'Maria went to the teacher's place.'

The third adposition in Kîîtharaka is *na* 'with', (48). *Na* does not show nominal agreement and, hence, phrases introduced by *na* cannot bear FOC, (50).

(48) Maria   n-   a-   ring- ir-   e   njoka   *na* mû- ragi
      1.Maria FOC- 1.SM- hit- PERF- FV 9.snake   with 3-   stick
      'Maria hit the snake with a stick.'

(49) **Q:** I-   mbi   Maria a-   ring- ir-   e   njoka   n-   yoo
           FOC- what 1.Mary 1.SM- hit- PERF- FV 9.snake   with- 9.PRON
           'What did Mary hit the snake with?'

(50) **A:** (i)   i-   (*na) mû- ragi
               FOC- with   3-   stick
               'It is with a stick'
           (ii) **na   i-   mû- ragi
               with FOC-   3-   stick
               'It is with a stick'

Finally, there is a single postposition, *ni*, which marks location, (51a). Although it does not show nominal agreement, it does not intervene between FOC and the noun (or agreement marker), we therefore expect *ni* to be compatible with FOC, and indeed it is, (51b). As far as its category is concerned, the *ni*-phrase behaves like a nonimal. In particular, it triggers a class-specific subject agreement morphology (class 17 subject agreement) in locative inversion structures, (52).

(51) a. Maria   n-   a-   ig- ir-   e   î- buku *metha- ni*
          1.Maria FOC- 1.SM- put- PERF- FV 5- book 9.table- LOC
          'Maria put the book on the table.'
      b. *I-   metha- ni* Maria   a-   ig- ir-   e   î- buku
          FOC- 9.table- LOC 1.Maria 1.SM- put- PERF- FV 5- book
          'Maria put the book on the table.'

(52) Î-   kûmbî-   ni   i-   {*rî- | ✓kû-} mama- ag-   a   ngûkû
      5-   granary- LOC FOC- 5.SM-   17.SM- sleep- HAB- FV 10.chicken
      'In the granary sleep chicken.'

There are a number of additional lexemes in Kîîtharaka, which appear to have an intermediate status between nouns and prepositions (see Muriungi (2006)). They exhibit nominal class marking and do co-occur with FOC as expected, (53).

(53) *I-   ru- ngu*   Maria   a-   ig- ir-   e   gî- ciati
      FOC- 11- under 1.Maria 1.SM- put- PERF- FV 7- sweep
      'Maria kept the broom under [of something].'

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The discussion of adpositional elements again strengthens the generalization about the distribution of FOC given above: FOC must be adjacent to a morpheme bearing nominal ϕ-features. The fact that FOC may not attach to the non-agreeing prenominal modifiers shows that there is an adjacency requirement at play and that it is not sufficient to require that FOC attach to a DP. We will see below that this requirement is needed in addition.

2.5.3 Adverbials and foc

We find the same by now familiar pattern also with certain adverbials. These adverbials have an overt class marker and, like nouns, can occur with demonstratives, (54). This leads to the hypothesis that these words are nouns. Other words in adverbial function, like *kairî* 'again' and *pee* 'completely', do not display nominal class marking and do not occur with demonstratives. They are not nouns.

(54)   a.   rû- kîîri   rû- rû
            11- morning 11- this
            'this morning'
     b.   î- goro   rî- rî
            5- yesterday 5- this
            'this yesterday'

     The nouns in adverbial function may be preceded by the focus marker, (55), while the adverbials that are not nominal may not, (56).

(55)   a.   ✓*I-*   *rû- kîîrî*   Maria   a-   thom- ir-   e   mbibiria
            FOC- 11- morning 1.Maria 1.SM- read- PERF- FV 9.bible
            'Maria read the bible in the morning.'
     b.   ✓*N-*   *îî- goro*   Maria   a-   ra-   thom- ir-   e   mbibiria
            FOC- 5- yesterday 1.Maria 1.SM- RECPST- read- PERF- FV 9.bible
            'Maria read the bible yesterday.'

(56)   a.   **I-*   *kaîrî* Maria   a-   thom- ir-   e   mbibiria
            FOC- again 1.Maria 1.SM- read- PERF- FV 9.bible
            'Maria read the bible again.'
     b.   **I-*   *pee*   Maria   a-   cun- ir-   e   nthuga
            FOC- completely 1.Maria 1.SM- lick- PERF- FV 9.calabash
            'Maria licked the calabash completely.'

2.5.4 Predicate fronting

We have good evidence so far that FOC always immediately precedes nominal ϕ-features. With this generalization in mind, now observe that fronted predicates (VPs and APs) must be nominalized in order to undergo focus marking, (57) and (58). Nominalized predicates always belong

to class 15.

(57) a. ✓*I-   ku-* noga Maria a-   rî mû-   nog- u
          FOC- 15- tire 1.Maria 1.SM- be 1PREF- tired- ADJ
          'Maria is really tired.' (she is not kidding!)
      b. *I-   mu-   nog- u Maria a-   rî
          FOC- 1PREF- tire- ADJ 1.Maria 1.SM- be
          'What Maria is is tired.'
      c. *I-   mu-   nog- u Maria a-   rî mû-   nog- u
          FOC- 1PREF- tire- ADJ 1.Maria 1.SM- be 1PREF- tire- ADJ
          'What Maria is is tired.'

(58) a. ✓*I-   kû-* gûra Maria a-   gur- ir-   e nyondo
          FOC- 15- buy 1.Maria 1.SM- buy- PERF- FV 9.hammer
          'Maria *bought* the hammer.' (she did not borrow it)
      b. *N-   a-   gûr- ir-   e {nyondo Maria | Maria   nyondo}
          FOC- 1.SM- buy- PERF- FV 9.hammer 1.Maria   1.Maria 9.hammer
          'Maria *bought* the hammer.' (she did not borrow it)
      c. *N-   a-   gûr- ir-   e Maria a-   gur- ir-   e nyondo
          FOC- 1.SM- buy- PERF- FV 1.Maria 1.SM- buy- PERF- FV 9.hammer
          'Maria *bought* the hammer.' (she did not borrow it)

This class of cases argues that moved focus-marked phrases must be DPs. There is a forced category shift, apparently, to fulfill the requirements imposed by FOC. This is somewhat surprising since in its preverbal use, FOC has no problem attaching to a verb. The difference seems to be the following. In all its manifestations FOC needs to immediately precede a morpheme expressing nominal ϕ-features: this is surface true for the preverbal use, because the finite verb always begins with an agreement morpheme expressing ϕ-features, and it is surface true in the prenominal use. The use of FOC which attaches to a displaced constituent makes a stronger demand: the displaced constituent must be a DP.

This difference between the preverbal use of FOC and the movement-inducing use correlates with a phonological difference that we have suppressed so far. While the preverbal focus marker does not change the phonological shape of the subject-agreement prefix, (59a), FOC triggers lengthening on the initial nominal class marker of the displaced constituent, (59b).[10]

(59) a. Mbaka *n-*   î-   tembûr- ir-   e *î-* buku
          9.cat FOC- 9.SM- tear-   PERF- FV 5- book
          'The cat tore the book.'
      b. N-   *îî-* bûku Mbaka î-   tembûr- ir-   e
          FOC- 5- book 9.cat 9.SM- tear-   PERF- FV
          'It is the book the cat tore.'

We have seen three differences between the preverbal focus marker and the prenominal one. The prenominal focus marker induces movement, enforces an additional restriction on the cate-

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[10]The morpheme *n-/i-* when used as a *by*-phrase also triggers lengthening. As before, we set this use aside.

gorial identity of the constituent it attaches to, and causes lengthening on the initial vowel of that constituent. We can summarize our findings in the following table. The first column shows that both uses of FOC show the phonologically conditioned allomorphy between n and i. The second column shows that both are restricted to a single occurrence within a clause. The third - that neither occurs postverbally. The fourth – that both occur adjacent to nominal ϕ-features. The fifth column shows that only one of the two uses of FOC induces movement of a constituent which is or contains a focus. The notation here is borrowed from recent minimalist notation where a movement-inducing property is called an EPP property. The sixth column shows that only the movement inducing use of FOC has to be adjacent to a DP. And the final column indicates that only the movement inducing use of FOC triggers lengthening of the initial vowel of the host.

	n- vs. i-	single FOC	* postverbal	ϕ-adjacent	EPP$_{foc}$	DP-adjacent	V→VV
pre- verbal	yes	yes	yes	yes	no	no	no
pre- focus-moved	yes	yes	yes	yes	yes	yes	yes

In the next section we demonstrate that in addition to the morphosyntactic difference between the two uses of FOC, there is also a semantic distinction.

3   The Semantics of foc

Having taken a closer look at the distribution of FOC, we are now ready to describe its interpretation. The preverbal use allows the widest range of interpretations. (4a), repeated in (60), for example can be an answer to a question that indicates sentence focus, (61i), VP-focus, (61ii), non-exhaustive object focus, (61iii), non-exhaustive subject focus, (61iv). (60) may also be read as verum focus, also called truth-value focus.

(60)   Maria   *n*-   a-   gûr- ir-   e   î- buku
       1.Maria FOC- 1.SM- buy- PERF- FV 5- book
       'Maria bought a book.'

(61)   **Q:**   (i) ✓*I-   mbi*   î- rî   na   thîîna
                    FOC- what 9- be with 9.problem
                    'What is the problem?'
              (ii) ✓*N-   ata*   Maria   a-   rûth- ir-   e
                    FOC- what 1.Maria 1.SM- do-   PERF- FV
                    'What did Maria do?'
              (iii)✓Kû-   rî gîntû Maria   a-   gûr- ir-   e
                    7.SM- be thing 1.Maria 1.SM- buy- PERF- FV
                    'Is there anything that Maria bought?'
              (iv)✓Kû- rî mu- ntû   a-   gûr- ir-   e   î- buku
                    17- be 1-   person 1.SM- buy- PERF- FV 5- book
                    'Is there anybody who bought a book'

Example (60) cannot however, be used as an answer to an object *wh*-question, (62a) or a subject *wh*-question, (62b).

(62)   a. #*I- mbi* Maria a-   gûr- ir-   e
             FOC- what 1.Maria 1.SM- buy- PERF- FV
             'What did Maria buy?'
    b. #*N- ûû* a-   gûr- ir-   e î- buku
             FOC- who 1.SM- buy- PERF- FV 5- book
             'Who bought the book?'

The absence of the preverbal focus marker results in in situ object focus. Thus in (63), the *wh*-phrase and the object are the focus. Recall that although Kîîtharaka allows focusing in situ, the focus marker cannot appear postverbally.

(63)   a. Maria a-   gûr- ir-   e (*i)- *mbi*
          1.Maria 1.SM- buy- PERF- FV FOC- what
          'What did Maria buy?
    b. Maria a-   gûr- ir-   e (*n)- *î- buku*
          1.Maria 1.SM- buy- PERF- FV FOC- 5- book
          'Maria bought a book.'

A sentence with in situ object focus, (63b), is felicitous as an answer to an object *wh*-question, (63a), and marginally a VP question. (63b) cannot however be used to answer non-exhaustive object questions, (61iii), subject *wh*-questions, or non-exhaustive subject questions, (61iv).

As we saw, Kîîtharaka also allows focus movement, in which case FOC appears on the moved *wh*-phrase or focus. We also saw that FOC never appears both on the *wh*-phrase and in the preverbal position.

(64)   a. *I- mbi* Maria a-   gûr- ir-   e
          FOC- what 1.Maria 1.SM- buy- PERF- FV
          'What did Maria buy?'
    b. *N- îî- buku* Maria a-   gûr- ir-   e
          FOC- 5- book 1.Maria 1.SM- buy- PERF- FV
          'Maria bought a book.'

Sentences with focus movement of the object are felicitous as answers to object *wh*-questions, (64a), or VP questions. (64b) is not appropriate in any of the other contexts. In cases where the focus-moved DP contains modifiers (adjectives, numerals, possessors, etc.), individual modifiers may also be narrowly focused. The same is true, mutatis mutandis, for focus-moved locatives and adverbials.

Subjects may also bear FOC. FOC-marked subjects are appropriate in answers to subject *wh*-questions, (65a), and in "all-new" contexts, (61i).

(65)   a. *N- ûû* a-   gûr- ir-   e î- buku
          FOC- who 1.SM- buy- PERF- FV 5- book
          'Who bought a book?'

    b. *I-* *Maria* a-   gûr- ir-   e î- buku
        FOC- 1.Maria 1.SM- buy- PERF- FV 5- book
        'Maria bought a book.'

The generalization that we argue for in detail below is that focus-moved phrases (with the single exception of focus projection from the subject) require an exhaustive interpretation and preverbal focus-marking is incompatible with exhaustivity. Some care is needed here, though. The generalization that focus-moved phrases are interpreted exhaustively is not entirely without exceptions. Thus, answers with FOC, (66), usually can be followed by 'a what else question'. The only way we can see of resolving this problem is to assume that exhaustivity is not, strictly speaking, an entailment of the constructions with focus movement; rather, we assume that it is a conventional implicature carried by these constructions which can, given the right discourse conditions, be defeated. Exhaustivity will have to be seen as a default, which can be overridden, but only under duress.

(66)   a. *I-* *mbi* Maria a-   gûr- ir-   e
             FOC- what 1.Maria 1.SM- buy- PERF- FV
             'What did Maria buy?
      b. *N-* *î- buku* Maria a-   gûr- ir-   e
             FOC- 5- book 1.Maria 1.SM- buy- PERF- FV
             'Maria bought a book.'

(67)   a. Na mbi yîî-   ngî
             and what 9.SM- other
             'And what else?'
      b. na mbooro
             and 9.bag
             'and a bag'

In the remainder of this section we demonstrate, using tests internal to Kîîtharaka and diagnostics suggested in the literature, that FOC on fronted nominals gives rise to exhaustive semantics. Preverbal FOC-marking on the other hand requires lack of exhaustivity.

3.1 Incomplete and Mention-Some Answers

As we just saw, preverbal FOC-marking is usually impossible in answers to object *wh-* or subject *wh*-questions. We can explain this if we assume that answers usually carry an implicature of exhaustivity. Since exhaustivity is incompatible with the preverbal FOC-marker, the facts fall out readily under our assumption. We can confirm this conjecture, by observing the behavior of the FOC-marker in answers that explicitly do not carry the exhaustivity implicature. To achieve this, the answers are marked as incomplete by the inclusion of *kwa ngerekano* - 'for example', as in (68). Here the preverbal focus marker is not only possible, the other two focus strategies are impossible.

(68) **For example**
Context: *Some people come to the village and circumcise all the young boys there. One of the boys that they circumcise is Ntugi (but of course he is not the only one). Later, I want to convey the message that some people circumcised Ntugi among other boys.*

(69) a. ✓I- ba- tan- ir- e Ntugi kwa ngerekano
     FOC- 2.SM- circumcise- PERF- FV 1.Ntugi for example
     'They circumcised Ntugi for example.'

b. *Ba- tan- ir- e Ntugi kwa ngerekano
     2.SM- circumcise- PERF- FV 1.Ntugi for example
     'They circumcised Ntugi for example.'

c. *I- Ntugi ba- tan- ir- e kwa ngerekano
     FOC- 1.Ntugi 2.SM- circumcise- PERF- FV for example
     * 'It is Ntugi they circumcised for example.'

A context calling for a *mention some* answer should be able to show the same effect. The following is suitable. We set up the context with the question *is there some x which Maria V-ed*, (70). Though technically a polar question, such questions invite the interlocuter to provide further information. This further information might be given as a mention-some answer to the implied question *What did Maria V?* In such a context, the object cannot bear FOC, and FOC has to appear preverbally, (71). Crucially, this answer is felicitous and true in a situation where Mary bought sweets and other things as well.

Similarly for subjects. A question like 'Did anybody buy sweets?' may give rise to the answer "Yes, Maria bought sweets." with preverbal FOC but not with prenominal FOC on the subject. This kind of exchange is possible in English, too. Notice that in the answer to "Did anybody buy sweets?" the subject is stressed in English. This indicates that focus is on the subject and that we are not dealing with all-new focus, which would give rise to stress on the object.

(70) **Q:** Kû- rî gi- ntû Maria a- gûr- ir- e
     7.SM- be 7- person 1.Maria 1.SM- buy- PERF- FV
     'Is there something which Maria bought?'

(71) **A:** (i) ✓{∅ | jiii,} Maria n- a- gûr- ir- e nderemende
            yes, 1.Maria FOC- 1.SM- buy- PERF- FV 10.sweet
          '(Yes,) Maria bought sweets.'

(ii) #{∅ | jiii,} Maria a- gûr- ir- e nderemende
            yes 1.Maria 1.SM- buy- PERF- FV 10.sweet
          '(Yes,) Maria bought sweets.'

(iii) #{∅ | jiii,} I- nderemende Maria a- gûr- ir- e
            yes FOC- 10.sweet 1.Maria 1.SM- buy- PERF- FV
          '(Yes,) Maria bought sweets.'

These contexts clearly suggest that sentences with preverbal FOC are not strongly exhaustive in the sense of Heim (1994).

3.2 Multiple *wh*-Questions

We turn now to multiple *wh*-questions. These are informative, because Kîîtharaka allows both single-pair and pair-list answers to such questions but both strategies differ markedly. Thus consider the question in (72).

(72) **Q:** Ta- mb-   îr- a n- ûû a-   gûr- ir-   e mbi
         just- 3.PERS.SG.OM- tell- FV FOC- who 1.SM- buy- PERF- FV what
         'Tell me who bought what?'

There is only one way to give a single-pair answer to this type of request, namely that in (73i). The focus marker on the subject is not only possible but in fact obligatory. The answer is interpreted as an exhaustive answer. Examples (73ii-iii) are ungrammatical, because, as discussed above, there is only ever one focus marker per CP. The examples in (74) are not ungrammatical, but they are not possible answers to the question. The reason for the infelicity of these examples presumably resides in the marking of the subject. A subject in clauses without preverbal FOC-marker can, depending on its structural position, be interpreted either as a continuation topic or as a contrastive topic (see Büring (1995), Roberts (1998) for the semantics and pragmatics of different types of topics), but neither of those interpretations is available here. The subject is not a continuation topic, because the previous context does not set up a topic: the subject was questioned. But there is also no contrast here, because only one subject-predicate pair serves as the answer to the question. Example (74iv) is impossible, because preverbal FOC-marking is incompatible with exhaustive interpretations. If nothing else, this paradigm serves to show that objects that are focused in situ get an exhaustive interpretation.

(73) **Single-Pair Answers with foc-marked subject**
   A: (i) I-   Mûnene   a-   gûr- ir-   e î- ria
              FOC- 1.Mûnene 1.SM- buy- PERF- FV 5- milk
              'Munene bought milk.'
         (ii) *N-   îî- ria i-   Mûnene   a-   gûr- ir-   e
              FOC- 5- milk FOC- 1.Mûnene 1.SM- buy- PERF- FV
              'Munene bought milk.'
         (iii) *I-   Mûnene   n-   a-   gûr- ir-   e î- ria
              FOC- 1.Mûnene FOC- 1.SM- buy- PERF- FV 5- milk
              'Munene bought milk.'

(74) **Single-Pair Answers without foc-marked subject**
   A: (i) #Mûnene   a-   gûr- ir-   e î- ria
              1.Mûnene 1.SM- buy- PERF- FV 5- milk
              'Mûnene bought milk.'
         (ii) #N-   îî- ria Mûnene   a-   gûr- ir-   e
              FOC- 5- milk 1.Mûnene 1.SM- buy- PERF- FV
              'Mûnene bought milk.'
         (iii) #Mûnene   n-   îî- ria a-   gûr- ir-   e
              1.Mûnene FOC- 5- milk 1.SM- buy- PERF- FV

'Mûnene bought milk.'

(iv)#Mûnene   n-   a-   gûr- ir-   e   î-   ria
   1.Mûnene FOC- 1.SM- buy- PERF- FV 5- milk
   'Mûnene bought milk.'

Consider now the examples in (75) and (76) as answers to the question in (72). In marked contrast to single-pair answers ((73i) above), pair-list answers do not allow FOC-marking on the subject. The status of (75i) is explained again by the exhaustivity of the FOC-marked subject: none of the answers by itself is exhaustive.

Consider now (76). When the subject is not FOC-marked, the object can either remain in situ, (76ii), or it can move and be FOC-marked, (76i), but in this case it has to appear after the subject. We interpret these data as follows. Whether the object is focused in situ or FOC-marked, it gets an exhaustive interpretation. This is possible only if exhaustivity is calculated relative to a particular subject: Munene bought only milk, Mfana bought only bread, ... For this to be possible, the subjects have to be interpreted as contrastive topics: There is a contrast between the subjects in the individual parts of the answer, but, relative to this subject, the answer is always exhaustive. We account for the fact that the subject has to precede the focalized object by assuming that only topicalized subjects can be interpreted as contrastive topics. Subjects that follow the focus-fronted DP are interpreted as continuation topics. Finally, example (76iii) is infelicitous because the preverbal focus marker induces lack of exhaustivity while the answers in the list are exhaustive.

(75)   **Pair-List Answers with foc-marked subject**
   A: (i) *I-   Mûnene   n-   îî- ria   a-   gûr- ir-   e   i-   Mfana   FOC- mû-
           FOC- 1.Munene FOC- 5- milk 1.SM- buy- PERF- FV FOC- 1.Mfana FOC- 3-
           gaate a-   gûr- ir-   e
           bread 1.SM- buy- PERF- FV
           'Mûnene bought milk, Mfana bought bread... '
      (ii) #I-   Mûnene   a-   gûr- ir-   e   î-   ria   i-   Mfana   a-   gûr- ir-
           FOC- 1.Munene 1.SM- buy- PERF- FV 5- milk FOC- 1.Mfana 1.SM- buy- PERF-
           e   mû- gaate
           FV 3-   bread
           'Mûnene bought milk, Mfana bought bread... '
      (iii) *I-   Mûnene   n-   a-   gûr- ir-   e   î-   ria   i-   Mfana   n-   a-
           FOC- 1.Munene FOC- 1.SM- buy- PERF- FV 5- milk FOC- 1.Mfana FOC- 1.SM-
           gûr- ir-   e   mû- gaate
           buy- PERF- FV 3-   bread
           'Mûnene bought milk, Mfana bought bread ... '

(76)   **Pair-List Answers without foc-marked subject**
   A: (i) ✓Mûnene   n-   îî- ria   a-   gûr- ir-   e   Mfana   i-   mû- gaate a-
           1.Munene FOC- 5- milk 1.SM- buy- PERF- FV 1.Mfana FOC- 3-   bread 1.SM-
           gûr- ir-   e
           buy- PERF- fv

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'Mûnene bought milk, Mfana bought bread... '

(ii) ✓Mûnene a- gûr- ir- e î- ria Mfana a- gûr- ir- e mû-
1.Munene 1.SM- buy- PERF- FV 5- milk 1.Mfana 1.SM- buy- PERF- FV 3-
gaate
bread
'Mûnene bought milk, Mfana bought bread ... '

(iii)#Mûnene n- a- gûr- ir- e î- ria Mfana n- a- gûr- ir-
1.Munene FOC- 1.SM- buy- PERF- FV 5- milk 1.Mfana FOC- 1.SM- buy- PERF-
e mû- gaate
FV 3- bread
'Mûnene bought milk, Mfana bought bread ... '

The same general pattern can be observed with object *wh*-questions with a conjoint subject. Single answers to such questions with a conjoint or plural subject behave like normal answers to *wh*-questions and like single-pair answers above; they allow both in situ and moved object focus but not preverbal focus marking. Separate answers per conjunct behave like pair-list answers.

The question answer facts support our generalization that FOC-marked and in situ focused objects are exhaustive while preverbal FOC-marking is incompatible with exhaustivity. Subjects out of focus can be interpreted either as continuation topics or as contrastive topics. The latter is possible only if the subject is moved in front of the focus position. If no focus-fronted DP is present, movement of the subject to the higher topic position may be string vacuous.

3.3 Coordination and Entailment

While the kind of data discussed in the previous subsections has, to the best of our knowledge, not been used to diagnose for exhaustivity, we now turn to tests that are found in the literature. Thus, E. Kiss (1998)[11] claims that if a sentence with coordination does not entail the same sentence with one of the coordinates dropped, then the construction is exhaustive. This test diagnoses the English *it*-cleft as an exhaustive focusing device, since (77a) does not entail (77b), while regular new-information focus in English is not exhaustive, as the entailment from (78a) to (78b) is meant to illustrate. What is being diagnosed here is the exhaustive interpretation of the (b)-examples not the (a)-examples.

(77) a.   It was **a hat and a coat** that Mary picked for herself.
      b. ⇏ It was **a hat** that Mary picked for herself. (E. Kiss, 1998, p. 250)

(78) a.   Mary picked **a hat and a coat** for herself.
      b. ⇒ Mary picked **a hat** for herself. (E. Kiss, 1998, p. 250)

We now give three versions of the sentence "Ruth bought a book and a pen": with a FOC-marked conjoined object, (79), with the conjoined object focused in situ, (80), and with the preverbal FOC-marker, (81). We follow each of them with three versions of the sentence "Ruth bought a book" and test for entailment. Since the test diagnoses exhaustivity on the putative

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[11]The test is attributed to Szabolcsi (1981).

entailment, we expect all three tests to come out the same way. In particular, if moved FOC-marked objects and in situ focused objects are interpreted exhaustively, none of the entailments should go through with these, but they should go through with the preverbal focus marker. This expectation is fully borne out.

As can be seen, when the conjoined object is moved and FOC-marked, as in (79a), it does not entail (79i-ii), but it does entail the sentence with the preverbal FOC-marker in (79iii). This follows on the assumption that the FOC-marked and the in situ objects are interpreted exhaustively. Under this assumption (79i-ii) mean that Ruth bought only a book, which contradicts the initial sentence in (79). On the other hand (79iii) is not interpreted exhaustively–in fact it is incompatible with strong exhaustivity (again in the sense of Heim (1994)) –and is, therefore, entailed by the initial sentence in (79).

(79)　　X+Y　　　N-　îî- buku na　ka- ramu Ruth　a-　　gûr- ir-　　e
　　　　　　　　　　FOC- 5- book and 12- pen　　1.Ruth 1.SM- buy- PERF- FV
　　　　　　　　　　'It is a book and a pen that Ruth bought.'

　　　　X　　(i)　⇏　N-　îî- buku Ruth　a-　　gûr- ir-　　e
　　　　　　　　　　　　FOC- 5- book 1.Ruth 1.SM- buy- PERF- FV
　　　　　　　　　　　　'Ruth bought a book.'

　　　　　　(ii)　⇏　Ruth　a-　gûr- ir-　　e î- buku
　　　　　　　　　　　　1.Ruth SM- buy- PERF- FV 5- book
　　　　　　　　　　　　'Ruth bought a book.'

　　　　　　(iii)　⇒　Ruth　<u>n</u>-　a-　gûr- ir-　　e î- buku
　　　　　　　　　　　　1.Ruth FOC- SM- buy- PERF- FV 5- book
　　　　　　　　　　　　'Ruth bought a book.'

The exact same is true for the in situ focused object in (80), where, like in the previous example, the object is interpreted as a non-specific indefinite. (80) does not entail (80i-ii), but it does entail the sentence with the preverbal FOC-marker in (80iii). Again, this follows on the assumption we are defending that the FOC-marked and the in situ objects are interpreted exhaustively. Under this assumption (80i-ii) mean that Ruth bought only a book, which contradicts (80a). On the other hand (80iii) is not interpreted exhaustively–in fact it is incompatible with exhaustivity– and is, therefore, entailed by the initial sentence in (80).

(80)　　X+Y　　　Ruth　a-　　gûr- ir-　　e î- buku na　ka- ramu
　　　　　　　　　　1.Ruth 1.SM- buy- PERF- FV 5- book and 12- pen
　　　　　　　　　　'Ruth bought a book and a pen.'

　　　　X　　(i)　⇏　Ruth　a-　gûr- ir-　　e î- buku
　　　　　　　　　　　　1.Ruth SM- buy- PERF- FV 5- book
　　　　　　　　　　　　'Ruth bought a book.'

　　　　　　(ii)　⇏　N-　îî- buku Ruth　a-　　gûr- ir-　　e
　　　　　　　　　　　　FOC- 5- book 1.Ruth 1.SM- buy- PERF- FV
　　　　　　　　　　　　Ruth bought a book.'

　　　　　　(iii)　⇒　Ruth　<u>n</u>-　a-　gûr- ir-　　e î- buku
　　　　　　　　　　　　1.Ruth FOC- SM- buy- PERF- FV 5- book

'Ruth bought a book.'

Finally, the same holds for the last set of data in (81).

(81) X+Y   Ruth <u>n</u>- a-   gûr- ir-   e î- buku na ka- ramu
                1.Ruth FOC- 1.SM- buy- PERF- FV 5- book and 12- pen
                'Ruth bought a book and a pen.'
      X   (i) ⇒ Ruth n-   a- gûr- ir-   e î- buku
                   1.Ruth FOC- SM- buy- PERF- FV 5- book
                   'Ruth bought a book'
          (ii) ⇏ Ruth a- gûr- ir-   e î- buku
                   1.Ruth SM- buy- PERF- FV 5- book
                   'Ruth bought a book.'
          (iii) ⇏ N- îî- buku Ruth a-   gûr- ir-   e
                    FOC- 5- book 1.Ruth 1.SM- buy- PERF- FV
                    'Ruth bought a book.'

A second test taken from the literature involves the interpretation of negation. This test involves negating exhaustivity. It is used in E. Kiss (1998) and attributed to Donka Farkas. In a dialogue, exhaustivity alone can be negated as in (82b) vs. (83b). The crucial point is the interplay between rejection and the word *too*, which shows that the content of the first utterance, here Mary's picking a hat for herself, is not being negated. It's just the claim to exhaustivity that is negated. This diagnostic tests for exhaustivity of the (a)-examples. The (b)-examples must not be exhaustive, seeing as they contain the word *also*.

(82) a. It was a hat that Mary picked for herself
      b. No, she picked a coat, too. (E. Kiss, 1998, p. 251)

(83) a. Mary picked a hat for herself
      b. #No, she picked a coat, too. (E. Kiss, 1998, p. 251)

The examples in (84) and (85) illustrate the results of this test for Kîîtharaka. FOC-marked objects never co-occur with the word *kinya*-'also' because it does not express nominal ϕ features (section 2.5 above). We therefore do not include such examples below. Furthermore, in situ focused objects are always dubious with *kinya*. The contrast between (84b-i) and (85b-i) on the one hand and (84b-ii) and (85b-ii) stems from the exhaustivity implicature. The contrast is less strong than might have been expected, but we are treating exhaustivity as a defeasible implicature after all. The result of this test shows again that moved and in situ foci behave exhaustively.

(84) a.   I-   mpempe Maria a-   and- ir-   e
               FOC- 10.maize 1.Maria 1.SM- plant- PERF- FV
               'Maria planted maize.'
      b. (i)   Arî n-   a- and- ir-   e kinya mû- nya
               No FOC- 1.SM- plant- PERF- FV also 3-   sorghum

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'No, she planted sorghum also.'

    (ii) ?Arî a-   and- ir-   e kinya mû- nya
         No 1.SM- plant- PERF- FV also   3-   sorghum
         'No, she planted sorghum also.'

(85)   a.   Maria a-   and- ir-   e mpempe
                1.Maria 1.SM- plant- PERF- FV 10.maize
                'Maria planted maize.'

    b. (i)   Arî n-   a-   and- ir-   e kinya mû- nya
                No FOC- 1.SM- plant- PERF- FV also   3-   sorghum
                'No, she planted sorghum also.'

        (ii) ?Arî a-   and- ir-   e kinya mû- nya
                No 1.SM- plant- PERF- FV also   3-   sorghum
                'No, she planted sorghum also.'

The converse of this test is the following. If a particular construction is interpreted exhaustively, then it should be impossible to follow it up by agreeing and adding an item to the focus set. The workings of this test are illustrated for English *it*-clefts in (86). Notice that (86b-c) are not totally impossible continuations for all speakers, but they always require fairly arcane contexts.

(86)   a.   It is a hat that Mary bought.
        b. #Yes, and she also bought a coat.
        c. #Yes, and it is also a coat that she bought.

The expectation for Kîîtharaka is that moved FOC-marked and in situ focused objects should not be compatible with the interlocuter agreeing and then adding another element. Unfortunately, Kîîtharaka does not conform with our expectations here since moved and in situ object focus are compatible with a yes-and-also-continuation, (87) and (88).

To resolve this puzzle, remember from the beginning of this section that in situ objects without any FOC-marking are – marginally – compatible with VP-focus, (63b). It turns out that (87) and (88) are only possible in contexts where (87a) and (88a) can be interpreted as having VP-focus. In other words, the dialogues in (87) and (88) are felicitious as a follow-up to the question *What did Maria do?* Of course, (87a) and (88a) are also compatible with object focus, in fact, this is their most usual interpretation. In this case they would answer the question *What did Maria plant?* Crucially however, if the dialogues in (87) and (88) follow the question *What did Maria plant?*, (87b) and (87b) are impossible continuations. Notice that the option of assigning a wide-focus interpretation is unavailable in the examples (84) and (85) above, because the sentence setting up the context prevents VP-focus on the follow-up. The problem posed by (87) and (88) for our generalization is therefore only apparent.

(87)   a.   I-   mpempe Maria a-   and- ir-   e
                FOC- 10.maize 1.Maria 1.SM- plant- PERF- FV
                'Maria planted maize.'

    b. (i)   Yii na n-   a-   and- ir-   e kinya mû- nya
                yes and FOC- 1.SM- plant- PERF- FV also   3-   sorghum
                'Yes, and she also planted sorghum.'

    (ii) ??Yii na a-   and- ir-   e kinya mû- nya
            yes and 1.SM- plant- PERF- FV also 3-   sorghum
            'Yes, and she also planted sorghum.'

(88)   a.   Maria a-   and- ir-   e mpempe
                1.Maria 1.SM- plant- PERF- FV 10.maize
                'Maria planted maize.'

      b. (i)   Yii na n-   a-   and- ir-   e kinya mû- nya
                  yes and FOC- 1.SM- plant- PERF- FV also 3-   sorghum
                  'Yes, and she also planted sorghum.'

         (ii) ??Yii na a-   and- ir-   e kinya mû- nya
                  yes and 1.SM- plant- PERF- FV also 3-   sorghum
                  'Yes, and she also planted sorghum.'

The data from the various entailment tests again support our hypothesis that moved FOC-marked objects and in situ focused objects are interpreted exhaustively, and the preverbal FOC-marker non-exhaustively.

The facts reported in the previous three subsections for objects can be reproduced with FOC-marked subjects. The results are the same: if we rule out the possibility of focus projection from the subject, FOC-marked subjects are necessarily interpreted exhaustively. The only problematic case for this generalization is the version of (87) with a focus marked subject. Here, the continuation with *yes, and also ...* is possible even in contexts where focus-projection from the subject can be excluded. We don't know why this is so.

Overwhelmingly, when FOC appears on a focus-moved DP, this leads to an exhaustive interpretation of the focused constituent. We can now extend our table of properties as follows.

	n- vs. *i-*	single FOC	* postverbal	ϕ-adjacent	EPP$_{foc}$	DP-adjacent	V→VV	exhaustive
pre- verbal	yes	yes	yes	yes	no	no	no	no
pre- focus-moved	yes	yes	yes	yes	yes	yes	yes	yes

4   foc and successive cyclic movement

Various Bantu languages have been known to mark successive cyclic movement (focus movement, relativization, *wh*-question formation, i.e., *wh*-movement in the sense of Chomsky (1977)) morphologically on the verbs in the clauses that movement has passed through (Clements, 1984a, p. 37). Kîîtharaka is one such language. Unlike closely related Kikuyu, which uses one formal means – the marker *nĩ* – to mark preverbal foci, moved foci, and moved *wh*-expressions, and a different formal means – tonal changes – to mark verbs in clauses that successive cyclic movement has passed through (Clements (1984a)), Kîîtharaka uses the same formal means: FOC.

The marking of cyclicity is easy to show because Kîîtharaka allows partial *wh*-movement.[12] In (89a), the *wh*-phrase is left in situ and FOC can occur in none of the clauses. In (89b) where the *wh*-phrase moves within the most embedded clause, FOC appears on the *wh*-phrase, it cannot appear in any of the higher clauses. In (89c), where the *wh*-phrase moves two clauses up, FOC must occur on the verb in the most embedded clause and on the *wh*-phrase, and it may occur nowhere else. Finally, when the *wh*-phrase occurs in the matrix clause, (89d), FOC appears on

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[12]See Sabel (2000) for a general theory of partial *wh*-movement.

the verbs in all clauses except for the matrix, where the focus-marked *wh*-phrase occurs. These facts are discussed in great detail in Muriungi (2005), the sensitivity of *wh*-movement to islands is demonstrated in Muriungi (2003, p. 37-45). Muriungi concludes that focus marking on the verb is an indicator of how high the *wh*-phrase has moved overtly.

(89) a. John *(*n)*- a- ug- ir- e Pat *(*n)*- a- ug- ir- e Maria *(*n)*-
          1.John FOC- 1.SM- say- PERF- FV 1.Pat FOC- 1.SM- say- PERF- FV 1.Maria FOC-
          a- gûr- ir- e *mbi*
          1.SM- buy- PERF- FV what
          'What did John say Pat said Maria bought?'

      b. John *(*n)*- a- ug- ir- e Pat *(*n)*- a- ug- ir- e *i-* *mbi*
          1.John FOC- 1.SM- say- PERF- FV 1.Pat FOC- 1.SM- say- PERF- FV FOC- what
          Maria *(*n)*- a- gûr- ir- e
          1.Maria FOC- 1.SM- buy- PERF- FV
          'What did John say Pat said Maria bought?'

      c. John *(*n)*- a- ug- ir- e *i-* *mbi* Pat *(*n)*- a- ug- ir- e
          1.John FOC- 1.SM- say- PERF- FV FOC- what 1.Pat FOC- 1.SM- say- PERF- FV
          Maria ✓*n*- a- gûr- ir- e
          1.Maria FOC- 1.SM- buy- PERF- FV
          'What did John say Pat said Maria bought?'

      d. *I-* *mbi* John *(*n)*- a- ug- ir- e Pat ✓*n*- a- ug- ir- e
          FOC- what 1.John FOC- 1.SM- say- PERF- FV 1.Pat FOC- 1.SM- say- PERF- FV
          Maria ✓*n*- a- gûr- ir- e
          1.Maria FOC- 1.SM- buy- PERF- FV
          'What did John say Pat said Maria bought?'

Above we arrived at the generalization that multiple instances of FOC are acceptable as long as each one occurs in its own clause. The examples in (89a-c) show that FOC is not entirely free to occur in any clause, because in (89a-c) it is banned from occurring along the covert movement path of the *wh*-phrase. An explanation for this restriction in terms of an LF-intervention effect in the sense of (Beck (2006)) is given below in section 5.

We shall not demonstrate the properties of FOC as a cyclicity marker in detail here, as this would simply repeat Muriungi (2005). In terms of the earlier tables, the cyclicity marker has an intermediate status between the pre-verbal focus-marker and the exhaustive focus marker. In particular, it appears to induce *wh*-movement without itself attaching to the moved phrase. We can summarize the discussion so far in the following table.

	n- vs. *i*-	single FOC	* postverbal	ϕ-adjacent	EPP$_{foc}$	DP-adjacent	V→VV	exhaustive
pre- verbal	yes	yes	yes	yes	no	no	no	no
cyclic marker	yes	yes	yes	yes	yes	no	no	no
pre- focus-moved	yes	yes	yes	yes	yes	yes	yes	yes

5 Accounting for the facts

We have encountered the focus marker in three functions: as a marker of non-exhaustive focus, as a marker of cyclicity, and as a marker of exhaustive focus.[13] Despite the differences of the three functions, we will give a unified analysis of the focus marker to account for the otherwise accidental and puzzling homophony of these markers and at the same time to account for the complementarity as expressed in the one-FOC-per-clause restriction.

In terms of complexity, there is a clear hierarchy between these three uses of the focus marker, as indicated in the table. Any account of the syntax, semantics, and morphology of FOC must capture the fact that there exists this hierarchy of properties. The fact that the hierarchy can be stated in terms of proper inclusion relations suggests a structural treatment.

Recall from the introduction that we account for this hierarchy by assuming increasing syntactic complexity: FOC variously spells out one, two, or three focus-related heads, (90).

(90)   [Force [Top* [(FOC$_1$ [(FOC$_2$ [(FOC$_3$))) [Top* [Fin]]]]]]]

We can now give details of the proposal couched in minimalist terms (Chomsky (1995, 2000, 2001a,b, 2004)). The marker of non-exhaustive focus is the simplest. It indicates the presence of a focused element in its c-command domain. Semantically, we assume that there is an operator here akin to Rooth's (1992) $\sim$-operator. Syntactically, we position this operator in Foc$_3$. Assuming that FOC spells out functional structure high in the left periphery of the clause, and in the absence of evidence for verb movement to such a high position, we will assume that FOC is positioned in front of the verb by moving the subject around Foc$_3$. Technically this is implemented by endowing Foc$_3$ with a feature, demanding the closest DP to move to the specifier of Foc$_3$, (91).

(91)   The simple preverbal focus marker
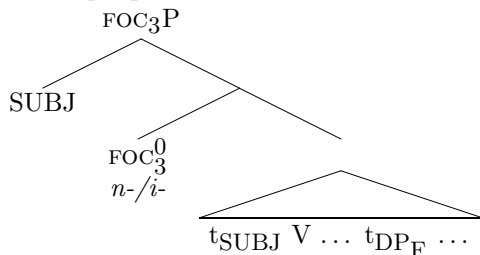
The marker of cyclicity is slightly more complex. It, too, indicates the presence of an element with a focus-related feature in its c-command domain (where *wh*-features are taken to be focus-related). The c-command domain of FOC is where the *wh*-phrase starts out after all. The marker of cyclicity, too, requires the subject to move. So far these are the properties of Foc$_3$. In addition, FOC in this use has the property of attracting the *wh*-phrase or focus, a DP carrying a feature marked as 'F' in the tree below.[14] Foc$_2$ is responsible for triggering this movement.

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[13]Note that in the absence of FOC what results is not a sentence without focus but a sentence with postverbal focus. There are no sentences without focus.

[14]We assume that the restriction to DPs comes from FOC$_2$ rather than FOC$_1$. Empirically it is hard to see a difference since every phrase that undergoes one or more steps of movement to FOC$_2$ will eventually end up

We assume that Foc_2 is also responsible for the lengthening of the initial vowel of all focus- and *wh*-moved DPs as the result of specifier-head agreement between Foc_2 and the moved DP. Agreement can be implemented by assuming that there is a focus-related head high up in the functional structure of the moving DP which bears the feature that Foc_2 attracts. This head in the DP spells out as lengthening of the initial vowel (if present) of the immediately following class-marker. Under this approach we might also be able to explain why the non-agreeing high DP-modifiers do not co-occur with FOC: Suppose the functional head implementing lengthening must be topmost within its DP to be able to undergo agreement with the focus-related heads in the clausal domain. This could then be used to explain why the high modifiers in the DP are incompatible with focus-movement of that DP. An additional advantage of this analysis is that it explains the fact that focus movement of a DP is incompatible in Kîîtharaka with certain information-structure-related DP-internal re-orderings (see footnote 6).
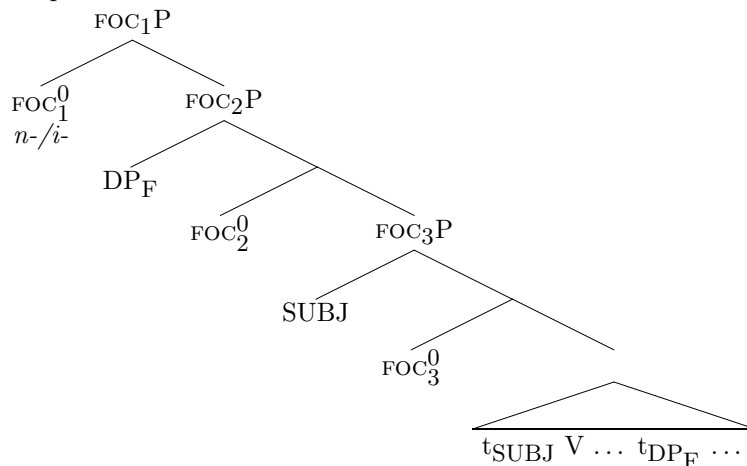
(92)   The preverbal marker of cyclicity
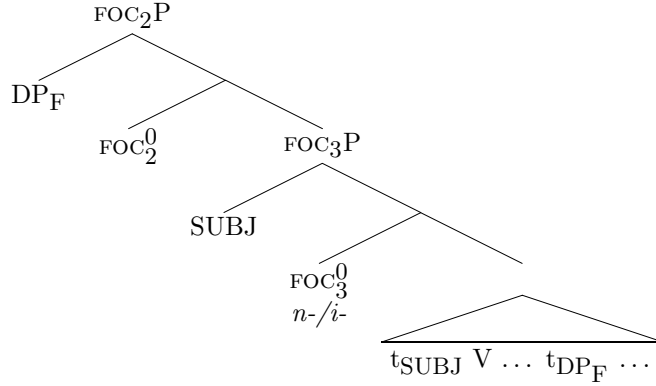
The most complex case is FOC in its function as a marker of exhaustive focus. It indicates the presence of a focused element in its c-command domain: the exhaustively focused DP. As in the case of the cyclicity marker, this phrase moves. This use of FOC is distinguished from the cyclicity marker by the additional properties of enforcing an exhaustive interpretation on the moved phrase and of being positioned in front of the moved phrase rather than immediately before the verb.

As mentioned, we do not directly associate the lengthening property of FOC in its prenominal use to Foc_1. Doing so would require Foc_1 to have an effect on DP_F in [Spec, Foc_2P] under government. Minimalism, the syntactic theory in the background, has abolished government, reanalyzing cases of government in terms of Spec-Head agreement. This is why we assume that Foc_2 agrees with the moved phrase and do not blame Foc_1 for th lengthening effect. (An alternative account might postulate covert movement to [Spec, Foc_1P].)[15]

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preceded by FOC. See also footnote 15.

[15]Notice that the discussion accounts for lengthening of the class-marker in the focus- or *wh*-moved DP as an effect of Foc_2. The subject-agreement marker on the verb is never affected by this process. It is impossible to actually know whether lengthening is an effect of the middle or the topmost of the functional heads we are assuming, since every DP that undergoes one or more steps of movement triggered by the second head will eventually end up preceded by FOC.

(93)   The prenominal focus marker

$$\text{FOC}_1\text{P}$$

Tree for (93):
- FOC$_1$P
  - FOC$_1^0$ / *n-/i-*
  - FOC$_2$P
    - DP$_F$
    - FOC$_2^0$
      - SUBJ
      - FOC$_3$P
        - FOC$_3^0$
        - t_{SUBJ} V $\ldots$ t_{DP_F} $\ldots$

A number of questions remain at this point: How can a single morpheme realize different syntactic structures? In what sense does this count as a unifcation? How do we avoid overgenerating, for example, why can't FOC realize Foc$_1$ and Foc$_2$ without Foc$_3$? How is the positioning of the phonological content of FOC achieved (note the different placement of *n-/i-* in (91)-(93))?

Following Halle and Marantz (1993) we assume that lexical insertion happens after syntax. We will not assume, however, that morphemes correspond one-to-one to syntactic terminals or even complex heads. Rather, we adopt a decompositional view of morphemes (Starke (class lectures), Borer (2004), Ramchand (to appear)), whereby single morphemes are associated with, or spell out, more than one syntactic terminal. The terminals that a particular morpheme spells out need to be locally related. We suggest that a morpheme can realize a *stretch* of functional heads, by a stretch we mean one or more heads that select each others maximal projections.

Sticking with the case at hand, in a structure like (94), each of the functional heads by itself forms a (trivial) stretch. The groups Foc$_1$ with Foc$_2$, Foc$_2$ with Foc$_3$, and Foc$_1$ with Foc$_2$ and with Foc$_3$ form stretches, but the group Foc$_1$ with Foc$_3$ without Foc$_2$ does not form such a stretch. Our assumption is that stretches can be realized by single morphemes, but collections of heads that do not form a stretch cannot.

(94)

Tree for (94):
- Foc$_1$P
  - Foc$_1$
  - Foc$_2$P
    - Foc$_2$
    - Foc$_3$P
      - Foc$_3$
      - $\ldots$
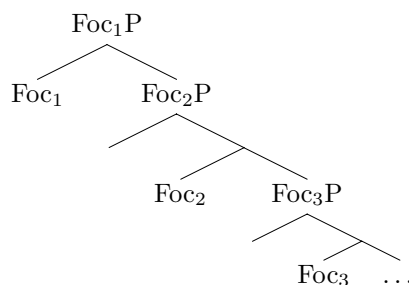
We assume that the hierarchical ordering of these heads is universally determined by the

Cinque Hierarchy taken as a template for clause structure, but this assumption is less central for the purposes of this paper than the others. As long as morphological spell-out works in the way described below, essentially forcing the correct analysis of FOC on the child acquiring the language, the assumption of the Cinque Hierarchy might be dispensable.

We will further assume, adapting ideas developed by Starke (class lectures, see Caha (2007) for exposition), that the syntactically relevant information stored in the lexical entry for a morpheme is an ordered set of functional heads – a fragment of a tree in other words. The order of functional information within the lexical entry again comes from the Cinque hierarchy. We leave open the question whether these sets are linearly ordered (a sufficient assumption for our purposes) or only partially ordered (as argued for by Starke on the basis of idioms). Lexical insertion now proceeds bottom to top. Stretches of functional heads are replaced by the phonological information associated with a particular morpheme if there is a morpheme stored in the lexicon that contains that stretch of functional heads. There is a further condition on lexical insertion. It is not sufficient for the lexically stored morpheme to contain a particular stretch, but the lowest member of the stretch to be spelled out must coincide with the lowest member of the lexical item. Concretely this means that if there is a morpheme μ stored in the lexicon that is syntactically associated with the functional heads Foc_1, Foc_2, and Foc_3, μ can replace the stretches $[Foc_3]$, $[Foc_2, Foc_3]$, and $[Foc_1, Foc_2, Foc_3]$ but no others.

Thus, μ could never spell out $[Foc_1, Foc_3]$, simply because it is not a stretch. But there are some stretches that μ could nevertheless not spell out; all of $[Foc_1]$, $[Foc_2]$ and $[Foc_1, Foc_2]$ are stretches and all of them are contained in the lexical entry for μ. Nevertheless, μ cannot spell out these stretches since their lowest member does not coincide with the lowest member of μ.[16]

The condition according to which the bottom of the spelled-out stretch must coincide with the bottom of the morpheme, effectively anchoring the spell-out domain of a given morpheme at the bottom, ensures that there is a subset/superset relation between the different uses of a given morpheme. Without it we could not account for the striking hierarchy displayed by our table of properties of the different uses of FOC. This way of treating lexical insertion, incidentally, turns the subset principle of distributed morphology (insert a lexical item whose feature specification is the maximal consistent subset of the terminal to be spelled out) on its head, replacing it by the superset principle (insert a lexical item whose feature specification is the minimal consistent superset of the terminals to be spelled out). We will not discuss cases where morphemes compete for insertion here. As far as we can tell, our account is rephrasable in terms of the subset principle.[17]

We have now answered the question how a single morpheme can realize different underlying

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[16]Technically this means that the part of the functional hierarchy that gets spelled out is an ideal in the partially ordered set stored as a morpheme in the lexicon. The notion of ideal is defined as in (i) below and allows us to generalize the case at hand (substrings) with Starke's case (subconstituent).

(i)   In a partially ordered set $\mathbf{S} = <S, \leq>$, an ideal I of $\mathbf{S}$ is a non-empty subset of S such that both of the following hold:
   a.   if $a \in I, b \in S$ and $b \leq a$, then $b \in I$
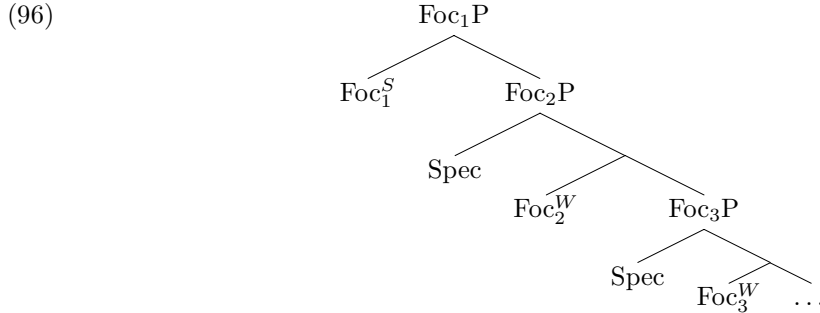   b.   if $a, b \in I, then (a \wedge b) \in I$.

[17]Under the subset principle the lexical entry for FOC would simply be the material shared between the three uses of FOC: Foc_3. This yields a weaker theory than the one advocated here.

syntactic structures. We have also unified all uses of the morpheme in a weak sense: they all must share the bottommost element. And we have addressed the overgeneration worry by putting tight restrictions on morphological insertion (stretches only, superset principle, anchoring at the bottom).

Returning to the tree in (94), if we assume that a single morpheme can realize a string of functional heads, the question arises in which position it will be linearized. For example, if a morpheme realizes Foc_1, Foc_2, and Foc_3 in (94), there are three potential positions where it could appear: in front of [Spec, Foc_2P], between the two specifiers, or following them. Abels (2003, chapter 5) treats a similar problem, the linearization of words, which are there taken to be strings of functional heads. Abels argues that the linearization problem is identical to that posed by non-trivial chains. A syntactic object has several attachment sites within a single tree. The algorithm usually more or less tacitly assumed for the linearization of chains can be paraphrased as follows:

(95)   Positioning Algorithm ((Abels, 2003, chapter 5.1.2), Gärtner (2002))
        Pronounce an element E (a word or a chain) in the lowest position P such that all higher positions P' of E are weak.

This algorithm makes sure that in a movement chain an item is always pronounced in the highest strong position and if there is no strong position in the base position. (The observant reader will note that the assignment of a strong or a weak feature to the lowest position never has an influence on the pronunciation.) We can now assign strong (superscript S) and weak (superscript W) diacritics to the heads in (94) as in (96). This particular distribution of strong and weak diacritics will make sure that FOC will be realized after both of the specifiers if it spells out Foc_3 only, (91), or Foc_3 together with Foc_2, (92), and preceding both of the specifiers if it spells out all three heads, (93).

(96)

Foc_1P
├── Foc_1^S
└── Foc_2P
    ├── Spec
    └──
        ├── Foc_2^W
        └── Foc_3P
            ├── Spec
            └──
                ├── Foc_3^W
                └── . . .

In order to account for the most prominent properties of FOC we require one more assumption: Foc_1P is projected just in case the specifier of its complement ([Spec, Foc_2P]) is filled at the surface. This accounts for the fact that the topmost element of an overt *wh-* or focus-movement chain is always preceded by the focus marker. We do not know what this follows from.

We showed above in (89) that long distance *wh-*movement in Kîîtharaka has two properties that interact with FOC. On the one hand, FOC has to appear preverbally in the clauses that lie along the path of overt *wh-*movement. On the other hand we have shown that FOC may

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not appear in a position intervening between the overt position of the *wh*-phrase and its scopal position. We have explained the first generalization, whereby FOC acts as a cyclicty marker, by endowing it with a feature that attracts a focal DP. We treat the second generalization as an LF-intervention effect. It recalls strongly the generalization found in Beck (2006, p. 5) according to which "[a] quantificational or focusing element may not intervene between a wh-phrase and its licensing complementizer." Clearly the facts discussed in (89) fall under this generalization.[18] Within the framework of Beck's assumptions we directly account for the facts in (89) because the lowest functional head involved in FOC, Foc_3, the head which is always present whenever FOC is pronounced, is Rooth's (1985; 1992) $\sim$-operator. A different approach to LF-intervention effects would require a slightly different technical implementation (thus Starke (2001) treats this type of effect syntactically as a relativized minimality effect rather than semantically), but the key to an understanding of the phenomenon is the generalization given.

This concludes our account of the main properties of FOC.

We have not said anything about mismatches between the size of the moved constituent and the focus. We know that such mismatches occur. A focus-moved phrase need not coincide with the size of the focus, which can be smaller – focus is only on part of the fronted DP – or bigger – focus may project from a focus-fronted object to the VP and it may project from a focus-fronted subject to the entire clause. The option of focus projection from the subject is, as far as we know, very uncommon cross-linguistically. It is tempting to solve the problem of projection from the subject by introducing yet another functional head, say Foc_{3+}, between Foc_2 and Foc_3. We could then say that Foc_3 is only the $\sim$-operator while Foc_{3+}'s only function would be to attract the subject. Apparent focus projection from the subject would then result from spelling out Foc_3 alone without the necessity of postulating focus projection. Tempting though this may be, this solution works only for cases of apparent focus-projection from the subject but not for the case of projection from the focus-moved object. Second, this solution gives rise to the expectation that all contexts that allow preverbal focus should also be possible with pre-subject focus. This is wrong, as discussed at the beginning of section 3. Finally, given our assumption, we would expect that pre-subject FOC should not give rise to lengthening of the initial class marker just in those cases where there is a projecting focus. This expectation is false again. Another option to explore might be that apparent projection of focus from the subject involves movement of the entire Foc_3P to [Spec, Foc_2P]. Again this raises more questions than it answers. We leave the issue unresolved.

6 Discussion

The previous literature on various aspects of Kîîtharaka is not very large (Lindblom (1914); Harford (1992, 1997); Mberia (1993)). However, particles comparable to FOC have been discussed extensively elsewhere in the literature. As noted in several places in this study, Kikuyu, which is closely related to Kîîtharaka, features one such particle, *nĩ*, which has been the focus of quite some attention (Clements (1984b,a); Bergvall (1987); Schwarz (2003)).

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[18]The same is true for negation in Kîîtharaka and the focus sensitive particle *kinya* – 'even'. Both of them give rise to LF intervention effects as expected.

The Kikuyu particle *nĩ* shares the preverbal and the prenominal use with FOC as well as introducing *by*-phrases in passives. *nĩ*, like FOC, is subject to the uniqueness per clause restriction (Clements (1984a)); it gives rise to focus interpretations on the NP it attaches to (Clements (1984a)); in its preverbal use it is compatible with wide focus or narrow focus on the verb (Schwarz (2003)); by and large the environments that disallow *nĩ* (Bergvall (1987)) also disallow FOC; the absence of *nĩ* results in a focal reading of a postverbal element (Clements (1984a)) – whether the focused readings induced postverbally are the same (Clements (1984a); Schwarz (2003)) or different (Bergvall (1987)) from the ones induced by prenominal *nĩ* is disputed; the placement of *nĩ* and FOC in its preverbal and prenominal use are similar if not identical. There are some differences though, too. according to Schwarz (2003) the focal readings induced by *nĩ* are not exhaustive. Moreover, *nĩ* does not seem to have FOC's function as a marker of cyclicity. We have not studied *nĩ* ourselves and rely entirely on information available in the sources mentioned.
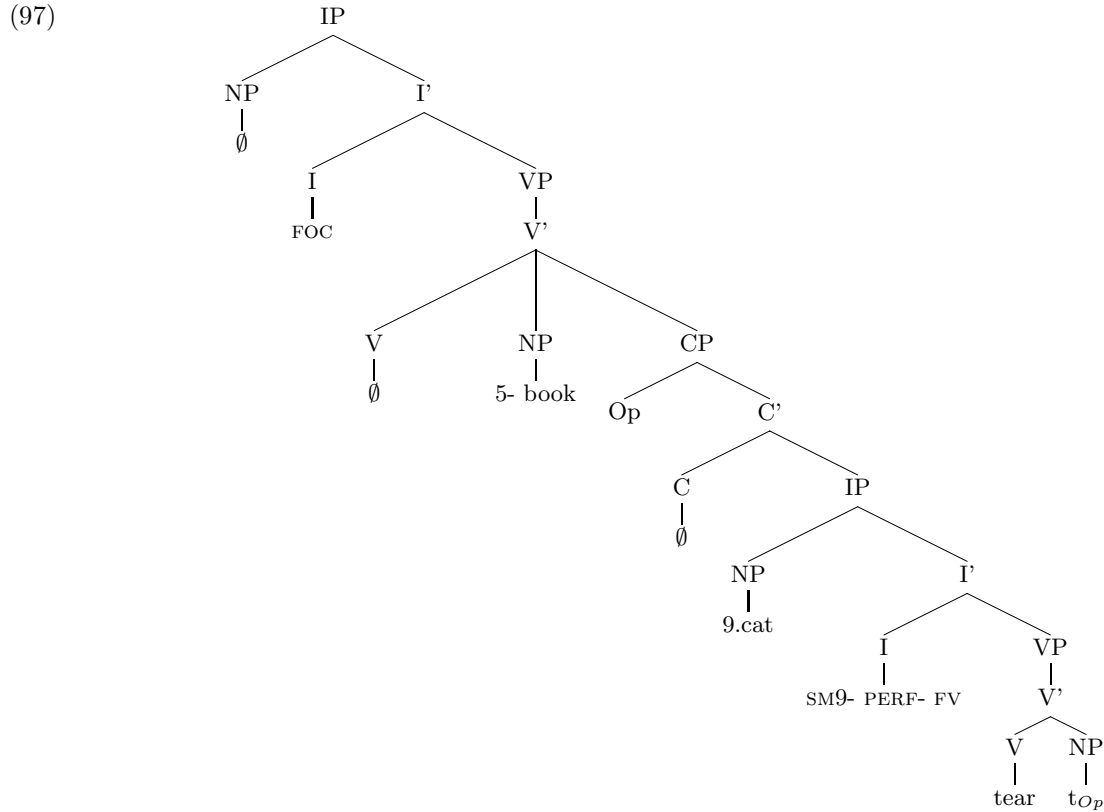
Since Clements' work on *nĩ* there has been agreement that the uniqueness per clause restriction should be captured by assigning a specific position in the clausal hierarchy to *nĩ*. Our own analysis of FOC, of course, adopts this mode of explanation. Likewise, there has been a consensus that *nĩ* in copular sentences should not be analyzed as the copula itself. Our own analysis of FOC adopts this claim. In this connection it ought to be noted that none of the accounts of *nĩ* have a satisfactory answer to the question why the postulated phonologically null, present tense copula in the third person singular has to co-occur with *nĩ* or with negation in Kikuyu. The accounts predict that the null copula may co-occur with *nĩ* or negation, but not that it has to. As mentioned in footnote 3, the same problem arises under our account and it remains unsolved. Finally, there has been a consensus that *nĩ* should be given a unifying analysis. Again our own analysis agrees with this in principle.

Clements' and Bergvall's analyses disagree on whether *nĩ* should be assigned a particular position in COMP or in INFL. Given the explosion of functional categories in syntactic theory (Larson (1988); Pollock (1989); Rizzi (1997) and many others since), the question doesn't make much sense anymore. As noted in Schwarz (2003), under an approach to the left periphery of the clause along the lines of Rizzi (1997) the more technical problems involving c-command and headedness that Bergvall uses to argue against Clements' account are automatically solved or, at least, easily solvable.

This leaves four substantive differences between Clements' and Bergvall's accounts: (i) structures with *nĩ* in its prenominal use are bi-clausal cleft constructions under Bergvall's analysis but monoclausal under Clements' analysis; (ii) Bergvall's account gives a different semantics to different uses of *nĩ* whereas Clements' account cannot straightforwardly do this; (iii) *nĩ* acts as a focus marker for Clements but as a marker of assertion for Bergvall; (iv) *nĩ* finds its correct linear position in very different ways under the two accounts. We discuss the points and lay out our own positions in the order given.

The first question to ask is then whether there are strong arguments for or against the cleft analysis of prenominal FOC in Kîîtharaka. Harford (1997), analyzing a construction in Kîîtharaka that shares properties with hyperraising (Ura (1994)) and with *tough*-movement, suggests without going into great detail that FOC should be treated as a "predicator" and that the prenominal use has the structure of a cleft sentence. In other words, the NP that FOC attaches to is the complement of a null copula followed by a relative clause. This analysis

builds on Bergvall's (1987, chapter 3) analysis of *nĩ* in Kikuyu. Directly transposing Bergvall's implementation to Kîîtharaka, a simple example like (59b) with fronted object focus would have the structure in (97).

(97)

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                              IP
                    ┌─────────┴─────────┐
                   NP                   I'
                    │          ┌────────┴────────┐
                    ∅          I                 VP
                               │                 │
                              FOC                 V'
                                         ┌────────┼────────────┐
                                         V        NP           CP
                                         │        │       ┌─────┴─────┐
                                         ∅      5- book   Op          C'
                                                              ┌───────┴───────┐
                                                              C               IP
                                                              │        ┌───────┴───────┐
                                                              ∅       NP               I'
                                                                       │        ┌───────┴───────┐
                                                                     9.cat       I             VP
                                                                                 │              │
                                                                           SM9- PERF- FV        V'
                                                                                            ┌───┴───┐
                                                                                            V      NP
                                                                                            │       │
                                                                                          tear    t_{Op}
```

Technical details aside, the crucial point is that (97) is a biclausal structure where the embedded CP is a relative clause. Harford (1997, p. 119-120) makes the following claims:

"There are two kinds of evidence that the PR [Harford's predicator, which we have been calling FOC– K.A & P.M.] removes an NP from a clause. First, an NP marked with the PR appears at the left periphery of the clause [. . .] Second, the clause following an NP marked with the PR is a relative clause. Evidence for this comes from an alternation in the class 1 subject marker: it takes the form *a-* in main clauses and object relative clauses, but may appear as *ũ-* in subject relative clauses (*w-* before vowels) [...] This alternation is not possible in non-relatives [...] A second property of relative verbs, unrelated to noun class, is that a relative verb may not bear the PR [...], nor may a verb in a clause following an NP which is marked with the PR [...]"

Harford's first argument is unconvincing. Even if it were true – which it is not, as examples like (7) and (76i) above show – that NPs marked with FOC always appear at the left periphery of the clause, this would not constitute an argument for a bi-clausal structure. A similar non

sequitur would conclude from the fact that *wh*-words in English are always peripheral in their clause that *wh*-questions in English are bi-clausal.

We find the second argument equally unconvincing. There are said to be special *relative* verb forms which show up only in relative clauses. Two characteristics of these *relative verbs* are given: they allow a class 1 agreement alternation (similar to the one familiar from Kikuyu (Clements, 1984a)); they disallow preverbal FOC. Harford's examples to demonstrate the alternation in class 1 subject-agreement in relative clauses and clauses with prenominal FOC on the one hand and non-relative clauses and clauses without prenominal FOC on the other seem dubious and very archaic to the second author of this paper, which is why we did not include this alternation in our description of the properties of FOC. Harford's second observartion is certainly true. The topmost verb in a relative clause cannot bear preverbal FOC and neither can the topmost verb following a FOC-marked NP. However, we have illustrated above that there are other contexts that also disallow preverbal FOC-marking which are clearly not relative clauses, for example complements of factive and non-assertive verbs. This alone weakens Harford's argument considerably. More damagingly though, the argument simply presupposes its conclusion. As pointed out already in Clements (1984a, p. 37-38), the use of terms like *relative verb* "suggests that the occurrence of these forms in relative clauses is primary and that their use elsewhere is secondary, an assumption for which little or no evidence is cited in the literature." The arguments for the cleft analysis of the prenominal use of FOC in Kîîtharaka are therefore weak.

There are a number of arguments against the cleft analysis, however, which we believe to have a lot more force. Our first argument comes from locality, the second – from tense, and the last – from constraints on the occurrence of demonstratives. As pointed out by Schwarz (p. 78-85) for Kikuyu, the cleft account and the monoclausal account make different predictions when it comes to locality. Although the way Schwarz himself develops this argument do not carry over to Kîîtharaka, we can give an adapted version of the argument: The cleft-structure predicts that locality effects induced by relative clauses and those induced by focalization ought to pattern together, whereas the monoclausal analysis makes no such prediction. Topicalization is a nice testing ground. temporal adjuncts, for example, cannot be topicalized out of a relative clause, (98a-b). The matrix clause is in the future tense to make a matrix reading of 'yesterday' impossible. On the cleft analysis the corresponding sentences with focus fronting of the object involve relative clauses. The null copula is in the present tense. Such examples should therefore have the same status as the clear relative clause examples, (99a-b). This prediction of the cleft analysis is not borne out as the examples show.

(98) a. Boriisi ba- ka- thaik- a mw- amba û- ra Peter a- ra- on- ir-
          2.police SM2- FUT- arrest- FV 1- thief 1- that 1.Peter SM1- RECPST- see- PERF-
          e î- goro
          FV 5- yesterday
          'The police will arrest the thief that Peter saw yesterday'
      b. *Î- goro   Boriisi ba- ka- thaik- a mw- amba û- ra Peter a-
          5- yesterday 2.police SM2- FUT- arrest- FV 1- thief 1- that 1.Peter SM1-
          ra-   on- ir- e
          RECPST- see- PERF- FV
          'The police will arrest the thief that Peter saw yesterday'

(99)   a.   I-   mw- amba Peter a-   ra-   on- ir-   e   î- goro
              FOC- 1-   thief   1Peter SM1- RECPST- see- PERF- FV 5- yesterday
              It is the thief that Peter saw yesterday.
       b.   Î- goro   i-   mw- amba Peter a-   ra-   on- ir-   e
              5- yesterday FOC- 1-   thief   1Peter SM1- RECPST- see- PERF- FV
              *'Yesterday it is the thief that Peter saw.'
               'Yesterday Peter saw the *thief.*'

The second argument comes from looking at the above paradigm a bit more closely. Bergvall (1987, p. 130-132) briefly discusses the question of tense in clefts and observes that the copula in a cleft may appear in the present tense together with a variety of tenses in the subordinate clause: 'It is John who will go/has gone/is going.' For interpretive purposes, Bergvall claims, the present tense in the matrix can be more or less ignored. However, we submit that when there is a temporal modifier in the matrix, as in the ungrammatical cleft translation of (99b), the choice of tense on the copula becomes relevant. Thus, compare the translation of (99b) with the acceptable 'Yesterday it was/*is my haircut you didn't like, today it is my makeup.'[19] Based on English we expect that if the prenominal focus-marking construction were a cleft, a version of (99b) with a past tense copula should be acceptable. This expectation is not borne out as (100) shows.

(100)   *Î- goro   i-   kû- a-   rî mw- amba Peter a-   ra-   on- ir-   e
           5- yesterday FOC- SM17- RECPST- be 1-   thief   1Peter SM1- RECPST- see- PERF- FV
           'Yesterday it was the thief that Peter saw.'

The third argument comes from the distribution and interpretation of demonstratives in relative clauses and in the focus construction with prenominal FOC. The attentive reader will no doubt have noticed the presence of the word *ûra*, glossed 'that', in the acceptable relative clauses above and its absence in the focus-fronting construction.[20] Kîîtharaka has a four-way distinction between demonstratives: distal, medial, speaker-proximal, and hearer-proximal. Restrictive relative clauses can be formed either with or without the medial demonstrative, but they never show any of the other demonstratives. When a restrictive relative clause is formed with the demonstrative, the noun gets a definite interpretation, (101a), when the demonstrative is absent, the interpretation is indefinite, (101b). The other three demonstratives can only occur in non-restrictive relatives. These are marked by an intonational break. Furthermore, as shown in (101c), the other three types of demonstratives may only occur when they are doubled by the regular medial demonstrative adjacent to the relative clause.

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[19]Another language cited by Bergvall as support is Japanese. The Japanese translation of the English cleft in (99b) is ungrammatical like its English counterpart cleft but unlike the Kikuyu and Kîîtharaka focus construction. Moreover, the Japanese example improves with a past tense copula, though the sentence may remain somewhat degraded. We thank Kaori Takamine and Naoyuki Yamato for discussion and judgments on Japanese.

[20]There might be a question whether *-ra* is a relative pronoun, a relative complementizer, or the regular demonstrative.

(101)　a.　Gî- kombe kî- ra　　　Maria a- un- ir- e
　　　　　7- cup　7- DEM.MEDIAL 1.Maria SM1. break- PERF- fv
　　　　　'the cup that Maria broke'
　　　b.　Gî- kombe Maria　a- un- ir- e
　　　　　7- cup　1.Maria SM1. break- PERF- fv
　　　　　'some cup that Maria broke'
　　　c.　Gî- kombe { gî- kî　　　　| gî- ku　　　　| kîî- ra　　　} *(kî-
　　　　　7- cup　7- DEM.PROX.SPK | 7- DEM.PROX.HR | 7- DEM.DIST　7-
　　　　　ra)　　　　　Maria a- un- ir- e
　　　　　DEM.MEDIAL 1.Maria SM1. break- PERF- fv
　　　　　'{this here | this there | yonder} cup, which Maria bought'

The situation for the focus construction is quite different. The medial demonstrative may, of course, be present, (102a), but its absence does not obligatorily lead to an indefinite interpretation, (102b). This is one difference between relative clauses and the focus construction. The second difference is that the other three types of demonstrative may freely appear in the focus construction, without forcing the insertion of an intonational break. Finally, the other demonstratives can never be doubled by the medial demonstrative, (102c). These differences do not follow from the cleft analysis of the focus construction and, in fact, militate against the idea that the focus construction involves a relative clause.

(102)　a.　I- gî- kombe kî- ra　　　Maria a- un- ir- e
　　　　　FOC- 7- cup　7- DEM.MEDIAL 1.Maria SM1. break- PERF- fv
　　　　　'Maria broke that *cup*.'
　　　b.　I- gî- kombe Maria　a- un- ir- e
　　　　　FOC- 7- cup　1.Maria SM1. break- PERF- fv
　　　　　'Maria broke {a | the } *cup*.'
　　　c.　I- gî- kombe { gî- kî　　　　| gî- ku　　　　| kîî- ra　　　} (*kî-
　　　　　FOC- 7- cup　7- DEM.PROX.SPK | 7- DEM.PROX.HR | 7- DEM.DIST　7-
　　　　　ra)　　　　　Maria a- un- ir- e
　　　　　DEM.MEDIAL 1.Maria SM1. break- PERF- fv
　　　　　'Maria broke {this here | this there | yonder} *cup*.'

We believe that these problems, all of which are avoided by the monoclausal analysis, cast serious doubt on the cleft analysis of the prenominal use of FOC.

We now turn to the second disagreement between Clements and Bergvall, the disagreement regarding the semantic differences that arise in the different constructions where *nĩ* is used. Bergvall claims that in Kikuyu the constructions with preverbal *nĩ*, including in copular sentences with the null copula, have a very different semantics from the construction with prenominal *nĩ*. She further claims that Clements' account is ill-equipped to handle these differences because for Clements there is only one type of *nĩ* and the difference between its various uses have to do with whether an NP moves into COMP to *nĩ* or whether *nĩ* lowers onto the verb. Bergvall's own theory can in principle accommodate such differences by attributing the additional semantics that the constructions with prenominal *nĩ* have to the cleft. We cannot evaluate the semantic evidence for

Kikuyu with any confidence (see Schwarz (2003) for discussion), but as we have laid out above, we do believe that there are semantic differences in the different uses of FOC in Kîîtharaka. Notice that the structure of Bergvall's and our own account is quite similar on this point: the additional semantic information is represented by additional pieces of structure. However, the way this additional syntactic structure is handled by the theories is quite different. For Bergvall, all of the additional structure is represented by independently existing null morphemes. Our own account treats this structural information as the differing but related structures that can be realized by a single overt morpheme. These pieces of structure do not have an independent existence as null morphemes under our view.

On the next question, whether FOC should be treated as a marker of focus or assertion, we have taken sides from the beginning. We have tried to show throughout that FOC is sensitive to information structure rather than to assertive force. As noted by Schwarz for Kikuyu *nĩ*, its occurrence in questions alone casts doubt on the idea that *nĩ* (and Kîîtharaka FOC) is a marker of assertion.

Bergvall (1987, p. 171) suggests to treat certain instances of the use of *nĩ* in embedded clauses under the verb "say" as follows: "My account of ne notes that the introducing verb is 'say', a bridge verb, which brings in a new person and thus, the opportunity for a new assertion (here, on the part of [the matrix subject – K.A. & P. M])." This type of approach suggests that when the speaker and the subject of the verb of saying are identical, it should be impossible to find the focus marker in embedded clauses. This expectation is not borne out, as (103) shows. Moreover, it is hard to imagine in what sense the embedded clause might be asserted, since the matrix contains an explicit denial of asserting it on the part of the speaker.

(103) N-   ti-   ra-   ug- a atî i-   Maria a-   un-   ir-   e gî-
       1.PERS.SG- NEG- RECPST- say- FV that FOC- 1.Maria 1.SM- break- PERF- FV 7-
       kombe
       cup
       'I didn't say that it is Maria that broke the cup.'

It also seems to us that the appearance of FOC in its use as a marker of cyclicity is determined syntactically. The examples in (89) do not seem to differ in what is asserted.

Finally, Bergvall criticizes Clements' account of the linear positioning of *nĩ*: It either remains in situ and some NP moves to its immediate right or it lowers onto the verb. Bergvall points out that once you allow movement of *nĩ*, it is hard to find principled reasons why it couldn't lower onto a postverbal object NP for example. We agree with this criticism. Our own account presents an improvement over Clements, since we achieve the correct linearization without invoking downward and rightward movement. FOC cannot and could not occur medially in the VP because all of the heads that FOC realizes are outside of, structurally peripheral to, the VP.

We have seen that there are certain similarities between the Kikuyu marker *nĩ* and the Kîîtharaka FOC-marker in that, roughly speaking, *nĩ* has a subset of the properties of FOC in Kîîtharaka. *nĩ* lacks the use as a marker of cyclicity and – according to Schwarz (2003) – does not induce exhaustivity. Another partially similar marker, *ra*, is found in Kirundi (Sabimana (1986); Ndayiragije (1999)).[21] According to Ndayiragije (1999, p. 407), this particle is variously called

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[21]We thank an anonymous reviewer for bringing this to our attention.

"antifocus marker", "focus functor", or "mood force indicator" in the traditional literature. He himself calls it an antifocus marker but analyzes it (p. 409) as the realization of "some kind of declarative feature." A sufficiently detailed semantic description of *ra* is not available, but there are certain striking similarities to Kîîtharaka FOC in its preverbal use: *ra* is compatible with new-information focus on VP or the sentence (some of the translations in Sabimana (1986) also suggest the possibility of narrow focus on the verb); its absence gives rise to narrow focus on a postverbal element; it cannot co-occur with a narrowly focused postverbal NP or a postverbal in situ *wh*-phrase; it cannot co-occur with clausemate negation. One important difference with FOC in Kîîtharaka is *ra*'s positioning in the middle of the string of verbal prefixes rather than at its beginning. Another difference is that *ra* "appears in matrix (and main) clauses. It never shows up in embedded CPs that allow *wh*-movement" (Ndayiragije, 1999, p. 408). Our own analysis of Kîîtharaka suggests an analysis whereby *ra* is a focus-sensitive operator lacking exhaustivity and contrastiveness. Its incompatibility with postverbal in situ foci and *wh*-phrases could, as in our account, be treated as an LF-intervention effect. This suggests that the terminology of *ra* as an "antifocus marker" is poorly chosen. In the face of the fact that *ra* appears in questions (Ndayiragije, 1999, p. 408), an account that attributes declarative force to *ra* also seems dubious to us.[22]

The main interest of comparing languages in this way is the following. Consider the picture that emerges from the comparison between Kirundi, Kikuyu, und Kîîtharaka. If we allow ourselves to set aside the differences in detail, it looks as though Kirundi has a morpheme the represents only one of the heads postulated in our analysis, corresponding to the preverbal marker, Kikuyu has a head spelling out two of the heads we postulated, corresponding to the preverbal and the prenominal marker, and Kîîtharaka has all three. Still setting aside the differences, this might count as independent evidence for the decomposition of FOC in Kîîtharaka into several different syntactic heads that we have provided. However, the cross-linguistic hierarchy does not conform to the language internal hierarchy we postulated for Kîîtharaka. On a cartographic view where syntactic hierarchies are assumed to be universal, this is problematic. This might indicate that the markers in Kirundi, Kikuyu, and Kîîtharaka are not comparable after all and that their somewhat different behaviors carries important information about their differing syntax. The facts might alternatively be taken to indicate that our hierarchy of Kîîtharaka is wrong and that the head inducing focus movement needs to be positioned differently. Finally, this might be taken to indicate that the assumption that the syntactic hierarchy is universally fixed is (partially) incorrect. We leave the issue as a question for future research.

7 Conclusion

This paper makes three main contributions. First, it offers a careful description of FOC in Kîîtharaka. We take into account a more diverse set of facts than is usually done in comparable studies in understudied languages. Second, to complete our descriptive task, we have developed a number of novel tests for exhaustivity and the lack thereof. Third, we have argued that a

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[22]In ex situ focus constructions the morpheme *ni* shows up prenominally in Kirundi. Ndayiragije (1999, p. 407, 421, 429) glosses *ni* as BE and gives a cleft analysis of the Kirundi ex situ focus construction. We have not investigated the issue of how well-motivated the cleft analysis is for Kirundi.

unified analysis of FOC is possible so long as the syntax morphology interface is flexible enough to realize different collections of functional heads by a single morpheme (descriptively, there is homophony). Under close scrutiny this homophony falls into a very neat pattern requiring a systematic explanation. The different versions of FOC are organized according to proper inclusion relations, making an account in terms of accidental homophony extremely dubious. At the same time, proper inclusion relations in the feature content between homophonous (or syncretic) forms is allowed by standard formulations of distributed morphology, but not necessarily expected. The theory adopted here, which forces homophonous (or syncretic) forms to have feature content which is ordered by proper inclusion relations, is more restrictive than standard distributed morphology. Caha (2007) shows that standard cases can still be accounted for under the more restrictive view taken here. We therefore take these facts to provide an empirical argument for the particular assumptions regarding the syntax-morphology interface introduced in section 5, especially the assumption that lexical items are hierarchically structured and that a morpheme may spell-out a stretch of the universal hierarchy of functional heads if that stretch constitutes an ideal of the lexical entry of that morpheme.

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