Forming wh-questions in Shona: A comparative Bantu perspective*

Jason Zentz
Yale University
jason.zentz@yale.edu

1 Overview

1.1 Wh-question strategies

Wh-question formation strategies may be categorized according to whether the wh-phrase is pronounced in its scopal position, its canonical position, or in between:

(1) a. Wh-in-situ: \[ \text{scopal} \quad [\text{CP} \ldots [\text{CP} \ldots \text{wh} \ldots ]] \]

b. Full wh-movement: \[ [\text{CP} \quad \text{wh} \ldots [\text{CP} \ldots \ldots \ldots ] \]

c. Partial wh-movement: \[ [\text{CP} \ldots [\text{CP} \quad [\text{wh} \ldots \ldots \ldots ] \]

Central theoretical issues:

- The nature of the relations depicted by the lines in (1)
- Whether any of these strategies can be assimilated to another

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1.2 The Bantu language family

- 300–680 languages (Nurse & Philippson 2003)
- L1 speaker counts vary from 50 million (Marten et al. 2007) to 240 million (Nurse & Philippson 2003)
- Covers most of sub-Saharan Africa (from southern Cameroon eastward to southern Kenya and southward to the tip of the continent, with the exception of the Khoisan families in the southwest)
- Subgroup of the Niger-Congo family, which has ~1,500 languages and ~437 million speakers (Lewis et al. 2015)

- Phonoology:
  - Lexical and grammatical tone (usually 2 level tones plus contours)
  - Inventories typically have 5–7 vowels and many consonants
  - Prenasalized and labialized obstruents are common
  - Vowel height harmony

- Morphosyntax:
  - Noun class systems encoding number and non–sex-based gender
  - Robust ϕ-agreement, null subjects
  - Typically agglutinative verbal morphology
  - SVO with discourse-driven displacement
  - Multiple strategies for forming wh-questions

- Family-level comparative syntactic work (Marten et al. 2007):
  - Double object constructions (Bresnan & Moshi 1990, Simango 1995)
  - Extraction marking (Zentz 2015)
  - Wh-questions (Zentz 2016)
1.3 Shona wh-questions

Shona, a Bantu language spoken by about 14 million people in Zimbabwe and Mozambique, allows all three of the strategies in (1), or at least so it appears at first glance.

(2) Shona wh-in-situ

a. In-situ wh–indirect object

\[
\text{V-aka-teng-er-a} \text{ 0-ani 0-rokwe?} \quad \text{[Shona]}
\]

‘Who(m) did they buy a dress (for)?’ (lit., ‘They bought who(m) a dress?’) (2015-02-13-01-TD)

(3) Shona full wh-movement

a. Full movement of a wh–indirect object

\[
\text{Ndi-0-ani} \text{ wa-v-aka-teng-er-a} \quad \text{Ø-rokwe?} \quad \text{[Shona]}
\]

‘Who(m) did they buy a dress (for)?’ (lit., ‘It’s who that they bought a dress (for)?’) (2016-02-13-01-TD)

b. Long-distance full movement of a wh–indirect object

\[
\text{Ndi-0-ani} \text{ wa-w-ai-fung-a} \quad \text{[CP kuti} \text{ v-aka-teng-er-a} \quad \text{Ø-rokwe]}? \quad \text{[Shona]}
\]

‘Who(m) did you think they bought a dress (for)?’ (lit., ‘They thought that it’s who that they bought a dress (for)?’) (2015-01-17-01-TD)

(4) Shona partial wh-movement

a. Partial movement of a wh–indirect object

\[
\text{W-ai-fung-a} \quad \text{[CP kuti} \text{ ndi-0-ani} \text{ wa-v-aka-teng-er-a} \quad \text{Ø-rokwe]}? \quad \text{[Shona]}
\]

‘Who(m) did you think they bought a dress (for)?’ (lit., ‘They thought that it’s who that they bought a dress (for)?’) (2015-01-17-01-TD)

b. Long-distance partial movement of a wh–indirect object

\[
\text{W-ai-fung-a} \quad \text{[CP kuti} \text{ ndi-0-ani} \text{ wa-t-aka-fember-a} \quad \text{Ø-rokwe]}? \quad \text{[Shona]}
\]

‘Who(m) did you think we guessed they bought a dress (for)?’ (lit., ‘They thought that we guessed that it’s who that they bought a dress (for)?’) (2015-01-17-01-TD)

Unlike English questions with in-situ wh-phrases, Shona wh-in-situ is not restricted to multiple wh-questions or to echo/quiz question contexts. Wh-in-situ is the most unmarked way to ask about a non-subject in Shona.

¹Shona examples appear in the standard orthography, which does not mark tone (though I have added tone diacritics where they alone mark a relevant contrast). The graphemes that depart from IPA usage are given here with their IPA equivalents: <b> [ɓ], <bh> [b̤], <bv> [b̤͡v̤], <ch> [t͡ʃ], <dh> [d̤], <dz> [d̤͡z̤], <g> [ɡ], <j> [d̤͡ʒ̈], <kw> [kʷ], <mb> [ᵐb], <nd> [ⁿd], <ng> [ᵑɡ], <ng> [ᵑɡʷ], <ny> [ɲ], <nzw> [ⁿz̤ʷ], <sh> [ʃ], <th> [t], <tsv> [t͡sᶹ], <v> [ʋ], <vh> [v̤], <y> [j], <z> [z].

²For the sake of clarity and consistency, I have occasionally adjusted glosses and translations in examples cited from other sources, following the Leipzig Glossing Rules wherever possible. Abbreviations used include: 1pl = first person plural, 1sg = first person singular, 2pl = second person plural, 2sg = second person singular, 3sg = third person singular, APPL = applicative, ASCL = assertive subject clitic, ASF = aspect, AUX = auxiliary, CAUS = causative, CLF = classifier, DEM = demonstrative, F = feminine, FUT = future, FV = final vowel, M = masculine, NASCL = non-assertive subject clitic, NEG = negative, NI = reflex of Proto-Bantu copula *ni, NMLZ = nominalizer, NSE = non-subject extraction, OBL = oblique, OM = object marker, PFV = perfective, PRF = perfect, PRES = present, PST = past, REC = recent, REL = relative, SE = subject extraction, SG = singular, SM = subject marker, TA = tense and/or aspect. Bare numerals (and also 1a) in glosses indicate noun class, encoding both number and gender features.
In this dissertation, I conduct the first in-depth examination of Shona wh-questions, exploring the derivational relationships among these strategies.

**Data collection:**
- 50 hours of elicitation in the Yale linguistics department since June 2014
- Consultant Thabani Dhlakama is a biomedical engineer (Yale BS ’13) from Harare, Zimbabwe

**Methodological aims:**
- Apply morphosyntactic tests rigorously and thoroughly to tease apart alternative analyses
- Compare Shona with other Bantu languages to uncover parameters of microvariation

**Goals for this talk:**
- Demonstrate that Shona wh-in-situ does not involve movement
- Highlight a previously predicted but undiscovered island sensitivity pattern
- Unify the analysis of Shona full wh-movement and partial wh-movement as cleft-based wh-ex-situ

### 2 Wh-in-situ

**Central theoretical question:** How is the relation between the scopal and pronunciation positions of the wh-phrase established?

**Current state of affairs:** In Bantu languages, wh-in-situ questions are often taken to be derived via a non-movement relation, but alternatives that have been proposed for non-Bantu languages have rarely been considered.

### 2.1 Unselective binding


- **No movement** involved
- In the semantics, a null operator in the scopal position binds the wh-phrase
- **Prediction:** In-situ questions should show identical morphosyntax to their declarative counterparts.

The following sections will reveal that this prediction is borne out for Shona wh-in-situ.

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3 Preliminary investigations of Shona wh-questions include Mukaro 2012, a brief article by a native speaker of Shona, and Posegate 2010, a term paper written for an undergraduate field methods class. The grammars by Fortune (1984, 1985) and Brauner (1995) include a few examples of wh-questions but no section dedicated to them.

2.2 Disguised movement


- **Overt wh-movement** to the scopal position
- **Overt remnant movement** of the rest of the sentence
- **Prediction**: Wh-phrases will be **sentence-final**, not in their canonical position. Thus this is only **apparent** wh-in-situ.

(6) **Bellunese non-subject wh-in-situ**

a. **Postverbal in-situ wh-direct object**
   
   A-tu magnà che?
   
   'What have you eaten?' (Munaro et al. 2001:149 (4a))

b. **Postverbal in-situ wh-locative adjunct**
   
   Sè-tu ’ndat andé?
   
   'Where have you gone?' (Munaro et al. 2001:149 (4c))

(7) **Bellunese wh-phrases are sentence-final, not in situ**

a. **Declarative word order**
   
   Al ghe a dat al libro a so fradel. [Bellunese]
   
   'He gave the book to his brother.' (Poletto & Pollock 2015:139 (9d))

b. **Questioning the direct object with declarative word order in the vP**
   
   *Ghe ha-lo dat che a so fradel? [Bellunese]
   
   'What did he give to his brother?' (Poletto & Pollock 2015:139 (9e))

c. **“In-situ” sentence-final wh-direct object**
   
   Ghe ha-lo dat che, a so fradel? [Bellunese]
   
   'What did he give to his brother?' (Poletto & Pollock 2015:140 (9f))

(8) **Derivation of (6a), adapted from Poletto & Pollock 2015:138 (8)**

(9) **Shona wh-phrases are in situ, not sentence-final**

a. **Declarative word order**
   
   V-aka-teng-er-a Ø-Thandi Ø-rokwe ku-chi-toro. [Shona]
   
   'They bought Thandi a dress at the store.' (2016-02-13-01-TD)

b. **In-situ wh-indirect object**
   
   V-aka-teng-er-a Ø-ani Ø-rokwe ku-chi-toro? [Shona]
   
   'Who(m) did they buy a dress (for) at the store?' (2016-02-13-01-TD)

c. **In-situ wh-direct object**
   
   V-aka-teng-er-a Ø-Thandi chi-i ku-chi-toro? [Shona]
   
   'What did they buy Thandi at the store?' (2016-02-13-01-TD)

d. **In-situ wh-locative adjunct**
   
   V-aka-teng-er-a Ø-Thandi Ø-rokwe ku-pi? [Shona]
   
   'Where did they buy Thandi a dress?' (2016-02-13-01-TD)

Shona has true wh-in-situ, with wh-phrases appearing in their canonical positions, which are not necessarily sentence-final.
Table 1: Properties and analyses of Shona wh-in-situ (interim)

<table>
<thead>
<tr>
<th>Unselective Binding</th>
<th>Disguised Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Word order same as declarative</td>
<td>✓</td>
</tr>
</tbody>
</table>

Shona has extraction marking (a verbal prefix that agrees in \( \varphi \)-features with an extracted non-subject), but this marking cannot appear in wh-in-situ.

(11) Lack of extraction marking with in-situ wh–non-subjects

a. In-situ wh–indirect object

\(*\text{Wa}\)-v-aka-teng-er-a Ø-ani Ø-rokwe ku-chi-toro? [Shona]

1a. \text{NSE}-2.\text{SM}-TA-buy-\text{APPL}\text{-FV} 1a-who 5-dress 17-7-store

‘Who(m) did they buy a dress (for) at the store?’ (2016-02-13-01-TD)

b. In-situ wh–direct object

\(*\text{Cha}\)-v-aka-teng-er-a Ø-Thandi chi-i ku-chi-toro? [Shona]

7. \text{NSE}-2.\text{SM}-TA-buy-\text{APPL}\text{-FV} 1a-Thandi 7-what 17-7-store

‘What did they buy Thandi at the store?’ (2016-02-13-01-TD)

c. In-situ wh–locative adjunct

\(*\text{Kwa}\)-v-aka-teng-er-a Ø-Thandi Ø-rokwe ku-pi? [Shona]

17. \text{NSE}-2.\text{SM}-TA-buy-\text{APPL}\text{-FV} 1a-Thandi 5-dress 17-which

‘Where did they buy Thandi a dress?’ (2016-02-13-01-TD)

Table 2: Properties and analyses of Shona wh-in-situ (interim)

<table>
<thead>
<tr>
<th>Unselective Binding</th>
<th>Disguised Movement</th>
<th>Lower Copy Spell-out</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Word order same as declarative</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>2. Lack of non-subject extraction marking above in-situ wh-phrases</td>
<td>✓</td>
<td>×</td>
</tr>
</tbody>
</table>

2.4 Covert movement

(Cable 2010, Huang 1982, Pesetsky 2000, Tran 2009, among others)

- Covert (LF) wh-movement to the scopal position

- Prediction: Wh-in-situ will show sensitivity to island boundaries between the base position and scopal position.
(12) *Island sensitivity in Vietnamese wh-in-situ*

a. *In-situ argument wh-phrase within an adjunct island*

*Tán sẽ thu vào ai làm hư xe của anh ta? [Vietnamese]*

**Who will Tan lose the race because who make damage his car?** (lit., ‘Tan will lose the race because who will damage his car?’)

*(Tran 2009:175 (10a))*

b. *In-situ adjunct wh-phrase within a relative clause island*

*Tân sẽ chụp hình con hổ đã đao ai? [Vietnamese]*

**Who(m) will Tan take a picture of the tiger that scared who(m)?** (lit., ‘Tan will take a picture of the tiger that scared who(m)?’)

*(Tran 2009:174 (8a))*

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Shona wh-in-situ is not sensitive to islands, whether relative clause islands, complement clause islands, or adjunct islands.

(13) *Lack of island sensitivity in Shona wh-in-situ*

a. *In-situ wh-subject within a relative clause island*

**Who do you know the girl that they thought who(m) chose?** (lit., ‘You know the girl that they thought who(m) chose?’)  
(2014-11-01-01-TD)

b. *In-situ wh-direct object within a relative clause island*

*Aka-ramb-a [island ny-aya ye-kuti chi-i] [Shona]*

**Who(m) did they (sg.) deny the story that it (their dog) bit who(m) on the leg?’** (lit., ‘They (sg.) denied the story that it (their dog) bit who(m) on the leg?’)  
(2014-09-27-01-TD)

c. *In-situ wh-subject within a complement clause island*

**Who did they call the police because who saw a thief?’** (lit., ‘They called the police because who saw a thief?’)  
(2014-11-01-01-TD)
f. **In-situ wh-direct object within an adjunct island**

\[\text{V-aka-foner-a ma-purisa [island nokuti v-aka-on-a [Shona] 2.SM-TA-call-FV 6-police because 2.SM-TA-see-FV \(\text{Ø-ani}\)? 1a-who 'Who(m) did they call the police because they saw who(m)?'] }\]

<table>
<thead>
<tr>
<th></th>
<th>Unselective Binding</th>
<th>Disguised Movement</th>
<th>Lower Copy Spell-out</th>
<th>Covert Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Word order same as declarative</td>
<td>✓</td>
<td>×</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2. Lack of non-subject extraction marking above in-situ wh-phrases</td>
<td>✓</td>
<td>×</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>3. Lack of island effects</td>
<td>✓</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
</tbody>
</table>

Table 3: Properties and analyses of Shona wh-in-situ (interim)

### 2.5 Computation of alternatives


- **No movement** involved
- In the semantics, wh-phrases introduce alternatives, which project up the tree so that the meaning of the question is a set of alternative propositions (possible answers).
- **Prediction**: Interpretation of these alternatives should be blocked by intervening focus-sensitive operators (Beck 2006).

(14) **Intervention effects with Kūtharaka wh-in-situ**

a. **Focus marker**


b. **Focus: ‘even’**

\[\text{*Kinya a-gwimi ba-gwatani-ir-a \(\text{ûû}\) n-a-ij-ir-e? [Kūtharaka] even 2-hunter 2.SM-agree-PFV-FV who N1-1.SM-steal-PFV-FV 'Who did even the hunters agree stole?' (Muriungi 2011:828 (31))}\]

c. **Negation**


d. **Factive verb**

\[\text{*Tū-îrir-ir-e \(\text{ûû}\) n-a-ij-ir-e? [Kūtharaka] 1pl.sm-regret-PFV-FV who N1-1.SM-steal-PFV-FV 'Who did we regret stole?' (Muriungi 2011:828 (32))}\]

Shona wh-in-situ is not sensitive to focus interveners.

(15) **Lack of intervention effects with Shona local wh-in-situ**

a. **Focus: ‘only’**

\[\text{?(Ndî)-0-Rumbi chete aka-vereng-a \(\text{Ø-bhuku ri-pi}\)? [Shona] N1-1a-Rumbi only 1a.SM.TA-read-FV 5-book 5-which 'Which book did only Rumbi read?' (2014-07-29-01-TD)}\]

b. **Focus: ‘also’**

\[\text{Ø-Tendai aka-vereng-a=wo \(\text{Ø-bhuku ri-pi}\)? [Shona] 1a-Tendai 1a.SM.TA-read-FV=also 5-book 5-which 'Which book did Tendai also read?' (2014-07-29-01-TD)}\]
c. Focus: ‘even’

Chero Ø-Tendai aka-vereng-a Ø-bhuku ri-pi? [Shona]

Even 1a-Tendai 1a.sm.ta-read-fv 5-book 5-which
‘Which book did even Tendai read?’ (2014-07-29-01-TD)

d. Negation

Ø-Taurai ha-a-n-a ku-teng-a chi-i? [Shona]

1a-Taurai NEG-1a.sm-be.with-fv 15-buy-fv 7-what
‘What didn’t Taurai buy?’ (2014-10-22-01-TD)

3 Full wh-movement

Central theoretical question: Is this truly full wh-movement? In other words, can the wh-phrase be pronounced in its scopal position or is it always pronounced in a lower position, as in wh-in-situ?

Current state of affairs: Whether Bantu languages have monoclausal or biclausal wh-ex-situ (and focus-ex-situ more generally) has been debated.

- Abels & Muriungi (2008) argue persuasively that Kütharaka has a monoclausal construction in which the wh-phrase moves to its scopal position.

Preview:

- Present evidence that Shona full wh-movement patterns with focus-ex-situ
- Argue that Shona full wh-movement (and focus-ex-situ) is a biclausal cleft: copula + cleft phrase + cleft clause (Hartmann & Veenstra 2013)
- Examine two predictions of the cleft analysis

(16) Proposal for Shona (interim)

a. Wh-in-situ: scopal

\[
\text{[CP Op ... wh ... ]}
\]

unselective binding

b. “Full” wh-movement: canonical

\[
\text{[CP Op NT-[ReCt wh ... wh ... ]]}\]

unsel. binding overt relativization

A few Bantu languages (e.g., Dzamba (Bokamba 1976)) may have apparent wh-in-situ, amenable to a disguised movement analysis.³

³Dzamba requires non-clefted wh-phrases to be sentence-final, as in Romance apparent wh-in-situ, but Bokamba (1976:193 (66f)) provides one example suggesting that this pattern is not sensitive to islands, unlike in Romance. I leave this puzzle open for future research.
3.1 *Wh*-ex-situ as focus-ex-situ

Shona ex-situ *wh*-phrases must be attached to an allomorph of *ni*, a reflex of Proto-Bantu *ni*.

(17) Local *wh*-ex-situ
a. Ex-situ *wh*-subject
*(Ndí)-Ø-ani  [Shona] áka-teng-er-a Ø-Thandi  
*Ní-1a-who* se.1a.sm.ta-buy-appl-fv 1a-Thandi  
Ø-rokwe ku-chi-toro?  
5-dress 17-7-store  
'Who (lit., It’s who that) bought Thandi a dress at the store?'  
(2016-02-13-01-TD)

b. Ex-situ *wh*-indirect object
*(Ndí)-Ø-ani  [Shona] wa-v-aka-teng-er-a  
*Ní-1a-who* 1a.nse.2.sm.ta-buy-appl-fv 5-dress  
ku-chi-toro? 17-7-store  
'It’s Thandi that they bought a dress (for) at the store.'  
(2016-02-13-01-TD)

c. Ex-situ *wh*-direct object
*(Ndí)-Ø-Thandi  [Shona] wa-v-aka-teng-er-a  
*Ní-1a-Thandi* 1a.nse.2.sm.ta-buy-appl-fv 5-dress  
ku-chi-toro. 17-7-store  
'It’s a dress that they bought Thandi at the store.'  
(2016-02-13-01-TD)

d. Ex-situ *wh*-locative adjunct
*(Ndí)-kú-pi  [Shona] kwa-v-aka-teng-er-a Ø-Thandi  
*Ní-17-which* 17.nse.2.sm.ta-buy-appl-fv 1a-Thandi  
Ø-rokwe ? 5-dress  
'It’s at the store that they bought Thandi a dress.'  
(2016-02-13-01-TD)

The same is true of focus-ex-situ, as shown in the answers to the questions in (17).

(18) Local focus-ex-situ
a. Ex-situ *wh*-subject
*[Vá/ká]-kadzi  [Shona] våka-teng-er-a Ø-Thandi  
*Ní.2-woman* se.2.sm.ta-buy-appl-fv 1a-Thandi  
Ø-rokwe ku-chi-toro. 5-dress 17-7-store  
'It’s THE WOMEN who bought Thandi a dress at the store.'  
(2016-02-13-01-TD)

b. Ex-situ *wh*-indirect object
*(Ndí)-Ø-Thandi  [Shona] wa-v-aka-teng-er-a  
*Ní-1a-Thandi* 1a.nse.2.sm.ta-buy-appl-fv 5-dress  
Ø-rokwe ku-chi-toro. 17-7-store  
'It’s Thandi that they bought a dress (for) at the store.'  
(2016-02-13-01-TD)

c. Ex-situ *wh*-direct object
*(I)-Ø-rokwe  [Shona] ra-v-aka-teng-er-a Ø-Thandi  
*Ní-5-dress* 5.nse.2.sm.ta-buy-appl-fv 1a-Thandi  
ku-chi-toro. 17-7-store  
'It’s a DRESS that they bought Thandi at the store.'  
(2016-02-13-01-TD)

d. Ex-situ *wh*-locative adjunct
*[Kú/kú]-chi-toro  [Shona] kwa-v-aka-teng-er-a Ø-Thandi  
*Ní-17-7-store* 17.nse.2.sm.ta-buy-appl-fv 1a-Thandi  
Ø-rokwe ? 5-dress  
'It’s AT THE STORE that they bought Thandi a dress.'  
(2016-02-13-01-TD)
3.2 Biclausal structure

The structure of these Bantu focus-ex-situ constructions has been the topic of some debate, as shown in Table 5.

<table>
<thead>
<tr>
<th>Biclausal</th>
<th>Monoclausal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kikuyu</td>
<td>Bergvall 1987</td>
</tr>
<tr>
<td>Kîîtharaka</td>
<td>Harford 1997</td>
</tr>
<tr>
<td>Lubukusu</td>
<td>Diercks 2010</td>
</tr>
<tr>
<td>Ikalanga</td>
<td>Letsholo 2011, 2012</td>
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<td>Kinande</td>
<td>Schneider-Zioga 2007</td>
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<td>Kuria</td>
<td>Landman &amp; Ranero 2014, 2003, 2005</td>
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<td>Lingala</td>
<td>Van der Wal &amp; Maniacky 2015, 2017</td>
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<tr>
<td>Kiyoombe</td>
<td>Van der Wal &amp; Maniacky 2015</td>
</tr>
<tr>
<td>N. Sotho</td>
<td>Zerbian 2006</td>
</tr>
<tr>
<td>Básáá</td>
<td>Hamloué &amp; Makasso 2015</td>
</tr>
</tbody>
</table>

Table 5: Some prior analyses of Bantu focus-ex-situ

3.2.1 Kîîtharaka

In the spirit of Schwarz’s (2003:78–82) argument from topicalization out of focus constructions in Kikuyu, Abels & Muriungi (2008) introduce a new diagnostic for the clause boundary.

If the focus construction were biclausal, then the fronting of the temporal modifier out of the focus construction in (19b) should be just as bad as fronting it out of the relative clause in (20b), contrary to fact.

(19) Temporal modifiers may be fronted out of a focus construction

a. Temporal modifier within focus construction

<table>
<thead>
<tr>
<th>Temporal modifier within focus construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-mw-amba₁ Peter a-ra-on-ir-e t₁</td>
</tr>
<tr>
<td>N₁-1-thief 1.Peter 1.SM-REC.PST-SEE-PFV-FV</td>
</tr>
<tr>
<td>5-yesterday [I-goro].</td>
</tr>
<tr>
<td>‘The thief Peter saw yesterday.’ (Abels &amp; Muriungi 2008:725 (99a))</td>
</tr>
</tbody>
</table>

b. Temporal modifier fronted out of focus construction

<table>
<thead>
<tr>
<th>Temporal modifier fronted out of focus construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-goro₁ i-mw-amba₁ Peter 5-yesterday N₁-1-thief 1.Peter</td>
</tr>
<tr>
<td>a-ra-on-ir-e t₁ t₂</td>
</tr>
<tr>
<td>1.SM-REC.PST-SEE-PFV-FV</td>
</tr>
<tr>
<td>‘Yesterday the thief Peter saw.’ (Abels &amp; Muriungi 2008:725 (99a))</td>
</tr>
</tbody>
</table>

(20) Temporal modifiers may not be fronted out of a relative clause

a. Temporal modifier within relative clause

<table>
<thead>
<tr>
<th>Temporal modifier within relative clause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borisi ba-ka-thaik-a [RelCl] mw-amba₁ û-ra</td>
</tr>
<tr>
<td>2.police 2.SM-FUT-arrest-fv 1-thief 1-that</td>
</tr>
<tr>
<td>Peter a-ra-on-ir-e t₁ [I-goro].</td>
</tr>
<tr>
<td>1.Peter 1.SM-REC.PST-SEE-PFV-FV 5-yesterday</td>
</tr>
<tr>
<td>‘The police will arrest the thief that Peter saw yesterday.’ (Abels &amp; Muriungi 2008:725 (98a))</td>
</tr>
</tbody>
</table>

b. Temporal modifier fronted out of relative clause

<table>
<thead>
<tr>
<th>Temporal modifier fronted out of relative clause</th>
</tr>
</thead>
<tbody>
<tr>
<td>*I-goro₁ borisi ba-ka-thaik-a [Kîîtharaka]</td>
</tr>
<tr>
<td>5-yesterday 2.police 2.SM-FUT-arrest-fv</td>
</tr>
<tr>
<td>[RelCl] mw-amba₁ û-ra Peter a-ra-on-ir-e t₁].</td>
</tr>
<tr>
<td>1-thief 1-that 1.Peter 1.SM-REC.PST-SEE-PFV-FV</td>
</tr>
<tr>
<td>‘Yesterday the police will arrest the thief that Peter saw.’ (Abels &amp; Muriungi 2008:725 (98b))</td>
</tr>
</tbody>
</table>

Because of the contrast between (19b) and (20b), Abels & Muriungi (2008) argue that Kîîtharaka focus-ex-situ is monoclausal.
3.2.2 Shona

In Shona, fronting the temporal modifier out of a focus construction is disallowed (21b), just like fronting it out of a relative clause (22b).

(21) Temporal modifiers may not be fronted out of a cleft clause

a. Temporal modifier within cleft clause

\[ \text{I-m-bavha, ya-aka-on-a \ t_i \ (nezuro).} \]  
\[ \text{Ni-9-thief \ 9.NSE-1.SM.TA-see-FV \ yesterday} \]

'It's a thief that s/he saw yesterday.' (2015-04-14-02-TD)

b. Temporal modifier fronted out of cleft clause

\[ * \text{Nezuro, j \ i-m-bavha, ya-aka-on-a \ t_i \ t_j.} \]  
\[ \text{yesterday Ni-9-thief \ 9.NSE-1.SM.TA-see-FV} \]

'Yesterday it's a thief that s/he saw.' (2015-04-14-02-TD)

(22) Temporal modifiers may not be fronted out of a relative clause

a. Temporal modifier within relative clause

\[ \text{Ma-purisa \ a-cha-sung-a \ [RelCl m-bavha, ya-aka-on-a \ [Shona] \ 6-police \ 6.SM.FUT-arrest-FV \ 9-thief \ 9.NSE-1.SM.TA-see-FV} \]

\[ \text{t_i \ (nezuro). \ yesterday} \]

'The police will arrest the thief that s/he saw yesterday.' (2015-04-14-02-TD)

b. Temporal modifier fronted out of relative clause

\[ * \text{Nezuro, j \ ma-purisa \ a-cha-sung-a \ [RelCl m-bavha, \ [Shona] \ yesterday \ 6-police \ 6.SM.FUT-arrest-FV \ 9-thief} \]

\[ \text{ya-aka-on-a \ t_i \ t_j \ 9.NSE-1.SM.TA-see-FV} \]

'Yesterday the police will arrest the thief that s/he saw.' (2015-04-14-02-TD)

Given that Shona temporal modifier fronting is acceptable within a single clause (23b) but not across even a simple declarative clause boundary (24b), the unavailability of (21b) suggests that the focus-ex-situ construction is a biclausal cleft.

(23) Temporal modifiers may be fronted within a single clause

a. No fronting of temporal modifier

\[ \text{Aka-on-a \ m-bavha \ (nezuro).} \]  
\[ \text{1.SM.TA-see-FV \ 9-thief \ yesterday} \]

'S/he saw a thief yesterday.' (2015-04-14-02-TD)

b. Fronting of temporal modifier

\[ * \text{Nezuro, j \ aka-on-a \ m-bavha \ t_i.} \]  
\[ \text{yesterday \ 1.SM.TA-see-FV \ 9-thief} \]

'Yesterday s/he saw a thief.' (2015-04-14-02-TD)

(24) Temporal modifiers may not be fronted across clauses

a. Temporal modifier within embedded clause

\[ \text{Va-cha-ti \ [cp \ aka-on-a \ m-bavha \ (nezuro) \].} \]  
\[ \text{2.SM.FUT-say \ 1.SM.TA-see-FV \ 9-thief \ yesterday} \]

'They will say s/he saw a thief yesterday.' (2015-07-31-TD)

b. Temporal modifier fronted out of embedded clause

\[ * \text{Nezuro, j \ va-cha-ti \ [cp \ aka-on-a \ \ [Shona] \ yesterday \ 2.SM.FUT-say \ 1.SM.TA-see-FV} \]

\[ \text{m-bavha \ t_i \ 9-thief} \]

'Yesterday they will say s/he saw a thief.' (2015-07-31-TD)
3.3 A prediction of the matrix clause as a copular clause

A cleft analysis of focus-ex-situ predicts that ni should be able to be used as a copula in other constructions. This prediction is borne out in Shona.⁷

(25) Predicational uses of ni

a. Predicational copular sentence, ndi- allomorph

Ø-Taurai ndi-Ø-mambo.

[Shona]

'1a-Taurai NI-1a-king

'Taurai is the king.' (2014-09-13-01-TD)

b. Predicational copular sentence, i- allomorph

Mu-rume u-ya i-m-bavha.

[Shona]

1-man 1-that NI-9-thief

'1-That man is a thief.' (2014-09-13-01-TD)

c. Predicational copular sentence, H̥- allomorph

Ø-Rumbi mû-biki.

[Shona]

1a-Rumbi NI.1-cook

'Rumbi is a cook.' (2014-09-13-02-TD)

(26) Specificational uses of ni

a. Specificational copular sentence, ndi- allomorph

Mu-tungamir-i wa-va-nhu va-Ø-Judha ndi-Ø-Nashani [Shona]

1-lead-NMLZ 1.of-2-person 2.of-1a-Judah NI-1a-Nahshon

mw-anakomana wa-Ø-Aminadhabhi.

1-son 1.of-1a-Aminnadab

'The leader of the people of Judah is Nahshon son of Amminadab.'

(Num. 2:3, bsn)

b. Specificational copular sentence, ndi- allomorph

Mu-mwe à-no-ndi-pupur-ir-a ndi-Ø-Baba. [Shona]

1-other SE.1.SM-TA-1SG.OM-be.witness-APPL-FV NI-1a-Father

'The other one who is a witness for me is the Father.'

(John 8:18, bsn)

3.4 A prediction of the cleft clause as a relative clause

The cleft clause is classically analyzed as a relative clause (see Hartmann & Veenstra 2013 and Reeve 2012 for a survey). In many Bantu languages, complementizers or verbs in relative clauses bear extraction marking (Cheng 2006, Henderson 2006, Zentz 2015).

The verb in the Shona cleft clause bears the same morphology it would have in a relative clause: a floating low tone prefix for subject extraction and a φ-agreeing prefix for non-subject extraction. This is corroborating (though not conclusive) evidence for a cleft analysis.

(27) Subject extraction marking

a. Full wh-movement requires extraction marking

Ndi-Ø-ani {[a-/à-]ka-teng-a} Ø-rokwe? [Shona]

NI-1a-who *(SE).1a.SM.TA-buy-FV 5-dress

'Who (lit., It's who that) bought a dress?'

b. Relative clauses require extraction marking

Ndi-no-ziv-a [RelCl mu-sikana {[a-/à-]ka-teng-a} [Shona]

1SG.SM-TA-know-FV 1-girl *(SE).1a.SM.TA-buy-APPL-FV

Ø-rokwe?

5-dress

'I know the girl who bought Thandi a dress.'

(28) Non-subject extraction marking

a. Full wh-movement requires extraction marking

Ndi-Ø-ani *(wa)-v-aka-teng-er-a Ø-rokwe? [Shona]

NI-1a-who 1.NSE.2.SM.TA-buy-APPL-FV 5-dress

'Who(m) did they buy a dress (for)?' (lit., 'It's who that they bought a dress (for)?')

(2016-02-13-01-TD)

b. Relative clauses require extraction marking

Ndi-no-ziv-a [RelCl mu-sikana *(wa)-v-aka-teng-er-a [Shona]

1SG.SM-TA-know-FV 1-girl 1.NSE.2.SM.TA-buy-APPL-FV

Ø-rokwe.

5-dress

'I know the girl who they bought a dress (for).' (2016-02-13-01-TD)
3.5 Summary

- Shona full wh-movement is neither full (the wh-phrase is not pronounced in its scopal position) nor wh-movement in the strict sense (the wh-phrase undergoes relativization).
- Abels & Muriungi’s (2008) clause boundary diagnostic is valid because it points the opposite direction for Shona as in Kîîtharaka.

4 Partial wh-movement

Central theoretical question: Do full wh-movement and partial wh-movement require independent derivational mechanisms, or can they receive a unified analysis?

Current state of affairs: Very few analyses of Bantu partial wh-movement:
- Sabel (2000) proposes that Kikuyu partial wh-movement is a hybrid of wh-in-situ and full wh-movement, but island predictions were not tested.
- Sabel & Zeller (2006) propose that Zulu full wh-movement is really partial wh-movement, but island predictions were not tested.
- Abels (2012) entertains the idea of a unified analysis, but he rejects it for Kîîtharaka because of island effects.

Proposal for Shona (final)

<table>
<thead>
<tr>
<th>Scopal</th>
<th>Canonical</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. In-situ: [CP Op ... [CP ... wh ...]]</td>
<td>[CP ... [island ... [CP ... wh]]]</td>
</tr>
<tr>
<td>b. “Full”: [CP Op [RelCl wh ... [CP ... wh ...]]]</td>
<td>*[CP wh ... [CP ... island ...]]</td>
</tr>
<tr>
<td>c. Partial: [CP Op [RelCl wh ... wh ...]]]</td>
<td>*[CP ... [island ... [CP wh ...]]]</td>
</tr>
</tbody>
</table>

Fanselow’s (2006) Generalization S4:

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

(29) Proposal for Shona (final)

(30) Island sensitivity in Kîîtharaka (Abels 2012) and Singaporean Malay (Cole & Hermon 1998)

(31) Fanselow’s (2006) Generalization S4:

4.1 Island effects

The Malay/Kîîtharaka pattern of island sensitivity suggests that the higher relation in partial wh-movement is established via movement, unlike the wh-in-situ relation.

Preview:

- Present an island pattern (predicted by prior analyses but not shown to exist until now⁸) that supports the cleft-based analysis proposed above
- Demonstrate that full wh-movement and partial wh-movement pattern the same in terms of cleft structure, reconstruction effects, and extraction marking
- Conclude that full wh-movement is really a subcase of partial wh-movement

In work simultaneous with mine, Torrence & Kandybowicz (2015:274) have discovered the same pattern in Krachi, a Niger-Congo language of Ghana. After I began presenting this pattern, Michelle Yuan (pers. comm.) has replicated my results in Kikuyu, showing that the predictions made by Sabel (2000) are borne out there.

⁸In work simultaneous with mine, Torrence & Kandybowicz (2015:274) have discovered the same pattern in Krachi, a Niger-Congo language of Ghana. After I began presenting this pattern, Michelle Yuan (pers. comm.) has replicated my results in Kikuyu, showing that the predictions made by Sabel (2000) are borne out there.
(32) **Island sensitivity in Shona**

<table>
<thead>
<tr>
<th>Scopal</th>
<th>Canonical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wh-in-situ:</td>
<td><img src="image" alt="Wh-in-situ: Diagram" /></td>
</tr>
<tr>
<td>Full wh-movement:</td>
<td><img src="image" alt="Full wh-movement: Diagram" /></td>
</tr>
<tr>
<td>Partial wh-movement:</td>
<td><img src="image" alt="Partial wh-movement: Diagram" /></td>
</tr>
<tr>
<td>Partial wh-movement:</td>
<td><img src="image" alt="Partial wh-movement: Diagram" /></td>
</tr>
</tbody>
</table>

The Shona pattern suggests that the higher relation in partial wh-movement is not established via movement, consistent with wh-in-situ, so no special type of movement is required.

(33) **Adjunct island**

a. Wh-in-situ within an adverbial clause

\[ W\text{-ai-fung-a} \quad [\text{cp} \quad \text{kuti} \quad v\text{-aka-foner-a} \quad \text{ma-purisa} \quad [\text{island}] \quad \text{wh} \quad \text{...}] \]

\[ 2\text{sg}\text{-sm}\text{-ta}\text{-think-fv} \quad \text{that} \quad 2\text{sm}\text{-ta}\text{-call-fv} \quad 6\text{-police} \]

\[ \text{nokuti} \quad v\text{-aka-on-a} \quad \text{0-ani}] \]

because \[ 2\text{sm}\text{-ta}\text{-see-fv} \quad \text{1a-who} \]

‘Who(m) did you think they called the police because they saw \( \text{...} \)?’

(lit., ‘You thought they called the police because they saw who(m)?’)

(2014-09-27-01-TD)

b. Full wh-movement out of an adverbial clause

\[ *\text{W\text{-ai-fung-a}} \quad [\text{cp} \quad \text{kuti} \quad \text{v\text{-aka-foner-a} [\text{island}] \text{wh} \quad \text{...}] \quad \text{...}] \]

\[ \text{2sg}\text{-sm}\text{-ta}\text{-think-fv} \quad \text{that} \quad \text{ni-1a-who} \quad 1\text{a.nse}\text{-2sg}\text{-sm}\text{-ta}\text{-call-fv} \]

\[ \text{ma-purisa} \quad [\text{island} \quad \text{nokuti} \quad v\text{-aka-on-a} \quad \text{...}] \]

\[ 6\text{-police} \quad \text{because} \quad 2\text{sm}\text{-ta}\text{-see-fv} \]

‘Who(m) did you think (lit., You thought that it’s who that) they called the police because they saw \( \text{...} \)?’

(2014-09-27-01-TD)

d. Partial wh-movement within an adverbial clause

\[ \text{W\text{-ai-fung-a}} \quad [\text{cp} \quad \text{kuti} \quad \text{v\text{-aka-foner-a} [\text{island}] \text{wh} \quad \text{...}] \quad \text{...}] \]

\[ \text{2sg}\text{-sm}\text{-ta}\text{-think-fv} \quad \text{that} \quad 2\text{sm}\text{-ta}\text{-call-fv} \quad 6\text{-police} \]

\[ \text{nokuti} \quad \text{ni-1a-who} \quad \text{wa-v\text{-aka-on-a} [\text{island}] \text{wh} \quad \text{...}] \]

\[ \text{because} \quad 2\text{sm}\text{-ta}\text{-see-fv} \quad \text{1a-who} \]

‘Who(m) did you think they called the police because they saw \( \text{...} \)?’

(lit., ‘You thought they called the police because it’s who that they saw \( \text{...} \)?’)

(2014-09-27-01-TD)

(34) **Complex DP island (complement clause)**

a. Wh-in-situ within a DP’s clausal complement

\[ \text{W\text{-aka-nzw-a}} \quad [\text{cp} \quad \text{kuti} \quad \text{v\text{-aka-ramb-a [island] ny-aya} [\text{Shona}] \text{9-story}\text{-sm} \quad \text{ta}\text{-hear-fv} \quad \text{that} \quad 2\text{sm}\text{-ta}\text{-deny-fv} \quad 9\text{-police} \]

\[ \text{ye-kuti} \quad \text{y\text{-aka-rum-a} \quad 0-ani} \quad \text{pa-0-gumbo}] \)

\[ 9\text{-of-that} \quad 9\text{sm}\text{-ta}\text{-bite-fv} \quad \text{1a-who} \quad \text{16-5-leg} \]

‘Who(m) did you hear that they denied the story that it (their dog) bit \( \text{...} \) on the leg?’

(lit., ‘You heard that they denied the story that it (their dog) bit \( \text{...} \) on the leg?’)

(2014-09-27-01-TD)

b. Full wh-movement out of a DP’s clausal complement

\[ *\text{Ni-0-ani} \quad \text{wa-w-aka-nzw-a} \quad [\text{cp} \quad \text{kuti} \quad \text{v\text{-aka-ramb-a} [\text{Shona}]} \text{ni-1a-who} \quad 1\text{a.nse}\text{-2sg}\text{-sm}\text{-ta}\text{-call-fv} \quad \text{that} \quad 2\text{sm}\text{-ta}\text{-deny-fv} \quad 9\text{-story} \]

\[ \text{ye-kuti} \quad \text{y\text{-aka-rum-a} \quad 0-ani} \quad \text{pa-0-gumbo}] \)

\[ 9\text{-of-that} \quad 9\text{sm}\text{-ta}\text{-bite-fv} \quad \text{1a-who} \quad \text{16-5-leg} \]

‘Who(m) did you hear that they denied the story that it (their dog) bit \( \text{...} \) on the leg?’

(lit., ‘You heard that they denied the story that it (their dog) bit \( \text{...} \) on the leg?’)

(2014-09-27-01-TD)
c. **Partial wh-movement out of a DP’s clausal complement**

\[ W-aka-nzw-a \quad [cp \ kuti \ ndi-O-ani \ wa-v-aka-ramb-a \ [Shona] \ 2sg.sm-ta-hear-fv \ that \ ni-1a-who \ 1a.nse-2.sm-ta-deny-fv \ [island \ ny-aya \ ye-kuti \ yaka-rum-a \ ___ \ pa-O-gumbo]] \]

2sg SM-TA-Hear-FV that ni-1a-who 1a.NSE-2SM-TA-Deny-FV

‘Who(m) did you hear that (lit., You heard that it’s who that) they denied the story that it (their dog) bit ___ on the leg?’

(2014-09-27-01-TD)

---

d. **Partial wh-movement within a DP’s clausal complement**

\[ W-aka-nzw-a \quad [cp \ kuti \ ndi-O-ani \ wa-y-aka-rum-a \ ___ \ pa-O-gumbo] \]

2sg SM-TA-Hear-FV that ni-1a-who 1a.NSE-2SM-TA-Deny-FV

‘Who(m) did you hear that they denied the story that it (their dog) bit ___ on the leg?’ (lit., ‘You heard that they denied the story that it’s who that it (their dog) bit ___ on the leg?’) (2014-09-27-01-TD)

---

(35) **Complex DP island (relative clause)**

a. **Wh-in-situ within a subject relative clause**

\[ U-no-fung-a \quad [cp \ kuti \ chi-kwata \ cha-u-no-fung-a \ [Shona] \ 2sg.SM-TA-Deny-FV \ that \ 1.sm-TA-Like-FV \ 7-team \ chi-no-bv-a \ ku-pi] \]

2sg SM-TA-Deny-FV that 1SM-TA-Like-FV 7-team chi-no-bv-a ku-pi

‘Where do they (sg.) like the team that you think is from ___?’ (lit., ‘They (sg.) like the team that you think is from where?’) (2014-09-20-01-TD)

---

b. **Full wh-movement out of a subject relative clause**

\[ Nde-ku-pi \quad kwa-a-no-farir-a \quad [island \ chi-kwata \ cha-u-no-fung-a \ [Shona] \ 17.nse-1.sm-TA-Like-FV \ that \ 1.sm-TA-Like-FV \ 7-team \ chi-no-bv-a \ ku-pi]\]

17 NSE-1SM-TA-Like-FV that 1SM-TA-Like-FV 7-team chi-no-bv-a ku-pi

‘Where do (lit., It’s where that) they (sg.) like the team that you think is from ___?’ (2014-09-20-01-TD)

---

c. **Partial wh-movement within a subject relative clause**

\[ A-no-farir-a \quad [island \ chi-kwata \ cha-u-no-fung-a \ [Shona] \ 17.nse-1.sm-TA-Like-FV \ that \ 1.sm-TA-Like-FV \ 7-team \ chi-no-bv-a \ ku-pi] \]

17 NSE-1SM-TA-Like-FV that 1SM-TA-Like-FV 7-team chi-no-bv-a ku-pi

‘Where do they (sg.) like the team that you think is from ___?’ (lit., ‘They (sg.) like the team that you think that it’s where that it’s from ___?’) (2014-09-20-01-TD)
### 4.2 Cleft structure

Shona full wh-movement and partial wh-movement pattern the same in that they require the copula ni.

(38) Wh-ex-situ requires ni

<table>
<thead>
<tr>
<th>Full wh-movement requires ni</th>
</tr>
</thead>
<tbody>
<tr>
<td>*(Ndi)-O-ani wa-w-ai-fung-a</td>
</tr>
<tr>
<td>N1-1a-who 1a.NSE-2SG.SM-TA-think-FV that</td>
</tr>
<tr>
<td>v-aka-teng-er-a ¿rókwe?</td>
</tr>
<tr>
<td>2SG.SM-TA-buy-APPL-FV 5-dress</td>
</tr>
</tbody>
</table>

‘Who(m) did you think they bought a dress (for)?’ (lit., ‘It’s who that you thought they bought a dress (for)?’) (2016-02-13-01-TD)

<table>
<thead>
<tr>
<th>Partial wh-movement requires ni</th>
</tr>
</thead>
<tbody>
<tr>
<td>W-ai-fung-a [cp kuti *(ndi)-O-ani] [Shona]</td>
</tr>
<tr>
<td>2SG.SM-TA-think-FV that N1-1a-who</td>
</tr>
<tr>
<td>wa-v-aka-teng-er-a ¿rókwe?</td>
</tr>
<tr>
<td>1a.NSE-2.SM-TA-buy-APPL-FV 5-dress</td>
</tr>
</tbody>
</table>

‘Who(m) did you think they bought a dress (for)?’ (lit., ‘You thought that it’s who(m) that they bought a dress (for)?’) (2016-02-13-01-TD)

### 4.3 Extraction marking

Shona full wh-movement and partial wh-movement pattern the same in that they require extraction marking on the verb immediately below the pronunciation site of the wh-phrase.

(39) Local subject extraction marking

<table>
<thead>
<tr>
<th>Full wh-movement requires extraction marking</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(Ndi)-0-ani {</em>(a-/-a)}ka-teng-a Ø-rokwe?</td>
</tr>
<tr>
<td>N1-1a-who *(SE)1a.SM.TA-buy-FV 5-dress</td>
</tr>
</tbody>
</table>

‘Who (lit., It’s who that) bought a dress?’

<table>
<thead>
<tr>
<th>Partial wh-movement requires extraction marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>W-ai-fung-a [cp kuti ndi-0-ani] [Shona]</td>
</tr>
<tr>
<td>2SG.SM-TA-think-FV that N1-1a-who</td>
</tr>
<tr>
<td>{*(a-/-a)}ka-teng-a Ø-rokwe?</td>
</tr>
<tr>
<td>*(SE)1a.SM.TA-buy-FV 5-dress</td>
</tr>
</tbody>
</table>

‘Who did you think bought a dress?’ (lit., ‘You thought that it’s who(m) that bought a dress?’)

(40) Non-subject extraction marking

<table>
<thead>
<tr>
<th>Full wh-movement requires extraction marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>*(Ndi)-0-ani *(wa)-w-ai-fung-a [cp kuti] [Shona]</td>
</tr>
<tr>
<td>N1-1a-who 1a.NSE-2SG.SM-TA-think-FV that</td>
</tr>
<tr>
<td>v-aka-teng-er-a ¿rókwe?</td>
</tr>
<tr>
<td>2SM.TA-buy-APPL-FV 5-dress</td>
</tr>
</tbody>
</table>

‘Who did you think bought a dress (for)?’ (lit., ‘It’s who that you thought they bought a dress (for)?’) (2016-02-13-01-TD)

<table>
<thead>
<tr>
<th>Partial wh-movement requires extraction marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>W-ai-fung-a [cp kuti ndi-0-ani] [Shona]</td>
</tr>
<tr>
<td>2SM.TA-think-FV that N1-1a-who</td>
</tr>
<tr>
<td>*(wa)-v-aka-teng-er-a ¿rókwe?</td>
</tr>
<tr>
<td>1a.NSE-2.SM.TA-buy-APPL-FV 5-dress</td>
</tr>
</tbody>
</table>

‘Who(m) did you think we bought a dress (for)?’ (lit., ‘You thought that it’s who(m) that they bought a dress (for)?’) (2016-02-13-01-TD)
4.4 Reconstruction effects

Shona partial wh-movement and full wh-movement pattern the same in that they both allow reconstruction of a bound pronoun.

(41) Reconstruction of a pronoun bound by a subject quantifier

a. Wh-in-situ: Quantifier c-commands pronounced copy of pronoun

\[ \text{U-no-fung-a} \quad \text{Op} \quad \text{U-no-fung-a} \quad \text{dp} \quad \text{mw-ana} \quad \text{w-ese} \quad \text{1-child} \quad \text{1-every} \]

\[ \text{a-no-kosh-es-a} \quad \text{dp} \quad \text{ma-onero} \quad \text{a-Ø-ani} \quad \text{e-kuti} \]

\[ \text{lsa-ta-be.smart-fv} \quad \text{1-child} \quad \text{1-every} \]

\'Whose opinion that they, (sg.) are smart do you think every child, values?\’ (lit., 'You think that it's whose opinion that they, (sg.) are smart, that every child, values?') (2014-10-04-02-TD)

b. Full wh-movement: Quantifier does not c-command pronounced copy of pronoun

\[ \text{dp} \quad \text{ma-onero} \quad \text{a-Ø-ani} \quad \text{e-kuti} \]

\[ \text{6.nse-ta-be.valued-caus-fv} \quad \text{1-child} \quad \text{1-every} \]

\'Whose opinion that they, (sg.) are smart do you think every child, values?\’ (lit., 'You think that it's whose opinion that they, (sg.) are smart, that every child, values?') (2014-10-04-02-TD)

c. Partial wh-movement: Quantifier does not c-command pronounced copy of pronoun

\[ \text{U-no-fung-a} \quad \text{dp} \quad \text{kuti} \quad \text{cp} \quad \text{ma-onero} \quad \text{a-Ø-ani} \quad \text{e-kuti} \]

\[ \text{2sg.sm-ta-think-fv} \quad \text{that} \quad \text{6.nse-view} \quad \text{6.of-1a-who} \quad \text{6.of-that} \]

\[ \text{a-Ø-ani} \quad \text{1-sm-ta-be.valued-caus-fv} \]

\'Whose opinion that they, (sg.) are smart do you think every child, values?\’ (lit., 'You think that it's whose opinion that they, (sg.) are smart, that every child, values?') (2014-10-04-02-TD)

We can conclude from the reconstruction effects that the wh-phrase itself is what moves in both full and partial wh-movement, rather than a null operator.

4.5 Summary

- Partial wh-movement does not always require an independent derivational mechanism.

- Shona full wh-movement and partial wh-movement can be unified as cleft-based wh-ex-situ; both are really partial wh-movement in the sense that the wh-phrase is pronounced between its scopal and canonical positions.

5 Conclusion

(42) Proposal for Shona (final)

a. In-situ: \[ \text{scopal} \quad \text{[cp \ op \ ... \ [cp \ ... \ wh \ ... \ ]] \quad \text{canonical} \quad \text{unselective binding} \]

b. "Full": \[ \text{unsel. binding} \quad \text{[cp \ op \ ni-[relcl] \ [wh \ ... \ [cp \ ... \ wh \ ... \ ]] \quad \text{ovrel relativization} \]

c. Partial: \[ \text{unsel. binding} \quad \text{[cp \ op \ ni-[relcl] \ [wh \ ... \ [cp \ ... \ wh \ ... \ ]] \quad \text{ovrel rel.} \]
Contributions:

- Conducted the most thorough investigation of *wh*-questions in any Bantu language to date, providing a model for future work
- Proposed a correlation between more restricted *wh*-in-situ and immediately after the verb (IAV) focus (not discussed today)
- Uncovered a previously predicted island sensitivity pattern
- Highlighted crosslinguistic diversity in *wh*-question formation, even within Bantu

Future research:

- Semantic and discourse effects of choosing one *wh*-question formation strategy over another
- Partial *wh*-movement in languages that use *ni*-clefts vs. ones that don’t
- Shona *wh*-questions that use a verbal enclitic =i instead of a full *wh*-word
- Multiple *wh*-questions

References


