1 Introduction

‘Raising’ constructions are instances where an argument from the embedded clause is realized in a position in the main clause. This pattern is quite well-studied for perception verbs, where in many languages an embedded subject raises to main-clause subject position.

(1) Tania seems Tania to be sick.

(2) a. It seems that Tania is sick
   b. *Tania seems that Tania is sick.

The broadly ‘typical’ cases are the English-like pattern shown in (1) and (2), where raising is possible from non-finite clauses, but ruled out in cases like (2b) where the embedded clause is finite, which must instead occur with an expletive subject as shown in (2a) (Chomsky, 1981, 2001; Nevins, 2004, among many others).

The pattern that is now becoming familiar from research on Bantu languages, however, is that raising is possible out of finite embedded clauses, in stark contrast to the English pattern. The example below is drawn from Logoori (Bantu, Luyia; Kenya).

(3) ga-rorek-a (ndt) zi-njomba zi-r-ii
   6SA-seem-PRES (that) 10-cow 10SA-eat-PST
   ‘It seems that the cows ate.’

(4) a. zi-njomba zi-rorek-a (ndt) zi-njomba zi-r-ii
   10-cow 10SA-seem-PRES (that) 10-cow 10SA-eat-PST
   ‘The cows seem to have eaten.’
   b. zi-njomba ga-rorek-a (ndt) zi-njomba zi-r-ii
   10-cow 6SA-seem-PRES (that) 10-cow 10SA-eat-PST
   ‘The cows seem to have eaten.’

Note that the raising verb agrees with the raised subject in (4a) (which we will call agreeing raising), but there is a distinct subject agreement form in (4b), which we will refer to as non-agreeing raising, or ga-raising.

There is a growing amount of research on raising in Bantu languages (Ura, 1998; Carstens and Diercks, 2013; Diercks, 2012; Halpert, 2012, 2015, 2016; Zeller, 2006). Specifically, Halpert focuses on a pattern similar to (4b) in Zulu, the significance of which we will discuss in sections 3 and 4 below.

1All data and syntactic judgments in this paper are from Isaac Kilaha Thomas, a Logoori speaker who currently resides in Southern California.
Roadmap:

- Section 2: Empirical and Theoretical Questions Raised by Logoori Raising
- Section 3: -rorek as a Raising Predicate in Logoori
- Section 4: Distinct Raising Properties of -fwana ‘appear’
- Section 5: Conclusions
- Appendix: (Section 7.2 Explores Some Theoretical Consequences of Logoori Raising)

Goals of this Talk:

1. Contribute to the overall documentation of Logoori.
2. Replicate a major finding of Halpert (2016), showing that the non-agreeing raising construction in Zulu has an analogue in Logoori.
3. Demonstrate that Logoori has two distinct raising constructions that are otherwise surface-similar: not all (apparent) non-agreeing raising constructions are in fact raising.

2 Logoori Raises Some Questions

2.1 The Question of Copy Raising vs. Hyper-Raising

A major question that arises in the analysis of raising constructions in Bantu languages like Logoori is whether they are in fact raising constructions in the sense of (5), or if instead the construction in question is actually a copy-raising construction like the English example in (6).

(5) Tania seems Tania to be sick.
(6) Tania seems like she is sick.

A Logoori raising construction could in fact be something more like (7b), where there is no direct syntactic link between the embedded subject position and the main clause subject aside from coreference.

(7) a. zi-ŋombe zi-rorek-a (ndi) ziŋombe zi-r-ii
10-cow 10SA-seem-PRES (that) cow 10SA-eat-PST
'The cows seem to have eaten.'

b. zi-ŋombe pro zi-rorek-a (ndi) pro zi-r-ii
10-cow 10SA-seem-PRES (that) pro 10SA-eat-PST
'The cows seem like they have eaten.'

We refer to the analysis in (7a) as hyper-raising (following Ura 1998 and Carstens and Diercks 2013), identified as a construction that shows properties expected of syntactic movement, but in contexts traditionally thought to rule out movement (e.g. out of finite clauses).

(8) Predictions of a Hyper-Raising Analysis
- Raised subject behaves like a true subject
- Connectivity effects between main and embedded clause, because that subject is represented in both positions.
- Demonstrates the properties of A-movement (to subject position)
2.2 The Question of Ga-Raising: Expletive + Dislocation or Something Else?

We saw above that there is a form of (apparent) raising where the main clause verb does not agree with the raised subject.

(9) zi-Nombe ga-rorek-a  10-cow 6SA-seem-PRES (that) 10-cow 10SA-eat-PST

'It the cows seem to have eaten.'

It is becoming more clear that this raising configuration is perhaps common across the Bantu family:

(10) Non-Agreeing Raising Across Bantu

a. uZinhle, ku- bonakala [ukuthi ti u- zo- xova ujeqe]  
   AUG.1Zinhle, 17S-seems that t1 1S-FUT make AUG.1steamed.bread  
   'It seems that Zinhle will make steamed bread.'  
   (Halpert, 2015)

b. Alfredi ka-lolekhana mbo a-lwala  
   1Alfred 6S-seems that 1S-is.sick  
   'Alfred seems like he is sick.'  
   (Diercks's field notes)

As explored by Halpert (2015, 2016) for Zulu, a major question about constructions like this is whether they are instances of an expletive construction with a left-dislocated (apparent) subject as in (11a), or whether they are true hyper-raising constructions that (for some reason) have an alternative subject agreement form, as in (11b).

(11) Expletive + Dislocation Analysis

a. [ SUBJ_k [ (expl) ga,-seems [CP that t_k [T_P ... ] ] ] ]  
   Hyper-Raising Analysis

b. [ SUBJ_k ga,-seems [CP that t_k [T_P ... ] ] ]  
   Non-Agreeing Raising Analysis

Halpert (2015, 2016) shows convincingly that Zulu constructions like (10a) are in fact true (hyper-)raising constructions that simply show an alternative subject agreement form (her analysis is discussed in the appendix).

(12) Broad Predictions of a Hyper-Raising vs. Topic Analysis of Ga-Raising

<table>
<thead>
<tr>
<th></th>
<th>Hyper-Raising</th>
<th>LD Topic + expletive</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Raised’ subject shows subject properties</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Connectivity Effects</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Properties of A-movement</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

2.3 Theoretical Questions Raised

(13) Theoretical questions raised regarding Logoori Raising

- Why can the raised subject raise out of a presumably Case-licensed position?
- How can the raised subject escape a finite clause, which is presumably a phase?
- What accounts for ga- ‘default’ agreement in non-agreeing raising?
  - What is triggering ‘subject’ agreement on T?
  - How can a non-agreed-with subject raise to TP? (cf. Baker, 2008; Carstens, 2005)

We will not discuss these issues in this talk. What we will do is show a detailed empirical picture of raising constructions in Logoori, confirming the kinds of patterns Halpert has documented for Zulu, while also showing that both kinds of hypothesized constructions in (11) are in fact attested.

\[2\] Also, yesterday in her talk.
3  -roreka as a raising predicate in Logoori

3.1 Connectivity Effects Show Logoori Raising is Hyper-Raising

3.1.1 -roreka retains idiomatic readings

It has long been noted that raising predicates like (14a) retain idiomatic readings of whole-clause idioms whose subject is raised to subject position, whereas non-raising predicates do not retain idiomatic readings, as shown in (14b).

(14)  a. The cat seems [ the cat to be out of the bag ] = the secret seems to have been revealed
    b. The cat hopes [ PRO to be out of the bag ] $\neq$ the secret ought to be revealed

The assumption is that in order to retain their idiomatic interpretation, idioms must (at some point in the derivation) be merged into the structure as a unit. Therefore, (14a) is generated via movement of the cat from the lower clause to the main clause.

Throughout this talk we will utilize the Logoori idiom given in (15), and shown with -roreka in (16).

(15) mu-doga gu-simuk-i  
    3-car 3SA-depart-PST
    'The car left.'
    Idiomatic interpretation: ‘It’s too late’ (similar to English ‘the ship has sailed.’)

(16) ga-rorek-aa ndi mu-doga gu-simuk-i  
    6SA-seem-PRES that 3-car 3SA-depart-PST
    'It seems that the car departed.'
    'It seems that it is too late.'

When the subject of the embedded idiom is raised, the idiomatic reading is retained for both agreeing (17a) and non-agreeing (17b) constructions. This should only happen if the subject mudoga enters the structure in the embedded clause.

(17) a. mu-doga gu-roekeka (ndi) mu-doga gu-simuk-i  
    3-car 3SA-seems (that) 3SA-depart-PST
    'The car seems to have departed.'
    'It appears to be too late.'

b. mu-doga ga-roekeka (ndi) mu-doga gu-simuk-i  
    3-car 6SA-seems (that) 3SA-depart-PST
    'The car seems to have departed.'
    'It appears to be too late.'

Notably, the subject of an embedded sentential idiom cannot be left-dislocated and retain the idiomatic interpretation, as is evident in (18b):

(18) a. Suuvir-a ndi mu-doga gwaku-simuk-a  
    1sgSA.believe that 3-car 3SA-PST-depart-FV
    'I believe that the car has left.'
    'I believe that it is too late.'
b. mu-doga, suuvira ndi gw-aku-simuk-a  
3-car 1sgSA,believe that 3SA-PST-depart-FV  
‘The car, I believe that it has left.’  
‘*I believe that it is too late.’  

The contrast between (18b) and (17b) give us our first piece of evidence suggesting that ga-raising patterns with other raising constructions and not with left-dislocated constructions.

This initial evidence also suggests that both the agreeing and non-agreeing raising constructions are instances of hyper-raising, rather than copy-raising constructions.

To verify the validity of the diagnostic, it is clear that not all apparent raising constructions allow such continuity effects. Below is a construction using the verb kwakora ‘act like,pretend’ which has a similar syntactic appearance to -roreka but which does not retain idiomatic readings in the same way as -roreka.

(19) Mu-doga gw-nikoraa ndi gw-aku-simuk-a  
3-car 3SA-acts like that 3SA-PST-depart-FV  
‘The car is acting like it left.’  
‘*It looks like it is too late’

3.1.2 -roreka allows reconstructed readings

Another diagnostic that has been employed to distinguish copy raising from raising is whether reconstructed readings are possible.

Potsdam and Runner (2001) show that copy-raising predicates require a perceptual-source reading of a subject (20b), whereas this is not the case for instances of true raising (20a). Carstens and Diercks (2013) show that this diagnostic readily distinguishes copy raising and hyper-raising in Luusamia and Lubukusu (Luyia, Bantu).

(20) Situation: Having stocked the fridge in the morning, you come home to find an empty fridge, but see nobody else in sight:
   a. Somebody seems to have eaten all the food!
   b. # Somebody seems like they have eaten all the food!

Logoori allows for both agreeing and non-agreeing raising in situations where a perceptual-source reading is unavailable. In (21), the person who cut down the tree is both unseen and unknown, making it impossible for them to be a perceptual source. Both (21a) and (21b) therefore seem to have the same structure as the English example of true raising (20a). If the embedded clause merely had a null subject that was coreferential with the main clause subject, they would be infelicitous, like the English (20b).

(21) Situation: On your walk to the store, you notice a tree on the ground that wasn’t there yesterday:
   a. mu-undu a-rorek-a (ndi) a-tem-i mu-saara  
      1-person 3sgSA-seem-PRES that 3sgSA-cut-PST 3-tree  
      ‘Someone seems to have cut down the tree.’
   b. mu-undu ga-rorek-a (ndi) a-tem-i mu-saara  
      1-person 6SA-seem-PRES that 3sgSA-cut-PST 3-tree  
      ‘Someone seems to have cut down the tree.’
The same is true for (22), where Adaro is unobserved, and both agreeing and non-agreeing raising is felicitous.

(22) **Situation:** The bathroom mirror is fogged up and there is water on the floor, but you don’t see anyone:

<table>
<thead>
<tr>
<th>a. Adaro a-rorek-a ndt jì-isìng-i</th>
<th>Recons Reading Available w/ Agr Raising</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaro 3sgSA-seem-PRES that 3sgSA-shower-PST</td>
<td>'Adaro seems to have showered.'</td>
</tr>
<tr>
<td>b. Adaro ga-rorek-a ndt jì-isìng-i</td>
<td>Recons Reading Available w/ Non-agr Raising</td>
</tr>
<tr>
<td>Adaro 6sgSA-seem-PRES that 3sgSA-shower-PST</td>
<td>'Adaro seems to have showered.'</td>
</tr>
</tbody>
</table>

These constructions therefore pattern with the English, Lubukusu, and Lusaamia raising patterns, suggesting that -rorek-a in Logoori is an instance of hyper-raising and not copy raising.

### 3.2 Raised Subjects Extract like Subjects in Relative Clauses

- One obvious subject property is to trigger subject agreement on the verb: agreeing raising does so, whereas non-agreeing raising does not.
- Like many Bantu languages, Logoori shows a consistent morphosyntactic distinction between subject and object extraction. Non-subject A'-extraction requires an AGR-a complementizer, whereas AGR-a is ruled out in subject relative clauses.³

(23) a. N-dor-i mw-aana (*w-a) a-kony-aa Fii.        *Subj Relative Clause*

   1sgSA-see-PST 1-child (*1-REL) REL. 1sa-help-PRES 1fii
   'I saw the child who is helping Fii.'

   b. N-dor-i mw-aana w-a Jabu a-kony-aa ___  *Non-Subj Relative Clause*

   1sgSA-see-PST 1-child 1-REL 1Jabu 1sa-help-PRES
   'I saw the child who Jabu is helping.'

The examples in (24) show that extraction of raised subjects in relative clauses lacks the AGR-a complementizer.

(24) a. N-dor-i mu-kaari (*w-a) ga-rorrk-aa ndt a-gur-i 1-baakuuli.  *Non-agr Raising*

   1sgSA-see-PST 1-woman (*1-COMP) 6gsa-seem-PRES that 1sa-buy-PST 9-bowl
   'I saw the woman who looks like she bought a bowl.'  *Raised Element Extracts like Subj*

   b. N-dor-i mu-kaari (*w-a) a-rorrk-aa ndt a-gur-i 1-baakuuli.  *Agreeing Raising*

   1sgSA-see-PST 1-woman (*1-COMP) 1sa-seem-PRES that 1sa-buy-PST 9-bowl
   'I saw the woman who looks like she bought a bowl.'  *Raised Element Extracts like Subj*

Therefore raised subjects in both agreeing and non-agreeing raising extract in the usual way for subject relative clauses.

These first three diagnostics are summarized in the table below.

---

³A tonal difference distinguishes subject relative clauses from declarative clauses, the analysis of which is still underway.
3.3 Subjects raised via A-movement

3.3.1 Raised subjects create new binding possibilities

- A well known property of A-movement is that it generates new binding possibilities (i.e. binding occurs from surface positions) whereas A’-movement is well-known to reconstruct (i.e. binding reflects underlying positions).

- For our concerns, if we can show that a raised subject in Logoori hyper-raising creates new binding possibilities, we can confirm that this looks like an A-movement to subject position.

- Halpert (2016) shows that, in Zulu, a raised pronominal subject creates a principle C binding violation that is not present in an un-raised construction, suggesting that raising is A-movement to subject position.

- Logoori seems to show the same pattern in (26) and (27), where pro loses its ability to refer to Jabu in a raising construction (27).

(26) ga-rek-a ndt mu-ri-haana ry-a Jabu pro a-kony-aa Fii. 6SA-seem-FV that 18-5-generosity 5-ASSOC 1Jabu pro 1SA-help-PRES Fii

‘It seems that in Jabu’s generosity, he is helping Fii.’

Coreference Allowed

(27) pro pro a-rek-a ndt mu-ri-haana ry-a Jabu t a-kony-aa Fii.

pro pro 1SA-seem-FV that 18-5-generosity 5-ASSOC 1Jabu t 1SA-help-PRES Fii

‘He seems in Jabu’s generosity to be helping Fii.’

Coreference Unacceptable

In ga-raising a pro subject is not clearly referenced (given the subject agreement form) but a small pronoun is still possible in such a construction. Notably, it generates the same unacceptable coreference that agreeing raising does:

(28) ye-ka ga-rek-a ndt mu-ri-haana ry-a Jabu t a-kony-aa Fii.

ye-ka 6SA-seem-FV that 18-5-generosity 5-ASSOC 1Jabu t 1SA-help-PRES Fii

‘He seems in Jabu’s generosity to be helping Fii.’

Coreference Unacceptable

Again, this suggests that ga-raising with -oreka is in fact A-movement (to subject position), rather than a topicalization construction. We will see a distinction with a topicalization structure in section 4.

There is additional discussion of of the binding possibilities in raising constructions in section 4.3 below.
3.3.2 Cyclic Raising with Statives

- Statives in Logoori generally show similar raising properties to -roeka.

- The standing question we are investigating is whether raising with -roeka shows the properties of true raising, i.e. A-movement to subject position, for both agreeing and non-agreeing (ga-) raising.

- It is commonly assumed that A’-movement cannot feed A-movement. If non-agreeing raising were an instance of A’-movement (topicalization), we would not expect it to undergo additional A-movement.

- As (29d) shows, however, it is perfectly acceptable to have the intermediate clause be a non-agreeing raising even if the higher clause is agreeing raising. This suggests, again, that non-agreeing ga-raising is an instance of ‘true’ hyper-raising.

   6SA-PRES-know-STAT-FV that 6SA-seem-PRES that 3-car 3SA-PST-depart-FV
   ‘It is known that it seems like the car departed.’
   ‘It is known that it seems to be too late.’

b. mu-doga gwa-a-many-ikan-a ndi gu-rorek_aa kuri gw-aku-simuka. AGR, AGR
   3-car 3SA-PRES-know-STAT-FV that 3SA-seem-PRES that 3SA-PST-depart-FV
   ‘The car is known to seem to have departed.’
   ‘It is known that it seems to be too late.’ Idiomatic Meaning Retained

c. mu-doga ga-a-many-ikan-a ndi ga-rorek_aa kuri gw-aku-simuka. ga-, ga-
   3-car 6SA-PRES-know-STAT-FV that 6SA-seem-PRES that 3SA-PST-depart-FV
   ‘The car is known to seem to have departed.’
   ‘It is known that it seems to be too late.’ Idiomatic MeaningRetained

d. mu-doga gw-a-many-ikan-a ndi ga-rorek_aa kuri gw-aku-simuka. AGR, ga-
   3-car 3SA-PRES-know-STAT-FV that 6SA-seem-PRES that 3SA-PST-depart-FV
   ‘The car is known to seem to have departed.’
   ‘It is known that it seems to be too late.’ Idiomatic Meaning Retained

- The examples above also utilize an idiom diagnostic, showing again that even in long-distance raising contexts, an idiomatic reading is retained.

- Cyclic raising out of a hyper-raising construction is also possible with raising to object (and further raising to subject via passivization). These data are provided in the appendix for the interested reader.

3.4 Two contrasts between Non-Agreeing Ga-Raising and Topicalization

3.4.1 Topics Need to be Old Information: Ga-Raised Subjects Can be New Information

Left-dislocated phrases must be familiar information, and don’t serve well as the answer to a content question. Examples (31a)-(31c) are all relatively natural answers to the question in (30), including (31c) where the answer to the question is the embedded subject. In contrast, left-dislocating (topicalizing) the embedded subject that answers the question is unacceptable in (31d).

(30) Ni vwaha y-aa-tany-i ri-dirisha?
    be 1who 1SA-PST-break-PST 5-window
   ‘Who is it that broke the window?’
In raising contexts, both agreeing raising and non-agreeing raising can serve well as answers to a subject question. Both (33a) and (33b) are comfortable answers to the same question, posed again in (32):  

(32) Ni wahaha y-aa-tany-i ri-dirisha?  
be 1who 1SA-PST-break-PST 5-window  
‘Who is it that broke the window?’

1Jabu 6SA-seem-FV that 1SA-PST-break-PST 5-window  
‘Jabu seems like he broke the window.’

b. Jabu a-rorek-a ndt y-aa-tany-i ri-dirisha.  
1Jabu 1SA-seem-FV that 1SA-PST-break-PST 5-window  
‘Jabu seems like he broke the window.’

Therefore subjects in non-agreeing raising constructions with -rorek pattern with true subjects and not with left-dislocated phrases, suggesting (again) that non-agreeing raising is an instance of ‘true’ hyper-raising.

3.4.2 Left-dislocation is not possible inside a RC: Ga-raising IS possible

A core example of a left dislocated object is shown in (34b):

(34) a. Jabu y-a-yaanza ri-booso  
1Jabu 1SA-PRES-like 5-ugali  
‘Jabu likes ugali.’

b. ri-booso, Jabu y-a-ri-yaanza  
5-ugali 1Jabu 1SA-PRES-5OM-like  
‘Ugali, Jabu likes it.’

As is clear from the example in (35b) below, left-dislocation is impossible inside a relative clause:

(35) a. n-zizuriz-aa ma-diku g-a Jabu y-a-yaanza ri-booso.  
1sgSA-remember-PRES 6-day 6-COMP 1Jabu 1SA-PRES-like 5-ugali  
‘I remember the days when Jabu liked ugali.’

4Our consultant does note that the most natural answer to these question in (30)/(32) is the subject cleft construction shown (31a), but the other answers given here are also acceptable given appropriate contexts.
b. * n-zizuriz-aa ma-diku g-a ri-booso, Jabu y-a-ri-yaanza *Left-dis Obj in RC  
1sgSA-remember-PRES 6-day 6-COMP 5-ugali 1Jabu 1SA-PRES-5OM-like  
'I remember the days when ugali, Jabu liked it.'

In contrast, both agreeing (36a) and non-agreeing raising (36b) can occur readily inside a relative clause, unlike the left dislocation in (35b) above.

(36) a. n-zizuriz-aa ma-diku g-a Jabu ya-a-rirek-a ndt ya-a-ri y-a-yaanza  
1sgSA-remember-PRES 6-day 6-COMP 1Jabu 1SA-PRES-seem-FV that 1SA-PRES-be 1SA-PRES-like  
ri-booso  
Agreeing Raising in RC  
5-ugali  
'I remember the days when Jabu seemed to like ugali.'

b. n-zizuriz-aa ma-diku g-a Jabu ga-a-rirek-a ndt ya-a-ri y-a-yaanza  
1sgSA-remember-PRES 6-day 6-COMP 1Jabu 6SA-PRES-seem-FV that 1SA-PRES-be 1SA-PRES-like  
ri-booso  
Non-agreeing Raising in RC  
5-ugali  
'I remember the days when Jabu seemed to like ugali.'

This is once again evidence that the raised subject in non-agreeing ga-raising is not dislocated.

3.5 Intermediate Summary

- We have consistently seen that -toreka shows the properties of raising (as opposed to copy raising) in both its agreeing and non-agreeing forms.

- With respect to non-agreeing (ga-) raising in particular, it shows crucial distinctions with topicalization in multiple instances (instead patterning with agreeing raising).

- This suggests that ga-raising is not an instance of expletive agreement + dislocation, but is instead an instance of hyper-raising (to subject position) with an alternative subject agreement.

(37) Raising Diagnostics by Construction

<table>
<thead>
<tr>
<th>Diagnostic</th>
<th>-toreka</th>
<th>LD Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idiomatic reading retained</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reconstructed reading possible</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Subject-like extraction</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Possible inside RC?</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Can be new information</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Intermediate in multiple-raising cycle</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>New binding possibilities</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
4  *-fwana* and an Expletive + Dislocation Construction

This section explores another raising verb in Logoori (*-fwana*), showing that it is a hyper-raising predicate that shares the features of *-roreka* in various ways, but that it also lacks the non-agreeing ga-raising construction discussed above for *-roreka*.

4.1 **AGR-*fwana* is a hyper-raising construction**

(38) Ga-fwan-aa ndi Jabu a-ziiy-i karr.

6SA-appear-PRES (that) 1Jabu 1SA-leave-PST early

‘It appears that Jabu left early.’

(39) Jabu a-fwan-aa (ndt) a-ziiy-i karr.

1Jabu 1SA-appear-PRES (that) 1SA-leave-PST early

‘Jabu appears to have left early.’

4.1.1 **AGR-*fwana* retains idiomatic interpretations**

As we saw with *-roreka*, it appears that agreeing raising with *-fwana* is indeed true raising. For example, the subject of an embedded sentential idiom may be raised with *-fwana* and retain its idiomatic reading.

(40) mu-doga gu-fwan-aa ndi gw-aku-simuka.

3-car 3SA-appear-PRES that 3SA-PST-depart

‘The car appears to have departed.’


6SA-appear-PRES that 10-animal 10-wild 10SA-sleep-PRES

‘It appears that the wild animals are sleeping.’

b. Zi-nyama zy-umburimu zi-fwan-aa ndi zi-gon-aa.

10-animals 10-wild 10SA-appear-PRES that 10SA-sleep-PRES

‘The wild animals appear to be sleeping.’ (acceptable with no direct visual evidence)

4.1.2 **AGR-*fwana* allows reconstructed readings**

Likewise, the reconstructed reading diagnostic allows for agreeing raising with *-fwana*.

*If you are in a game park driving around looking for animals, but you see no animals:*


6SA-appear-PRES that 10-animal 10-wild 10SA-sleep-PRES

‘It appears that the wild animals are sleeping.’

(42) n-dor-i mu-kaari (*w-a) a-fwan-aa (ndt) a-gur-i t-baakuuli

1SG-see-PST 1-woman (*1-REL) 1SA-appear-PRES (that) 1SA-buy-PST 9-bowl

‘I saw the woman who looks like she bought a bowl.’

11
4.1.4 AGR-fwana behaves distinctly from ga-fwana

There are stark differences between -roveka and -fwana, however. Specifically, non-agreeing raising is strongly ruled out with -fwana in the same contexts where ga-roveka is fine:

(43) # Jabu ga-fwan-aa ndi a-zuny-1 karr.
   1Jabu 6SA-appear-PRES that 1SA-leave-PST early
   ‘Jabu appears to have left early.’ (in same contexts as above)

Despite the strong judgments to this effect, it is possible to generate something that appears to be non-agreeing raising with -fwana, requiring a specific context. If someone asks for a general update with a question along the lines of, “are there any updates?” it becomes fine to respond with the ga-fwana construction:

(44) a. Q: ma-riporti?
   6-reports
   ‘Any updates?’
   1Jabu 6SA-appear-PRES that 1SA-help-PRES 1Fii
   ‘As for Jabu they (the reports) seem like he is helping Fii.’

Therefore, something that looks like ga-raising is in fact possible with -fwana, but only in the event that the ga-agreement in fact is something akin to referential - referring to the reports that are being given. At first glance, then, this suggests that ‘Jabu’ in this example is left-dislocated, and that there is a distinct null subject in (44b).

We will argue that ga-fwana constructions actually consist of a left-dislocated subject with (presumably) an expletive in subject position, the structure from (11a) above:

(45) [ SUBJk [ (expl) ga,-seems [CP that tk [TP ... ] ]] ]

Ga-fwana = Expletive + Dislocation

4.2 Evidence that ga-fwana constructions are not true raising

4.2.1 Idiomatic interpretations are not retained with ga-fwana

(46) mu-doga ga-fwan-aa ndi gw-aku-simuka.
   3-car 6SA-appear-PRES that 3SA-PST-depart
   ‘The car, (reports) seem like it departed.’
   *’It appears to be too late.’

4.2.2 Reconstructed Readings Not Possible with ga-fwana

Likewise, the reconstructed reading context with non-agreeing -fwana is ruled out, whereas it is fine with agreeing raising with -fwana, and is also acceptable with both agreeing and non-agreeing raising with -roveka (as seen in section 3 above).

If you are in a game park driving around looking for animals, but you see no animals:

(47) # zi-nyama zy-u-mburimu ga-fwan-aa ndi zi-gon-aa.
   10-animal 10-of-bush 6SA-appear-PRES that 10SA-sleep-PRES
   ‘The wild animals, the evidence appears that they are sleeping.’
The example in (47) is acceptable if you’re back from your drive and somebody asks "mariperti?" But in the current context it is infelicitous.

### 4.2.3 Fronted Subject in Ga-fwana Construction Cannot be New Information

The fronted subject in *ga-fwana* constructions cannot be new information, in contrast to the facts for non-agreeing *ga-roreka*. Agreeing -fwana raising is acceptable in response to a subject question in (48b), whereas a *ga-fwana* construction is infelicitous in (48c).

(48) a. Ni vwaha a-kony-aa Fii?  
   'Who is helping Fii?'  
   wh-Question

   b. Jabu a-fwaan-aa ndi a-kony-aa Fii.  
   Jabu 1SA-appear-PRES that 1SA-help-PRES Fii  
   'Jabu appears to be helping Fii.'  
   Subj Can be Answer in Agr Raising

   c. # Jabu ga-fwaan-aa ndi a-kony-aa Fii.  
   Jabu 6SA-appear-PRES that 1SA-help-PRES Fii  
   'Jabu appears to be helping Fii.'  
   Subj Cannot be Answer in Non-Agr Raising

The subject in a *ga-fwana* construction therefore patterns with left-dislocated topics, rather than subjects in general, which in raising constructions are readily compatible with a new information reading.

### 4.2.4 Fronted Subjects with *ga-fwana* Don’t Extract like Subjects

The fronted subject in a *ga-fwana* construction cannot be extracted, again in contrast to the facts that we saw for ga-raising with *-roreka*. The crucial evidence is in (49c):

(49) a. N-dor-i mw-aana (*w-a) a-kony-aa Fii.  
   1sgSA-see-PST 1-child (*1-REL) REL.1SA-help-PRES Fii  
   'I saw the child who is helping Fii.'  
   Agreeing Raising

   b. N-dor-i mw-aana (*w-a) a-fwaan-aa ndi a-kony-aa Fii.  
   1sgSA-see-PST 1-child (*1-REL) REL.1SA-appear-PRES that 1SA-help-PRES Fii  
   'I saw the child who appears to be helping Fii.'  
   Raised Element Extracts like Subj

   c. * N-dor-i mw-aana (w-a) ga-fwaan-aa ndi a-kony-aa Fii.  
   1sgSA-see-PST 1-child (1-REL) REL.6SA-appear-PRES that 1SA-help-PRES Fii  
   'I saw the child who appears to be helping Fii.'  
   ga-fwana Fronting

   Fronted Element Cannot be Extracted

### 4.2.5 *Ga-fwana* Construction is Not Possible Inside a RC

Recall from above that a left-dislocated topic is ruled out inside a relative clause, but *ga-raising* with *-roreka* was perfectly acceptable (see section 3.4.2 above).

In contrast, in the same context for *-fwana*, the raised subject is perfectly acceptable with agreeing raising (50a), but the *ga-fwana* construction is ruled out (50b).

(50) a. n-zizuriz-aa ma-diku g-a Jabu y-aa-fwaana ndi y-a-ri y-a-yaanz-a ri-booso  
   1sgSA-remember-PRES 6-day 6-REL 1Jabu 1SA-PST-appear that 1SG-PST-be 1SG-PST-like-FV 5-ugali  
   'I remember the days when Jabu seemed to like ugali.'
This is yet another contrast between non-agreeing raising in ga-roreka and non-agreeing subject-fronting with ga-fwana. Again, it appears that the fronted ‘subject’ in the -fwana non-agreeing cases is not in fact a true subject at all, instead patterning like a left-dislocated topic.

4.2.6 Ga-fwana Construction Does Not Create New Binding Possibilities

- Above we saw that -roreka (agreeing/non-agreeing) and -fwana (agreeing) raising constructions can create new binding possibilities for the fronted subject (a Principle C violation in this diagnostic). This suggests that the subject-fronting is in fact A-movement.
- If the ga-fwana construction does not consist of A-movement to matrix subject position, however, we would expect it to not create new binding possibilities, which is what we see below in (51b).
- It takes a particular situation to make a sentence like (51b) acceptable. Particularly, one in which the referent of the pronoun – Jabu here – is quite familiar from discourse, as well as one in which a general account of events has been solicited in some way.
- If such a context is constructed, however, the crucial element is that co-reference between the raised pronoun and Jabu is acceptable here, in contrast with this diagnostic for the other examples.

(51) a. ga-fwan-aa ndt mu-ri-haana ry-a Jabu₁ k eyₐ k a-kony-aa Fii.  
   Unraised  
   6SA-appear-PRES that 18-5-generosity 5-of 1Jabu₁ k s/heₐ k 1SA-help-PRES 1Fii  
   ‘It looks like in Jabu₁ k ’s generosity, s/heₐ k /₁ is helping Fii.’

b. yeₐ k ga-fwan-aa ndt mu-ri-haana ry-a Jabu₁ k a-kony-aa Fii.  
   Fronted Subject  
   s/heₐ k 6SA-appear-PRES that 18-5-generosity 5-of 1Jabu₁ k 1SA-help-PRES 1Fii  
   ‘It looks like in Jabu₁ k ’s generosity, s/heₐ k /₁ is helping Fii.’

Crucial here is that coreference between the fronted pronoun and Jabu is acceptable here, in contrast to the other constructions. This suggests this is not an instance of A-movement.

4.2.7 Ga-fwana Construction Cannot Feed Further Raising

The last repeated diagnostic from above comes from cyclic raising constructions. Previously we saw that both agreeing and non-agreeing (ga-) raising constructions with -roreka readily allowed further raising to subject. To test this we again use a stative raising construction.

First, stative raising with -manyika allows both agreeing raising and a ga-construction:

(52) a. Ga-a-many-ika ndt Jabu a-kony-aa Fii.  
   Unraised w/ Stative  
   6SA-PRES-know-STAT that 1Jabu 1SA-help-PRES 1Fii  
   ‘It is known that Jabu is helping Fii.’

b. Jabu y-a-many-ika ndt a-kony-aa Fii.  
   Agreeing Raising w/ Stative  
   1Jabu 1SA-PRES-know-STAT that 1SA-help-PRES 1Fii  
   ‘It is known that Jabu is helping Fii.’

   Non-agreeing Raising w/ Stative  
   1Jabu 6SA-PRES-know-STAT that 1SA-help-PRES 1Fii  
   ‘It is known that Jabu is helping Fii.’
Additionally, intermediate raising is acceptable as well for both agreeing raising and the ga-fwana construction:

(53) a. ga-a-many-ika ndr Jabu a-fwan-aa ndr a-kony-aa Fii.
    6S PRES-know-STAT that 1Jabu 1SA-appear-PRES that 1SA-help-PRES 1Fii
    ‘It is known that Jabu appears to be helping Fii.’

b. ga-a-many-ika ndr Jabu ga-fwan-aa ndr a-kony-aa Fii.
    6S PRES-know-STAT that 1Jabu 6S PRES-help-PRES 1Fii
    ‘It is known that Jabu appears to be helping Fii.’

Crucially for our point here (and in contrast to what was seen with non-agreeing ga-raising with -roreka) is that in (54b) a ga-fwana construction in the intermediate clause cannot feed agreeing raising in the main clause.

(54) a. Jabu y-a-many-ika ndr a-fwan-aa ndr a-kony-aa Fii.  
    1Jabu 1SA-pres-know-STAT that 1SA-appear-PRES that 1SA-help-PRES 1Fii
    ‘It is known that Jabu appears to be helping Fii.’

    1Jabu 1SA-pres-know-STAT that 6S PRES-appear-PRES that 1SA-help-PRES 1Fii
    ‘It is known that Jabu appears to be helping Fii.’

This is precisely what is predicted if the ga-fwana construction is in fact generated by fronting the subject through left-dislocation, and some other syntactic element (e.g. a null expletive triggering class 6 agreement) is in subject position. A’-movement in the intermediate clause cannot feed A-movement into a higher clause.

### 4.3 Binding evidence confirms distinction between ga-toreka and ga-fwana

This short section offers one more diagnostic to distinguish these constructions. As is unsurprising given our knowledge of binding patterns crosslinguistically, a subject in canonical subject position cannot bind (i.e. corefer with) an object pronoun:

(55) Adaro k a-mu/₁ₘₖ/ₙₖ -ror-i
    Adaro 1SA-1OM-see-PST
    ‘Adaro saw him/₁ₘₖ/ₙₖ.’ (yesterday or earlier today)

The following sentences construct a binding diagnostic by adding an experiencer to the main-clause perception predicate via an applicative morpheme, which is represented as an object marker pronoun on the verb.

As we would expect, a raised subject in an agreeing construction cannot co-refer with an object marker of the same class, mirroring the effect in (55).

(56) a. Jabuₖ a-muₖ/₁ₘₖₖ/ₙₖ-ror-er-aa ndr a-kony-aa Fii.
    1Jabuₖ 1SA-OMₖₖ/₁ₘₖₖ/ₙₖ-seem-APPL-PRES that 1SA-help-PRES 1Fii
    ‘Jabuₖ seems to him/₁ₘₖₖ/ₙₖ/₁ₘₖₖₖ/ₙₖ to be helping Fii.’

b. Jabuₖ a-muₖ/₁ₘₖₖ/ₙₖ-fwan-er-aa ndr a-kony-aa Fii.
    1Jabuₖ 1SA-OM-appear-APPL-PRES that 1SA-help-PRES 1Fii
    ‘Jabuₖ appears to him/₁ₘₖₖ/ₙₖ to be helping Fii.’

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However, a contrast emerges in the *ga-* forms. Raising with *ga-toreka* creates non-coreference with the OM, as is expected if *ga-toreka* consists of raising to subject position. The distinction that arises is with *ga-fwana* in (57b), where coreference is in fact possible:

(57) a. Jabuₖ ga-muₖ/i-*torek-er-aa ndr a-kony-aa Fii.  
\[1\text{Jabu} \_k 1\text{SA-OM} \_k/i-\text{seem-APPL-PRES} \text{that} 6\text{SA-help-PRES} 1\text{Fii} \]  
‘Jabuₖ seems to himₖ/i to be helping Fii.’  
\[\text{Non-agreeing Raising w/ *toreka} \]  
Coreference w/ Obj Still Unacceptable

b. Jabuₖ ga-muₖ/i-*fwaan-er-aa ndr a-kony-aa Fii.  
\[1\text{Jabu} \_k 6\text{SA-OM-appear-APPL-PRES} \text{that} 1\text{SA-help-PRES} 1\text{Fii} \]  
‘Jabuₖ, (the evidence) seems to himₖ/i that he is helping Fii.’  
\[\text{Non-agreeing Raising w/ *fwana} \]  
Coreference w/ Obj Allowed

This is exactly what we expect if the ‘raised’ subject in (57b) is in fact left-dislocated, as left-dislocated phrases may co-refer with object markers.

5 Conclusions

5.1 Empirical Conclusions

- The previous section introduced another raising verb that shows similar properties to *-toreka* in many ways, with a crucial divergence with respect to non-agreeing (apparent) *ga*-raising.

- Crucially, on every diagnostic the *ga-fwana* construction behaves like a non-raising construction, instead patterning as a left-dislocation + (presumably) agreement with a null expletive.

(58) **Summary: Raising Diagnostics by Construction**

<table>
<thead>
<tr>
<th>Diagnostic</th>
<th>-toreka</th>
<th>-fwana</th>
<th>LD Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idiomatic reading retained</td>
<td>✓✓✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reconstructed reading possible</td>
<td>✓✓✓</td>
<td>✓</td>
<td>✓ n/a</td>
</tr>
<tr>
<td>Subject-like extraction</td>
<td>✓✓✓</td>
<td>✓✓✓</td>
<td>✓ n/a</td>
</tr>
<tr>
<td>Possible inside RC?</td>
<td>✓✓✓</td>
<td>✓✓✓</td>
<td>✓</td>
</tr>
<tr>
<td>Can be new information</td>
<td>✓✓✓</td>
<td>✓✓✓</td>
<td>✓</td>
</tr>
<tr>
<td>Intermediate in multiple-raising cycle</td>
<td>✓✓✓</td>
<td>✓✓✓</td>
<td>✓ n/a</td>
</tr>
<tr>
<td>New binding possibilities</td>
<td>✓✓✓</td>
<td>✓✓✓</td>
<td>✓ TBD</td>
</tr>
<tr>
<td>Coreferent with matrix OM</td>
<td>✓✓✓</td>
<td>✓✓✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

- First, this shows that non-agreeing raising in Bantu ought not automatically be analyzed as an instance of hyper-raising.

- Furthermore, this is actually fairly direct evidence that *ga*-raising with *-toreka* IS in fact true raising to subject, as there is a clear and systematic distinction between *ga-toreka* and *ga-fwana*.

- And throughout we see further confirmation of the findings of Zeller (2006); Halpert (2012, 2016); Diercks (2012); Carstens and Diercks (2013) that agreeing raising in Bantu languages is true raising (hyper-raising) out of a finite clause.
5.2 Theoretical Comments

- Logoori hyper-raising (in general, like other Bantu hyper-raising) raises important questions about the role of Case (Diercks, 2012; Halpert, 2016), as well as the role of phases (Carstens and Diercks, 2013, Halpert, ACAL 47).

- Non-agreeing raising raises questions about the nature of agreement, as there is a divergence between what is in subject position, and what the subject marker agrees with (cf. Carstens, 2005; Baker, 2008; Collins, 2004).

- Non-agreeing raising also raises the possibility of additional insight into the nature of Bantu hyper-raising more generally. We are currently exploring the viability for Logoori of Halpert’s (2016) approach to Zulu non-agreeing raising. See comment in the Appendix (section 7.2).

6 Acknowledgments

This project would be nowhere without the work of our collaborator and Logoori language consultant Isaac Kilaha Thomas. We have been honored to partner with him in the description and analysis of his language, and look forward to continuing to work with him as the years progress.

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All errors that remain are our own.

References


Halpert, Claire. 2012. Argument licensing and agreement in Zulu. Doctoral Dissertation, MIT.


7 Appendices

7.1 Cyclic Raising in Raising to Object and Passives

- It is a general property of raising-to-object constructions that subjects of the embedded takes on object properties of the main clause.

- In Logoori this is manifest on several ways, one of which is that the embedded subject may appear to the left of the complementizer.\(^5\)

- Raising to object (under the right conditions) may also co-occur with object marking in Logoori.\(^6\)

As is evident below, the raised subject of a raising predicate may further-raise to object:

(59) Seline a-taraji-a Jabu\(_k\) ndt t\(_k\) a-rorek-e kuri t\(_k\) a-zinj-a
1Seline 1SA-expect-FV Jabu\(_k\) that 1SA-seem-SBJ COMP 1SA-go-FV
‘Seline expects Jabu to seem like going.’

(60) Seline a-mu-taraji-a Jabu\(_k\) ndt t\(_k\) a-rorek-e kuri t\(_k\) a-zinj-a
1Seline 1SA-1OM-expect-FV Jabu\(_k\) that 1SA-seem-SBJ COMP 1SA-go-FV
‘Seline expects Jabu to seem like going.’

It is perhaps arguable whether the embedded subject raised to object is raised into an A-position. Passivization and subject agreement are unambiguously subject-argument properties, however:

(61) Jabu a-taraji-w-i ndt a-zinj-e
1Jabu 1SA-expect-PASS-PST that 1SA-go-SUBJ
‘Jabu was expected to leave.’

\(^5\)Embedded subjects may also be object marked on the main verb, and an object marker can co-occur with raising-to-object in an OM-doubling construction, though this is only possible under select circumstances that are still under investigation.

\(^6\)This is only possible under the particular conditions that allow OM-doubling, namely that the object is very familiar in context. It is marginal in other contexts. Research on OM-doubling is ongoing.
Using this fact, it can be shown that successive-cyclic subject-to-subject raising is possible, reinforcing the conclusion that raising with -roreka is ‘true’ raising (A-movement to subject position).

(62) Jabu a-taraji-w-i a-rorek-e (ndt) kuri a-zinz-a Jabu was expected appear to leave.
1Jabu 1SA-expect-PASS-PST 1SA-seem-SUBJ (that) COMP 1SA-go-FV

This is even more clear in the example below, which shows that this long-distance A-movement is possible even with an idiom, retaining the idiomatic interpretation:

(63) mu-doga gu-taaji-w-i ndt gu-rorek-e ndt gw-a-kusimuk-a
3-car 3SA-expect-PASS-PST that 3SA-seem-SUBJ that 3SA-PST-depart-FV
‘the car is expected to seem like it left.’
‘it is expected to seem like it’s too late.’ (figurative reading OK)

The fact that the example in (63) can retain its idiomatic interpretation suggests that this is a long-distance (cyclic) A-movement operation, further confirming our analysis that -roreka is a hyper-raising construction (i.e. ‘true’ raising).

7.2 Some Discussion of Theoretical Consequences of Logoori Raising

The main goals of this talk are empirical providing documentation of Logoori raising, particularly in comparison with other documented patterns in Bantu languages.

That said, the Logoori facts raise a number of important theoretical questions.

- What motivates raising if not the need for Case - and how can a nominal that already has Case A-move?
- If the Logoori CP is a phase, why is an embedded subject available to higher operations?
- How can the raised subject in agreeing raising constructions control subject agreement in both the embedded and main clauses?
- In non-agreeing raising constructions with -roreka, what triggers the ga- subject agreement?

7.2.1 Halpert on Zulu Raising

In fact, Halpert (2015a,2015b) has advanced a theory of raising that engages very similar facts from Zulu. Recall from above in (10a) that Zulu also has a non-agreeing raising construction (repeated here as (64):

(64) uZinhlei ku- bonakala [ukuthi ti u- zo- xova ujeqe] [Zulu]
AUG.1Zinhlei 17s- seems that 1S- FUT- make AUG.1steamed.bread
‘It seems that Zinhle will make steamed bread.’ (Halpert, 2015)

Halpert challenges the idea that English-like raising is typical and that the raising patterns found in Zulu and other Bantu languages is extraordinary and requires special explanation. Recall that in English, subjects must raise out of non-finite clauses, and cannot raise out of finite CPs. The usual explanation for this relies on the Phase Impenetrability Condition - CPs are phases, and thus material inside them (such as the subject) is unavailable for further operations. Infinitival phrases are not phases, thus the main clause T can probe inside them and raise the subject.

Halpert suggests a different mechanism for determining the raising pattern of a language that does not give either English or Zulu a 'default' status, which centers on the phi features of CPs and how the EPP works in the language.
Zulu differs from English in both of these factors. Non-finite TPs in Zulu have phi-features, whereas they do not in English, and CPs can satisfy the EPP in English, while they cannot in Zulu. The effects of these difference are discussed below.

In Zulu, both finite and non-finite clauses have phi-features, and are thus potential phi-goals for T. Therefore, T can agree with an embedded clause, which, as Halpert shows, gives class 17 agreement in Zulu. However, if the embedded clause is finite, it cannot satisfy the EPP. This first step is shown with an example sentence in (65).

(65) **Step 1 in raising-to-subject:** T agrees with embedded CP

\[
\begin{align*}
  &T \\
  &\text{ku} \text{bonakala} \\
  &\text{ukuthi} \\
  &\text{TP} \\
  &\text{uZinhle} \\
  &\text{uzoxova ujeqe}
\end{align*}
\]

This leaves two options. There can be an expletive subject (which is a null-subject in Zulu) to satisfy the EPP, as in (66), which corresponds to the unraised Logoori examples.

(66) ku- bonakala [ ukuthi uZinhle u- zo- xova ujeqe ]

\[
\begin{align*}
  &17S- \text{seem} \quad \text{that} \\
  &\text{AUG.1Zinhle 1S- FUT- make AUG.1steamed.bread} \\
  &'\text{It seems that Zinhle will make steamed bread.}'
\end{align*}
\]

(Halpert, 2015)

Alternatively, T can probe a second time for something to satisfy the EPP. Halpert relies on Rackowski and Richards (2005), who claim that the Phase Impenetrability Condition can be obviated if the whole phase is first agreed with. Since T has already agreed with the whole CP, it can now probe inside the CP and find the subject. There is a second instance of Agree, and the subject is raised to satisfy the EPP.

Because T has agreed twice, the subject agreement that surfaces can either match the raised subject (from the second instance of Agree), or the entire embedded CP (from the first instance), which gives class 17 agreement. This second step is illustrated in (67), which shows that either subject agreement marker is possible.

(67) **Step 2 in raising-to-subject:** T agrees with and fronts embedded subject

\[
\begin{align*}
  &uZinhle_i \\
  &T \\
  &u-/ku-\text{bonakala} \\
  &\text{CP} \\
  &\text{ukuthi} \\
  &\text{TP} \\
  &t_i \\
  &\text{uzoxova ujeqe}
\end{align*}
\]

In contrast, infinitival clauses can satisfy the EPP in Zulu, so T never needs to probe a second time inside of one.
T can get phi-features and satisfy the EPP with one instance of probing an infinitival clause, explaining the restriction on raising out of such phrases.

In contrast, English non-finite TPs do not have phi-features. This means that T never agrees with non-finite TPs in English, instead agreeing with and raising the embedded subject with the first and only instance of probing.

English also differs from Zulu in that finite CPs can satisfy the EPP. Like Zulu, they have phi-features and are thus potential phi-goals for T, but unlike Zulu, T never needs to probe a second time inside a finite English CP, since the CP itself can satisfy the EPP. This results in the ban on raising out of finite CPs in English.

Rather than using the Phase Impenetrability Condition to explain the difference between raising out of finite and non-finite clauses in English, Halpert points to differences in their featural status. In doing so, Halpert opens the door for other raising patterns, such as the Zulu type.

### 7.2.2 A Halpert-style approach to Logoori Raising

Zulu and Logoori appear to have very similar raising patterns, where raising is possible but optional out of finite clauses, and there are two options for agreement on the main verb when the embedded subject is raised (with -roreka and other stative verbs). Both languages also prohibit raising out of infinitival clauses. This suggests that the two languages have the same properties with regards to the featural status of clauses and how the EPP can be satisfied.

If Halpert’s analysis of Zulu can apply to Logoori, we should expect the following:

1. Finite clauses can control agreement, and give class 6 (ga-) agreement.
2. Non-finite clauses can also control agreement.
3. Finite clauses cannot satisfy the EPP.
4. Non-finite clauses can satisfy the EPP.

We have found evidence to support the second and fourth predictions, exemplified by (68). The subject of both (68a) and (68b) is an infinitival clause, and there are two options for subject agreement. The reasons for this are beyond the scope of this discussion, but it shows that non-finite clauses can be subjects and thus satisfy the EPP, and that they can control agreement.

(68) a. [ va-ana ku-dee ka mu-cheere ] ku-veereriz-i Chazima
   [ 2-child INF-cook 3-rice ] 15a-sadden-PST Chazima
   ‘For the children to cook rice saddened Chazima.’

b. [ va-ana ku-dee ka mu-cheere ] ga-veereriz-i Chazima
   [ 2-child INF-cook 3-rice ] 6SA-sadden-PST Chazima
   ‘For the children to cook rice saddened Chazima.’

We have not yet confirmed the predictions Halpert’s analysis would make for finite clauses, though initial evidence is somewhat mixed.

Because we do not expect CPs to be able to be subjects, since they shouldn’t be able to satisfy the EPP, object marking is the only environment outside of raising to see whether they have phi-features. Initial evidence suggests that a class 6 object marker cannot be used to refer to a discourse-familiar CP.

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7Raising with non-finite clauses is beyond the scope of this paper, but our data suggests that subjects cannot raise out of infinitival clauses, nor can such clauses occur in an unraised context with an expletive subject.
As for their ability to be subjects, Halpert’s predictions appear to be upheld, as CPs headed by *ndt are consistently unable to occur in subject position, as in the ungrammatical (69).

(69) *ndt 1-mbwa 1-rum-i ri-juungu ga-oreka
    that 9-dog 9SA-bit-PST 5-rat 6SA-seems
    intended: ‘It seems that the dog bit the rat.’

CPs that are not headed by a complementizer initially appear to work as subjects, shown in (70). However, several facts suggest that this is actually two separate clauses, rather than one with a CP subject.

(70) 1-mbwa 1-rum-i ri-juungu ga-oreka
    9-dog 9SA-bit-PST 5-rat 6SA-seems
    ‘The dog bit the rat it seems.’

First, it should be suspicious that (70) becomes ungrammatical when the CP has an overt complementizer, as in (69), since there is no apparent reason why the form of the complementizer should affect its ability to satisfy the EPP. Building on this suspicion is the English translation provided for the Logoori sentence, where *garoreka is translated as ‘it seems’, which is not just a verb, but has an expletive subjects. These facts and others not discussed here suggest that constructions with apparent CP subjects are actually two separate clauses, meaning that the structure of (70) is actually similar to (71), which shows a clear example of the initial CP being a separate clause, not a subject.

(71) 1-mburi ja-awa ma-ruwa suuvira
    9-goat 9SA-drank 6-beer 1sgSA.think
    ‘The goat drank the beer I think.’

Supposing that finite clauses can control agreement in Logoori (which is yet unconfirmed) and that they cannot satisfy the EPP, we can use Halpert’s analysis of Zulu for Logoori to explain the raising patterns. In this model, just like with Zulu, in a sentence with a raising verb, the main clause T will probe and find an embedded clause. If the clause is non-finite, it can both agree with it and raise it to satisfy the EPP, meaning that subjects cannot be raised out of non-finite clauses. If, however, the clause is finite, Agree can still occur, and in Logoori gives class 6 (*ga-*) agreement, but the finite CP will not be able to satisfy the EPP. Thus, T must probe a second time, and can now look inside the CP, since the Phase Impenetrability Conditions effects have been alleviated by Agree. The embedded subject is agreed with and raised to satisfy the EPP, leaving two possibilities for the surface subject agreement of the raising verb. It can either be the class 6 agreement from the initial probe of the whole embedded CP (what we have been calling non-agreeing raising), or it can match the noun class of the raised subject from the second probe (agreeing raising).