Constraints on Wh-Question Formation in Gichuka

Muriungi Kinyua Peter
Chuka University, Chuka, Kenya

Miriam Kathomi Mutegi
Ndagani Secondary School, Chuka, Kenya

ABSTRACT
Ross (1976) argued that wh-movement is not unbounded. This paper investigated wh-question formation in Gichuka, and checked whether wh-movement is constrained/bounded by the complex NP constraint, the subject condition, the wh-island constraint and the coordinate structure constraint. The results indicate that wh-movement is constrained by these constraints except the complex NP constraint. This paper therefore is a contribution to the principles and parameters of universal grammar.

Keywords: Wh-movement, Wh-in situ, Constraints, Gichuka, Bantu

CONSTRAINTS ON WH MOVEMENT

Complex NP Constraint
Gichuka, like many other languages of the world conforms to constraints seen to restrict wh-movement in other languages. One of these constraints is the Complex Noun Phrase Constraint. This constraint prohibits wh-movement out of a complex noun phrase.

Consider the sentence in (1).

(1) John made the claim that he gave Peter a book.

‘the claim that he gave Peter a book’ is a complex noun phrase. To question ‘Peter’ by wh-movement is impossible since it is within the complex noun phrase, therefore, (2) is ungrammatical.

*(2) Who did John make the claim that he gave the book?

Note that even when we leave the wh-in situ the sentence is ungrammatical:

*(3) John made the claim that he gave who the book?

A complex NP constraint therefore cannot be ameliorated by use of wh-in situ in English. Traditionally, the ungrammaticality of the above sentence was explained using the subjacency principle (Chomsky 1973). The subjacency principle prohibits movement of an wh-phrase across more than two bounding nodes, where the bounding nodes are an NP and IP. In current practice, the ungrammaticality of (2) is attributed to the principle of relativized minimality (Rizzi, 1999) or the minimal link condition (Chomsky, 1995, 2000). Consider in contrast (4) where there is no complex noun phrase.

(4) John claimed that he gave Peter the book.
It is possible to question ‘peter’ in the above sentence since there is no complex noun phrase. Therefore (5) is grammatical.

(5) Who did John claim that he gave the book?

It’s ungrammatical when we use wh-in situ to ask the above question as shown in (6).

*(6) John claimed that he gave who the book? (wh insitu)

English in general does not allow wh-in situ, except with echo questions.

Consider the Gichuka Sentence in (7) containing a complex NP ‘malalamiko ati nianenkere Peter mbuku’

(7) John aruthire malalamiko ati nianenkere Peter mbuku.
    John made the claim that he gave Peter a book
    ‘John made the claim that he gave Peter a book.’

In contrast to English, In Gichuka, ‘Peter’ an element from within the complex noun phrase can be questioned in situ (7) by use of full wh-movement (8) or by use of intermediate wh-movement (9).

(7) John aruthire malalamiko ati anenkere uu mbuku
    John made the claim that he gave who book
    ‘Whom did John make the claim that he gave the book?’ (wh in situ)

(8) N-uu John aruthire malalamiko ati nianenkere mbuku?
    f-who John made the claim that he gave book?
    ‘Whom did John make the claim that he gave the book?’ (full wh movement)

(9) John n-uu aruthire malalamikoati nianenkere mbuku?
    John f-who made the claim that he gave book?
    ‘Whom did John make the claim that he gave the book?’ (intermediate wh movement)

In the intermediate strategy, the wh-phrase moves to a position between the subject and the verb. Muriungi (2003; 2005, 2010), Abels and Muriungi (2008), and Kathomi (2013) analyzes this sentence as involving movement of the wh-phrase to the Specifier of a Focus Phrase, followed by movement of the subject NP to the Specifier of a Topic Phrase, located above the Focus Phrase in the syntactic tree (Cf. also Rizzi, 1997).

From the data in (8-9), it is clear that the complex NP constraint does not apply in Gichuka, as both wh- in situ, and wh-movement are allowed. Note here a fundamental morphological difference – a moved wh-phrase bears a focus maker (glossed ad f) but an in situ one does not.

Subject Condition
This constraint states that movement out of a subject is impossible (Huang, 1982). For example in the sentence in (10a) it is impossible to question ‘John’ which is part of the subject, hence the ungrammaticality of (10b). One can only question the whole subject as in (10c).

10 (a) That the Police will arrest John is certain
    subject
  *(b) Who is that the police will arrest certain?
  (c) What is certain?

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Consider the Gichuka sentence in (11), with a complex subject:

(11) Ati bolici makambat John niuma
    that police will arrest John is true
    ‘That police will arrest John is certain’

To question ‘John’ is impossible, whether by use of full wh-movement (12a), intermediate strategy (12b) or wh- in situ (12c).

*12(a) Nuu bolici makambata niuma
    Who police will arrest is certain
    ‘Who is that the police will arrest certain?’ (Full wh movement)
* (b) Bolici nuu makambata niuma?
    ‘Police who will arrest is certain’
    "Who is that the police will arrest certain? (Intermediate movement)
* (c) Bolici makambata uu niuma

Police will arrest who is certain
‘Who is that the police will arrest certain?’ (wh- in situ)

The subject condition therefore applies in Gichuka, as in other languages.

**Wh-island Constraint**

This constraint states that it is impossible to move out of a clause with another wh-phrase. A clause with another wh-phrase is an island for subsequent extraction of another wh-phrase. Consider the declarative sentence in (13).

(13) John arugire nkima
    John cooked ugali.
    ‘John cooked ugali’

The subject of the sentence John can be questioned using full wh-movement (14a) and intermediate strategy (14b).

(14)  (a) Nuu arugire nkima?
    f-who cook food
    ‘Who cooked ugali?’ (full wh movement)

    (b) Nkima nuu arugire
    food f-who cooked
    ‘Who cooked food?’ (intermediate wh movement)

Note however, after questioning the subject, the object cannot be questioned too, because the sentence with the subject is an island (15).

*(15) Nimbi nuu arugire?
    What f- who cooked?
    ‘What did who cooked’

The sentence is ungrammatical even when the order of the wh-phrases is switched, (16).

(16) Nuu nimbi arugire?
    Who what cooked
The *wh*-island constraint therefore holds for Gichuka.

**Co-ordinate Structure Constraint**
This constraint states that movement out of coordination is impossible.
It is impossible to question one object in a structure where we have two of them.

(17) (a) What did John cook?
    *(b) What did John cook ugali and__?
    *(c)What did John cook __and rice?

This constraint applies Gichuka. Consider the declarative sentence in (18a) with a conjunct. One cannot question/extract one of the conjuncts leaving the other (18b) and (18c) by use of full *wh*-movement.

(18) (a) John arugire nkima na mucere
    John cook  ugali and rice
    ‘John cooked Ugali and rice.’

    *(b) Ni-mbiz John arugire nkima na__
    f-what John cooked ugali and
    ‘What did John cook Ugali and?’
    *(c) Nimbi John arugire na muceere
    John f-what  cooked and rice
    ‘What did John cook __ and rice?

The examples are also ungrammatical when the intermediate strategy is used, (19).

(19)*(a) John nimbi arugire nkima na__
    John what  cooked ugali and
    ‘What did John cook Ugali and?’
    *(c) John nimbi arugire na muceere
    John f-what  cooked and rice
    ‘What did John cook __ and rice?

Note however it is ungrammatical to question one of the conjuncts *in situ*, (20).

(20) (a) John arugire mbi na mucere
    John cooked what and  rice
    ‘What did John cook and rice?’

    (b) John arugire nkima na  mbi
    John cooked Ugali and  what
    ‘What did John cook Ugali and?’

Note that extraction of the whole conjunct from the sentence in (18a), i.e ‘ugali’ and ‘rice’ is acceptable, (20).

(20) (a) Ni-mbi John arugire
    What John cook
    ‘What did John cook?’

    (b) John ni-mbi arugire
    John f-what cook
    ‘What did John cook?’

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The coordinate structure constraint therefore applies in Gichuka.

CONCLUSION

This paper which has been mainly descriptive in nature has shown that wh-movement in Gichuka conforms to the constraints established elsewhere – the wh-island constraint, the subject condition and the coordinate structure constraint. The study established however that wh-movement is not constrained by the complex NP constraint of the type make the claim. The study also established a mismatch in the amelioration of islands – while coordinate structure islands can be ameliorated by wh-in situ, subject islands cannot. I will leave an exploration for this mismatch for future research.

References