



*Research article*

## Wh-question formation in Lokaa

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### ABSTRACT

This paper discusses wh-questions in the Benue-Congo language, Lokaa. The different strategies of wh-question formation are examined. It is observed that in addition to the ex-situ and in-situ strategies, the language allows partial wh-movement under embedded clauses. It is shown, however, that embedded questions in the language are formed via relativization. I argue that these wh-questions strategies involve wh-movement. Wh-subject questions in Lokaa are fascinating as the absence of an overt subject triggers the subject relative clause tone on the verb. I further show that wh-phrases and focused constituents in the language are not in complementary distribution and argue that wh-phrases in the Lokaa are not focused.

**KEY WORDS:** Lokaa, wh-questions, partial wh-movement, non-focused wh-phrases, agreement



## 29

MARY AMAECHI

## **Wh-question formation in Lokaa**

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the language, while Section 8 presents argument that demonstrate that wh-phrases in Lokaa are not focused. Section 9 is the conclusion.

## **2. Background on Lokaa**

Lokaa (ISO 639-3) is a member of the upper-cross branch of the Benue-Congo language (FARACLAS 1988, IWARA et al. 2003). The language is spoken by over two hundred thousand speakers (EBERHARD et al. 2023) in Yakurr local government area of Cross-River State, Nigeria. Its immediate neighbours are Legbo, Kohumono, Agoi, Asiga and Mbembe. There are five varieties of Lokaa which are mutually intelligible (IWARA 1982). Unless indicated otherwise, the data in this paper are from the Ekuri dialect. With regards to the phonology of the language, Lokaa operates a 2-tone system: high and low. Tones in Lokaa have both lexical and grammatical functions. The language also attests short and long vowels. Long vowels are transcribed as double vowels. The contour tones on long vowels are not phonemic but rather a combination of phonemic low and high tones (IWARA et al. 2003). Lokaa has eight vowels with two harmonic advanced tongue root (ATR) sets. There are neutral vowels, that is, vowels without harmonic counterparts, and the domain of harmony is the prosodic word (AKINLABI 2006).

Lokaa has a noun class system and there are 14 noun classes (IWARA 1982). These are often indicated via prefixes on the root. But there are more than 14 prefixes. Class 1 nouns, for instance, are divided into 4 subclasses, and there are nouns with zero prefix. Below are some examples of nouns with their class prefixes.

(2)	a.	<b>ò-nèn</b>	‘person’	b.	<b>yà-nèn</b>	‘persons’
		1-person			2-person	
	c.	<b>lè-tú</b>	‘head’	d.	<b>à-tú</b>	‘heads’
		3-head			4-head	
	e.	<b>kè-tí</b>	‘tree’	f.	<b>yè-tí</b>	‘trees’
		5-tree			6-tree	
	g.	<b>è-bú</b>	‘goat’	h.	<b>m-bú</b>	‘goats’
		7-goat			8-goat	
	i.	<b>kò-póó</b>	‘cup’	j.	<b>lú-jí</b>	‘food’
		9-cup			10-food	
	k.	<b>lì-póó</b>	‘cups’	l.	<b>yì-nòn</b>	‘chicken’
		11-cup			12-chicken	
	m.	<b>yò-jí</b>	‘palm tree’	n.	<b>ká-kóó</b>	‘pig’
		13-palm.tree			14-pig	

Lokaa is an agreement-rich language (IWARA 1982; BAKER 2005, 2008). The overall nature of its agreement system makes it similar to Bantu languages.

MARY AMAECHI

### **Wh-question formation in Lokaa**

There is agreement on verbs (except for imperatives and gerunds), adjectives, complementizers, etc., often indicated by subject agreement prefixes. The agreement morpheme undergoes ATR harmony triggered by the vowel quality of the root. The agreement prefix on the verb agrees with the subject in noun class (in gender and number), and the complementizer agrees with the matrix subject (BAKER 2005); cf. (3).

- (3) a. **Ami n-tum n-dam.**  
I 1SS-be.very 1SS-be.big  
'I am very big.' (BAKER 2008: 104)
- b. **Òmìnì ó-bálẹ̀ ò-bí Úbì ó-ká Ìsúá.**  
Omini 1S-think 1S-that Ubi 1S-see Isu  
'Omini thinks that Ubi saw Isu.'
- c. **yà-dám yá-bálẹ̀bẹ̀ yà-bí Úbì ó-ká Ìsúá.**  
2-man 2S-think 2S-that Ubi 1S-see Isu  
'The men think that Ubi saw Isu.'

Lokaa usually has SVO word order but in negative and gerundive constructions, the object precedes the verb resulting in an SOV order as the data in (4) show (BAKER 2005, GÜLDEMANN 2007). The negative and gerundive markers are attached to the verb (4b-c). In the gerundive construction in (4c), the final verb *jî* 'eat' is nominalized and has the gerundive affix *kè-*.

- (4) *Lokaa word order* (BAKER 2005)
- a. **Úbì ó-kpèyì kò-póó.** *affirmative SVO*  
Ubi 1S-sell 9-cup  
'Ubi sold a cup.'
- b. **Úbì kò-póó òó-kpèyì.** *negative SOV*  
Ubi 9-cup NEG.1S-sell  
'Ubi didn't sell a cup.'
- c. **Úbì ó-kòòmá é-sàu kè-jî.** *gerundive SOV*  
Ubi 1S-stop 7-fish GER-eat  
'Ubi stopped eating fish.'

BAKER (2005) notes that Lokaa exhibits more head-initial properties, e.g., it attests prepositions; tense and aspect particles, as well as auxiliaries, come before the main verb; complementizers precede clauses (5).

- (5) a. **ká ẹ-plá**  
at 7-market  
'at the market'

MARY AMAECHI

### Wh-question formation in Lokaa

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b. **ín-blà má m̀-pò**  
8-dog DET 8-two  
'the two dogs'

c. **nẹ ọ-yàà**  
FUT 1S-happen  
'It will happen.'

In ditransitive constructions, the goal object precedes the theme object as exemplified in (6).

(6) **Úbì ọ-kàí wẹ́n l̀-póó.**  
Ubi 1S-give 1.child 11-cup  
'Ubi gave the child cups.'

Certain adjuncts have a relatively free order in Lokaa. Temporal adverbs can occur clause initially or clause finally in both affirmative and negative sentences (IWARA 1982). BAKER (2005) shows that this type of adverbs can either precede or follow the subject. Lokaa is a pro-drop language, where the subject can be omitted if the reference is clear from the context. BAKER (2005) argues that overt subjects in the language are dislocated determiner phrases (DPs) adjoined to a clause. He submits that the dislocation is a side effect of rich agreement.

### 3. Main clause wh- in-situ and ex-situ

Lokaa attests both in-situ and ex-situ wh-questions in main clauses for nearly all non-subject wh-interrogatives.<sup>2</sup> The example in (7a) is the baseline sentence. Sentences (7b-e) illustrate wh- ex-situ for simplex interrogative words, where the wh-phrase leaves a gap in the original base position. The equivalent of *when*, *why* and *how* involve complex wh-phrases (cf. IWARA 1982: 171ff). I do not consider these questions in the present study.

(7) a. **Úbì ọ-kà wẹ́n.**  
Ubi 1S-see 1.child  
'Ubi saw the child.'

b. **n̄nẹ́ (má) ọ-kà wẹ́n?**  
who MA 1S-see 1.child  
'Who saw the child?'

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<sup>2</sup> The wh-phrase **n̄nẹ́** 'who' is singular and has a plural counterpart **yábáàng** (IWARA 1982).

MARY AMAECHI

### Wh-question formation in Lokaa

- c. **nnèḗ** (má) **Úbì** **ó-ká?**  
who MA Ubi 1S-see  
'Who did Ubi see?'
- d. **mbòḡng** (má) **Úbì** **ó-ká?**  
what MA Ubi 1S-see  
'What did Ubi see?'
- e. **dèḡndḗ** (má) **Úbì** **ó-ká** **wèḡn?**  
where MA Ubi 1S-see 1.child  
'Where did Ubi see the child?'

The examples in (8) illustrate that the simple non-subject wh-phrases can occur in-situ, where they can also be optionally followed by the element **má**. The data in (8c) shows that wh-adjunct can appear in-situ. The wh-object *what* when in-situ is realized as **bòḡng** without the initial bilabial nasal consonant when it occurs ex-situ; cf. (7d) and (8b).<sup>3</sup>

- (8) a. **Úbì** **ó-ká** **nnèḗ** (má)?  
Ubi 1S-see who MA  
'Who did Ubi see?'
- b. **Úbì** **ó-ká** **bòḡng** (má)?  
Ubi 1S-see what MA  
'What did Ubi see?'
- c. **Úbì** **ó-ká** **wèḡn** **dèḡndḗ** (má)?  
Ubi 1S-see 1.child where MA  
'Where did Ubi see the child?'

The table below shows the inventory of wh-expressions covered in this study.

<b>nnèḗ</b>	'who'
<b>nèḗ</b>	'who'
<b>yábáàng</b>	'who (PL)'
<b>mbòḡng</b>	'what'
<b>bòḡng</b>	'what'
<b>dèḡndḗ</b>	'where'

Table 1 – Wh-expressions in Lokaa

As seen in Table 1, there are three variants of the wh-phrase 'who' and two for 'what', while 'where' has a single form. The focus of this section has been on simple main clauses and the wh-questions formation strategies that are allowed in them. The next section examines wh-questions with clausal embedding.

<sup>3</sup> Notes that while the wh-phrase **nnèḗ** 'who' can be found in both in-situ and ex-situ contexts, the form **nèḗ** 'who' is found only in-situ (IWARA 1982).

MARY AMAECHI

### **Wh-question formation in Lokaa**

#### **4. Embedded clause wh- in-situ, ex-situ and partial wh-movement**

In this section, I consider long-distance ex-situ wh-questions and wh- in-situ in embedded clauses. Wh-phrases that originates from embedded clauses may either occur in-situ, or ex-situ either occurring at the left edge of the matrix clause or they may involve partial wh-movement where they are moved to an intermediate position following the complementizer. The data in (9) illustrate ex-situ questions, where the wh-phrases are moved to the clause-initial position of the matrix clause. Example (9a) is the baseline declarative sentence, (9b) demonstrates embedded subject extraction, (9c-d) and for direct objects, and (9e) shows a wh-adjunct.

- (9) a. Òmìnì ọ-bálẹ̀ ọ-bí Úbì ọ-ká wẹ̀ẹ̀n.  
Omini 1s-think 1s-that Ubi 1s-see 1.child  
'Omini thinks that Ubi saw the child.' *baseline*
- b. ń̀nẹ̀ẹ̀ (má) Òmìnì ọ-bálẹ̀ ọ-bí — ọ-ká wẹ̀ẹ̀n?  
who MA Omini 1s-think 1s-that 1s-see 1.child  
'Who did Omini think that saw the child?' *embedded subject*
- c. ń̀nẹ̀ẹ̀ (má) Òmìnì ọ-bálẹ̀ ọ-bí Úbì ọ-ká — ?  
who MA Omini 1s-think 1s-that Ubi 1s-see  
'Who did Omini think that Ubi saw?' *embedded object*
- d. ń̀bọ̀ọ̀ng (má) Òmìnì ọ-bálẹ̀ ọ-bí Úbì ọ-ká — ?  
what MA Omini 1s-think 1s-that Ubi 1s-see  
'What did Omini think that Ubi saw?' *embedded object*
- e. ẹ̀ẹ̀ẹ̀ndẹ̀ (má) Òmìnì ọ-bálẹ̀ ọ-bí Úbì ọ-ká wẹ̀ẹ̀n?  
where MA Omini 1s-think 1s-that Ubi 1s-see 1.child  
'Where did Omini think that Ubi saw the child?' *embedded adjunct*

The in-situ interrogative strategy under embedded contexts is illustrated in (10).

- (10) a. Òmìnì ọ-bálẹ̀ ọ-bí ń̀nẹ̀ẹ̀ (má) ọ-ká wẹ̀ẹ̀n?  
Omini 1s-think 1s-that who MA 1s-see 1.child  
'Who did Omini think that saw the child?' *embedded subject*
- b. Òmìnì ọ-bálẹ̀ ọ-bí Úbì ọ-ká ń̀bọ̀ọ̀ng (má)?  
Omini 1s-think 1s-that Ubi 1s-see what MA  
'What did Omini think that Ubi saw?' *embedded object*
- c. Òmìnì ọ-bálẹ̀ ọ-bí Úbì ọ-ká wẹ̀ẹ̀n ẹ̀ẹ̀ẹ̀ndẹ̀ (má)?  
Omini 1s-think 1s-that Ubi 1s-see 1.child where MA  
'Where did Omini think that Ubi saw the child?' *embedded adjunct*

Partial wh-movement with the wh-phrases surfacing at the right edge of the embedded complementizer is shown in (11). Empirical evidence for this partial

MARY AMAECHI

### **Wh-question formation in Lokaa**

wh-movement in Lokaa is that the wh-phrases *nnẹẹ* ‘who’ and *mbọ̀dọ̀ng* ‘what’ are the forms that we find in ex-situ contexts and not in in-situ contexts (cf. IWARA 1982:288).

- (11) a. *Òmìnì ọ́-bálẹ̀ ọ̀-bí nnẹẹ (má) Ụbì ọ́-ká?*  
Omini 1s-think 1s-that who MA Ubi 1s-see  
‘Who did Omini think that Ubi saw?’ *embedded object*
- b. *Òmìnì ọ́-bálẹ̀ ọ̀-bí mbọ̀dọ̀ng (má) Ụbì ọ́-ká?*  
Omini 1s-think 1s-that what MA Ubi 1s-see  
‘What did Omini think that Ubi saw?’ *embedded object*
- c. *Òmìnì ọ́-bálẹ̀ ọ̀-bí dẹ̀dẹ̀ndẹ̀ (má) Ụbì ọ́-ká wẹ̀ẹ̀n?*  
Omini 1s-think 1s-that where MA Ubi 1s-see 1.child  
Where did Omini think that Ubi saw Isu?’ *embedded adjunct*

The data in (12) indicate that the three different strategies of wh-interrogative are not constrained by the depth of embedding. The examples involve two levels of embedding with (12a) illustrating ‘full wh-movement’, (12b) is in-situ and (12c) shows partial wh-movement.

- (12) a. *nnẹẹ (má) Òmìnì ọ́-bálẹ̀ [ọ̀-bí Ìkwọ́ ọ́-jàyì [ọ̀-bí ọ́-ká wẹ̀ẹ̀n]]?*  
who MA Omini 1s-think 1s-that Ikwo 1s-say 1s-that 1s-see 1.child  
‘Who did Omini think that Ikwo said saw the child?’ *ex-situ*
- b. *Òmìnì ọ́-bálẹ̀ [ọ̀-bí Ìkwọ́ ọ́-jàyì [ọ̀-bí Ụbì ọ́-ká nnẹẹ (má)]]?*  
Omini 1s-think 1s-that Ikwo 1s-say 1s-that Ubi 1s-see who MA  
Who did Omini think that Ikwo said that Ubi saw?’ *in-situ*
- c. *Òmìnì ọ́-bálẹ̀ [ọ̀-bí Ìkwọ́ ọ́-jàyì [ọ̀-bí nnẹẹ (má) Ụbì ọ́-ká]]?*  
Omini 1s-think 1s-that Ikwo 1s-say 1s-that who MA Ubi 1s-see  
‘Who did Omini think that Ikwo said that Ubi saw?’ *partial*

The wh-phrase corresponding to the subject of the second embedded clause surfaces at the left edge of the matrix clause in (12a). In (12b), the wh-phrase does not leave its original base position in the object position of the embedded clause. The sentence in (12c) indicates that this object wh-phrase that is in-situ in the deeply embedded clause in (12b) can partially move to the edge of the same clause.

### **5. Embedded (indirect) questions**

Embedded questions are realized via relativization as illustrated in (13).<sup>4</sup> The relative clauses are introduced by a particle that agrees with the head noun that

<sup>4</sup> The exception here is ‘how’, whose operation is unclear. I leave this for future research.



MARY AMAECHI

### **Wh-question formation in Lokaa**

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the relative clause modifies (IWARA 1982, BAKER 2008).<sup>5</sup> That the relativization strategy is used to express embedded questions has been reported for other languages, see among other AMAECHI and GEORGI (2019) for Igbo and TORRENCE and KANDYBOWICZ (2015) for Krachi. In Lokaa, the verbs **yimáké** ‘to know’ and **bláú** ‘to ask’ select for embedded questions. The examples in (13) and (14) illustrate these for the two verbs.

- (13) a. **ń-yimáké ò-nèn w-á ò-fñ è-blà má.**  
1SS-know 1-person 1-REL 1S-kill 7-dog DET  
‘I know who killed the dog.’ (lit. ‘I know the person that killed the dog.’)
- b. **ń-yimáké bðóng w-á áwèñ ó-fñ.**  
1SS-know thing 1-REL 1.child 1S-kill  
‘I know what the child killed.’ (lit. ‘I know the thing that the child killed.’)
- c. **ń-yimáké ké-béyì s-á wèñ ó-fñ è-blà má.**  
1SS-know 5-time 5-REL 1.child 1S-kill 7-dog DET  
‘I know when the child killed the dog.’ (lit. ‘I know the time that the child killed the dog.’)
- d. **ń-yimáké à-pámà y-á wèñ ó-fñ è-blà má.**  
1SS-know 4-place 4-REL 1.child 1S-kill 7-dog DET  
‘I know where the child killed the dog.’ (lit. ‘I know about the place that the child killed the dog.’)
- (14) a. **ń-bláyí ò-nèn w-á ò-fñ è-blà má.**  
1SS-ask 1-person 1-REL 1S-kill 7-dog DET  
‘I asked who killed the dog.’ (lit. ‘I asked about the person that killed the dog.’)
- b. **ń-bláyí bðóng w-á wèñ ó-fñ.**  
1SS-ask thing 1-REL 1.child 1S-kill  
‘I asked what the child killed.’ (lit. ‘I asked about the thing that the child killed.’)
- c. **ń-bláyí à-pámà y-á wèñ ó-fñ è-blà má.**  
1SS-ask 4-place 4-REL 1.child 1S-kill 7-dog DET  
‘I asked where the child killed the dog.’ (lit. ‘I asked about the place that the child killed the dog.’)

The verb **bláú** ‘to ask’ may combine with an embedded clause containing an ex-situ wh-phrase, but when this happens, we do not get an indirect question interpretation as it is with the relativization strategy exemplified in (14) but rather we have a direct question as illustrated in (15).

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<sup>5</sup> BAKER (2008: 119) notes that the particle that introduces relative clauses is not a relative marker as the same particle is also used in noun-noun modification constructions, which he argues do not involve operator movement.

MARY AMAECHI

### **Wh-question formation in Lokaa**

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- (15) **ín-bláyí, ònèè (má) wẹ́n ọ́-ffì.**  
1SS-ask who MA 1.child 1S-kill  
'I asked: 'What did the child kill?''

It is shown in this section that embedded wh-questions involve relativization. It is important to note that the verb **yímákẹ** 'to know' in declarative contexts takes the declarative complementizer **-bí** 'that', cf. (12). In interrogative contexts, the relative marker is found as exemplified in (13).

## **6. Constraints on wh-movement**

In the previous sections, I have shown that Lokaa has three wh-interrogative strategies: ex-situ, in-situ and partial movement. The issue that is being addressed in this section is whether these strategies involve movement or not, and how they are constrained. I show that the wh-interrogatives including wh-in-situ undergo covert movement in the language. Evidence for these is from island effects and superiority. This shows that there is no difference between covert and overt phrasal wh-movement in the cases of 'full movement' and partial movement.

### **6.1 Islands**

Ross's (1967) island-sensitivity, the structural condition under which wh-movement is licensed or not, is one of the classic diagnostics for syntactic movement. Based on Ross's islands for movement such as complex DP constraints, sentential subject constraints, and adjunct condition, I show that the three wh-strategies in Lokaa show the properties that are diagnostics of movement as they are sensitive to all these islands and yield ungrammatical constructions. Even in the case of in-situ strategy, not moving the wh-phrase does not circumvent the island constraints. The examples in (16) to (18) demonstrate this.

#### Complex DP islands – relative clause

- (16) a. **Òmìnì ọ́-ká wẹ́n [w-á ọ́-ffì ẹ́-blà má].**  
Omini 1S-see 1.child 1-REL 1S-kill 7-dog DET  
'Omini saw the child [that killed the dog].  
b. **\*ònbọ̀ng, (má) Òmìnì ọ́-ká wẹ́n [w-á ọ́-ffì \_\_\_\_]?**  
what MA Omini 1S-see 1.child 1-REL 1S-kill  
Lit: 'What did Omini saw the child [that killed \_\_\_\_]?' *ex-situ*

MARY AMAECHI

### Wh-question formation in Lokaa

- c. \*Òmìnì ígwà ó-ká wẹ̀n [w-á ó-fì bọ̀dọ̀ng (má)]?  
Omini PRO 1S-see 1.child 1-REL 1S-kill what MA  
Lit: 'Omini saw the child [that killed what]?' *in-situ*
- d. \*Òmìnì ó-ká wẹ̀n [w-á mbọ̀dọ̀ng, (má) ó-fì \_\_\_\_]?  
Omini 1S-see 1.child 1-REL what MA 1S-kill  
Lit: 'What did Omini saw the child [that killed \_\_\_\_]?' *partial*

### Sentential Subject Constraint

- (17) a. [ázáá wẹ̀n ó-fì ẹ̀-blà má] ó-kpán nàm.  
that 1.child 1S-kill 7-dog DET 1S-worry me  
'[That the child killed the dog] worries me.'
- b. \*mbọ̀dọ̀ng, (má) [ázáá wẹ̀n ó-fì \_\_\_\_] ó-kpán nàm?  
what MA that 1.child 1S-kill 1S-worry me  
Lit: 'What did [that the child killed \_\_\_\_] worries me.' *ex-situ*
- c. \*[ázáá wẹ̀n ó-fì bọ̀dọ̀ng (má)] ó-kpán nàm?  
that 1.child 1S-kill what MA 1S-worry me  
Lit: '[That the child killed what] worries me.' *in-situ*

### Adjunct condition – because clause

- (18) a. Úbì ó-nọ̀ yẹ-zọ̀ [ògẹ̀nà Ìsú ó-fì yì-nọ̀n].  
Ubi 1S-cook 6-yam because Isu 1S-kill 12-chicken  
'Ubi cooked yam [because Isu killed the chicken].'
- b. \*mbọ̀dọ̀ng, (má) Úbì ó-nọ̀ yẹ-zọ̀ [ògẹ̀nà Ìsú ó-fì \_\_\_\_]?  
what MA Ubi 1S-cook 6-yam because Isu 1S-kill  
'What did Ubi cooked yam [before Isu killed \_\_\_\_]?' *ex-situ*
- c. \*Úbì ó-nọ̀ yẹ-zọ̀ [ògẹ̀nà Ìsú ó-fì bọ̀dọ̀ng (má)]?  
Ubi 1S-cook 6-yam because Isu 1S-kill what MA  
'Ubi cooked yam [before Isu killed what]?' *in-situ*
- d. \*Úbì ó-nọ̀ yẹ-zọ̀ [ògẹ̀nà mbọ̀dọ̀ng, (má) Ìsú ó-fì \_\_\_\_]?  
Ubi 1S-cook 6-yam because what MA Isu 1S-kill  
'What did Ubi cooked yam [ before Isu killed \_\_\_\_]?' *partial*

Both ex-situ and in-situ wh-questions are islands for movement with regards to the complex DP islands illustrated with the relative clause in (16). Data (16b-c) indicate that movement either overt (ex-situ) or covert (in-situ) out of a relative clause in Lokaa is blocked. The sentential subject constraint forbids wh-movement out of a sentential subject (17), while the adjunct condition does not allow for movement out of an adjunct phrase such as *because* clauses. Under the sentential subject constraint and the adjunct condition, it is important to note that the in-situ strategies are grammatical but only under an echo question

MARY AMAECHI

### **Wh-question formation in Lokaa**

context. This means that the sentences cannot be used in an out-of-the-blue context with a genuine content question interpretation. Partial wh-movement inside an island is ungrammatical as the (d) examples in (16) and (18) show.

Coordinate structures in Lokaa are sensitive to islands. The data in (19) illustrate this. The sentence in (19b) shows the ban on extraction of one of the conjuncts. Example (19c) illustrate in-situ wh-interrogative which is grammatical. The partial wh-movement in (19d) involving one of the conjuncts is illicit.

#### Coordinate Structures

- (19) a. [Úbì òbá wẹ́n] yá-kòì é-plá.  
Ubi and child 2s-go 7-market  
'Ubi and the child went to the market.'
- b. \*nnèé, (má) [Úbì òbá \_\_\_\_] yá-kòì é-plá?  
who MA Ubi and 2s-go 7-market  
intended: 'Who and Ubi went to the market?' *ex-situ*
- c. [Úbì òbá nnèé (má)] yá-kòì é-plá?  
Ubi and who MA 2s-go 7-market  
Lit.: 'Ubi and who went to the market?' *in-situ*
- d. \*Òmìnì ó-bálè ò-bí nnèé, (má) [Úbì òbá \_\_\_\_] yá-kòì é-plá?  
Omini 1s-think 1s-that who MA Ubi and 2s-go 7-market  
Lit.: 'Omini think that who and Ubi went to the market?' *partial*

Note that the word òbá has both coordinative and comitative function in Lokaa (AMAECHI 2022), but the structure of òbá in (19) is coordination. This is because of the plural subject agreement attached to the verb. In the comitative usage with a meaning equivalent to 'Ubi went to the market with the child', the subject agreement is singular (20a). Furthermore, the prepositional phrase òbá wẹ́n 'with the child' can be extraposed (20b) showing that it is performing a comitative function and it is an adjunct. But in a coordination structure, the two conjuncts cannot be separated in such manner. This is why the plural subject agreement is not licit in (20b).

- (20) a. Úbì òbá wẹ́n ó-kòì é-plá.  
Ubi with 1.child 1s-go 7-market  
'Ubi went to the market with the child.'  
# 'Ubi and the child went to the market.'
- b. Úbì ó-kòì / \*yá-kòì é-plá òbá wẹ́n.  
Ubi 1s-go / 2s-go 7-market with 1.child  
'Ubi went to the market with the child.'

MARY AMAECHI

### **Wh-question formation in Lokaa**

Subject DP coordination is used in (19) because with object coordination the distinction between the coordinative and comitative usage is not clear-cut. The example in (21) is ambiguous between these two interpretations.

- (21) a. **Úbì ó-ká [è-blà òbá yì-nòn].**  
 Ubi 1s-see 7-dog and 12-chicken  
 'Ubi saw the dog and the chicken.'  
 'Ubi saw the dog with the chicken.'
- b. **mbòdng<sub>i</sub> (má) Úbì ó-ká [—<sub>i</sub> òbá yì-nòn]?**  
 what MA Ubi 1s-see and 12-chicken  
 Lit: 'What did Ubi see and the chicken?'  
 Lit: 'What did Ubi see with the chicken?'
- c. **?mbòdng<sub>i</sub> (má) Úbì ó-ká [è-blà òbá —<sub>i</sub>]?**  
 what MA Ubi 1s-see 7-dog and —<sub>i</sub>  
 Lit: 'What did Ubi see the dog and?'  
 Lit: 'What did Ubi see the dog with?'
- d. **Úbì ó-ká [bòdng (má) òbá yì-nòn]?**  
 Ubi 1s-see what MA and 12-chicken  
 Lit: 'Ubi saw what and the chicken?'  
 Lit: 'Ubi saw what with the chicken?'
- e. **Úbì ó-ká [è-blà òbá bòdng (má)]?**  
 Ubi 1s-see 7-dog and what MA  
 Lit: 'Ubi saw the dog and what?'  
 Lit: 'Ubi saw the dog with what?'

The examples in (21b-e) illustrate extraction of the one of the object DPs in either the coordinative or comitative structure. Based on comitative meaning, the degraded sentence in (21c) could be the result of preposition stranding which is not allowed in the language (AMAECHI 2022). Also, note that the extraction of the object does not require any resumption in the original base position of the moved wh-phrase. Data (21b-c) illustrate the ex-situ strategy, while (21d-e) exemplifies the in-situ strategy.

### **6.2 Superiority effects**

The so-called superiority effects have been observed in some languages such as English (22b), where in multiple wh-constructions one wh-phrase cannot be moved to the left over another wh-phrase (CHOMSKY 1977). The example (22a) where the wh-subject *who* precedes the wh-object *what* is grammatical but in (22b) in which case *what* is moved and precedes *who* is illicit in English. Thus, the data in (22a) show that English is a superiority-obeying language.

(22) a. Who saw what?  
b. \*What did who see?

(23) a. **nn̄ɛ́ (má) ó-ká bòng (má) d̄ɛ̀nd̄ɛ́ (má)?**  
 who MA 1S-see what MA where MA  
 'Who saw what where?'  
 b. **m̄bòng (má) nn̄ɛ́ (má) ó-ká d̄ɛ̀nd̄ɛ́ (má)?**  
 what MA who MA 1S-see where MA  
 'What did who see where?'  
 c. **d̄ɛ̀nd̄ɛ́ (má) nn̄ɛ́ (má) ó-ká bòng (má)?**  
 where MA who MA 1S-see what MA  
 'Where did who saw what?'

(24) a. á-bàló à-bí Ìsú ó-ká è-blà.  
2S-think 2S-that Isu 1S-see 7-dog  
'You think Isu saw the dog.'

b. ònẹẹ (má) á-bàló à-bí — ó-ká bọ̀yọ̀ng (má)?  
who MA 2S-think 2S-that — 1S-see what MA  
'Who do you think that saw what?'

c. m̀bọ̀yọ̀ng (má) á-bàló à-bí ònẹẹ (má) ó-ká?  
what MA 2S-think 2S-that who MA 1S-see  
\*'What do you think that who saw?'

41

MARY AMAECHI

## Wh-question formation in Lokaa

### 7. Matrix subject wh-questions

Matrix (local) subject wh-questions in Lokaa seem to show some reflex of displacement. This is often indicated with changes in the verb form. For instance, in the examples provided above with the verb **ká** ‘to see’, the change is observed via the tonal overwriting on the verbal subject agreement prefix. In the declarative clause in (25a), the agreement prefix bears a high tone. However, in the corresponding example (25b) with subject wh-questions, the tone on the prefix changes to low.

- (25) a. **Úbì ó-ká wẹ̀ẹ̀n.**  
Ubi 1S-see 1.child  
‘Ubi saw the child.’  
b. **̀̀nẹ̀ẹ̀ (má) ò-ká wẹ̀ẹ̀n?**  
who MA 1S-see 1.child  
‘Who saw the child?’

It is particularly interesting to note that this tonal change is absent in non-subject wh-questions as the examples in (26) indicate. In (26a), we have wh-object and (26b) illustrates wh-adjunct. In both questions, the verb form is the same as that found in the declarative sentence in (25a).

- (26) a. **̀̀nẹ̀ẹ̀ (má) Úbì ó-ká?**  
who MA Ubi 1S-see  
‘Who did Ubi see?’  
b. **dẹ̀ẹ̀ndẹ̀ (má) Úbì ó-ká wẹ̀ẹ̀n?**  
where MA Ubi 1S-see 1.child  
‘Where did Ubi see the child?’

Similarly, in the corresponding in-situ variants, where the wh-phrases are not moved to the clause-initial position, the declarative tone is found (27a). The same declarative verb tone is seen in long-distance displacement including extraction of the embedded subject. The relevant examples are shown in (27b-e).

- (27) a. **Úbì ó-ká ̀̀bọ̀dọ̀ng (má)?**  
Ubi 1S-see what MA  
‘What did Ubi see?’ *object in-situ*  
b. **̀̀nẹ̀ẹ̀ (má) ̀̀mìnì ó-bálẹ̀ ò-bí — ó-ká wẹ̀ẹ̀n?**  
who MA Omini 1S-think 1S-that 1S-see 1.child  
‘Who did Omini think that saw the child?’ *embedded subject*





MARY AMAECHI

## Wh-question formation in Lokaa

### 8. Lokaa wh-phrases are not focused

This section considers the basic properties of wh-questions in Lokaa and demonstrates that the wh-interrogatives in the language are not related to focus. A common feature in the three wh-question strategies exemplified in (1), and repeated here as (29), is the presence of the wh-phrase *nnèḗ* 'what' in both in-situ and ex-situ cases.

- (29) a. *nnèḗ (má) Òmìnì ọ-bálẹ̀ ọ-bí Úbì ọ-ká?*  
who MA Omini 1S-think 1S-that Ubi 1S-see  
'Who did Omini think that Ubi saw?' *ex-situ*
- b. *Òmìnì ọ-bálẹ̀ ọ-bí Úbì ọ-ká nnèḗ (má)?*  
Omini 1S-think 1S-that Ubi 1S-see who MA  
'Who did Omini think that Ubi saw?' *in-situ*
- c. *Òmìnì ọ-bálẹ̀ ọ-bí nnèḗ (má) Úbì ọ-ká?*  
Omini 1S-think 1S-that who MA Ubi 1S-see  
'Who did Omini think that Ubi saw?' *partial movement*

The wh-phrase is optionally followed by the element *má*. There is evidence that demonstrate that this element is not a focus particle. First is that the element is not found in focus constructions in the language. Focused constituents are often displaced in the language and they occur at the left edge of the clause where they are immediately followed by a complementizer that agrees with the focused constituent. Consider the sentences in (30). The data show that focused expressions and wh- phrases do not follow the same syntactic path in Lokaa.

- (30) a. *wẹ̀ḗn ọ-ká kẹ-tí ká ẹ-plá.*  
1.child 1S-see 5-tree at 7-market  
'The child saw the tree at the market.' *baseline*
- b. *wẹ̀ḗn ńgwà ọ-ká kẹ-tí ká ẹ-plá.*  
1.child 1.FOC 1S-see 5-tree at 7-market  
'The child saw the tree at the market.' *subject focus*
- c. *kẹ-tí ńsà wẹ̀ḗn ọ-ká ká ẹ-plá.*  
5-tree 5.FOC 1.child 1S-see at 7-market  
'The child saw the tree at the market.' *object focus*
- d. *ká ẹ-plá ńyà wẹ̀ḗn ọ-ká kẹ-tí.*  
at 7-market 7.FOC 1.child 1S-see 5-tree  
'The child saw the tree at the market.' *adjunct focus*

Another support for the argument that wh-phrases in Lokaa are not focused comes from the presence of the element *má* in yes/no questions. Just like in wh-

MARY AMAECHI

### **Wh-question formation in Lokaa**

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questions, the element is also optional in yes/no questions and can co-occur with the final question particle **ó**, cf. (31).<sup>7</sup>

- (31) a. **wẹ̀n (má) ọ́-ffí ẹ̀-blà ọ́?**  
1.child MA 1S-kill 7-dog Q  
'Did the child kill the dog?'
- b. **Úbì (má) ò-ká Ísúá (ó)?**  
Ubi MA 1S-see Isu Q  
'Did Ubi see Isu?'

The exact nature of this **má** element in both kinds of questions is still unclear, I leave that for future research. The fact that similar question particles are found in both wh-questions and yes/no questions in some (unrelated) languages has been used to argue that wh-phrases are not inherently interrogative or focused (ABOH and PFAU 2006).

A further argument that wh-phrases in Lokaa do not target the same focus position as focused constituents is that focused expressions and wh-phrases are not in complementary distribution. The data in (32) illustrate this point. The example in (32b-c) shows that we can have both the wh-phrase and the focused phrase in a single clause. In languages where the same specifier position is targeted by wh-phrases and focused constituent, these two elements are in complementary distribution where they occur to the left of the focus marker, especially in some Benue-Congo languages; see, for instance, ABOH (2004, 2007) for Gungbe and AMAECHI and GEORGI (2019) for Igbo.

- (32) a. **wẹ̀n ńgwà ọ́-ká kẹ̀-tí ká ẹ̀-plá.**  
1.child 1.FOC 1S-see 5-tree at 7-market  
'The child saw the tree at the market.'
- b. **mbòdòng (má) wẹ̀n ńgwà ọ́-ká ká ẹ̀-plá? mbòdòng**  
what MA 1.child 1.FOC 1S-see at 7-market what  
'What did the child see at the market?'
- c. **wẹ̀n ńgwà mbòdòng (má) ọ́-ká ká ẹ̀-plá?**  
1.child 1.FOC what MA 1S-see at 7-market  
'What did the child see at the market?'

Another argument that has been put forward for the distinction between focused and non-focused wh-phrases is that in question-answer pairs, focused wh-phrases require an answer containing a focused marked constituent but non-

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<sup>7</sup> The final question particle **ó** is also found in wh-questions for some speakers. One of my consultants reports that this is the case with older speakers.

MARY AMAECHI

### **Wh-question formation in Lokaa**

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focused wh-phrases do not seem to impose such a restriction on the answer (ABOH 2007:288). This is applicable to wh-questions in Lokaa where there is no requirement for an answer to a wh-question to contain a focused marked constituent. Speakers note that an answer with focus morphology can be used by the addressee if a particular constituent in the answer is to be emphasized. Thus, to a question such as *Who saw the tree at the market?*, the answer without a focused expression would be that in (30a), and if the addressee wishes to focus the subject, the sentence in (30b) can be used.

An approach that can be put forward here is that of Aboh (2007) in assuming that non-focused wh-phrases are wh-phrases that occur in other positions than the focus position in a split complementizer phrase (CP) system (RIZZI 1997). Aboh posits that non-focused wh-phrases occur in various IP-internal positions. He proposes a projection FP (33), for instance, that is within the clausal left periphery, lower than FocP but higher than TP and whose specifier (Spec FP) may host non-focused wh-phrases (ABOH 2007:310).

(33) [<sub>FocP</sub> [<sub>Foc</sub> [<sub>FP</sub> non-foc wh ...[<sub>TP</sub> ...]]]]

It is worth noting that Baker (2005) reports that fronted wh-phrases in Lokaa can be preceded or followed by the subject. He uses this free position of the subject to argue that they are dislocated (cf. Section 2). Consider the sentences in (34). Note that the questions below have a cleft structure.

- (34) a. **Ó-dà nnèé óóbòl ó-wòy té ó-déé kò-póó**  
1AGR-be who chief 1AGR-want SUBJ 1AGR-buy 11-cup  
'Who does the chief want to buy the cup?'  
b. **Òbóól ó-dà nnèé ó-wòyì té ó-déé kò-póó**  
chief 1AGR-be who 1AGR-want SUBJ 1AGR-buy 11-cup  
'Who does the chief want to buy the cup?' (BAKER 2005)

The free position of the subject does not affect the position of non-focused wh-phrases in Spec FP. The cases where the subject comes after the wh-phrase as in (34a) can be assumed to be instances of adjunction to CP, while cases such as (34b), where the subject precedes the wh-phrase are treated as adjunction of the subject to IP. The table below summarizes the differences between focus constructions and wh-questions in Lokaa.

MARY AMAECHI

### **Wh-question formation in Lokaa**

	Wh-questions	Focus
Focus (agreement) morphology	X	✓
Presence of question element <i>má</i>	✓	X
Focused constituents in question-answer pairs	X	–

Table 2 – Wh-questions versus focus in Lokaa

All in all, the absence of focus morphology in wh-questions in Lokaa, the presence of the same question particle in both wh-questions and yes/no questions, the non-mutual exclusivity of wh-phrases and focused constituents, and the absence of the requirement for non-focused constituents in question-answer pairs show that wh-questions in the language are not focused.

### **9. Conclusion**

This paper has examined aspects of wh-interrogatives in Lokaa with focus on the strategies of forming wh-questions in the language, and whether these strategies involve (wh-)movement or not. The data presented showed that Lokaa attests ex-situ, in-situ and partial wh-movement. It is also shown that embedded questions are formed via relativization. An interesting asymmetry found between (matrix) subject wh-questions and other wh-questions attested in Lokaa is further described, where the subject relative clause tone is triggered on the verb in the absence of an overt subject. While focus constructions and wh-questions have been claimed to have the same syntax in some African languages (SCHNEIDER-ZIOGA 2009, AMAECHI and GEORGI 2019), I provided evidence based on the absence of focus morphology in wh-questions in Lokaa, the presence of the same question particle in both wh-questions and yes/no questions, the non-mutual exclusivity of wh-phrases and focused constituents, and the lack of the need for non-focused constituents in question-answer pairs to show that wh-questions and focus do not have the same syntax in the language.

### **Abbreviations**

1/2/3/...14 = noun class; 1s/2s/3s...14s = noun class subject agreement; 1ss = first person singular subject agreement; AGR = agreement; DET = determiner; FOC = focus; FUT = future; GER = gerund; NEG = negative marker; PRO = pronominal; Q = question particle; REL = relative marker; SUBJ = subjunctive.

MARY AMAECHI

**Wh-question formation in Lokaa**

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