

# Question Formation in Ekhwa Adara

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## ABSTRACT (100 words)

This paper presents the first description of interrogative constructions in Ekhwa Adara. Key findings: polar questions involve final-lengthening and L% boundary tones; polar questions are optionally marked by sentence-initial Q particles; *wh-* movement is optional; ex-situ *wh-* obligatorily precedes a focus particle whose choice is determined by the *wh-* item; long-distance *wh-* in-situ is possible; long-distance subject *wh-* movement requires pronominal resumption; partial *wh-* movement is possible; indirect questions are formed via relativization, except when embedded under ‘ask’; multiple *wh-* questions exhibit an absence of superiority effects; and multiple *wh-* fronting might exist and be constrained by an anti-superiority condition.

## 1. INTRODUCTION

Adara (ISO 639-3 [KAD]), also known as Eda, Edra, and Kadara, is an under-documented Benue-Congo language spoken by approximately 300,000 (Hon et al. 2018) to 500,000 people (Simons & Fennig 2018) in Kaduna and Niger states in Nigeria, shown circled in Figure 1. Figure 2 provides a more detailed map of the Adara-speaking area of Nigeria taken from Hon et al. 2018, specifying the locations of the various Adara dialects. The area where Ekhwa Adara is spoken is circled on the map.



Figure 1. Map of Nigeria showing the Adara-speaking region

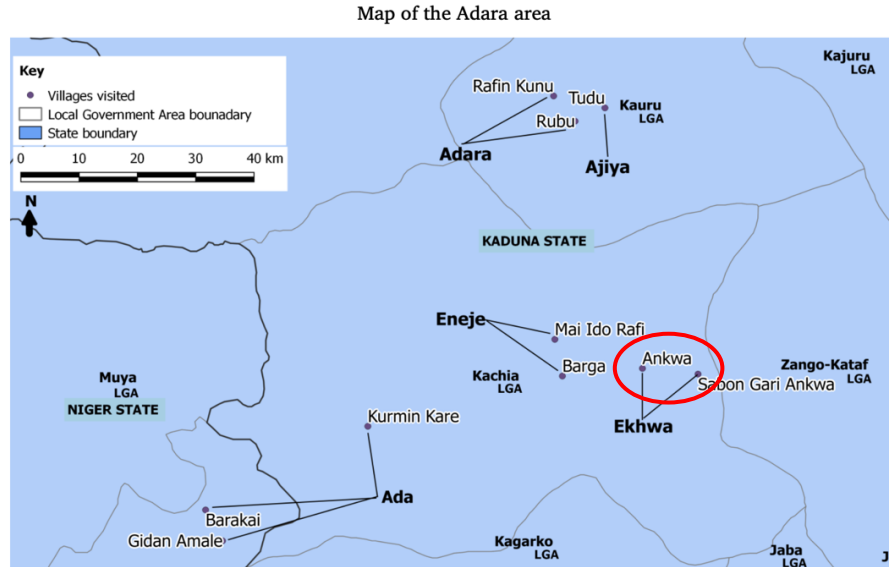


Figure 2. Map of the Adara-speaking area and its dialects (Hon et al. 2018)

Despite its large number of speakers, very little research has been done on Adara. This paper presents the first description of question formation in the language. Specifically, we investigate polar and *wh*- questions in Ekhwa Adara (EA)<sup>1</sup>, the least researched of Adara’s five dialects. Overall, we have found that polar questions in EA involve final-vowel lengthening + L% boundary tones and that *wh*- movement in the language is optional. Where *wh*- movement does occur, the ex-situ *wh*- item obligatorily precedes a corresponding focus marker whose choice is determined by *wh*-. Furthermore, both long-distance and partial *wh*- movement are possible in EA. Lastly and perhaps most remarkably, due to its heretofore unattested status in the grammars of African languages, EA possibly allows for multiple *wh*- fronting (we hesitate to fully commit to this claim due to unstable judgments observed over a year-long period), but is constrained by an anti-superiority condition.

This article is structured in the following way. In Section 2, we describe the formation of polar questions in EA. Section 3 details our findings on *wh*- questions in EA, including *wh*- in-situ phenomena, *wh*- movement (typical, partial, and long-distance), embedded question formation, and multiple *wh*- questions. We conclude in Section 4 with a summary of our key findings and questions for future research.

<sup>1</sup> The data and judgments presented in this paper come exclusively from fieldwork with the third author in the context of a Field Methods class taught at the CUNY Graduate Center in Fall 2022. Data are presented in IPA. Abbreviations for glosses follow the Leipzig Glossing Rules and include: ACC = accusative; DAT = dative; DEF = definite; FOC = focus; FUT = future; NOM = nominative; PERF = perfective; PROG = progressive; Q = question morpheme; REL = relative marker; SG = singular. The following diacritics are used to mark surface tone:  $\acute{V}$  = high,  $\grave{V}$  = low,  $\check{V}$  = mid;  $\hat{V}$  = falling.

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## 2. POLAR QUESTIONS

EA's primary polar question formation strategy is intonational in nature. Matrix polar questions involve final-vowel lengthening and L% tones, as is characteristic of the languages of the Sudanic belt region (Rialland 2007, 2009; Cahill 2012, 2015). We see that the declarative sentences in (1a), (2a), and (2c) below all contain a short final vowel which is lengthened in their polar interrogative counterparts ((1b), (2b), and (2d), respectively).

- (1) a. *ijâ sù kɪó*  
Ija PROG cry  
'Ija is crying.'
- b. *ijâ sù kɪó:*  
Ija PROG cry.Q  
'Is Ija crying?'
- (2) a. *omúsé ku ɔ́ utébur*  
Omuse PERF buy table  
'Omuse bought a table.'
- b. *omúsé ku ɔ́ utébû:r*  
Omuse PERF buy table.Q  
'Did Omuse buy a table?'
- c. *omúsé ku kɪó ɔɪàì*  
Omuse PERF cry yesterday  
'Omuse cried yesterday.'
- d. *omúsé ku kɪó ɔɪàì:*  
Omuse PERF cry yesterday.Q  
'Did Omuse cry yesterday?'

Furthermore, we see that intonational phrase-final high and mid tones, such as in (1a) *kɪó* 'cry' and (2a) *utébur* 'table', are both realized with falling pitch movements in their polar interrogative counterparts. In (1b), the phrase-final syllable *kɪó:* exhibits a falling tone and similarly in (2b), the final syllable of *utébû:r* is also realized with a falling tone. On the other hand, intonational phrase-final L tones such as in (2c) *ɔɪàì* 'yesterday' are still realized as L in their polar interrogative counterparts, as seen in (2d). Crucially, they are not realized with falling pitch movements. We also see that the sentences in (1) make use of the progressive aspect, whereas the sentences in (2) make use of the perfective aspect. The data therefore indicate that final-vowel lengthening and L% tone insertion are not tense/aspect dependent. Additionally, given that the final vowel quality in each example differs, we conclude that polar questions are formed by true vowel lengthening and not simply the addition of a uniform vowel, which occurs in some languages of the region (Rialland 2007; Cahill 2015).

Syntactically, polar questions may be marked by a clause-initial Q particle *kó*, which seems to be borrowed from Hausa (Bawa 2023). While this Q particle is optional in matrix polar questions (3a) and *wh-* in-situ constructions (3c), it is obligatory in embedded polar questions (3b).

- (3) a. (kó) ijâ sù kíô:  
 Q Ija PROG cry.Q  
 ‘Is Ija crying?’
- b. omúsé ku íó:ru kó ijâ ku kíô  
 Omuse PERF ask Q Ija PERF cry  
 ‘Omuse asked if Ija cried.’
- c. (kó) ijâ ku íó incí  
 Q Ija PERF buy what  
 ‘What did Ija buy?’

From (3b), we also see that in embedded polar questions, where the Q particle obligatorily appears in the embedded clause to mark the scope of the indirect question, there is no final-vowel lengthening or L% boundary tone. Thus, final-vowel lengthening and insertion of L% boundary tones represent main clause phenomena in the language, as in Ikpana (Kandybowicz et al. 2023).

### 3. *WH*- QUESTIONS

#### 3.1. *Wh*- *in-situ*

All argument *wh*- items may appear *in-situ* in root clauses. In (4), we observe the *wh*- item appearing in subject position (4a), direct object position (4b,d), and indirect object position (4c).<sup>2</sup>

- (4) a. iwé sú íó egbé  
 who FUT buy house  
 ‘Who will buy a house?’
- b. ijâ ku íi incí/iwé  
 Ija PERF see what/who  
 ‘What/who did Ija see?’
- c. ijâ ku dze iwé onsě  
 Ija PERF give who name  
 ‘Who did Ija give a name to?’
- d. ijâ ku dze awé-ń incí  
 Ija PERF give child-DEF what  
 ‘What did Ija give the child?’

As previously discussed in Section 2, the Q particle *kó* may optionally appear in root clause *wh*-*in-situ* questions. Currently, we only have evidence of its (optional) appearance in object root clause *wh*- *in-situ* questions such as (5a,b). We lack the data to determine whether Q may also

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<sup>2</sup> From (4c,d), we observe that in EA double object constructions, the indirect object immediately precedes the direct object.

appear in non-object root *wh*- in-situ constructions, but we suspect this to be the case.<sup>3</sup> Note that in (5b), we observe a focused *wh*- subject after *kó*. This, however, should not be considered an instance of Q-marking in an ex-situ *wh*- subject question because Q-marking does not occur in ex-situ *wh*- questions (note the absence of the Q particle in the data presented in section 3.2). Given our consultant’s emphasis on beginning an interrogative sentence with some indication of intent (either through the Q particle *kó* or an initial focused *wh*- phrase), the optional *kó* marker most likely signals that there is (at least) one in-situ interrogative expression following the subject.

- (5) a. (kó) ijâ ku ɔ́ incí  
       Q Ija PERF buy what  
       ‘What did Ija buy?’
- b. (kó) iwé ŋu ku ɔ́ incí  
       Q who FOC PERF buy what  
       ‘Who bought what?’

All adjunct *wh*- items may also appear in-situ in root clauses. This is demonstrated in (6) for a variety of adjuncts (locative (6a), temporal (6b), manner/quantity (6c) and reason (6d)).

- (6) a. ijâ ku ɔ́ egbé imbí  
       Ija PERF buy house where  
       ‘Where did Ija buy a house?’
- b. ijâ ku ɔ́ egbé ociná atú/apa  
       Ija PERF buy house which day/time  
       ‘When (i.e. which day/time) did Ija buy a house?’
- c. a sù ne otúmá-ŋ níní  
       3.SG PROG do work-DEF how  
       ‘How is s/he doing the work?’  
       ‘For how much (money) is s/he doing the work?’
- d. ijâ ku ɔ́ egbé-ŋ domín incí  
       Ija PERF buy house-DEF reason what  
       ‘Why did Ija buy the house?’

Long-distance *wh*- in-situ is also attested. All *wh*- items may appear in-situ in embedded clausal complements and take wide scope over the matrix clause. We observe this in (7), where the *wh*- items *iwé* ‘who’ (7a) and *incí* ‘what’ (7b) appear as the subject and object of the embedded clause, respectively. Crucially, these sentences cannot receive indirect question interpretations.<sup>4</sup> Instead, the sentences are interpreted as long-distance in-situ interrogatives, with the *wh*- item in the complement clause taking matrix scope.<sup>5</sup>

<sup>3</sup> Our consultant seems to prefer either ex-situ or focus marked in-situ *wh*- subject questions, at least in root contexts. This may explain why the Q particle is limited to *wh*- object questions in our dataset.

<sup>4</sup> As discussed in Section 3.3 below, this would require relativization.

<sup>5</sup> The Q particle *kó* is not required in this construction to mark the scope of the *wh*- element.

- (7) a. omúsé ga iwé ku íó egbé  
 Omuse say who PERF buy house  
 ‘Who did Omuse say bought a house?’  
 NOT: ‘Omuse said who bought a house.’
- b. omúsé ga ijâ ku íó incí  
 Omuse say Ija PERF buy what  
 ‘What did Omuse say Ija bought?’  
 NOT: ‘Omuse said what Ija bought.’

Embedded in-situ adjunct *wh*- expressions may only be interpreted as originating in the embedded clause. We demonstrate this in (8), where the *wh*- items ‘where,’ ‘when,’ ‘how much,’ and ‘why’ can only be interpreted as being generated in the embedded clause, that is, modifying the verb *íó* ‘buy’, as opposed to the matrix verb *ga* ‘say’.

- (8) a. omúsé ga ijâ ku íó egbé imbí  
 Omuse say Ija PERF buy house where  
 ‘Where did Omuse say Ija bought a house?’  
 ✓‘Where-buy’  
 \*‘Where-say’
- b. omúsé ga ijâ ku íó egbé ocná apa  
 Omuse say Ija PERF buy house which time  
 ‘When did Omuse say Ija bought a house?’  
 ✓‘When-buy’  
 \*‘When-say’
- c. omúsé ga ijâ ku íó egbé níní  
 Omuse say Ija PERF buy house how  
 ‘For how much did Omuse say Ija bought a house?’  
 ✓‘For how much-buy’  
 \*‘For how much-say’
- d. omúsé ga ijâ ku íó egbé domín incí  
 Omuse say Ija PERF buy house reason what  
 ‘Why did Omuse say Ija bought a house?’  
 ✓‘Why-buy’  
 \*‘Why-say’

### 3.2. *Wh*- Movement

#### 3.2.1. *Focus Particles*

EA is an optional *wh*- movement language. As we saw in section 3.1, all *wh*- arguments and adjuncts may remain in-situ with or without the initial Q particle *kó*. The interrogative phrase, however, may also be fronted to a clause-initial position preceding one of three specific focus

markers. The interrogative expression *iwé* ‘who’ must be followed by the particle *ɲu* when undergoing movement (9a).<sup>6</sup> In (9b), the direct object *mcí* ‘what’ is displaced from a postverbal position and obligatorily precedes a different focus particle, in this case, the morpheme *mo*.

- (9) a. *iwé* \*(*ɲu*) \_\_\_\_ *ku* .*ɔ́* *egbé*  
 who FOC \_\_\_\_\_ PERF buy house  
 ‘Who bought a house?’
- b. *mcí* \*(*mo*) *ijâ* *ku* .*ɔ́* \_\_\_\_  
 what FOC Ija PERF buy \_\_\_\_\_  
 ‘What did Ija buy?’
- (10) a. \**iwé* *mo* \_\_\_\_ *ku* .*ɔ́* *egbé*  
 who FOC \_\_\_\_\_ PERF buy house  
 Intended: ‘Who bought a house?’
- b. \**mcí* *ɲu* *ijâ* *ku* .*ɔ́* \_\_\_\_  
 what FOC Ija PERF buy \_\_\_\_\_  
 Intended: ‘What did Ija buy?’

The ungrammaticality of the examples in (10), in which the focus particles that follow the *wh*-phrase are switched, demonstrate that these markers are compatible only with specific *wh*-items – *iwé* must be paired with *ɲu* and *mcí* may only co-occur with *mo*. Furthermore, the examples in (11) show that the choice of *ɲu* or *mo* is truly dependent on the interrogative item itself and not on its syntactic relationship to the verb (e.g., case). As we can see, ex-situ *iwé* still requires *ɲu* when thematically linked to non-subject positions like direct objects (11a) and possessors of objects (11b). Likewise, ex-situ *mcí* selects the marker *mo* even when linked to the subject position (11c).

- (11) a. *iwé* *ɲu* *ijâ* *ku* *dá*  
 who FOC Ija PERF touch  
 ‘Who has Ija touched?’
- b. *iwé* *ɲu* *ijâ* *ku* .*ɔ́* *egbé-ɲ*  
 who FOC Ija PERF buy house-DEF  
 ‘Who did Ija buy a house from?’
- c. *mcí* *mo* *ku* *dá* *ijâ*  
 what FOC PERF touch Ija  
 ‘What has touched Ija?’

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<sup>6</sup> Unlike with long-distance *wh*-movement, there is no direct evidence in cases of monoclausal *wh*-questions that the subject is moved at all, since *wh*-items may be accompanied by a focus marker even when left in-situ, as shown in (15). There also seems to be a preference for the focus-marked construction when the interrogative phrase is the subject, while the same is not true for other arguments. Our point, in presenting (9a), is merely that, *if moved*, the *wh*-subject should behave like non-subject *wh*-items and require the focus particle *ɲu*.

There is a third focus marker, *ku* (*ko*), that appears in most *wh*- adjunct questions. Just like *iwé* ‘who’ and *mcí* ‘what’, which were only compatible with specific markers, most ex-situ *wh*- adjuncts can only be accompanied by the particle *ku*. As with the argument *wh*- items previously considered, fronted interrogative adjuncts obligatorily precede their accompanying focus markers. This is demonstrated in (12) with the adjuncts *imbí* ‘where’ (12a), *ocmá apa* ‘when’ (12b), and *níní* ‘how/for how much’ (12c). The *wh*- expression *domín mcí* ‘why’ (literally, ‘reason what’) is an exception – when fronted, *domín mcí* may either precede *ku* (*ku*), like all other *wh*- adjuncts, or it may precede *mo*, like *mcí* (12d).

- (12) a. *imbí* *ku/\*ɲu/\*mo* *ijâ* *ku* *.ɔ* *egbé* \_\_\_\_  
 where FOC Ija PERF buy house  
 ‘Where did Ija buy a house?’
- b. *ocmá apa* *ku/\*ɲu/\*mo* *ijâ* *ku* *.ɔ* *egbé* \_\_\_\_  
 which time FOC Ija PERF buy house  
 ‘When did Ija buy a house?’
- c. *níní* *ku/\*ɲu/\*mo* *a* *sù* *ne* *otúmá-ɲ* \_\_\_\_  
 how FOC 3.SG.NOM PROG do work-DEF  
 ‘How/for how much is s/he doing the work?’
- d. *domín mcí* *ko/mo/\*ɲu* *ijâ* *ku* *.ɔ* *egbé* \_\_\_\_  
 reason what FOC Ija PERF buy house  
 ‘Why did Ija buy a house?’

Both *ɲi* (*ɲo*) and *ku* (*ko*) also appear as focus particles in declarative sentences with focus fronting. Like in ex-situ interrogative constructions, focus markers follow left peripheral foci and the realization of the surfacing focus particle depends on the constituent it focus-marks. Consider the facts in (13) and (14), which illustrate.

- (13) a. *ijâ* *ɲo/\*ku* *.ɔ* *egbé*  
 Ija FOC buy house  
 ‘It is IJA who bought a house.’  
 Lit: ‘Ija it is who bought a house.’
- b. *ijâ* *ɲo/\*ku* *omúsé* *sú* *mani* \_\_\_\_ *ɔɲfó*  
 Ija FOC Omuse FUT teach song  
 ‘It is IJA that Omuse will teach a song (to).’
- c. *ená* *ɲo/?ku* *omúsé* *sú* *mani* \_\_\_\_ *ɔɲfó*  
 cow FOC Omuse FUT teach song  
 ‘It is a COW that Omuse will teach a song (to).’
- (14) a. *ɔɲfó* *ku/\*ɲu* *omúsé* *sú* *mani-ɲ* *ijâ* \_\_\_\_  
 song FOC Omuse FUT teach-3.SG.ACC Ija  
 ‘It’s a SONG that Omuse will teach Ija.’



- b. egbé ku/\**ɲu*/\**mo* ijâ ku .íó \_\_\_\_\_  
house FOC Ija PERF buy  
‘It’s a HOUSE that Ija bought.’

The data in (13) and (14) suggest that the choice of focus marker is related to animacy – focused animate DPs appear with *ɲu* (*ɲo*) (13), while focused inanimates are accompanied by *ku* (*ko*) (14). As before, the choice of either *ɲu* (*ɲo*) or *ku* (*ko*) does not seem to depend on the relationship of the moved phrase to other elements of the sentence (e.g., case, thematic role, etc.).

The focus markers introduced in this section are not limited to contexts in which an interrogative undergoes movement. *Wh*- items that remain in-situ may optionally precede these same particles (15).

- (15) a. ijâ ku dze iwé (ɲu) onsě  
Ija PERF give who FOC name  
‘Who did Ija give a name to?’
- b. ijâ ku .i incí (mo)  
Ija PERF see what FOC  
‘What did Ija see?’
- c. ijâ ku .íó egbé imbí (ku)  
Ija PERF buy house where FOC  
‘Where did Ija buy a house?’
- d. ijâ ku .íó egbé ociná apa (ku)  
Ija PERF buy house which time FOC  
‘When did Ija buy a house?’
- e. a sù nɛ otúmá-ɲ níní (ku)  
3.SG PROG do work-DEF how FOC  
‘How/for how much is s/he doing the work?’
- f. ijâ ku .íó egbé-ɲ domín incí (ko/mo)  
Ija PERF buy house-DEF reason what FOC  
‘Why did Ija buy the house?’

A list of EA *wh*- items and the focus particles they are compatible with is presented in Table 1 below.

FRONTED <i>WH</i> - ITEM	ACCOMPANYING FOC <sup>0</sup>
<i>iwé</i> ‘who’	<i>ɲu</i>
<i>incí</i> ‘what’	<i>mo</i>
<i>imbí</i> ‘where’	<i>ku</i>
<i>ociná atú/apa</i> ‘when’	<i>ku/ko</i>
<i>níní</i> ‘how’	<i>ku</i>
<i>domín incí</i> ‘why’	<i>ko/mo</i>

Table 1. EA *wh*- items and their accompanying focus particles

### 3.2.2. Long-Distance Movement

Long-distance *wh*- movement in EA exhibits the same dependencies between the moved phrase and its accompanying focus marker. Additionally, however, we see an asymmetry between subjects and non-subjects. The subject of an embedded clause, when fronted to sentence-initial position, must be resumed by an agreeing pronominal (16a), while resumption of displaced embedded objects is ungrammatical (16b). This is typical of languages in the region, such as Nupe (Kandybowicz 2008).

- (16) a. iwé    ɲu    omúsé    ga    \*(a)    ku    ɔ́    egbé  
 who    FOC    Omuse    say    3.SG.NOM    PERF    buy    house  
 ‘Who did Omuse say bought a house?’
- b. incí    mo    omúsé    ga    ijâ    ku    ɔ́    (\*ɲ)  
 what    FOC    Omuse    say    Ija    PERF    buy    3.SG.ACC  
 ‘What did Omuse say Ija bought?’
- c. imbí    ku    omúsé    ga    ijâ    ku    ɔ́    egbé  
 where    FOC    Omuse    say    Ija    PERF    buy    house  
 ‘Where did Omuse say Ija bought a house?’  
 ✓ ‘Where-buy’  
 ✓ ‘Where-say’
- d. ociná    apa    ko    omúsé    ga    ijâ    ku    ɔ́    egbé  
 which time    FOC    Omuse    say    Ija    PERF    buy    house  
 ‘When did Omuse say Ija bought a house?’  
 ✓ ‘When-buy’  
 ✓ ‘When-say’
- e. domín    incí    ko/mo    omúsé    ga    ijâ    ku    ɔ́    egbé  
 reason what    FOC    Omuse    say    Ija    PERF    buy    house  
 ‘Why did Omuse say Ija bought a house?’  
 ✓ ‘Why-buy’  
 ✓ ‘Why-say’

Examples (16c)–(16e) demonstrate that movement of a *wh*- adjunct in biclausal questions does not require pronominal resumption or any other indication of the position in which the *wh*- adjunct was generated. Accordingly, the sentences may receive either matrix or embedded interpretations, questioning the *saying* event or the *buying* event, respectively. This is in contrast to examples containing in-situ *wh*- adjuncts. As we saw earlier in (8), long-distance (i.e., embedded) *wh*- in-situ with adjuncts forces embedded interpretations, meaning that the *wh*- phrase can only be interpreted as modifying the lower clause verb.

### 3.2.3. Partial Movement

EA also allows partial *wh*-movement, that is, movement of an embedded interrogative to the initial position of a lower clause. When partially moved, *wh*- is accompanied by its corresponding focus particle (as discussed in section 3.2.1). Unlike in long-distance *wh*-questions, partially moved subjects in EA do not require pronominal resumption (17a), erasing the subject–non-subject asymmetry that was exhibited in (16a–b) above.

- (17) a. omúsé ga iwé ñu \_\_\_\_ ku .íó egbé  
 Omuse say who FOC PERF buy house  
 ‘Who did Omuse say bought a house?’
- b. omúsé ga incí mo ijâ ku .íó \_\_\_\_  
 Omuse say what FOC Ija PERF buy  
 ‘What did Omuse say Ija bought?’
- c. omúsé ga imbí ku ijâ ku .íó egbé \_\_\_\_  
 Omuse say where FOC Ija PERF buy house  
 ‘Where did Omuse say Ija bought a house?’  
 ✓ ‘Where-buy’  
 \* ‘Where-say’
- d. omúsé ga ociná apa ku ijâ ku .íó egbé \_\_\_\_  
 Omuse say which time FOC Ija PERF buy house  
 ‘When did Omuse say Ija bought a house?’  
 ✓ ‘When-buy’  
 \* ‘When-say’
- e. omúsé ga níní ku ijâ ku .íó egbé \_\_\_\_  
 Omuse say how FOC Ija PERF buy house  
 ‘For how much did Omuse say Ija bought a house?’  
 ✓ ‘How much-buy’  
 \* ‘How much-say’
- f. omúsé ga domín incí mo ijâ ku .íó egbé \_\_\_\_  
 Omuse say reason what FOC Ija PERF buy house  
 ‘Why did Omuse say Ija bought a house?’  
 ✓ ‘Why-buy’  
 \* ‘Why-say’

As with embedded in-situ questions, partial movement of the *wh*-adjuncts in (17c)–(17f) can only be interpreted as originating in the immediately-containing clause (at least in biclausal contexts). Questions formed in this way do not require long-distance movement to sentence-initial position to mark scope, nor do they require (or allow) the clause-initial Q marker *kó*. We can thus classify Ekhwa Adara as a Simple/Naked partial *wh*-movement language, referencing Fanselow’s (2006) typology. In this way, partial *wh*-movement in EA resembles partial *wh*-fronting in other West

African languages (e.g., Krachi (Torrence & Kandybowicz 2013, 2015); Bono and Wasa (Kandybowicz 2017, 2020); Avatime (Devlin et al. 2021); and Ikpana (Kandybowicz et al. 2021, 2023).

### 3.3. *Embedded Questions*

*Wh-* movement to the left periphery of the lower clause also occurs in the formation of embedded questions under the matrix verb ‘ask’ (18). This construction is identical to the partial *wh-* movement construction described above – both subjects and objects are moved without use of a resumptive pronoun and the clause-initial Q particle is absent. The scope of the *wh-* item in this case is limited to the lower clause due (presumably) to the semantic properties of ‘ask.’

- (18) a. omúsé ku ɪó:ru iwé ŋu — ku ɪó egbé  
 Omuse PERF ask who FOC — PERF buy house  
 ‘Omuse asked who bought a house.’
- b. omúsé ku ɪó:ru mčí mo ijâ ku ɪó —  
 Omuse PERF ask what FOC Ija PERF buy —  
 ‘Omuse asked what Ija bought.’

Indirect question complements of other embedding verbs are formed via relativization. The sentence in (19a) is nearly identical to that in (18a), apart from the matrix verb and aspect marking<sup>7</sup>; however, only the latter is grammatical. Local fronting of the *wh-* item within the lower clause does not achieve the intended reading in (19a) – i.e., it is not interpreted as an indirect question.<sup>8</sup> In order to attain the intended reading, it is necessary to use a relative clause construction. In the case of an embedded ‘who’ question, the relative clause is headed by *anú-ñ* ‘the person’ (19b), replacing the *wh-* phrase *iwé ŋu* ‘who’. In the case of an indirect ‘what’ question, the relative clause is headed by *ɔŋgã-ŋ* ‘the thing’ (19c) replacing *mčí mo* ‘what’. As indicated below, these structures translate more literally as ‘the person/thing that...’. Subject and object relative clauses of this type are both generally grammatical in EA, using this exact construction.

- (19) a. \*omúsé kpé.ɪ iwé ŋu ku ɪó egbé  
 Omuse know who FOC PERF buy house  
 Intended: ‘Omuse knows who bought a house.’
- b. omúsé kpé.ɪ anú-ñ da ku ɪó egbé  
 Omuse know person-DEF REL PERF buy house  
 ‘Omuse knows who bought a house.’  
 Lit: ‘Omuse knows the person who bought a house.’

<sup>7</sup> In many cases, we found a preference for certain sentences to be produced without overt aspect marking, even if the corresponding sentence with a marker was judged to be grammatical. Absence of the aspectual element in (19a), therefore, would not be expected to negatively affect its acceptability. If anything, we might expect it to improve it.

<sup>8</sup> It is also not clear to us at this stage of research whether (19a) can be parsed as an instance of partial *wh-* movement, with the moved phrase taking scope over the matrix clause. If neither of these interpretations is available, we assume that the difficulty is with lexical properties of the embedding verb *kpé.ɪ* ‘know’.

- c. omúsé kpé.ɪ ɔŋgǎ-ŋ da ijâ ku ɪó  
 Omuse know thing-DEF REL Ija PERF buy  
 ‘Omuse knows what Ija bought.’  
 Lit: ‘Omuse knows the thing that Ija bought.’

This limitation of true embedded questions to ‘ask’ complement clauses places EA on direct footing with Krachi (Torrence & Kandybowicz 2015), where identical facts obtain.

### 3.4. Multiple *Wh*- Questions

At present, we have observed three potential strategies for the formation of multiple *wh*- questions in EA: (i) all *wh*- items remain in-situ; (ii) one *wh*- item is fronted to clause-initial position, while the other(s)<sup>9</sup> remain(s) in-situ; and (iii) all *wh*- items are fronted (i.e., multiple *wh*- fronting). As expected, focus particles appearing in each of these three construction types must be the ones selected by the accompanying *wh*- item. We are certain that strategies (i) and (ii) exist in the grammar. We are less certain about the reality of strategy (iii) given unstable judgments observed over a one-year period, which we discuss below.

Beginning with strategy (i), example (20) demonstrates that multiple *wh*- questions may be formed simply by leaving all interrogative expressions in-situ.

- (20) (\*kó) omúsé sú mani iwé (ŋu) incí (mo)  
 Q Omuse FUT teach who FOC what FOC  
 ‘Who will Omuse teach what?’

Note that multiple *wh*- questions formed in this way may not be marked by the clause-initial Q particle *kó*<sup>10</sup>, despite the fact that the Q marker may optionally appear when a single *wh*- item is left in-situ (5). Although focus markers may optionally accompany each in-situ interrogative expression, there is a preference for realizing the focus particle after the first *wh*- item, but not the second.

Turning next to strategy (ii), example (21) demonstrates that multiple *wh*- questions formed by moving a single interrogative item may optionally be marked by the Q particle *kó*, unlike certain other types of *wh*- movement constructions in EA discussed in this paper (e.g., long-distance *wh*- movement, partial *wh*- movement, and possibly multiple *wh*- fronting, as described below). In example (21), we observe that the hierarchically inferior *wh*- item (the object ‘what’) is fronted, crossing over the higher in-situ interrogative (the subject ‘who’), an apparent violation of the superiority condition (Kuno & Robinson 1972; Chomsky 1973, 1977).

- (21) (kó) incí mo iwé ku ɪó \_\_\_\_\_  
 Q what FOC who PERF buy  
 ‘Who bought what?’

<sup>9</sup> We do not have any data pertaining to questions involving more than two *wh*- elements, though we suspect that such questions would also use this strategy.

<sup>10</sup> A sequence of two clause-initial occurrences of *kó* (i.e. one for each in-situ *wh*- item) is also prohibited in structures like (20).

Similar behavior in the distribution of moved interrogative phrases in multiple *wh*- fronting constructions (see below) also suggests an absence of superiority effects in the language. In this way, EA is similar to a number of other West African languages that have been shown to lack superiority effects outright (Saah 1994; Adesola 2005, 2006; Torrence & Kandybowicz 2015; Kandybowicz et al. 2023; Schurr et al. 2023).

The sentences in (22) below demonstrate strategy (iii) – fronting of multiple *wh*- phrases<sup>11</sup>. When more than one *wh*- item is moved to initial position,<sup>12</sup> the items are pronounced in an order inverse to the hierarchical position of their extraction sites.

- (22) a. omúsé sù mani ijâ ɔɲfó  
 Omuse FUT teach Ija song  
 ‘Omuse will teach Ija a song.’
- b. incí mo iwéj ɲu omúsé sù mani-\*(ɲ)<sub>j</sub> t<sub>i</sub>  
 what FOC who FOC Omuse FUT teach-3.SG.DAT  
 ‘Who will Omuse teach what?’
- c. \*iwéj ɲu incí mo omúsé sù mani-\*(ɲ)<sub>j</sub> t<sub>i</sub>  
 who FOC what FOC Omuse FUT teach-3.SG.DAT  
 Intended: ‘Who will Omuse teach what?’

The canonical ordering of the two lower arguments in a double-object construction places the indirect object in a position immediately preceding the direct object (22a). When both of these arguments are fronted, as in (22b), however, the direct object interrogative (‘what’) must precede the indirect object (‘who’). The reverse order, which would both respect the superiority condition and remain closer in form to the canonical EA word order, was consistently judged ungrammatical (22c). Assuming the accuracy of these judgment contrasts, we therefore observe a kind of anti-superiority effect in EA multiple *wh*- movement constructions – the initial fronted *wh*- item must be hierarchically inferior to the other(s). The acceptability of sentences like (22b) might also suggest a recursive FocP domain in the EA left periphery (contra Rizzi 1997), unlike what we see in other African languages (e.g., Aboh 2004). However, the availability of focus-marking on in-situ *wh*- elements in the language (see (15)) likely supports an alternative analysis in which the peripheral focus particles that surface in multiple *wh*- fronting structures are more accurately “term focus” markers.

Further research is needed to determine whether multiple *wh*- fronting truly exists in the grammar as a productive multiple question formation strategy. The judgments reported in (22) were observed stably from late 2022 to summer 2023, leading to the initial conclusion that multiple *wh*- fronting exists in the language. However, in fall 2023, structures like those in (22b) were consistently judged ungrammatical, leading to our present reluctance to fully commit to the existence of multiple *wh*- fronting in the grammar. The third author of this paper (our language

<sup>11</sup> Since focused in-situ subjects are indistinguishable from their moved counterparts, we avoid presenting multiple *wh*- movement structures in which one interrogative is the subject. We attempted to elicit multiple *wh*- fronting structures in which one of the moved elements was an adjunct, but the types of marginal judgements that we received for these require further investigation.

<sup>12</sup> We have only collected monoclausal multiple *wh*- questions so far. ‘Initial’ here, therefore, means both clause- and sentence-initial, but we have not yet determined that this must be the case.

consultant) speculates that the availability of multiple *wh*- fronting may have an inter-generational dimension, reporting that older EA speakers like his mother or grandparents seemingly allow/produce multiple *wh*- fronting structures. If all three multiple *wh*- question formation strategies are indeed available in the grammar, strategies (i) and (ii) are clearly preferred over strategy (iii). Of relevance to the question of whether multiple *wh*- fronting truly exists, we note that multiple focus movement does not seem to be available in declarative sentences, as shown in (23).

- (23) a. \*ɔŋfó<sub>i</sub> ku ijâ<sub>j</sub> ɲo omúsé sú mani \_\_\_<sub>j</sub> \_\_\_<sub>i</sub>  
 song FOC Ija FOC Omuse FUT teach  
 Intended: ‘It’s a SONG Omuse will teach Ija.’
- b. \*ijâ<sub>i</sub> ɲo/ku ɔŋfó<sub>j</sub> ku omúsé sú mani \_\_\_<sub>i</sub> \_\_\_<sub>j</sub>  
 Ija FOC song FOC Omuse FUT teach  
 Intended: ‘Omuse will teach IJA a SONG.’

In order to emphasize more than one non-interrogative argument in the clause, the preferred strategy is to leave one item in-situ with a change in intonation (represented by all caps), as shown in (24).

- (24) ɔŋfó ku omúsé sú mani IJÂ  
 song FOC Omuse FUT teach Ija  
 ‘It is a SONG that Omuse will teach IJA.’

The absence of multiple focus-fronting in this context potentially casts doubt on the existence of multiple *wh*- fronting in the language (or at least in the grammar of the third author/others of his generation). If it does exist, something we leave for future research, then EA is exceptional in its behavior regarding multiple *wh*- questions, as it employs a multiple fronting strategy that is not found (as far as we know) in any other African language.

#### 4. CONCLUSION

We summarize our key findings on question formation in Ekhwa Adara as follows. Polar questions in EA are primarily formed using final-vowel lengthening and L% boundary tone insertion. Furthermore, they are optionally marked by the sentence-initial Q particle *kó*. The only exception to this rule is found in embedded polar questions, which require the presence of an embedded left peripheral Q particle and the absence of final-vowel lengthening + L% boundary tones. Regarding movement, EA is an optional *wh*- movement language. When there is movement, the *wh*- item obligatorily precedes a focus marker, which can also optionally be used with in-situ *wh*- phrases. There is a selectional dependency between the *wh*- item and the accompanying focus marker in all contexts. EA allows for long-distance *wh*- movement as well as simple (naked) partial *wh*- movement. Indirect questions in the language are formed via relativization, except when embedded under the verb ‘ask’, which involves *wh*- movement to the left periphery of the embedded clause. EA potentially has three distinct strategies for forming multiple *wh*- questions: (i) all *wh*- items remain in-situ; (ii) one *wh*- item is fronted to clause-initial position, while the other(s) remain(s) in-situ; and (iii) multiple *wh*- fronting, a phenomenon that to the best of our knowledge is

(currently) unattested in any other African language. Multiple *wh*- movement, to the extent that it truly exists in the grammar, is constrained – the initial fronted *wh*- item must be hierarchically inferior to the other(s), an effect we have characterized as an anti-superiority effect. Despite the existence of the anti-superiority effect in multiple *wh*- fronting constructions, *wh*- movement in EA is not constrained by the superiority condition that limits *wh*- movement in languages like English.

Our investigation into EA question syntax is ongoing. Future work will address the following issues (among others) related to the content of this paper: a fuller description of the distribution of optional Q particle *kó*; a better understanding of the various focus particles and the selectional dependency between them and *wh*- items; and an assessment of whether multiple *wh*- fronting truly exists in the grammar and if so, a structural analysis of multiple *wh*- fronting that derives the fact that the initial fronted *wh*- item must be hierarchically inferior to the other(s), given the absence of superiority effects in the language. We hope our description of the EA interrogative system inspires further research on the grammar of this considerably under-documented language.

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