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Documenting the Ikpana interrogative system

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Abstract: This article provides a comprehensive treatment of the interrogative system of Ikpana (ISO 639-3: lgq), an endangered language spoken in the south-eastern part of Ghana's Volta region. The article features a description and analysis of both the morphosyntax and intonation of questions in the language. Polar questions in Ikpana are associated with dedicated prosodic patterns and may be segmentally marked. As for *wh*- interrogatives, Ikpana allows for optional *wh*-movement. Interrogative expressions may appear clause-internally in their base-generated positions or in the left periphery followed by one of two optionally droppable particles with distinct syntactic properties. In this way, *wh*- movement structures are either focus-marked constructions or cleft structures depending on the accompanying particle. We identify an interesting *wh*- movement asymmetry – unlike all other *wh*- movement structures, 'how' questions may not be formed via the focus-marked or cleft strategy. We document a number of other attested *wh*- structures in the language, including long-distance *wh*- movement, partial *wh*- movement, long-distance *wh*- in-situ, and multiple *wh*- questions. We argue that by allowing our documentation efforts to be shaped and guided by theoretically driven research questions, we reach deeper levels of description than would have been possible if approached from a purely descriptive-documentary perspective.

Keywords: cleft constructions; endangered language documentation; focus constructions; Ikpana; interrogative intonation; polar questions; *wh*- interrogatives; *wh*- movement; *wh*- in-situ

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Abstract in Ikpana: Utrɔme ɔme uflɛ ibugo ilɔwɔ kpɛ ilɔŋɔnyigowɔ Ikpana nu, uvufɛ ugbewago ɔkpɛ xe obo Ghana ivantsi okunkpɛ xe ibo Volta ivantsi okunkpɛ xe ibo etsibanu evibume. Iŋɔnyigoe igbla iqɔgo kpɛ itsigo xe itsi "ugbeɛqutsi" (morphosyntax) kpɛ "ugbeɛ idzugo" (intonation) xe itsi "aguzɔgo" (polar questions) kpɛ ɔmɔ, mɛ, imɔa, mɛɔkple (*wh*- questions) ibugowɔ xe itsi ugbeɛ nuɛ. Aŋɔnyibi ɔgbanu atsi ziɛ iqu ɔgbanugblago ta ivanunago ilɔ bugo gu ugbe yo. Atsi he ilɔ tɛ ɔgbanu ɔmɛ ɔmla wu imuigoe xe iqɔgoe xe ibo ugbeɛ nu fie ɔgbanu kpoyi xe ami xe miqu ivanunago ilɔbugo ɔgbanuwɔ.

1 Introduction

In this article, we provide a comprehensive documentation of the interrogative system of Ikpana [ìkpáná] (Logba[1]) [ISO 639-3: lgq], an endangered indigenous language spoken by about 7,500 **Akpanawo** 'Logba people' (Dorvlo 2008; Eberhard et al. 2019) in southeast Ghana. Principally spoken in a handful of towns at or near the Ghana-Togo border in the Volta Region (see Figure 1), Ikpana is among the southernmost of the 15 languages from the Ghana-Togo Mountain (GTM) group. Data from this paper primarily comes from working with eight native speakers of the Alakpeti dialect ranging in age from early 40s to late 70s. Speakers from two towns in the Ikpana speaking area (Logba-Alakpeti and Logba-Tota) as well as a larger city nearby (Ho) were consulted as part of a collaborative project to document question formation strategies among GTM languages in this region. In terms of dialect coverage, the discussion below represents a description and analysis of the interrogative system of Alakpeti Ikpana most extensively, and Tota Ikpana secondarily.[2] When unspecified in this article, the grammatical properties discussed are those of the Alakpeti variety.

In addition to building upon previous descriptive work on Ikpana grammar (Dorvlo 2004, 2007, 2008a, 2008b, 2009a, 2009b, 2010, 2011a, 2011b; Westermann 1903), our goal in this article is to contribute to the rising trend of theoretically informed description and documentation of African languages (Duncan et al. to

1 Ikpana is also known by the Ewe-derived exonym "Logba" in linguistic literature. The speakers who we worked with preferred to use the name Ikpana to refer to their language, even when speaking in English. To respect this preference, we adopt the endonym in this paper.

2 Concerning dialects, it is presently unclear as to how many distinct dialects of Ikpana exist. According to Dorvlo (2008), Ikpana-speaking people live in eight settlements located in close proximity to each other and dialectal variation is fairly unpronounced. There are, however, at least two distinct varieties that can be differentiated primarily on phonological grounds and with regard to lexical influence by Ewe – the Tota variety and the Alakpeti variety. This article focuses primarily on the grammatical system of Alakpeti Ikpana, although the intonational material stems from work with speakers of both dialects.

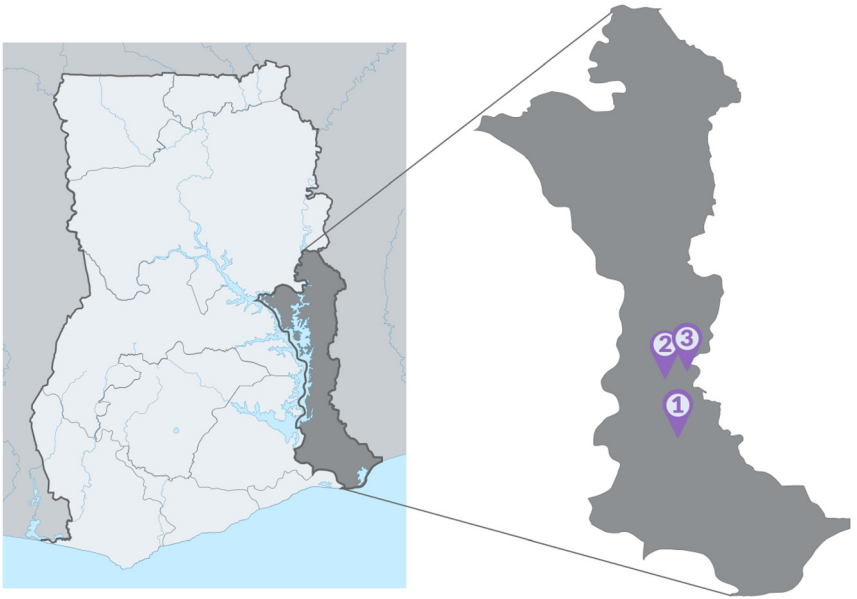

Figure 1: Map of Ghana with the Volta region highlighted and approximate locations for Ho (1), Logba-Alakpeti (2), and Logba-Tota (3). Map adapted from Location of Volta in Ghana by Profoss (CC BY-SA 3.0).

appear; see also Henderson 2011; Kandybowicz and Torrence 2017). With that in mind, the facets of Ikpana interrogatives we orient to here are a blend of descriptive typological properties and constructions that typically hold import within theoretical syntactic approaches to interrogatives, particularly those within the Generative tradition. Examples of some of these theoretically inspired aspects of the language's interrogative system documented in this article include: *wh-* in-situ (local and long-distance); *wh-* scope; positional height differences of *wh-* items in the left periphery; and partial *wh-* movement, among others. This methodological stance likewise informed our methods of data collection, which included both structured targeted elicitations and text collection.

This article is structured as follows. In Section 2 we provide a very brief overview of the grammatical features of Ikpana that are most relevant for the interrogative documentation in this article. Following this, Sections 3 and 4 introduce key descriptive properties of Ikpana questions. Section 3 investigates polar questions, while Section 4 documents *wh-* (i.e., content) questions. For both question types, in addition to morphosyntactic marking strategies and syntactic considerations of distribution, word order, structural positioning, and syntactic symmetries and asymmetries, we also develop an account of the intonational

patterns found across interrogative constructions. This latter component further distinguishes our work from more traditional approaches to the description and documentation of (endangered) African languages. The article concludes with a brief summary and closing thoughts in Section 5.

2 Overview of relevant aspects of Ikpana grammar

As is common among GTM languages (and more broadly, Niger-Congo West African languages), Ikpana is a tonal,[3] pro-drop language with SVO word order in standard declarative clauses encoding transitive events and SV order in intransitive ones. The following data illustrate.

(1) a. **e-bitʃi-e** **ɔ̀-gá** **o-klòntʃí.**
CM-child-DET SM-read.PST CM-book
'The child read a book.'

b. **ɔ-sɔ́** **ò-hú** **zɔ́** **o-gba** **yó.**
CM-horse SM-run.PST go CM-road skin
'A horse escaped to the side of the road.'

c. **ɔ̀-nɔ́** **kɔ́fì.**
SM-drink.PST coffee
'S/he drank coffee.'

d. **o-lóku.**
SM-be.sick.PRS
'S/he/it$_{ANIM}$ is sick.'

As each of the examples in (1) show, verbal prefixes covary with subjects (hence, we gloss these as SM for 'subject (agreement) marker'). Nouns in general similarly take prefixes and function as class markers (glossed as CM for 'class marker').[4] Although Ikpana possesses a rich system of tense and aspect markers that surface preverbally (see, e.g. (2) below), tense/aspect marking is often null for simple past and simple present clauses. Interestingly, though, null tense morphology does not uniformly encode a single tense value. Instead, null tense marking interacts with

3 In this article, we present transcriptions of the surface realizations of tones. We use the following to mark surface tone in our examples: V́ = high, V̀ = low, V = mid (unmarked), V̌ = rising, V̂ = falling.
4 See Dorvlo (2011) for the most extensive treatment of noun class marking in Ikpana, as well as discussion that the different noun class prefixes may (at least partly) have a semantic basis. Because the noun classes of Ikpana, as described by Dorvlo, are not identified numerically in the literature, we adopt Dorvlo's convention of glossing class prefixes as undifferentiated "CM"s (class markers).

verb semantics to produce either a past reading, as is the case with active transitive verbs like **gá** 'read' (1a) and **nɔ́** 'drink' (1c) and serial verb constructions such as **hú** + **zɔ́** 'escape' in (1b),[5] or a present reading, as in the case of the stative verb **lóku** 'be sick' in (1d).

Ikpana formatives can be either isolating or concatenative. The concatenative verbal/tense person markers exhibit cumulative exponence (encoding phi features such as person and number) and most other formatives exhibit separative exponence. Flexivity is common and driven by morphophonological processes, such as epenthetic segments for vowel hiatus resolution, or allomorphy due to vowel harmony. For example, the sentences in (2) below show allomorphs of the progressive aspect marker and future tense markers, realized as **ló/lé** 'PRS.PROG' and **bó/bé** 'FUT', respectively.

(2) a. **o-ló** **núma.**
SM-PRS.PROG fall.down
'S/he's falling.'
b. **o-bó** **numà.**
SM-FUT fall.down
'S/he will fall.'
c. **e-lé** **núma.**
SM-PRS.PROG fall.down
'They're falling.'
d. **e-bé** **numà.**
SM-FUT fall.down
'They will fall.'

According to Dorvlo (2008), the underlying form of the present progressive and future markers are /lú/ and /bá/, and their allomorphs are predicted by the vowel quality of the prefixal subject marker. This is because vowel harmony is a robust feature in Ikpana, just like the other GTM languages. In (2), the subject marker determines the vowel quality of the progressive aspect marker through progressive harmony: if the subject marker is **o-** then the vowel on the tense/aspect marker surfaces as [o] (2a–b), whereas if the subject marker is **e-** then the vowel on tense/aspect is realized as [e] (2c–d). Additionally, lexical roots trigger vowel-harmony-derived allomorphy, and tongue root harmony serves as a key determining factor in such. Examples of this type can be seen in the forms of third person singular subject markers and noun class markers affixed onto verb and noun roots in

5 See Dorvlo (2008: 194, ex. 10) for an alternative serial verb construction meaning 'escape'. According to a speaker we worked with from Logba-Tota, the choice of V_1 in the construction in (1b) is unique to the Tota variety of Ikpana.

(1) above: roots with +ATR vowels trigger +ATR affixes (e.g., the verb **hú** 'run' takes the +ATR **o-** as the subject marker and the noun **klòntʃí** 'book' takes the **o-** class marker), whereas roots with −ATR vowels trigger −ATR affixes (e.g., the verbs **nɔ́** 'drink' and **gá** 'read' take **ɔ-** as the subject marker).

The left periphery of the Ikpana clause is highly articulated. Here we briefly touch on two types of expressions that inhabit the left periphery, namely topics and foci, simply to illustrate the existence of dedicated phrasal pre-subject positions employed for information structural purposes. The word order of an SVO structure like (1a) can undergo various permutations. If the direct object 'a book' is fronted to a left peripheral pre-subject position and an agreeing resumptive pronoun appears in the expression's original thematic position, as in (3a), the object will be interpreted as a topic (old/backgrounded information). Note that in topicalization structures, the topicalized expression is not marked by an overt morpheme and the resumptive occurrence is obligatory. If, however, the fronted object does not co-occur with a resumptive pronoun, as in (3b), the peripheral occurrence will receive a focus interpretation (new information). As we will discuss later in Sections 4.3.2 and 4.3.3, the fronted focused constituent may optionally be followed by the focus marker **ka** in the Alakpeti variety. (In Tota Ikpana, **ka** is not used to mark focus.) The interpretations of the speakers we worked with seem to suggest that these constructions receive contrastive focus interpretations. For example, speakers indicated that a construction like the one in (3b) might be used in a conversation to correct someone who was mistaken about what the child had read. Moreover, (3b) is both true and felicitous as a response in a context where the child read both a book and a magazine, suggesting that the nature of focus is not exhaustive (for exhaustive focus, we might expect (3b) to be false in this context).

(3) a. **o-klòntʃí e-bitʃi-e ɔ̀-gá *(é).**
CM-book CM-child-DET SM-read.PST 3SG.OBJ
'A book, the child read.'

b. **o-klòntʃí (ka) e-bitʃi-e ɔ̀-gá.**
CM-book FOC CM-child-DET SM-read.PST
'The child read A BOOK.'

We assume that, excluding complementizers and structurally high speaker-oriented adverbs, constituents appearing in non-canonical positions before the subject occupy a position in the clausal left periphery.

3 Polar questions

Ikpana marks polar questions with a sentence-final affix and a high boundary tone (Dorvlo 2008). Global intonation contours for polar interrogative and non-interrogative sentences are quite similar then, with the salient difference occurring at the right edge of each construction type (discussed in more detail below). The examples in (4) illustrate these properties, with declarative input sentences in (4a, c, e) and their polar interrogative counterparts in (4b, d, f).

(4) a. **à-kpɛ́ u-dântʃì i-kpégò.**
SM-eat.PST CM-morning CM-food
'You have eaten breakfast.'

b. **à-kpɛ́ u-dântʃi i-kpégŏ:?**
SM-eat.PST CM-morning CM-food.Q
'Have you eaten breakfast?'

c. **Kofí ɔ̀-zá a-zaì.**
Kofi SM-cook.PST CM-beans
'Kofi cooked beans.'

d. **Kofí ɔ̀-zá a-zaĭ:?**
Kofi SM-cook.PST CM-beans.Q
'Did Kofi cook beans?'

e. **Kofí ɔ̀-zá a-zaì u-namè.**
Kofi SM-cook.PST CM-beans CM-yesterday
'Kofi cooked beans yesterday.'

f. **Kofí ɔ̀-zá a-zaì/* a-zaĭ: u-namĕ:/*u-namè?**
Kofi SM-cook.PST CM-beans CM-yesterday.Q
'Did Kofi cook beans yesterday?'

As the interrogative examples show, polar question marking surfaces as -V, a segmentally unspecified suffix that triggers vowel lengthening. This means that there are as many allomorphs of the question suffix as there are vowels in the language, since all vowels can appear word-finally (such as **-o**, **-i**, and **-e** in these examples). Moreover, as can be seen by comparing the tone on the rightmost element in the declarative sentences with the tone of the rightmost element in the polar questions, vowel lengthening co-occurs with a tonal rise at the right edge sentence boundary for the sentences in (4). Therefore, the form of the object 'food' in the declarative sentence is **i-kpégò** (4a), which becomes **i-kpégŏ:** in the interrogative construction in (4b). (This word can also be pronounced **i-kpégò-wó**, with optional epenthetic [w] appearing as a strategy for vowel hiatus resolution.) Similarly, we see alternations between **a-zaì** 'beans'

and **a-zaĭ:** in (4c–d), and between **u-namè** 'yesterday' and **u-namĕ:** in (4e–f). In addition to the morphophonological form of the question suffix itself, the examples in (4e–f) also show that its syntactic distribution is obligatorily clause-final. When the adverb **u-namè** 'yesterday' is added to the base SVO sentence in (4c), the result is (4e), with the adverb appearing sentence-finally. Importantly, (4f) shows that the sentence-final adverb, when present, must carry the question suffix. The concomitant tonal rise supports the notion that polar question formation involves an H% boundary tone, for which we provide further supporting evidence below.

We turn now to analyze the differences in intonation patterns of polar questions in Ikpana compared to that of declarative sentences. In doing so, we provide support for our claim that polar questions are marked by an H% boundary tone, whose effect is realized on the sentence-final lengthened vowel. The intonational data analyzed in both this section and in Section 4.5 were elicited from eight native speakers (six males and two females: M1 [age: 70s, dialect and residence: Alakpeti Ikpana], M2 [age: 40s, dialect and residence: Alakpeti Ikpana], M3 [age: 70s, dialect: Tota Ikpana; residence in Logba-Alakpeti], M4 [age: 60s, dialect and residence: Tota Ikpana], M5 [age: 50s, dialect and residence: Tota Ikpana], M6 [age: 70s, dialect and residence: Tota Ikpana], F1 [age: 50s, dialect and residence: Alakpeti Ikpana], F2 [age: 60s, dialect and residence: Alakpeti Ikpana]). To distinguish intonational pitch variation from lexical tone, tonally controlled sentences were constructed mostly with sonorant segments. Additionally, the sentences are all in the present tense to avoid use of the past tense tone, which lowers the pitch on the subject marker. Speakers were instructed to produce each sentence with a neutral focus in two speech styles, namely, careful and natural speech. The careful speech style is characterized by having a pause between each word and, often, the absence of vowel hiatus. The natural speech style is characterized by abundance of vowel hiatus resolution, in which a word-final vowel (V1) is usually deleted or changed into a glide before a word-initial vowel (V2) (typically a noun class marker) if the vowel is high (/i/ → [j], /u/ → [w]). When this occurs, we assume that the vowel retained (V2) is re-syllabified with the onset of the deleted vowel (V1) in the surface representation (i.e., /CV1.V2/ → [CV2]). An exception to this is that a hiatus between a subject and a verb is often resolved by an assimilation in vowel quality from V1 to V2. Recordings were analyzed in Praat (Boersma and Weenink 2017) with four tiers: lexical tones and a boundary tone (Tier 1), Ikpana words (Tier 2), the English gloss of each word (Tier 3), and the English translation of the sentence (Tier 4). It should be noted that the pitch tracks that follow are all read in natural speech, and that Ikpana words are delineated based on the surface representation

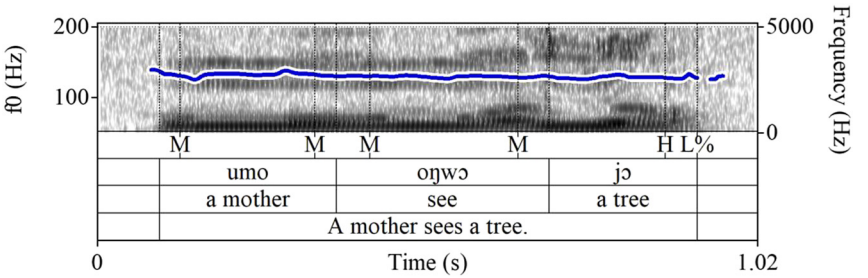

Figure 2: Sample pitch track showing the effect of L% in a declarative sentence ending with a lexical H tone.

of sentences (i.e., after vowel hiatus resolution and the subsequent re-syllabification occurs).

Figure 2 shows the pitch track of a declarative sentence, which consists of lexical M tones and a sentence-final lexical H tone. As observed, the lexical H tone of the sentence-final object noun **ɔ-jɔ́** '(a) tree' is lowered and realized with an F0 equal to that of the preceding lexical M tones. This is due to the effect of the L% boundary tone associated with the sentence-final position (Katsuda 2020).

In polar questions, however, the sentence-final lexical H tone remains high. This can be seen in Figure 3, where the lexical tone of the sentence-final object noun **ɔ-jɔ́ɔ́** '(a) tree.Q' is realized higher than the preceding lexical M tones, and retains its high pitch throughout the lengthened vowel. We attribute this high pitch maintenance to the effect of the H% boundary tone.

The effects of boundary tones can also be detected in sentences ending with lexical L tones. Figure 4 shows the pitch track of a sentence that ends with an object noun carrying a lexical L tone (**ò-wò** '(a) bee'). Here, the lowering effect of

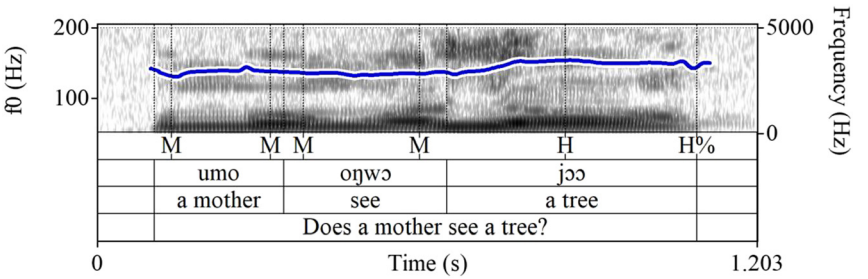

Figure 3: Sample pitch track showing the effect of H% in a polar question ending with a lexical H tone.

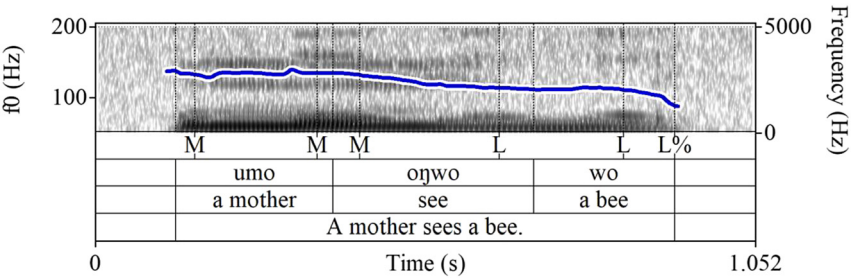

Figure 4: Sample pitch track showing the effect of L% in a declarative sentence ending with a lexical L tone.

the L% boundary tone is especially pronounced, as the sentence-final L tone becomes realized as a falling pitch movement in the declarative sentence, resulting in **ò-wô:**. We take the falling contour to be an artifact of standard L being the lowest lexical tone in the Ikpana system, whose F0 is driven even lower in the presence of L%. An anonymous reviewer asked why the second syllable of the verb "see" is realized as an L tone while the same syllable is an M tone in Figures 2 and 3. This is because the second vowel of the original (underlying) verb form **o-ŋu** becomes a glide (i.e., [w]) due to being followed by the vowel-initial object noun **ò-wò** "a bee". As a result, the initial L-tone bearing vowel of the object noun is resyllabified with the preceding glide. See Baron Obi (2019a, 2019b) and Katsuda (2020) for a detailed explanation of the segmental and tonal consequences of hiatus resolution in Ikpana.

On the other hand, as Figure 5 shows, the sentence-final lexical L tone is slightly raised on the lengthened vowel in the corresponding polar question. Again, we attribute this raising effect to the presence of the H% boundary tone in polar questions.

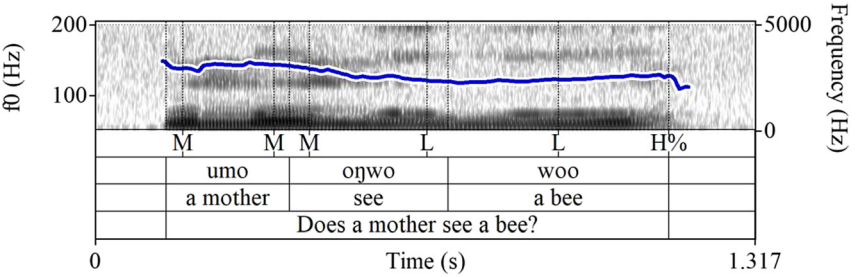

Figure 5: Sample pitch track showing the effect of H% in a polar question ending with a lexical L tone.

4 *Wh-* questions

4.1 Overview of the *wh-* system

Ikpana has morphosyntactically simple and morphosyntactically complex *wh-* expressions. The simple expression meaning 'who' is provided below.

(5) **ɔ̀-mɔ̀**
CM-who
'who'

In (5), the root for 'who' is preceded by an obligatory class marker. It is also the expression used in interrogatives meaning 'whose' as in (6).

(6) **ɔ̀-mɔ̀** **i-vatago** **i-ɖu** **i-mɛ?**
CM-who CM-picture CM-COP.PRS CM-DEM
'Whose picture is this?' (Adapted from Dorvlo 2008: 380)

Note that the form of 'who' in (6) is not morphologically marked as genitive. It precedes the noun it is associated with. By contrast, the expression translated as 'what' is monomorphemic (7). It is not class-marked in the way that 'who' is and in fact, resists class marking of any kind. A number of other *wh-* expressions in the language are complex structures formed by combining simplex 'what' and an additional item,[6] as seen below.

(7) **mɛ́**
'what'

(8) **mɛ́** **nù**
what in
'where'

(9) **mɛ́** … **ɛ-ta**
what CM-means/manner
'how'

(10) **mɛ́** **ɔ-kplɛ̀**
what CM-reason
'why'

6 An anonymous reviewer asks whether the constructions in (8)–(10) are possessor DPs. Unfortunately, we have no decisive answer to this question at this time and therefore save it for future research.

In examples (8–10) above, the occurrence of **mɛ́** along with either a postposition or (possibly non-adjacent) noun yields various meanings: **mɛ́** 'what' plus immediately following **nù** 'in' produces 'where' (8); **mɛ́** 'what' plus **ɛ-ta** 'means, manner' following it produces a non-contiguous expression meaning 'how' (9);[7] **mɛ́** 'what' plus immediately following **ɔ-kplɛ̀** 'reason' produces 'why' (10).[8]

Additional complex *wh-* expressions include 'when' and 'which'. There are two distinct ways to ask questions related to time in the language, as shown below.

(11) **a-dʒi** **a-mwá**
CM-day CM-which
'when'

(12) **i-bè** **i-mwá** **nù**
CM-time CM-which in
'when precisely'
Lit. 'in which time'

While the complex *wh-* expression in (11) returns the general meaning of 'when', the structure found in (12) can be interpreted as a more precise temporal specification. The interrogative expression 'which' is formed using the item **mwá**. It follows and agrees in class with the noun it is associated with.

(13) **i-kpégò** **i-mwá**
CM-food CM-which
'which food'

Finally, the Ikpana expressions for 'how much' and 'how many' are both formed using the item **a-bɛ́** immediately following a nominal. The expression 'how much' consists of the noun **o-vi** meaning 'amount' followed by **a-bɛ́**.

(14) **o-vi** **a-bɛ́**
CM-amount CM-quantity
'how much' (Adapted from Dorvlo 2008: 166)

Similarly, the quantity of a countable noun can be questioned using **a-bɛ́** following the noun for which the quantity is questioned.

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7 We discuss the discontiguous nature of 'how' in Section 4.3.4 below.

8 There is an alternative way to express 'why' in Ikpana, as in (i). It is unclear at this point whether this item can be analyzed further morphologically.

(i) **môgba**
'why'

(15) **a-bá** **a-bɛ́**
CM-people CM-quantity
'how many people' (Adapted from Dorvlo 2008: 166)

All the *wh*- expressions presented above may either occur in-situ or be fronted with no semantic change, as shown in the following minimal pair.

(16) a. **Kofĩ** **ɔ̀-zá** **mɛ́** **u-namè?**
Kofi SM-cook.PST what CM-yesterday
'What did Kofi cook yesterday?'
b. **mɛ́** **Kofĩ** **ɔ̀-zá** **u-namè?**
what Kofi SM-cook.PST CM-yesterday
'What did Kofi cook yesterday?'

Ikpana can thus be characterized as an optional *wh*- fronting language. In that sense, it is similar to related languages in the geographic area where it is spoken (Kandybowicz 2017; Torrence and Kandybowicz 2015). In the following Section 4.2, we discuss *wh*- in-situ in more detail. Sections 4.3 and 4.4 cover *wh*- fronting more thoroughly.

4.2 *Wh*- in-situ

4.2.1 *Wh*- in-situ in main clauses

In Ikpana, both argument and (most) adjunct interrogatives are well formed in their originally merged clause-internal positions. Consider first the case of subject interrogatives. The sentence in (17a) below features a subject *wh*- item at the left edge of the clause. Given that fronted *wh*- expressions are not obligatorily followed by an element like a question or focus particle (see (16b) above), it is difficult to determine whether the *wh*- occurrence in (17a) occupies an in-situ position or a moved position in the left periphery. Both analyses are consistent with the linear order of the sentence. Evidence that the *wh*- item occupies an in-situ subject position comes from its position with respect to sentential adverbial expressions. Speaker-oriented adverbials such as 'surprisingly' have a highly limited distribution in the language – they may only appear at the left edge of the clause in immediately pre-subject positions (17b). The subject *wh*- item in (17a) may indeed surface in a right-adjacent position to this adverb, as shown in (17c). By contrast, non-subject *wh*- items, when fronted, must precede this adverb, as illustrated in (17d–e) for object and adjunct *wh*- items respectively. We take these facts to

indicate that the subject *wh-* item in (17c) is located in Spec, TP and more generally, that subject *wh-* in-situ is available in the language.

(17) a. **ɔ̀-mɔ̀ ɔ̀-tɔ́ Kofí?**
CM-who SM-push.PST Kofi
'Who pushed Kofi?'

b. **i-léfegò Sasa (*i-léfegò) ɔ̀-tɔ́ Kofi.**
CM-surprise Sasa CM-surprise SM-push.PST Kofi
'Surprisingly, Sasa pushed Kofi.'

c. **i-léfegò ɔ̀-mɔ̀ ɔ̀-tɔ́ Kofí?**
CM-surprise who SM-push.PST Kofi
'Surprisingly, who pushed Kofi?'

d. **mɛ́ i-léfegò (*mɛ́) Sasa ɔ̀-tɔ́?**
what CM-surprise what Sasa SM-push.PST
'What, surprisingly, did Sasa push?'

e. **i-bè i-mwá nù i-léfegò (*i-bè i-mwá nù) Sasa ɔ̀-tɔ́ Kofí?**
CM-time CM-which in CM-surprise CM-time CM-which in Sasa SM-push.PST Kofi
'When, surprisingly, did Sasa push Kofi?'

Turning next to object *wh-* expressions, both theme and goal arguments may appear in-situ. Consider the complex mono-clausal structure in (18a) below, where the *wh-* expression 'what' denotes the second (theme) object of the ditransitive verb 'give'. The item occurs between the first (goal) object and the clause-final temporal adverb. Similarly, 'who' in (18b) serves as the initial (goal) argument of the verb 'give'. It immediately follows the verb and precedes the second object.

(18) a. **Kofí ɔ̀-tá e-bítua-a mɛ́ u-namè?**
Kofi SM-give.PST CM-children-DET what CM-yesterday
'What did Kofi give the children yesterday?'

b. **Kofí ɔ̀-tá ɔ̀-mɔ̀ u-ndú u-namè?**
Kofi SM-give.PST CM-who CM-water CM-yesterday
'Who did Kofi give water to yesterday?'

The same observation can be made in monotransitive constructions, as in (19). Here, the direct object 'who' is found in sentence-final position, immediately following the verb.

(19) **Kofí ɔ̀-tɔ́ ɔ̀-mɔ̀?**
Kofi SM-push.PST CM-who
'Who did Kofi push?'

Most, but not all, adjunct interrogatives may also appear in-situ. In both examples below, the complex *wh-* expressions 'when' and 'where' occur clause-finally.

(20) a. **Sása ɔ̀-tɔ́ Fafa i-bè i-mwá nù?**
Sasa SM-push.PST Fafa CM-time CM-which in
'When did Sasa push Fafa?'

b. **Sása ɔ̀-tɔ́ Fafa mɛ́ nù?**
Sasa SM-push.PST Fafa what in
'Where did Sasa push Fafa?'

The expression meaning 'why' in the language can also occur in a clause-internal position. This is somewhat surprising given the cross-linguistic exceptionality of 'why'. In many related African languages such as Krachi (Kandybowicz 2017; Torrence and Kandybowicz 2015) as well as in a wide array of non-African languages, 'why' is prohibited from occurring clause internally in non-left peripheral positions (see Section 4.3.4 for further discussion of the exceptionality of 'why'). An example of in-situ 'why' in Ikpana is provided in (21).

(21) **Sása ɔ̀-tɔ́ Fafa mɛ́ ɔ-kplɛ̀?**
Sasa SM-push.PST Fafa what CM-reason
'Why did Sasa push Fafa?'

Unlike the other adjunct interrogative expressions in the language, the complex *wh-* expression 'how' may not appear in-situ (22a), at least not all of it. The 'what' piece must appear in the clausal left periphery and the 'means/manner' piece[9] must occur clause-internally following the verb phrase at the right edge of the clause (22b). Dorvlo's (2008) description is consistent with this finding. For more discussion on the distribution and analysis of 'how', see Section 4.3.4.

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9 'How' questions in Ikpana are ambiguous. Both instrumental and manner readings are available, as revealed by the following felicitous answers.

(i) Q: **mɛ́ Kofí ɔ̀-zá a-zaì-e ɛ-ta?**
what Kofi SM-cook.PST CM-beans-DET CM-means/manner
'How did Kofi cook the beans?'

A_1: **Kofí ò-mí a-tɔ́ zá a-zaì-e?**
Kofi SM-use.PST CM-spoon cook CM-beans-DET
'Kofi used a spoon to cook the beans.'

A_2: **Kofí ɔ̀-zá a-zaì-e énʒì?**
Ko SM-cook.PST CM-beans-DET well
'Kofi cooked the beans well.'

For this reason, we gloss the **ɛ-ta** piece as having the meanings: 'means (instrument)' and/or 'manner'.

(22) a. ***Kofí ɔ̀-zá a-zaì mɛ́ ɛ-ta?***
Kofi SM-cook.PST CM-beans what CM-means/manner
b. ***mɛ́ Kofí ɔ̀-zá a-zaì ɛ-ta?***
what Kofi SM-cook.PST CM-beans CM-means/manner
'How did Kofi cook beans?'

In multiple *wh-* interrogatives, it is possible to find one *wh-* expression appearing in-situ while the other one is fronted, as exemplified below.

(23) ***mɛ́ ɔ̀-mɔ̀ ɔ̀-zá?***
what CM-who SM-cook.PST
'Who cooked what?'

Here, 'who' denotes the subject and 'what' denotes the object of the verb. While 'who' occurs in-situ, immediately preceding the verb, it is preceded by the fronted object interrogative item 'what' in the clausal left periphery. A possible alternative to fronting one of the *wh-* expressions in multiple questions is for the two *wh-* items to remain in-situ. The sentence in (24) below illustrates that it is possible to question both the subject and the object of the verb while the two *wh-* items remain in their respective canonical clause-internal positions. In this way, the example shows that Ikpana does not restrict multiple *wh-* constituents from being questioned in-situ.

(24) ***i-léfegò ɔ̀-mɔ̀ ɔ̀-zá mɛ́?***
CM-surprise CM-who SM-cook.PST what
'Surprisingly, who cooked what?'

In double object multiple question constructions, it is also possible to question both objects by leaving the two *wh-* items in-situ. This is shown in (25).

(25) ***Kofí ɔ̀-tá ɔ̀-mɔ̀ mɛ́?***
Kofi SM-give.PST CM-who what
'To whom did Kofi give what?'

The examples in (24) and (25) illustrate that it is possible for multiple argument *wh-*expressions to remain in-situ. An anonymous reviewer asks whether it is possible for multiple adjunct *wh-* phrases to remain in-situ or for a combination of argument and adjunct interrogatives (in particular, 'why') to appear clause-internally. Unfortunately, this is currently a gap in our documentation that we must leave for future research to fill.

4.2.2 *Wh-* in-situ in embedded clauses

In Ikpana embedded clauses, questions formed by way of the *wh-* in-situ strategy can be interpreted as long-distance interrogatives (i.e. having scope over the matrix clause). Instances of long-distance *wh-* in-situ are attested in other languages in the area, such as Krachi (Kandybowicz 2017, 2020; Torrence and Kandybowicz 2015). In both examples below, the *wh-* item **mɛ́** occurs in final position in the embedded clause introduced by the complementizer **té**. Despite this position, it is interpreted as having scope over the matrix verb, as revealed by the translations provided by native speakers as well as the expectations speakers have that sentences such as these require an answer in order to be pragmatically felicitous.

(26) a. **Kofí o-kpe té Miaŋníka ɔ̀-tɔ́ mɛ́?**
Kofi SM-know.PRS COMP Mianika SM-push.PST what
'What does Kofi know that Mianika pushed?'

b. **Kofí ɔ-blɔ a-susu té Miaŋníka ɔ̀-tɔ́ mɛ́?**
Kofi SM-take.PRS CM-thought COMP Mianika SM-push.PST what
'What does Kofi think that Mianika pushed?'

This pattern holds true for all embedded *wh-* items in the language. Any *wh-* expression that can appear in-situ in root contexts can also appear in-situ in embedded clauses. The interpretation of the *wh-* expression, however, is often scopally ambiguous. Depending on the embedding verb, embedded in-situ *wh-* expressions can be interpreted as either matrix clause interrogatives or as embedded questions.[10] To illustrate, first consider the sentences in (27).

(27) a. **Kofí o-kpe té ɔ̀-mɔ̀ ɔ̀-tɔ́ Sása?/.**
Kofi SM-know.PRS COMP CM-who SM-push.PST Sasa
'Who does Kofi know pushed Sasa?'
'Kofi knows who pushed Sasa.'

b. **Kofí ɔ̀-wá té Miaŋníka ɔ̀-tɔ́ Sása**
Kofi SM-say.PST COMP Mianika SM-push.PST Sasa
i-bè i-mwa nù?/.
CM-time CM-which in
'When did Kofi say Mianika pushed Sasa?'
'Kofi said when Mianika pushed Sasa.'

10 The data in (27) are notable in that they reveal that the verbs 'say' and 'think' are able to take embedded question complements, something that is not attested in many languages. An anonymous reviewer wonders whether this might be attributable either to special semantic properties of these verbs in the language or to the complementizer **té**. We currently have no satisfying answer to this question and leave the issue for future research.

c. **Kofí ɔ-blɔ á-súsu té Miaŋíka ɔ̀-tɔ́ Sása**
Kofi SM-take.PRS CM-thought COMP Mianika SM-push.PST Sasa
mɛ́ ɔ-kplɛ̀?/.
what CM-reason
'Why does Kofi think that Mianika pushed Sasa?'
'Kofi thinks about why Mianika pushed Sasa.'

In each example above, the *wh-* expression is scopally ambiguous. It can be interpreted as having scope over either the embedded clause or the matrix clause. For instance, in (27c), the expression 'why' may be interpreted as having scope over the matrix clause. In this case, the sentence is interpreted as a direct interrogative. Alternatively, 'why' can be interpreted as questioning the pushing event in the embedded clause. If so, the sentence is interpreted as an indirect question. When the embedded clause is the complement of **bú** 'ask', however, the embedded in-situ *wh-* expression is necessarily interpreted as having scope over the embedded clause and the sentence is interpreted as a reported embedded question.

(28) a. **Kofí ò-bú té Miaŋíka ɔ̀-tɔ́ mɛ́.**
Kofi SM-ask.PST COMP Mianika SM-push.PST what
'Kofi asked what Mianika pushed.'

b. **Kofí ò-bú té Miaŋíka ɔ̀-tɔ́ Sása i-bè**
Kofi SM-ask.PST COMP Mianika SM-push.PST Sasa CM-time
i-mwá nù.
CM-which in
'Kofi asked when Mianika pushed Sasa.'

Utterances like those in (28) do not require an answer response from interlocutors, confirming that they are indeed indirect questions and not true information-seeking matrix interrogatives.

4.3 *Wh-* fronting

In addition to *wh-* in-situ, Ikpana also allows *wh-* elements to be fronted. In this subsection, we introduce three morphosyntactically distinct varieties of *wh-* fronting in the language: bare *wh-* movement, focus-marked *wh-* movement, and *wh-* clefting.

4.3.1 Bare *wh-* movement

The first of the *wh-* fronting strategies in Ikpana is perhaps the simplest, at least at the surface level. In what we term "bare *wh-* movement" in the language,

wh- expressions appear in a left peripheral position with no accompanying marker. Examples (29b-f) illustrate this construction type, with sentence-initial *wh-* expressions in simple matrix clauses. The position of the fronted *wh-* expression relative to the sentential adverb 'surprisingly' reveals that moved interrogatives need not appear left adjacent to the subject in this construction.

(29) a. **i-léfegò Fafa ò-kpló i-dzɔ́ a-fàn nù u-dântʃî-e.**
CM-surprise Fafa SM-fry.PST CM-yam CM-home in CM-morning-DET
'Surprisingly, Fafa fried yams at home this morning.'

b. **mɛ́ i-léfegò Fafa ò-kpló a-fàn nù u-dântʃî-e?**
what CM-surprise Fafa SM-fry.PST CM-home in CM-morning-DET
'What, surprisingly, did Fafa fry at home this morning?'

c. **ɔ̀-mɔ̀ i-léfegò ò-kpló i-dzɔ́ a-fàn nù u-dântʃî-e?**
CM-who CM-surprise SM-fry.PST CM-yam CM-home in CM-morning-DET
'Who, surprisingly, fried yams at home this morning?'

d. **mɛ́ nù i-léfegò Fafa ò-kpló i-dzɔ́ u-dântʃî-e?**
what in CM-surprise Fafa SM-fry.PST CM-yam CM-morning-DET
'Where, surprisingly, did Fafa fry yams this morning?'

e. **i-bè i-mwá nù i-léfegò Fafa ò-kpló i-dzɔ́ a-fàn nù?**
CM-time CM-which in CM-surprise Fafa SM-fry.PST CM-yam CM-home in
'When, surprisingly, did Fafa fry yams at home?'

f. **mɛ́ ɔ-kplɛ̀ i-léfegò Fafa ò-kpló i-dzɔ́ a-fàn nù u-dântʃî-e?**
what CM-reason CM-surprise Fafa SM-fry.PST CM-yam CM-home in CM-morning-DET
'Why, surprisingly, did Fafa fry yams at home this morning?'

Both arguments (29b–c) and adjuncts (29d–f) participate in *wh-* movement in Ikpana. Apart from the displacement of the *wh-* expression and subsequent gap at the extraction site, what is notable about this *wh-* fronting strategy is the absence of any additional morphosyntactic material. In cases of complex *wh-* expressions such as 'where', 'when' and 'why', the examples in (29d–f) show that the moved *wh-* elements **mɛ́** 'what' and **i-mwá** 'which' pied-pipe additional material. However, the complex *wh-* expression meaning 'how' patterns differently in this respect. We return to this difference in Section 4.3.4 below.

In Section 4.2.1, we noted that Ikpana permits the formation of multiple *wh-* interrogatives in two ways: (a) by leaving multiple *wh-* expressions *in situ*

(see (24), (25)) or (b) by leaving one expression in-situ while another is fronted using the bare *wh-* movement option (see (30) below for more examples of the latter strategy).

(30) a. **u-namè mɛ́ ɔ̀-mɔ̀ ɔ̀-zá?**
CM-yesterday what CM-who SM-cook.PST
'Who cooked what yesterday?'

b. **mɛ́ Kofí ɔ̀-zá i-bè i-mwá nù?**
what Kofi SM-cook.PST CM-time CM-which in
'What did Kofi cook when?'

c. **i-bè i-mwá nù Kofí ɔ̀-zá mɛ́?**
CM-time CM-which in Kofi SM-cook.PST what
'When did Kofi cook what?'

As with the pure in-situ variants, all of the constructions in (30) involve genuine information-seeking requests about multiple constituents (i.e., a felicitous answer will provide relevant information for each variable, and no part of these is treated as an echo question). The question in (30a) involves two argument *wh-* questions: the subject remains in-situ while the object moves higher than the subject, in this case below the topicalized adverb **u-namè** 'yesterday'. The examples in (30b–c) both show a combination of an adjunct *wh-* question with an argument *wh-* question. For (30b) the object moves to the front of the sentence while the adjunct remains in-situ, while for (30c) the opposite obtains.

In each of the grammatical cases of Ikpana multiple *wh-* questions, though, only one of the *wh-* expressions moves, leaving the other in-situ. The examples in (31) below further show that it is, in fact, not possible in Ikpana to move/front multiple *wh-* expressions in the same clause.

(31) a. ***ɔ̀-mɔ̀ mɛ́ ɔ̀-zá?**
CM-who what SM-cook.PST
(Intended: 'Who cooked what?')

b. ***mɛ́ i-bè i-mwá nù Kofí ɔ̀-zá?**
what CM-time CM-which in Kofi SM-cook.PST
(Intended: 'What did Kofi cook when?')

c. ***i-bè i-mwá nù mɛ́ Kofí ɔ̀-zá?**
CM-time CM-which in what Kofi SM-cook.PST
(Intended: 'When did Kofi cook what?')

Thus, from the discussion up to this point, we can conclude that Ikpana is an optional *wh-* movement language and that the language has multiple *wh-* interrogatives, but it does not allow multiple *wh-* movement.

4.3.2 Focus-marked *wh-* movement

A second *wh-* fronting construction in Ikpana is one that we here call "focus-marked *wh-* movement". In Alakpeti Ikpana, as briefly noted in Section 2, focused constituents often surface in the left periphery of the clause and can be immediately followed by the focus particle **ka**. In focus-marked *wh-* movement constructions, the displaced *wh-* expression again appears clause-initially, as in *wh-*movement, and the only surface difference is the presence of **ka** immediately following the *wh-* expresssion. The examples in (32) below repeat the paradigm presented in (29) with two differences: 1) the focus particle **ka** has been added in second-constituent position in each case and 2) the sentential adverb 'surprisingly' has been removed because adjacency of *wh-* and the subject is no longer at issue due to the intervention of the focus marker.

(32) a. **Fafa ò-kpló i-dzɔ́ a-fàn nù u-dântʃì-e.**
Fafa SM-fry.PST CM-yam CM-home in CM-morning-DET
'Fafa fried yams at home this morning.'

b. **mɛ́ ka Fafa ò-kpló a-fàn nù u-dântʃì-e?**
what FOC Fafa SM-fry.PST CM-home in CM-morning-DET
'What did Fafa fry at home this morning?'

c. **ɔ̀-mɔ̀ ka ò-kpló i-dzɔ́ a-fàn nù u-dântʃì-e?**
CM-who FOC SM-fry.PST CM-yam CM-home in CM-morning-DET
'Who fried yams at home this morning?'

d. **mɛ́ nu ka Fafa ò-kplò i-dzɔ́ u-dântʃì-e?**
what in FOC Fafa SM-fry.PST CM-yam CM-morning-DET
'Where did Fafa fry yams this morning?'

e. **i-bè i-mwá nù ka Fafa ò-kpló i-dzɔ́ a-fàn nù?**
CM-time CM-which in FOC Fafa SM-fry.PST CM-yam CM-home in
'When did Fafa fry yams at home?'

f. **mɛ́ ɔ-kplɛ̀ ka Fafa ò-kpló i-dzɔ́ a-fàn nù u-dântʃì-e?**
what CM-reason FOC Fafa SM-fry.PST CM-yam CM-home in CM-morning-DET
'Why did Fafa fry yams at home this morning?'

These examples show that virtually all *wh-* expressions participate in the focus-marked *wh-* movement construction. This includes then, both simplex (32b–c) and complex (32d–f) *wh-* expressions. As with bare *wh-* movement in Ikpana, however, we have found that 'how' patterns differently. We address this in Section 4.3.4.

4.3.3 *Wh-* clefts

The third strategy for *wh-* fronting in Ikpana is the *wh-* cleft strategy, where a *wh-* interrogative is formed by way of a cleft construction. With respect to their surface form, Ikpana *wh-* clefts look just like focus *wh-* movement constructions, except that the relativizer **jé** appears in second-constituent position instead of **ka**. This is illustrated below in (33), which again repeats the paradigm from (29) and (32) for ease of comparison.

(33) a. **Fafa ò-kpló i-dzɔ́ a-fàn nù u-dântʃì-e.**
Fafa SM-fry.PST CM-yam CM-home in CM-morning-DET
'Fafa fried yams at home this morning.'

b. **mɛ́ jé Fafa ò-kpló a-fàn nù u-dântʃì-e?**
what REL Fafa SM-fry.PST CM-home in CM-morning-DET
'What did Fafa fry at home this morning?'

c. **ɔ̀-mɔ̀ jé ò-kpló i-dzɔ́ a-fàn nù u-dântʃì-e?**
CM-who REL SM-fry.PST CM-yam CM-home in CM-morning-DET
'Who fried yams at home this morning?'

d. **mɛ́ nù jé Fafa ò-kpló i-dzɔ́ u-dântʃì-e?**
what in REL Fafa SM-fry.PST CM-yam CM-morning-DET
'Where did Fafa fry yams this morning?'

e. **i-bè i-mwá nù jé Fafa ò-kpló i-dzɔ́ a-fàn nù?**
CM-time CM-which in REL Fafa SM-fry.PST CM-yam CM-home in
'When did Fafa fry yams at home?'

f. **mɛ́ ɔ-kplɛ̀ jé Fafa ò-kpló i-dzɔ́ a-fàn nù u-dântʃì-e?**
what CM-reason REL Fafa SM-fry.PST CM-yam CM-home in CM-morning-DET
'Why did Fafa fry yams at home this morning?'

Virtually all *wh-* expressions (both simplex and complex) participate in the *wh-* cleft construction. As before, though, we have found that 'how' patterns differently (see Section 4.3.4 for more on the exceptionality of 'how').

We analyze the structures in (33b–f) as cleft constructions because the particle that accompanies the fronted *wh-* constituent in these questions is the same particle that surfaces in relative clauses to mark the relative clause head. Additional typological support for this analysis comes from the fact that it is cross-linguistically common for clefts to involve headless relative clauses (Hartmann and Veenstra 2013 and references therein) and many of the structures in (33) appear to be null-headed relative clauses (e.g. (33b–d)). The data below show that heads of relative clauses may be followed by one of two relative particles in the

language. **jé** marks the head of a relative clause (Dorvlo 2008) and types the constituent as a restrictive relative clause. The morpheme **xé**, on the other hand, is a non-restrictive relative operator (see Kandybowicz 2019 and Kandybowicz and Duncan 2020 for arguments diagnosing **jé** as a restrictive operator and **xé** as a non-restrictive operator).

(34) a. **Kofí o-kpe [ɔ-sa-a jé ɔ̀-tɔ́ Sása].**
Kofi SM-know.PRS CM-man-DET REL SM-push.PST Sasa
'Kofi knows the man that pushed Sasa.'

b. **Kofí o-kpe [ɔ-sa-a xé ɔ̀-tɔ́ Sása].**
Kofi SM-know.PRS CM-man-DET REL SM-push.PST Sasa
'Kofi knows the man, who pushed Sasa.'

Although **jé** and **xé** may both serve as relativizers, we find a crucial asymmetry in the *wh-* cleft construction. Clefted *wh-* expressions may be accompanied in the left periphery by **jé**, but not **xé**.

(35) **mɛ́ jé/*xé Fafa ò-kplό a-fàn nù u-dântʃì-e?**
what REL Fafa SM-fry.PST CM-home in CM-morning-DET
'What did Fafa fry at home this morning?'

This fact is fully consistent with a clefts analysis of *wh-* fronting in **jé** constructions. If Ikpana *wh-* clefts are relative clause structures, we would expect only restrictive relative clauses, not non-restrictive ones, to underpin the *wh-* operator–variable relationship in the derived question construction.

Additional support for a clefts analysis of *wh-* **jé** constructions comes in the form of an asymmetry regarding the interaction of the **ka** and **jé** particles. The two morphemes can co-occur adjacently in a single clause, but with an important ordering restriction. The examples in (36) show the grammatical placement of **ka jé** after a sentence-initial *wh-* expression, while the examples in (37) show that the reverse order ***jé ka*** is ungrammatical.

(36) a. **mɛ́ ka jé Fafa ò-kplό a-fàn nù u-dântʃì-e?**
what FOC REL Fafa SM-fry.PST CM-home in CM-morning-DET
'What really did Fafa fry at home this morning?'

b. **ɔ̀-mɔ̀ ka jé ò-kplό i-dzɔ́ a-fàn nù u-dântʃì-e?**
CM-who FOC REL SM-fry.PST CM-yam CM-home in CM-morning-DET
'Who really fried yams at home this morning?'

c. **mɛ́ nù ka jé Fafa ò-kplό i-dzɔ́ u-dântʃì-e?**
what in FOC REL Fafa SM-fry.PST CM-yam CM-morning-DET
'Where really did Fafa fry yams this morning?'

d. **i-bè i-mwá nù ka jé Fafa ò-kpló i-dzɔ́**
CM-time CM-which in FOC REL Fafa SM-fry.PST CM-yam
a-fàn nù?
CM-home in
'When really did Fafa fry yams at home?'

e. **mɛ́ ɔ-kplɛ̀ ka jé Fafa ò-kpló i-dzɔ́ a-fàn**
what CM-reason FOC REL Fafa SM-fry.PST CM-yam CM-home
nù u-dântʃì-e?
in CM-morning-DET
'Why really did Fafa fry yams at home this morning?'

(37) a. ***mɛ́ jé ka Fafa ò-kpló a-fàn nù u-dântʃì-e?**
what REL FOC Fafa SM-fry.PST CM-home in CM-morning-DET

b. ***ɔ̀-mɔ̀ jé ka ò-kpó i-dzɔ́ a-fàn nù u-dântʃì-e?**
CM-who REL FOC SM-fry.PST CM-yam CM-home in CM-morning-DET

c. ***mɛ́ nù jé ka Fafa ò-kpló i-dzɔ́ u-dântʃì-e?**
what in REL FOC Fafa SM-fry.PST CM-yam CM-morning-DET

d. ***i-bè i-mwá nù jé ka Fafa ò-kpló i-dzɔ́ a-fàn nù?**
CM-time CM-which in REL FOC Fafa SM-fry.PST CM-yam CM-home in

e. ***mɛ́ ɔ-kplɛ̀ jé ka Fafa ò-kpló i-dzɔ́ a-fàn nù**
what CM-reason REL FOC Fafa SM-fry.PST CM-yam CM-home in
u-dântʃì-e?
CM-morning-DET

These data show that, regardless of question type, the focus marker **ka** may immediately follow a fronted *wh*- constituent in a **jé** cleft construction (36), but the relativizer itself cannot be focused with/followed by **ka**, which is why the sentences in (37) are ungrammatical. The reason that this particular pattern emerges will become apparent once we consider some additional properties of **ka**'s distribution and note a critical incompatibility with a certain category of expressions. These observations will in turn shed light on the nature of **jé**. In the discussion above, we showed that **ka** can be used with ex-situ focus constructions. The examples in (38) below additionally demonstrate that the position of **ka** within a clause is flexible and not strictly relegated to the left periphery. Instead, **ka** can be used to focus constituents at sites across the clausal spine, combining with constituents in their in-situ positions.

(38) a. **Kofí ɔ̀-tá e-bítua-a u-ndú u-namè.**
Kofi SM-give.PST CM-children-DET CM-water CM-yesterday
'Kofi gave the children water yesterday.'

b. **Kofí ka ɔ̀-tá e-bítua-a u-ndú u-namè.**
Kofi FOC SM-give.PST CM-children-DET CM-water CM-yesterday
'KOFI gave the children water yesterday.'

c. ***Kofí ɔ̀-tá ka e-bítua-a u-ndú u-namè.**
Kofi SM-give.PST FOC CM-children-DET CM-water CM-yesterday
Intended: 'Kofi GAVE the children water yesterday.'

d. **Kofí ɔ̀-tá e-bítua-a ka u-ndú u-namè.**
Kofi SM-give.PST CM-children-DET FOC CM-water CM-yesterday
'Kofi gave THE CHILDREN water yesterday.'

e. **Kofí ɔ̀-tá e-bítua-a u-ndú ka u-namè.**
Kofi SM-give.PST CM-children-DET CM-water FOC CM-yesterday
'Kofi gave the children WATER yesterday.'
(NOT: 'Kofi GAVE THE CHILDREN WATER yesterday.')

f. **Kofí ɔ̀-tá e-bítua-a u-ndú u-namè ka.**
Kofi SM-give.PST CM-children-DET CM-water CM-yesterday FOC
'Kofi gave the children water YESTERDAY.'
(NOT: 'Kofi GAVE THE CHILDREN WATER YESTERDAY.')

In a ditransitive construction with all core arguments expressed and a sentence-final temporal adverb, **ka** can focus virtually all of the constituents: the subject (38b), the indirect object (38d), the direct object (38e), and the adverb (38f). Notably, the only element that **ka** cannot follow adjacently is the verb (38c). The data in (39) below combine the property of **ka**'s flexible distribution with the fact that, as an optional *wh-* fronting language, Ikpana allows *wh-* in-situ. The result here is again that **ka** has a flexible distribution, with the added property that it can co-occur with in-situ *wh-* expressions.

(39) a. **Kofí ɔ̀-tá ɔ̀-mɔ̀ ka u-ndú u-namè?**
Kofi SM-give.PST CM-who FOC CM-water CM-yesterday
'WHO did Kofi give water to yesterday?'

b. **Kofí ɔ̀-tá e-bítua-a mɛ́ ka u-namè?**
Kofi SM-give.PST CM-children-DET what FOC CM-yesterday
'WHAT did Kofi gave the children?'

c. **Kofí ɔ̀-tá e-bítua-a u-ndú i-bè i-mwá nù ka?**
Kofi SM-give.PST CM-children-DET CM-water CM-time CM-which in FOC
'WHEN did Kofi gave the children water?'

A key insight into the syntax of **ka**, we believe, comes from the unavailability of postverbal **ka** (38c). We speculate that the restriction on verb-adjacent **ka** derives from **ka**'s syntactic status as an XP focus marker. There are two analytical options we can entertain. One analysis would be to treat **ka** as the head of a Focus Phrase

projection that merges with the focused constituent and drives movement of that focused constituent into its specifier (Aboh 2004). Another would be to analyze **ka** as a term focus marker that right adjoins exclusively to phrasal constituents, but not heads. We will not attempt to choose among these analytical options, as our goal in this article is primarily descriptive. Support for either of these analyses comes from the fact that while largely positionally free, **ka** can never focus/follow other items that have the status of heads. The data below reveal that **ka** may not combine with either prepositions (40a) or complementizers (40b).

(40) a. **Kofí ò-flí máŋgɔ kpɛ (*ka) u-hé.**
Kofi SM-slice.PST CM-mango with FOC CM-knife
'Kofi sliced mango with a knife.'

b. **Kofí ɔ-blɔ à-sùsu té (*ka) Miaŋníka ɔ̀-tɔ́ Sasa.**
Kofi SM-take.PRS CM-thought COMP FOC Mianika SM-push.PST Sasa
'Kofi thinks that Mianika pushed Sasa.'

This distributional restriction (a) sheds light on why **ka** may not focus/follow **jé** (37) and (b) supports the analysis of *wh-* **jé** constructions as clefts. If **jé** is a C-like head, as under a clefts analysis of the particle as a relative operator, the restriction on **ka** following **jé** would follow from the fact that **ka** may not focus/adjoin to heads. In addition, it suggests that in the Ikpana *wh-* cleft construction, the fronted *wh-* expression and **jé** do not form a constituent. If they did, **ka** would wrongly be predicted to be able to focus/follow the string. Conversely, the explanation for the grammaticality of **ka jé** sequences follows from a *wh-* clefts analysis of **jé** questions as well. Under the *wh-* clefts analysis, **ka jé** sequences involve instances of relativization in which the (phrasal) head of the relative clause is a **ka** term-focused *wh-* expression. In this analysis, **ka** forms a constituent with the fronted/cleft *wh-* item, which in turn functions as the head of a restrictive relative clause introduced by the **jé** operator, as illustrated in the schematic below for an object *wh-* cleft.

(41) **[RELATIVE CLAUSE [*wh-* ka] jé [MAIN CLAUSE SUBJECT VERB ___]]**

Summing up this and the preceding two subsections from a purely descriptive and surface distribution standpoint, Ikpana uses morphosyntactically distinct strategies to achieve *wh-* fronting: bare *wh-* movement, which involves a fronted *wh-* expression and no additional morphosyntactic marking; focus-marked *wh-* movement, which involves leftward movement of a *wh-* expression immediately followed by the focus marker **ka**; and *wh-* cleft formation, which involves a *wh-* expression immediately followed by the relativizer **jé**. This threefold

distinction in achieving *wh-* fronting in Ikpana is in line with there being multiple derivational "paths" for forming *wh-* questions in other languages, including movement, focus, and (pseudo)cleft strategies (Potsdam 2009).

4.3.4 Asymmetries in peripheral *Wh-* questions

Section 4.3.3 revealed an asymmetry in both the functions of and co-occurrence restrictions on the *wh-* question particles **ka** and **jé**. This section identifies notable asymmetries in two types of peripheral *wh-* questions. The first concerns an exceptionality regarding the formation of 'how' questions in the language. The second pertains to some asymmetries found in peripheral 'why' questions.

What makes 'how' questions special in the language is that unlike all other peripheral *wh-* structures, they may not be formed via either the focus-marked or cleft strategy. The data in (29) and (32) illustrate that a wide range of fronted *wh-* expressions may optionally co-occur with the **ka** focus marker. By contrast, 'how' questions are ungrammatical if the peripheral *wh-* item is immediately[11] followed by **ka** (42a). Recall from Section 4.1 that 'how' is a complex discontinuous *wh-* expression composed of **mɛ́** 'what' and the expression **ɛ-ta** 'means/manner'. Unlike other composed *wh-* expressions in the language that trigger pied-piping (e.g. 'where' and 'when'), 'how' questions involve left peripheral occurrences of the interrogative piece (**mɛ́**) and obligatory stranding of the non-interrogative material (**ɛ-ta**) (42b–c). To render these structures grammatical, the focus marker may not appear in the left periphery following the 'what' piece (42d).

(42) a. ***mɛ́ ka Kofí ɔ̀-zá a-zaì ɛ-ta?**
what FOC Kofi SM-cook.PST CM-beans CM-means/manner

b. ***mɛ́ ɛ-ta ka Kofí ɔ̀-zá a-zaì?**
what CM-means/manner FOC Kofi SM-cook.PST CM-beans

c. ***ɛ-ta ka Kofí ɔ̀-zá a-zaì mɛ́?**
CM-means/manner FOC Kofi SM-cook.PST CM-beans what

---

11 It is important to qualify this statement with the word "immediately" because it is not true that *wh-* fronting in 'how' questions is completely incompatible with **ka** focus. While the fronted *wh-* item may not be immediately followed by **ka** in the left periphery, the non-contiguous nominal XP **ɛ-ta** may indeed be term focused, as shown below. We thank John Gluckman (personal communication) for helping bring this fact to our attention.

(i) **mɛ́ Kofí ò-zá a-zaì ɛ-ta ka?**
what Kofi SM-cook.PST CM-beans CM-means/manner FOC
'How really did Kofi cook beans?'

d. **mɛ́ Kofí ɔ̀-zá a-zaì ɛ-ta?**
what Kofi SM-cook.PST CM-beans CM-means/manner
'How did Kofi cook beans?'

This restriction is rather surprising given the fact that in 'what' questions, the same *wh-* expression (**mɛ́**) *can* co-occur in the left periphery with the focus marker (compare (32b) with (42a)). The asymmetry here can therefore be categorized in the following way – the left peripheral focus marker is optionally droppable in all cases of peripheral *wh-* question formation except in the formation of 'how' questions, where dropping the marker is obligatory. Turning next to 'how' clefts, we observe something comparable. The cleft strategy is available for a diverse range of *wh-* expressions, as presented in (33). 'How' expressions formed by clefting the **mɛ́** 'what' piece, by contrast, may not be followed by **jé** (43a). As before, the post-interrogative particle **jé** must be deleted (43b).

(43) a. ***mɛ́ jé Kofí ɔ̀-zá a-zaì ɛ-ta?**
what REL Kofi SM-cook.PST CM-beans CM-way/manner
b. **mɛ́ Kofí ɔ̀-zá a-zaì ɛ-ta?**
what Kofi SM-cook.PST CM-beans CM-way/manner
'How did Kofi cook beans?'

Putting these facts together, the following descriptive generalization emerges. No overt question marker (e.g. **ka** or **jé** (Rizzi 2001)) may occur following the left peripheral *wh-* expression in a 'how' question. Unlike all other fronted interrogative expressions in the language, the deletion of the question marker is obligatory when a 'how' question is formed. To put it another way, of Ikpana's three *wh-* fronting strategies, it would appear that only the simplest strategy, bare *wh-* movement, is available for the formation of 'how' questions. But perhaps 'how' questions in the language do not involve *wh-* movement at all. One promising way of analyzing these data might be to treat the 'what' piece in 'how' questions as base-generated in the left periphery, in contrast to the other peripheral *wh-* expressions in the language that move to the left edge of the clause. This could explain the restriction on overt post-interrogative question markers in these constructions (e.g. (42a), (43a)). This might also explain 'how''s exceptional inability to pied-pipe associated interrogative material (42b). An analysis along these lines would connect Ikpana typologically with other languages in which there is strong evidence that 'how' is base-generated in the left periphery, among them, Dutch (Corver 1990), German (d'Avis 1995, 2000, 2001), Italian (Rizzi 2001) and Cantonese.

Ikpana 'why' questions are also notable. Here, there are two exceptional properties to point out. The first deals with an asymmetry concerning the ability of an interrogative expression to co-occur in the left periphery with a contrastive

focused non-interrogative constituent. 'Why' expressions in the language may precede focus-fronted phrases, as illustrated in (44). Both the fronted periphrastic 'why' expression and the focus-fronted XP may optionally be followed by either the focus marker or the restrictive relative pronoun (as far as we can tell, all logically possible combinations of multiple left peripheral **ka** and **jé** are attested).

(44) **mɛ́ ɔ-kplɛ̀ (ka/jé) a-zaì (ka/jé) Kofí ɔ̀-zá?**
what CM-reason FOC/REL CM-beans FOC/REL Kofi SM-cook.PST
'Why did Kofi cook BEANS (as opposed to, say, rice)?'

By contrast, no other *wh-* expression in the language may co-occur in the left periphery with a focus-fronted non-interrogative item. The examples in (45) illustrate this with a sampling of argument and non-argument fronted *wh-* interrogatives.

(45) a. ***ɔ̀-mɔ̀ (ka/jé) a-zaì (ka/jé) ɔ̀-zá?**
CM-who FOC/REL CM-beans FOC/REL SM-cook.PST
(Intended: 'Who cooked BEANS?')

b. ***mɛ́ nù (ka/jé) a-zaì (ka/jé) Kofí ɔ̀-zá?**
what in FOC/REL CM-beans FOC/REL Kofi SM-cook.PST
(Intended: 'Where did Kofi cook BEANS?')

c. ***i-bè i-mwá nù (ka/jé) a-zaì (ka/jé) Kofí ɔ̀-zá?**
CM-time CM-which in FOC/REL CM-beans FOC/REL Kofi SM-cook.PST
(Intended: 'When did Kofi cook BEANS?')

Similar 'why'/non-'why' focus co-occurrence asymmetries have been documented in other languages (see, for example, Rizzi 2001 on Italian; Shlonsky and Soare 2011 on Romanian; and Torrence and Kandybowicz 2015 on Krachi). We informally account for this asymmetry by positing a special higher landing site in the left periphery for 'why' than other *wh-* expressions in the language, but do not pursue the exact location/position of this landing site, as it is tangential to our descriptive focus. This approach dovetails with analyses like Rizzi (2001) and Shlonsky and Soare (2011) that argue that 'why' interrogatives exceptionally occupy positions higher than the Focus Phrase projection targeted by all other moving *wh-* expressions. The datum in (44) is also of considerable significance because it illustrates the interesting possibility that focus/cleft constructions can be used recursively in the language.

The second exceptional property of 'why' questions is revealed exclusively in the *wh-* cleft construction. As demonstrated in (35), object *wh-* clefts may be formed by way of the restrictive relativizer **jé**, but may not be built around the non-restrictive relative operator **xé**. This fact characterizes all *wh-* clefts apart from those involving periphrastic 'why'. The data in (46) shows that 'why' clefts are

exceptional in this respect. Unlike all other *wh*- expressions in the language, 'why' clefts can either be formed via the restrictive relative pronoun **jé** or exceptionally by way of the nonrestrictive relative operator **xé**.

(46) a. **ɔ̀-mɔ̀ jé/*xé ò-kpló i-dzɔ́ a-fàn nù u-dântʃì-e?**
CM-who REL SM-fry.PST CM-yam CM-home in CM-morning-DET
'Who fried yams at home this morning?'

b. **mɛ́ jé/*xé Fafa ò-kpló a-fàn nù u-dântʃì-e?**
what REL Fafa SM-fry.PST CM-home in CM-morning-DET
'What did Fafa fry at home this morning?'

c. **mɛ́ nù jé/*xé Fafa ò-kpló i-dzɔ́ u-dântʃì-e?**
what in REL Fafa SM-fry.PST CM-yam CM-morning-DET
'Where did Fafa fry yams this morning?'

d. **i-bè i-mwá nù jé/*xé Fafa ò-kpló i-dzɔ́ a-fàn nù?**
CM-time CM-which in REL Fafa SM-fry.PST CM-yam CM-home in
'When did Fafa fry yams at home?'

e. **mɛ́ ɔ-kplɛ̀ jé/xé Fafa ò-kpló i-dzɔ́ a-fàn nù u-dântʃì-e?**
what CM-reason REL Fafa SM-fry.PST CM-yam CM-home in CM-morning -DET
'Why did Fafa fry yams at home this morning?'

At this time, we have no speculation about why the semantics of 'why' questions exceptionally allows for cleft formation on nonrestrictive relative clauses. We leave this very interesting analytical puzzle for future research.

4.4 Partial *wh*- movement

Wh- interrogatives originating in embedded clauses may occupy several surface positions. As discussed in Section 4.2.2, the interrogative expression may appear in its originally merged thematic position and take matrix scope, giving rise to long-distance *wh*- in-situ. This is illustrated once again in (47a). Another possibility is that the interrogative may undergo long-distance *wh*- movement into the matrix clause left periphery. Example (47b) exemplifies this movement pattern. A third option is that the *wh*- expression may partially move, targeting the left periphery of the embedded clause, as shown in (47c). In this construction, partial *wh*- movement may be of the bare, focus-marked, or cleft variety, as revealed by the optional realization of either **ka** or **jé** in (47c). As reflected in the translations provided by our native speaker consultants, the *wh*- operator takes matrix scope in cases like

these. Structures like (47c) are true information-seeking questions requiring answers, thus the movements involved are "partial" *wh-* movements.

(47) a. **Kofí ɔ-blɔ à-sùsu té Miaŋíka ɔ̀-tɔ́ mɛ́?**
Kofi SM-take.PRS CM-thought COMP Mianika SM-push.PST what
'What does Kofi think that Mianika pushed?'

b. **mɛ́ (ka/jé) Kofí ɔ-blɔ à-sùsu té Miaŋíka ɔ̀-tɔ́?**
what FOC/REL Kofi SM-take.PRS CM-thought COMP Mianika SM-push.PST
'What does Kofi think that Mianika pushed?'

c. **Kofí ɔ-blɔ à-sùsu té mɛ́ (ka/jé) Miaŋíka ɔ̀-tɔ́?**
Kofi SM-take.PRS CM-thought COMP what FOC/REL Mianika SM-push.PST
'What does Kofi think that Mianika pushed?'

Although relatively rare in the Kwa languages (see Torrence and Kandybowicz 2015 for partial *wh-* movement in Krachi and Torrence et al. 2019 for partial *wh-* fronting in Avatime), partial *wh-* movement is robustly attested across a variety of *wh-* items and embedding verbs in Ikpana. Our research thus far indicates that regardless of their thematic status, all interrogative expressions in the language may undergo partial movement to a peripheral focus position in an embedded clause. To illustrate, we present a few additional examples below involving partially moved argument and adjunct *wh-* expressions.

(48) a. **Kofí ɔ̀-wá té ɔ̀-mɔ̀ (ka/jé) ɔ̀-tɔ́ Sása?**
Kofi SM-tell.PST COMP CM-who FOC/REL SM-push.PST Sasa
'Kofi said who it was that pushed Sasa.' (Embedded *wh-* focus/cleft)
'Who did Kofi say pushed Sasa?' (Partial *wh-* movement)

b. **Kofí ɔ-blɔ à-sùsu té i-bè i-mwá nù (ka/jé)**
Kofi SM-take.PRS CM-thought COMP CM-time CM-which in FOC/REL
Miaŋíka ɔ̀-tɔ́ Sása?
Mianika SM-push.PST Sasa
'When does Kofi think that Mianika pushed Sasa?'
✓'when-push'; *'when-think'

In Ikpana's partial *wh-* focus movement constructions, as in the related languages Avatime (Torrence et al. 2019), Krachi (Torrence and Kandybowicz 2015), Bono (Kandybowicz 2017, 2020), and Wasa (Kandybowicz 2017, 2020), the moved interrogative is unaccompanied by an overt question marker in the clause where it takes scope (i.e. the main clause). Because no such scope-marking particle appears in the root clause, we can identify the breed of partial *wh-* movement attested in the language as "simple/naked partial movement", referencing Fanselow's (2006) typology.

4.5 *Wh*- question intonation

Like polar questions, *wh*- questions in Ikpana are characterized by a special intonation. Unlike polar questions, though, no final lengthening is observed. In this section, we show that both *wh*- movement and *wh*- in-situ questions are marked by a H% boundary tone, as in polar questions. Due to space limitations, we restrict ourselves to mono clausal (i.e. unembedded) *wh*- question intonation.

4.5.1 *Wh*- in-situ intonation

Polar questions and mono clausal *wh*- in-situ questions are both marked by H% boundary tones. Here, we focus only on the case where the *wh*- word is not in sentence-final position. This is because it is impossible to have a mono clausal sentence-final *wh*- word in declarative sentences that can serve as a basis for comparison. On the other hand, if a sentence-final word is not a *wh*- word, we can directly compare the effect of boundary tones associated with different sentence types on the same word in the same sentence-final position.

Figure 6 shows the pitch track of a *wh*- in-situ question with the *wh*- word **mɛ́** 'what'. In this question, the vowel of **mɛ́** is deleted due to hiatus resolution, and the lexical H tone associated with the *wh*- word is realized on the class marker of the following noun **ɔ-jɔ́** 'tree' (i.e., /…**mɛ́ ɔ-jɔ́**…/ → […**mɔ́jɔ́**…]). Crucially, the final lexical H tone on **tsú** 'on' is not lowered to the mid level as in declarative sentences, but rather retains its high F0 due to the effect of H%.

Figure 7 shows the pitch track of a *wh*- in-situ question with **ɔ̀-mɔ̀** 'who' ending with a lexical L tone. The sentence-final L tone does not fall as in declarative sentences (see Figure 4), but rather stays flat (or is even slightly raised) due to H%. This utterance-final pattern of sustained pitch is similar to what was observed in Figure 5.

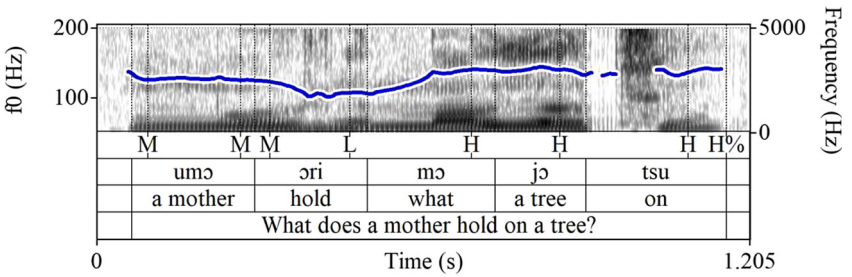

Figure 6: Sample pitch track showing the effect of H% in an H tone-ending *wh*- in-situ question with **mɛ́** 'what' (realized as [**mɔ́**]).

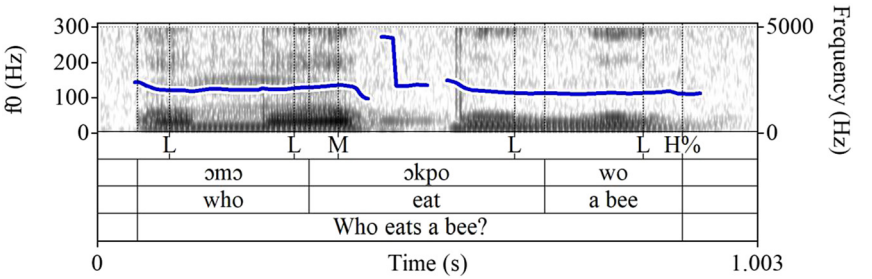

Figure 7: Sample pitch track showing the effect of H% in an L tone-ending *wh-* in-situ question with **ɔ̀-mɔ̀** 'who'.

In the *wh-* in-situ questions shown in Figures 6 and 7, there is no pause after the *wh-* word and, as noted with regard to Figure 6, vowel hiatus resolution between the *wh-* word **mɛ́** 'what' and the class marker of the following noun **ɔ-jɔ́** 'tree' deletes the vowel on **mɛ́**. These facts seems to suggest that the in-situ *wh-* item does not introduce additional prosodic boundaries and is treated the same as non-*wh-* items in terms of prosodic phrasing.

4.5.2 *Wh-* movement intonation

As in *wh-* in-situ questions, *wh-* movement questions are marked by an H% boundary tone. Figure 8 shows the pitch track of a *wh-* movement question with the *wh-* expression **mɛ́ nù** 'where', while Figure 9 shows that of a *wh-* movement question with the *wh-* expression **mɛ́ ɔ-kplɛ̀** 'why' (realized as [**mɔ́kplɛ̀**]). In both *wh-* questions, the sentence-final lexical H tone retains its high F0 due to the effect of H%.

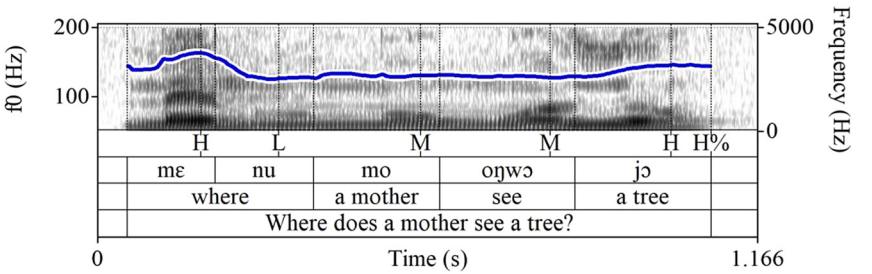

Figure 8: Sample pitch track showing the effect of H% in an H tone-ending *wh-* movement question with **mɛ́ nù** 'where'.

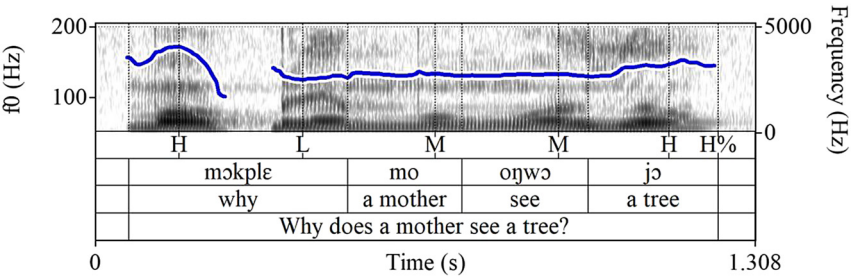

Figure 9: Sample pitch track showing the effect of H% in an H tone-ending *wh-* movement question with **mɛ́ ɔ-kplɛ̀** [**mɔ́kplɛ̀**] 'why'.

Figures 10 and 11 are exactly the same as Figures 8 and 9 except that the final and penultimate tones are lexical L tones (**ò-wò** 'bee'). As expected, the final lexical L tone does not fall as in declarative sentences, but is slightly raised due to the effect of H%.

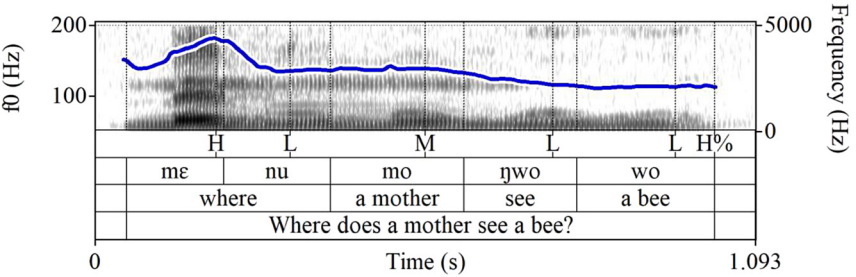

Figure 10: Sample pitch track showing the effect of H% in an L tone-ending *wh-* movement question with **mɛ́ nù** 'where'.

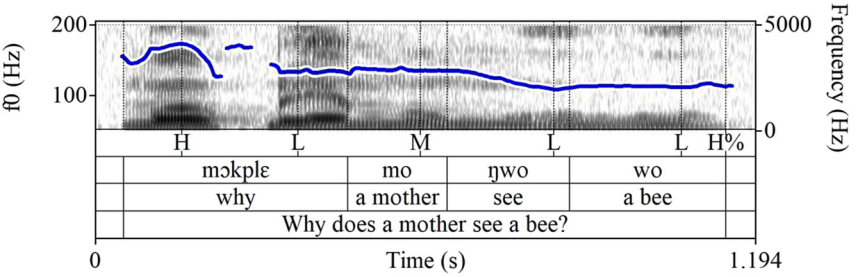

Figure 11: Sample pitch track showing the effect of H% in an L tone-ending *wh-* movement question with **mɛ́ ɔ-kplɛ̀** [**mɔ́kplɛ̀**] 'why'.

In natural speech, there is no pause after the *wh-* expressions **mɛ́ nù** 'where' (Figures 8 and 10) or **mɛ́ ɔ-kplɛ̀** 'why' (Figures 9 and 11). Moreover, even vowel hiatus resolution occurs in both cases: /**mɛ́ nù u-m**…/ → [**mɛ́nùma**]; /**mɛ́ ɔ-kplɛ̀ u-m**…/ → [**mɔ́kplɛ̀m**…]. These hiatus resolution facts seem to suggest that just as with the *wh-* in-situ items, the fronted *wh-* item also phrases prosodically with the following constituent (Baron Obi 2019a, 2019b).

5 Conclusion

In this article, we have provided a comprehensive description of the interrogative system of Ikpana. We have shown that polar interrogatives in the language are characterized by final lengthening as well as a sentence-final interrogative marker. Intonationally, polar questions are marked by an H% boundary tone realized on the lengthened sentence-final vowel. As for *wh-* interrogatives, we have shown that Ikpana is an optional *wh-* fronting language where *wh-* expressions (with the exception of 'how') may remain in-situ in both simple and multiple questions. *Wh-* interrogatives (with or without *wh-* movement) are also marked by H% boundary tones. In-situ *wh-* items in embedded clauses may either take scope over the embedded clause (local *wh-* in-situ) or over the matrix clause (long-distance *wh-* in-situ). In embedded clauses, both partial and long-distance *wh-* movement are available. In both matrix and embedded clauses, fronted interrogative items may be immediately followed by **ka** and/or **jé**, but only in this order. We have demonstrated that while **ka** is most likely a focus marker, **jé** is a restrictive relativizer that is recruited to form interrogative cleft structures. The interrogative expression 'how' is exceptional in that it cannot co-occur with either **ka** or **jé** and is most likely base-generated high in the left periphery. The item 'why' is also exceptional in the language. Unlike other *wh-* expressions, it may precede focused non-interrogative constituents in the left periphery and it may combine with the non-restrictive relative operator **xé** to form *wh-* cleft structures.

Our contribution with this paper is twofold. First, empirically, we have added to the ongoing documentation of an under-documented language. With only approximately 7,000 speakers left, and an increasing influence from Ewe (Dorvlo 2008, 2011, 2004; Green 2009), Ikpana is an endangered language. It is therefore crucial to document as many aspects of the language as possible and to do so in a timely fashion. By documenting the interrogative system of Ikpana, we also provided data and considerations related to other aspects of the language such as

focus constructions, morphology, and the language's prosodic system. Lastly, we hope to have demonstrated the value of documenting aspects of a language with theoretical considerations in mind. If our goals for this research project had been purely descriptive, we would not have reached a description as rich as the one put forth here. We therefore strongly believe that documentation work and theoretical work must be conducted jointly as they feed into and inform each other.

Abbreviations

Abbreviations in this article follow the Leipzig Glossing Rules with minor additions, and include:

ANIM	animate
CM	class marker
COMP	complementizer
COP	copula
DET	determiner
FOC	focus
FUT	future
NEG	negative
OBJ	object
PL	plural
PROG	progressive
PRS	present
PST	past
Q	question particle
REL	relativizer
SG	singular
SM	subject marker

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