Bàsàa Wh-questions and Prosodic Structuring[*]

Fatima Hamlaoui
LPP, UMR 7018 (CNRS/Sorbonne-Nouvelle)
Goethe-Universität Frankfurt Am Main

Emmanuel-Moselly Makasso
ZAS, Berlin

We show that wh-words are a tool to investigate the prosodic structure of Bàsàa. Our claim is that the end of an Intonation Phrase (IP) can be identified by the presence of a long vowel on the wh-word. We propose that wh-words, which sometimes surface as CV́ and sometimes as CV́V́, are underlyingly of the CV́ form and they introduce a floating H. Whenever the association of this floating H with the first tone bearing unit that follows the wh-word is prevented by the presence of an IP boundary, a mora is created on the wh-word in order to realize the floating H. We briefly discuss the interface approach of Immediately After the Verb (IAV) focus (Costa and Kula, 2008) and we show that Bàsàa wh-questions and answers do not support this hypothesis. Finally, Bàsàa fronted wh-phrases, just like Hausa's fronted foci (Leben et al., 1989), seem to provide support to the idea that intonational effects are also at play in the present tone language.

1 Introduction

Bàsàa is a Western Bantu language spoken in Cameroon, in the Coastal region. Codified A43 by Guthrie (1948), this languages counts approximately 282 000 (according to SIL 1982). As far as description is concerned, Bàsàa can be considered as one of the best described languages in Cameroon (see Hyman, 2003; Makasso, 2008, and references therein).

The prosody of the language reveals the existence of two lexical tones, High (H / ´) and Low (L / `) that can be changed into Falling (HL / ˆ), Rising (LH / ˇ) and Downstepped (!H / ↓) depending on the context. The phonological processes reported in the language are: High Tone Spreading (HTS), floating tone and downstep.

On the segmental level, the phonology of Bàsàa points out a lexical contrast between long and short vowels. This contrast is illustrated in (1).

(1)   a.   ɓá 'to be' vs. ɓáá 'those'
          b.   kàr 'to chase away' vs. kààr 'book'
          c.   kúr 'blow' vs. kúúr 'tortoise'
          d.   sɔ̀ 'to wash' vs. sɔ̀ɔ̀ 'to flow'
          e.   tʃé 'disappear' vs. tʃéé 'his/her'

Bàsàa is thus distinct from a number of oft-discussed Eastern and Southern Bantu languages like Chichewa, Chitumbuka or Zulu. In these languages, vowel length is non-contrastive. Vowel lengthening targets the penultimate syllable of a word and tends to be conditioned by the position of this word within a prosodic domain. This process is well-known for being the most straightforward way to identify the presence of a Phonological Phrase and/or an Intonation Phrase in a number of Bantu languages (for instance, see Kanerva, 1990; Downing, 2006, respectively on Chichewa and Chitumbuka).

In contrast with these languages, Bàsàa has retained the Proto-Bantu vowel-length contrast (on this topic, see Hyman, 2009) and vowel lengthening is thus not surprisingly less available to signal prosodic boundaries. Interestingly, there however seems to be a restricted set of items whose vowel length is conditioned by their position within a prosodic domain. The wh-words listed in (2) belong to this set, and they thus provide us with useful information as to the presence or absence of some prosodic boundaries. As their form does not vary depending on their position, we leave aside other wh-phrases like 'why' or 'which'-phrases.

(2)   ●ndʒɛ́ɛ́ 'Who'

          ●kíí 'What'

          ●láá 'How'

          ●hɛ́ɛ́ 'Where'

To the best of our knowledge, no work has yet investigated the prosodic phrasing in Bàsàa. The present article is a first endeavour in this direction.

This paper is structured as follows. In Section 2, Bàsàa wh-questions are introduced. We distinguish two types of wh-questions based on (i) the location of the wh-phrase and (ii) the type of answers the question is preferably associated with. In Section 3, we discuss the fact that the length of vowel of the wh-phrase varies depending on its location within the question, and particularly on whether

it is located at a certain prosodic edge, namely the right edge of an Intonation Phrase. We argue that the wh-words listed in (2) are underlyingly of the form CÝ+H: they have a short vowel and introduce a floating High tone. Whenever the wh-word is non-final within an Intonation Phrase, the floating High tone associates with the first syllable of the word that follows it and the wh-phrase itself surfaces as short. Whenever the wh-phrase is final within its Intonation Phrase (which is also the case when it is pronounced in isolation, as in (2)), the necessity to realize this floating tone forces the lengthening of the wh-words vowel. Wh-phrases' length is thus an indicator of prosodic boundaries. Section 4 concludes the paper.

2   Bàsàa wh-questions

In Bàsàa, the canonical word order is the following:

Subject - TAM - Verb - Indirect Object - Direct Object - Adjuncts

The data we collected with the *SynphonI/BantuPsyn Questionnaire on questions* shows that when forming a wh-question, Bàsàa speakers have several strategies at their disposal. The surface positions in which the different wh-phrases can occur are summarized in Table 1.

Table 1 : Distribution of wh-phrases in Bàsàa

Wh-phrases	Fronted	IAV	In situ
Subject – nʤɛ́(ɛ́)/kí(í)	✓	✗	✓
Direct Object – nʤɛ́(ɛ́)/kí(í)	✓	✓	✗
Indirect Object – nʤɛ́(ɛ́)/kí(í)	✓	✓	✗
Manner – lá(á)	✓	✓	✗
Temporal – kɛ́l ꜜkíí	✓	✗	✓
Locative – hɛ́(ɛ́)	✓	✓	✗

2.1   Fronted wh-questions

As shown in Table 1, all types of wh-phrases have in common that they can be extracted from their canonical position and located in clause-initial position. This is first illustrated with the non-subject wh-questions in (3) to (9).[1]

---

[1]   Abbreviations: Cl: class; pl: plural; CONN: connective; DEM: demonstrative; DET: determiner; DISJ: disjoint; DS: dummy subject; EMPHPRO: emphatic pronoun; FV: final vowel; LOC: locative; NEG: negation; P$_1$: past 1; P$_2$: past 2; PRES: present; sg: singular; SM: subject marker.

(3)   A: **kíí** màààŋgέ à   ǹ-sɔ́mb?
what child   SM3sg P₁-buy
'What did the child buy?'

        B: **líkúβé ʤɔ́n**   à   ǹ-sɔ́mb .
banana EMPHPRO SM3sg P₁-buy
'He bought a banana.'

(4)   A: **kíí** à   ŋ́-ꜜáŋ?
what SM3sg PRES-read
'What is he reading?'

        B: **kààr ì**   **mɔ̀ndɔ́ jŏŋ**   à   ŋ́-ꜜáŋ.
book CONN new   EMPHPRO SM3sg PRES-read
'He is reading this new book.'

(5)   A: **kíí** à   ǹ-lɔ́ꜜná ɓés?
what SM3sg P₁-bring us
'What did she bring us?'

        B: **màkàlà mɔ́n**   à   ǹ-lɔ́ꜜná ɓés .
doughnuts EMPHPRO SM3sg P₁-bring us
'She brought us doughnuts.

(6)   A: **nʤέέ** à   m̀-ɓɔ́ꜜmá í   cinema?
who SM3sg P₁-meet   LOC movies
'Who did she meet at the movies?'

        B: **Paul ɲén**   à   m̀-ɓɔ́ꜜmá í   cinema.
Paul EMPHPRO SM3sg P₁-meet   LOC movies
'She met Paul at the movies.'

(7)   A: **kíí** màààŋgέ à   ǹ-sɔ́mb ɲâɲ?
what child   SM3sg P₁-buy   mother
'What did the child buy to his mother?'

        B: **βìtámb gwɔ́n**   màààŋgέ à   ǹ-sɔ́mb ɲâɲ.
shoes   EMPHPRO child   SM3sg P₁-buy   mother
'The child bought the mother shoes.'

(8)   A: **héέ** màààŋgέ à   ŋ̀-kê?
where child   SM3sg P₁-go
'Where did the child go?'

        B: **í ɓòm ɲén**   màààŋgέ à   ŋ̀-kê.
LOC market EMPHPRO child   SM3sg P₁-go
'The child went to the market.'

(9)   A: **láá** à   m̀-ɓɔ́l ɲɔ̀ɔ̀?
how SM3sg P₁-get here
'How did he get here?'

B: **nì màkòò ɲén** à m̀-ɓɔ́l ɲɔ̀.
with foot EMPHPRO SM3sg P$_1$-get here
'He got here on foot.'

When a language shows different types of wh-interrogatives, the question often arises whether all the variants are equivalent, that is, (i) whether they can all be used in the same discourse context and (ii) whether they all call for the same type of answers. In Bàsàa, these variants are not equivalent. When a wh-phrase is fronted, the wh-question is characterized by the fact that it asks for a *precise* answer. It is appropriate when both speaker and hearer have an identified set in mind, that is when the wh-phrase is *D-linked* in the sense of Pesetsky (1987). In addition, the speaker who uses this type of wh-questions has strong expectations on the hearer to be able to provide an answer. This type of expectations has also been observed in Shingazidja (Bantu, G44d, spoken in La Grande Comore) by Patin (2011).

Bàsàa fronted wh-questions are preferably answered with an exhaustive answer, in which the item answering the question is located in clause-initial position and is followed by a so-called 'emphatic pronoun' in Hyman (2003)'s terminology.[2] Sentences with an initial focus and an 'emphatic pronoun', as the ones given in (3)B to (9)B, are also used in contrastive and corrective contexts as well as in alternative questions.

More importantly for the present discussion, when the wh-phrase is fronted, its vowel is long and its H is realized with a perceivably higher pitch than other sentence initial H tones. This point will be developed further in Section 3.

In languages in which the canonical position of a subject is clause-initial, it is sometimes difficult to determine the structural position of a subject wh-phrase, that is, whether it is in situ or whether is has been fronted to the same position as clause initial non-subject wh-phrases. Depending on the discourse context in which the question is uttered, that is, whether or not the wh-question requires a *precise answer*, Bàsàa subject wh-phrases exhibit either a long vowel, or a short one. We take it that the length of the subject wh-phrase indicates whether it is in situ (short vowel) or fronted (long vowel).

2.2 In situ and IAV wh-questions

Let us now turn to the other type of wh-questions found in this language. As shown by the table 1, Bàsàa is similar to other Bantu languages like e.g. Aghem (Watters, 1979) or Makhuwa (Van der Wal, 2006) in that the Immediately After

---

[2] Whenever the initial focus is a noun phrase, as in (3)B to (7)B, the 'emphatic pronoun' agrees in class with it. In all other cases, as with the prepositional phrases in (8)B and (9)B, it shows a class 1 agreement. See Hamlaoui and Makasso (in prep.) for a re-analysis of 'emphatic pronouns'.

the Verb (IAV) position has a special status. In these languages, focal elements occupy the IAV position. This is illustrated in (10) and (11), respectively with a subject wh-question/answer pair and a locative wh-question/answer pair in Aghem (SVO):

(10)   Aghem

    A: à   mɔ̀ ñɨ́ŋ **ndúghɔ́**?
        DS P₂   run who
        'Who ran?'

    B: à   mɔ̀ ñɨ́ŋ **éná ʔ**.
        DS P₂   run Inah
        'Inah ran.'(Watters, 1979, 144)

(11)   Aghem

    A: fɨ́l   á   mɔ̀ zɨ́ **ghɛ́** bɛ́-↓kɔ́?
        friends SM P₂   eat where fufu
        'Where did the friends eat fufu?'

    B: fɨ́l   á   mɔ̀ zɨ́ **án ↓óm** bɛ́-↓kɔ́?
        friends SM P₂   eat in farm   fufu
        'The friends ate fufu at the farm.' (Watters, 1979, 147)

The following examples show that in Bàsàa too, in presence of a certain type of focal items, i.e. one of the wh-phrases given in (2), the canonical word order (S-V-IO-DO-Adjuncts) is abandoned so as to place this item right after the verb. Two things are worth noting concerning the type of sentences illustrated in (12a), (13a) and (14a). First, in this context, the wh-phrase takes a CV́ form. Second, the word following the wh-phrase gets a H tone on its first syllable – /ɲàŋ/ > [ɲâŋ], /kààr/ > [káár] and /màkàlà/ > [mákàlà], respectively – just like when it is located in the IAV position[3]. We will come back to this in Section 3.

(12)   a.   màànɡɛ́ à   ǹ-sɔ́mb **kí** ɲâŋ?
         child   SM3sg P₁-buy   what mother

    b.   ʔmàànɡɛ́ à   ǹ-sɔ́mb ɲâŋ   **kíí**?
         child   SM3sg P₁-buy   mother what
         'What did the child buy for his mother?'

(13)   a.   à   ŋ̀-kú↓húl **hɛ́**   káàr?
         SM3sg P₁-obtain   where book

    b.   ʔà   ŋ̀-kú↓húl káàr **hɛ́ɛ́**?
         SM3sg P₁-obtain   book where
         'Where did he get the book?'

---

[3]   In Bàsàa, words with an underlyingly non-H first tone bearing unit show that items located in the IAV position receive a H tone at all tenses except for Past 3. This is discussed in Section 3.1.

(14)   a.   à   ḿ-ɓɔ̀ŋ   **lá**   mákàlà?
       SM3sg PRES-make how doughnuts

       b.   ?à   ḿ-ɓɔ̀ŋ   mákàlà   **láá**?
       SM3sg PRES-make doughnuts how
       'How does he make doughnuts?'

The examples from (12b) to (14b), in which the wh-phrase is left in situ, are not completely ungrammatical, but strongly dispreferred. Example (12b) is appropriate as a rhetorical question, conveying the meaning 'The child didn't buy anything for his mother'.

Interestingly, the IAV position in Bàsàa differs from the one found in these other Bantu languages in that it only attracts a subclass of non-subject wh-words that is, the ones given in (2). Subject wh-words and temporal wh-phrases are either in situ or fronted, but never IAV. As illustrated in examples (15) to (18), whenever these wh-phrases are located IAV, the sentence is ungrammatical.

(15)   a.   **nʤɛ́** à   ǹ-tɛ́hɛ́ Juma?
       who SM3sg P$_1$-see Juma

       b.   *à   ǹ-tɛ́hɛ́ **nʤɛ́(ɛ́)** Juma?
       SM3sg P$_1$-see who   Juma
       'Who saw Juma?'

(16)   a.   **kí** í   ń-tímbá   ńjàŋgà?
       what SM7 P$_1$-damage bridge

       b.   *í   ń-tímbá **kí(í)** ńjàŋgà?
       SM7 P$_1$-damage what bridge
       'What damaged the bridge?'

(17)   a.   à   ɓí-$^↓$sómb í kààr ìní **kɛ́l$^↓$kíí**?
       SM3SG P$_2$-buy   í book DEM when

       b.   *à   ɓí-$^↓$sómb **kɛ́l$^↓$kíí** í kààr ìní?
       SM3SG P$_2$-buy   when   í book DEM
       'When did he buy this book?'

(18)   a.   mààngɛ́ à   ɓí$^↓$tí   ń$^↓$sáŋ kàar **kɛ́l$^↓$kíí**?
       child   SM3sg p$_2$-give father book when

       b.   *mààngɛ́ à   ɓí$^↓$tí **kɛ́l$^↓$kíí** ń$^↓$sáŋ kàar?
       child   SM3sg p$_2$-give when   father book
       'When did the child give the book to his father?'

When the subject wh-phrase is short, it is generally co-articulated with the subject marker {à}, giving rise to the form [nʤâ]:

(19)   **nʤâ**   ǹ-tɛ́hɛ́ Juma?
       who-SM3sg P$_1$-see Juma
       'Who saw Juma?'

Incidentally, the fact that a subject can be questioned and focused in situ indicates that, in contrast with many Bantu languages, in Bàsàa there is no general ban on preverbal foci.

Another specificity of Bàsàa's IAV position is that this position is located immediately after the *tensed* verb. This is illustrated in (20) to (22). In the presence of a modal verb or an auxiliary, the wh-word appears *within* the verbal complex.[4]

(20)   ù   ń-sòmból **kí**   ʤέ?
        SM2sg PRES-want   what eat
        'What will you eat?'

(21)   mààŋgέ à   ń-là **kí**   ɓôŋ?
        child   SM3sg P₁-can what do
        'What could the child do?'

(22)   ù   jè   **lá**   í   ꜜlámb gateau?
        SM2sg PRES-be how loc cook   cake
        'How are you baking the cake?'

Bàsàa wh-questions with an in situ or IAV wh-phrase do not come with the same presupposition and exhaustiveness requirement as fronted wh-phrases. Whereas a negative answer of the type "nobody" or "nothing" is odd with a fronted wh-question, it is perfectly acceptable for a wh-question with a wh-phrase IAV or in situ. As illustrated with the question-answer pairs in (23) to (30), these questions are preferably answered with a canonical sentence (instead

---

[4]   The negation can be inserted between the tensed verb and the IAV wh-word, as in the following examples:

(i)   mààŋgέ à   ŋ-ꜜgwés **ɓé kí** tí ńsáŋ?
       child   SM3sg PRES-like NEG what give father
       'What doesn't the child want to give to his father?'

(ii)   à   ŋ-ꜜgwés há **ɓé kí** tí ńsáŋ?
       SM3sg PRES-like again NEG what give father
       'What doesn't he want to give to his father anymore?'

In the presence of the negation, the wh-phrase can also surface lower in the structure, right after the lexical verb:

(iii)   à   ɣá-là ɓé sɔ́mb **kí** jáání   í   ɓòm?
       SM3sg F₂-can NEG buy   what tomorrow loc market
       'What won't he be able to buy tomorrow at the market?'

This type of sentences are consistent with the other questions discussed here, in which the wh-word is IAV and non-final within the sentence. They will be discussed in Hamlaoui and Makasso (in prep.), which concentrates on the syntax of questions and focus in Bàsàa.

of a sentence with fronted focus). The fact that there is no requirement on the focused item within the answer to the wh-question to appear IAV means that the motivation for the wh-words in (2) to occupy the IAV position is not related to their focal nature.

(23) A: mààngέ à   ǹsɔ́mb **kíí**?
          child   SM3sg P$_1$-buy what
          'What did the child buy?'

      B: à   ǹ-sɔ́mb **líkúβé**.
          SM3sg P$_1$-buy   banana
          'He bought a banana.'

(24) A: à   ɲ́-$^{\downarrow}$áŋ   **kíí**?
          SM3sg PRES-read what
          'What is he reading?'

      B: à   ɲ́-$^{\downarrow}$áŋ   **káàr ì   mɔ̀ndɔ́**.
          SM3sg PRES-read book   CONN new
          'He is reading this new book.'

(25) A: à   ǹ-lɔ́$^{\downarrow}$ná **kí**   ɓés?
          SM3sg P$_1$-bring what us
          'What did she bring us?'

      B: à   ǹ-lɔ́$^{\downarrow}$ná ɓés **màkàlà**.
          SM3sg P$_1$-bring us   doughnuts
          'She brought us doughnuts.'

(26) A: à   m̀-ɓɔ́$^{\downarrow}$má **nʤέ** í   cinema?
          SM3sg P$_1$-meet   who LOC movies
          'Who did he meet at the movies?'

      B: à   m̀-ɓɔ́$^{\downarrow}$má **Paul** í   cinema.
          SM3sg P$_1$-meet   Paul LOC movies
          'He met Paul at the movies.'

(27) A: mààngέ à   ǹ-sɔ́mb **kí** ɲâɲ?
          child   SM3sg P$_1$-buy   what mother
          'What did the child buy to his mother?'

      B: mààngέ à   ǹ-sɔ́mb ɲâɲ   **βìtámb**.
          child   SM3sg bought   mother shoes
          'The child bought the mother shoes.'

(28) A: à   jè   **hέ**   lên?
          SM3sg PRES-be where today
          'Where is he today?'

      B: à   jè   lên í $^{\downarrow}$**mbáj**.
          SM3sg PRES-be today LOC village
          'He is at the village today.'

(29)   A: màààŋgɛ́ à   ŋ̀-kɛ́ ꜜ**hɛ́ɛ́**?
           child   SM3sg P₁-go where
           'Where did the child go?'

       B: à   ŋ̀-kɛ́ **í**   **ɓòm**.
           SM3sg P₁-go LOC market
           'He went to the market.'

(30)   A: à   m̀-ɓɔ́l **lá**   ɲɔ́ɔ̀?
           SM3sg P₁-get how here
           'How did he get here?.'

       B: à   m̀-ɓɔ́l ɲɔ́ɔ̀ **nì**   **màkòò**.
           SM3sg P₁-get here with foot
           'He got here on foot.'

The examples (23), (24) and (29) show that an IAV wh-phrase is not obligatorily short, and that what determines the length of these phrases is whether or not it is sentence-final. This fact will be discussed in Section 3.

In sum, in this section we have shown that Bàsàa exhibits two types of questions which are not equivalent from a semantic and pragmatic perspective: on the one hand, questions with a fronted wh-phrase and on the other hand, questions with an in situ or IAV wh-phrase. We have briefly introduced the fact that wh-words vary in length. Let us now turn our account of this phenomenon.

3   Prosodic structuring in Bàsàa wh-questions

3.1   Short wh-words

As was shown in the previous section, there are several positions in which a wh-word can occur in Bàsàa and it can either surface as CV́V́ or CV́.

We propose that in Bàsàa, the wh-words given in (2) are underlyingly of the form CV́ + H. Whenever the wh-word is in a position in which it is phrased with the following word, the floating H is realized on the first syllable of this word. This has been observed in two contexts. The first context is within a constituent, as in 'where' ('where' + 'place') in (31) and 'which man' ('who' + 'man') in (32).

```
        hɛ́   ´   hòmá   →   hɛ́   hɔ́ꜜmá
         |       | |          |    |   |
(31)    H   H   L H         H    H  !H

        ndʒɛ́   ´   mùt   →   ndʒɛ́   mût
          |         |           |     /|
(32)    H   H   L            H    HL
```

The second context is when the wh-word is located in the IAV position and is non-final within the sentence. This is illustrated with the examples (12),

(13), (14) and (28) repeated below. Each wh-question is followed by the auto-segmental representation of the relevant part of the clause.

(12) màà ŋgɛ́ à   ǹ-sɔ́mb **kí**   ɲâŋ?
      child   SM3sg P₁-buy   what mother
      'What did the child buy for his mother?'

```
...  kí    ´   ɲàŋ    →    kí     ɲâŋ
     |         |          |       /|
     H    H    L          H       HL
```

(13) à   ǹ-kú↓húl **hɛ́**   káàr?
      SM3sg P₁-obtain   where book
      'Where did he get the book?'

```
...  hɛ́   ´   kààr    →    hɛ́     káàr
     |        ‖           |        ‖
     H    H   LL          H        HL
```

(14) à   ḿ-ɓɔ̀ŋ   **lá** mákàlà?
      SM3sg PRES-make how doughnuts
      'How does he make doughnuts?'

```
...  lá    ´   màkàlà   →    lá      mákàlà
     |         |||          |        |||
     H    H    L L L         H        H L L
```

(28) à   jè   **hɛ́**   lên?
      SM3sg PRES-be where today
      'Where is he today?'

```
à    jè    hɛ́   ´   lên    →    à     jè    hɛ́    lên
|    |     |        |          |     |     |      /|
L    L     H    H   L          L     L     H      HL
```

It has been argued that, at least for a subset of Bantu languages, including Bàsàa (Costa and Kula, 2008), the motivation for focal items to occupy the IAV position is prosodic. However, the data collected and presented in this paper does not corroborate this approach. Costa and Kula, the tenants of this position, have established a link between conjoint-disjoint distinction in verb forms (first observed by Meeussen, 1959), the prosodic marking associated with conjoint forms and focusing. The distinction between conjoint and disjoint verb forms indicates whether a verb is final within its clause or not. It can be expressed through the presence/absence of a morphological marker as in the Zulu data in (33) (Buell, 2006), where the morpheme {-ya-} marks the disjoint form.

(33)   Zulu

    a. a-bafana   ba-**ya**-cul-a.
        DET-Cl2-boys SMCl2-DISJ-sing-FV
        'The boys are singing.'

b.   a-bafana   ba-cul-a   i-ngoma.
           DET-Cl2-boys SMCl2-sing-FV DET-Cl9-song
           'The boys are singing a song.'

It can also be expressed tonally, as in the examples (34) from Tswana (Creissels, 1996, 110), where the tone on the last syllable of the verb indicates whether the phrase that follows the verb is part of the same clause/constituent.

(34)   Tswana

     a.   bá   bínè lé   bòné.
         SM3pl dance with 3pl
         'They do not dance/are not dancing either.'

     b.   bá   bíné lé   bòné.
         SM3pl dance with 3pl
         'They do not dance/are not dancing with them.'

The idea is that by immediately following the conjoint verb, focused items obtain the prosodic marking necessary to satisfy interface conditions on the prosodic marking of focus. This prosodic marking can be tonal and/or phrasal depending on the language. It is illustrate for Makhuwa in (35). According to Costa and Kula (2008), in this language, this prosodic marking consists of the realization of tonal lowering (LHL → LLH).

(35)   Makhuwa

     a.   ni-m-váhá   enuní   maátsi.
         SM1pl-PRES-give Cl10-birds Cll6-water
         'We give the *birds* water.'

     b.   ni-m-váhá   maatsí enúni.
         SM1pl-PRES-give Cl6-water Cl10-birds
         'We give *water* to the birds.' (Van der Wal, 2006, 239–241)

In Bàsàa, final verbs are also distinguished from non-final ones. This is illustrated in (36), in which the verb 'selling' ends with a L when it is final and a H when it is non-final. The process is seen as the remnants of the conjoint-disjoint forms. In addition, the language exhibits a process of "metatony" (see Nurse, 2006), by which a *High tone spreads from the last vowel of the verb onto the following tone bearing unit*. This happens in (36b) and (36c): the word 'doughnuts', whose underlying representation is /màkàlà/, becomes [mákàlà] due to the fact that it is IAV. The item that immediately follows the verb is thus somehow prosodically distinguished, as it acquires a H tone.

(36)   a.   mὲ   n-nùŋ**ù**l
           SM1sg PRES-sell
           'I'm selling.'

b. mὲ   n-nùŋúl mákàlà.
   SM1sg PRES-sell doughnuts
   'I'm selling doughnuts.'

c. mὲ   n-nùŋúl wέ màkàlà.
   SM1sg PRES-sell you doughnuts
   'I'm selling doughnuts for you.'

The wh-questions and answers presented in the previous section do not support the idea that the IAV position, the prosodic marking related to the conjoint-disjoint distinction and focusing are related in Bàsàa. First, placing the wh-word IAV does not ensure that it is aligned with the right edge of a prosodic domain. This is suggested by the fact that the floating H tone introduced by the wh-word associates with the following word. There is thus no prosodic boundary separating them.Second, both wh-words and focused items in declaratives suggest that focusing and metatony are two unrelated processes. As was shown with the examples (20) to (22), in Bàsàà, the exact position targeted by the wh-phrase is right after the *tensed* verb. In the process of "metatony", the *lexical* verb is the source of the H tone. Whenever the wh-word appears in a clause containing a periphrastic verb form, it precedes the lexical verb, and it is the item that follows the lexical verb that is prosodically distinguished by acquiring this H tone. This is illustrated in the following examples, in which /lìkúbé/ and /màkàlà/ are respectively realized as [líkúbé] and [mákàlà].

(37)   Juma à   ŋ́-↓gwés **hέ**   ʤέ líkúbé?
        Juma SM3sg Pr-want where eat banana
        'Where does Juma want to eat a banana?'

(38)   Juma à   ɓé-là ↓**lá** ɓɔ́↓ɔ́ŋ mákàlà?
        Juma SM3sg P₂-can how do   doughnuts
        'How could Juma make the doughnuts?'

As for focusing in declaratives, the answers to the wh-questions in examples (3) to (9) and (23) to (30), also militate against establishing a link between focusing and the tonal remnants of the conjoint-disjoint distinction, as the item corresponding to the wh-word is not located IAV. Leaving aside the answers with a fronted focus, the focused item only appears IAV when it is its canonical position, otherwise a discourse-given item ends up there and thus realizes the H tone spread by the verb. This is illustrated in the answer in (39)B, in which /ɓɔ̀ɔ̀ŋgέ/ is realized as [ɓɔ́ɔ́ŋgέ]. This discourse-given item realizes the H tone associated to the IAV position whereas the focus /màkàlà/ is simply realized [màkàlà].

(39)   A: à   ǹ-lɔ́↓ná **kí** ɓɔ́ɔ́ŋgέ?
              SM3sg P₁-bring what children
              'What did she bring to the children?'

B: à   ǹ-ló⁺ná ɓɔ́ɔ́ŋgɛ́ **màkàlà**.
    SM3sg P₁-bring children doughnuts
    'She brought the children doughnuts.'

3.2 Long wh-words

Whenever the wh-word is fronted or final within the sentence (be it IAV or not), it exhibits a long vowel. Our contention is that this is due to the fact that it is final within its prosodic group, that is, it is right-aligned with a prosodic boundary. This boundary prevents the floating H introduced by the wh-word from associating with the next tone bearing unit. The need for tonal association of this floating H forces the vowel of the wh-word to be lengthened. This is illustrated with the questions (3), (8) and (30), repeated below, which exhibit a fronted wh-word.

(3)   **kíí** màáŋgɛ́ à   ǹ-sɔ́mb?
      what child   SM3sg P₁-buy
      'What did the child buy?'

```
kí   ´   màáŋgɛ́  ...  →   kíí     màáŋgɛ́  ...   (* kí    máàŋgɛ́  ...)
|         ‖ |               ‖       ‖ |               |      ‖ |
H  H    LL  H             HH      LL  H            H     HL  H
```

(8)   **hɛ́ɛ́** màáŋgɛ́ à   ǹ̀-kɛ̂?
      where child   SM3sg P₁-go
      'Where did the child go?'

```
hɛ́   ´   màáŋgɛ́  (...)  →   hɛ́ɛ́    màáŋgɛ́
|         ‖ |               ‖       ‖ |
H   H   LL  H             HH      LL   H
```

(30) **láá** à   m̀-ɓɔ́l ɲɔ̀?
      how SM3sg P₁-get here
      'How did he get here?'

```
lá   ´    à   (...)  →   láá     à
|         |               ‖ |     |
H   H    L               H H     L
```

This process of creating a mora in order to realize the floating H also occurs in sentence final position. This is illustrated with the question (29), repeated below, which presents an IAV wh-word. In this example the tense marker introduces a floating H, which associates with the lexical verb and forces the dissociation of the verb's lexical L. This L subsequently lowers the wh-phrase H, which is realized as a !H. This suggests that the verb and the wh-phrase are not separated by a prosodic boundary or, in other words, that they are phrased

together.

(29)   màààŋgɛ́ à   ŋ̀-kɛ́ ⁺**hɛ́ɛ́**?
       child   SM3sg P₁-go where
       'Where did the child go?'

(...)	à	ŋ̀	-kɛ̀	´	hɛ́	´	→	à	ŋ̀	-kɛ́	⁺hɛ́ɛ́
	|	|	|		|			|	|	|	||
	L	L	H	L		H	H	L	L	H	!H H

If one assumes that the sentence edge matches the edge of a major prosodic domain such as an Intonation Phrase (IP) boundary, then a sentence final wh-phrase is aligned with an IP boundary. The similarity in behaviour between fronted and sentence final wh-words suggests that the prosodic boundary with which they are aligned is of the same nature. For the time being, we assume that both types of wh-phrases are thus aligned with the right-edge of an IP.

Although they have in common that they are always long, fronted and clause-final wh-phrases differ with respect to their tonal realization. Fronted wh-phrases seem to exhibit an extra high tone, that is, they are realized with a higher pitch than other initial H tones. This phenomenon, for which systematic investigation still remains to be done, is reminiscent of the 'local H raising' observed in fronted foci in Hausa by Leben et al. (1989). They observe that in this Chadic tone language, a single H tone on a word can be raised to highlight this word.

As was briefly stated in Section 2.1, fronted wh-phrases are more pragmatically/semantically loaded than IAV/in situ wh-phrases. They are close to what has been described as a 'contrastive' or 'identificational' focus. Just like in Hausa, it is reasonable to say that fronted wh-phrases are thus associated with more emphasis than IAV/in situ wh-phrases (Hartmann and Zimmermann, 2007). We propose that Bàsàa's local H raising on fronted wh-phrases expresses this emphasis and suggests that there are intonational effects in the tone language discussed here. It is important to note that fronted wh-phrases are, so far, the only focal items exhibiting this extension of pitch, which suggests that it is not to be considered as focus marking.

4   Conclusion

In this paper, we have concentrated on wh-questions in Bàsàa. In this North-western Bantu language which has retained the Proto-Bantu vowel length contrast, a subset of wh-words' length varies depending on their position within the clause. As summarized below, they can either surface as CV́ or CV́V́:

- **WH**$_i$ SM$_i$-TAM-(AUX/MOD)-V-(XP)]$_{IP}$ → CV́

- Subject SM-TAM-AUX/MOD-**WH**-V-(XP)]$_{IP}$ → CV́

- Subject SM-TAM-V-**WH**-XP $]_{IP} \rightarrow$ CV́
- Subject SM-TAM-V-**WH** $]_{IP} \rightarrow$ CV́V́
- **WH** $]_{IP}$ Subject SM-TAM-(AUX/MOD)-V-(XP) $]_{IP} \rightarrow$ CV́V́

We have proposed that these wh-words are underlyingly of the CV́ form, and they introduce a floating H. Whenever the wh-word is aligned with a prosodic boundary, there is no other choice but creating a mora in order to ensure the realization of the floating H. Considering that both sentence final and fronted wh-phrases behave in the same way in surfacing as CV́V́, we assume that they are aligned with the same type of prosodic break, that is, the right edge of an Intonation Phrase. If this assumption is correct and if we assume that Intonation Phrase boundaries are aligned with clause boundaries, this suggests that the fronted wh-phrase is not part of the same clause as the rest of the wh-question. The prosody of Bàsàa wh-questions thus provides us with important evidence as to the syntactic structure of these sentences (Hamlaoui and Makasso, in prep.).

We have seen that the prosodic behaviour of IAV wh-words and the focused item that corresponds to them in the answer to the wh-question do not support the idea, put forward by Costa and Kula (2008) that the remains of the conjoint-disjoint distinction, the prosodic marking of the conjoint form and focusing are linked.

Finally, a local High Tone Raising on fronted wh-phrases, which differ from IAV and in situ wh-phrases in terms of emphasis, suggests that intonative effects are at play in yet another tone language, Bàsàa.

5 References

Buell, L. (2006) The Zulu conjoint/disjoint verb alternation. Focus or constituency? In L. Downing, L. Marten and S. Zerbian (eds.) *Papers in Bantu Grammar and Description – ZAS Papers in Linguistics* 43: 9–30.

Costa, J. and N. Kula (2008) Focus at the interface: Evidence from Romance and Bantu. In C. De Cat and K. Demuth (eds.) *The Bantu-Romance connection: A comparative investigation of verbal agreement, DPs, and information structure*. Amsterdam: John Benjamins, 293–322.

Creissels, D. (1996) Conjunctive and disjunctive verb forms in Setswana. *South African Journal of African Languages*, 16(4): 109–115.

Downing, L. (2006) The prosody and syntax of focus in Chitumbuka. In L. Downing, L. Marten and S. Zerbian (eds.) *Papers in Bantu Grammar and Description – ZAS Papers in Linguistics* 43: 55–79.

Guthrie, M. (1948) *The classification of the Bantu languages.* Oxford University Press for the International African Institute.

Hamlaoui, F. and E.-M. Makasso (in prep.) Questioning and answering in Bàsàa.

Hartmann, K. and M. Zimmermann (2007) In place – Out of place? Focus strategies in Hausa. In K. Schwabe and S. Winkler (eds.) *On Information Structure, Meaning and Form*. Amsterdam: John Benjamins, 365–403.

Hyman, L. (2003) Bàsàa (A43). In D. Nurse and G. Philippson (eds.) *The Bantu languages*. London: Routledge, 257–282.

Hyman, L. (2009) Penultimate lengthening in Bantu: Analysis and spread. Technical report, UC Berkeley. Phonology Lab Annual Report, 195–209.

Kanerva, J. (1990) Focusing on phonological phrases in Chichewa. In S. Inkelas and D. Zec (eds.) *The phonology-syntax connection*. The University of Chicago Press, 145–161.

Leben, W. R., Inkelas, S., and M. Cobler (1989) Phrases and phrase tones in Hausa. In P. Newman and R. Botne (eds.) *Current approaches to African linguistics*. Dordrecht: Foris, 45–61.

Makasso, E.-M. (2008) *Intonation et mélismes dans le discours oral spontané en bàsàa*. PhD thesis, Université de Provence (Aix-Marseille 1).

Meeussen, A. E. (1959) *Essai de grammaire Rundi*. Annales du Musée Royal du Congo Belge. Série Sciences Humaines, 24.

Nurse, D. (2006) Focus in Bantu. In L. Downing, L. Marten and S. Zerbian (eds.) *Papers in Bantu Grammar and Description – ZAS Papers in Linguistics* 43: 189–207.

Patin, C. (2011) Questions in Shingazidja. Paper presented at the ANR-DFG Bantu Psyn/SynPhonI Workshop on Wh-questions.

Pesetsky, D. (1987) Wh-in-situ: Movement and unselective binding. In E. Reuland and A. ter Meulen (eds.) *The representation of (in)definiteness*. Cambridge: MIT Press, 98–129.

Van der Wal, J. (2006) The disjoint verb form and an empty immediate after verb position in Makhuwa. In L. Downing, L. Marten and S. Zerbian (eds.) *Papers in Bantu Grammar and Description – ZAS Papers in Linguistics* 43: 233–256.

Watters, J. (1979) Focus in Aghem: A study of its formal correlates and typology. In L. Hyman (ed.) *Aghem grammatical structure, SCOPiL 7*. Los Angeles: University of Southern California, 137–197.