# In Place – Out of Place? Focus Strategies in Hausa\*

Katharina Hartmann & Malte Zimmermann

#### Abstract

Accent languages mark focus consistently on all syntactic constituents. The hypothesis that focus marking is obligatory is therefore not far-fetched. Language variation with respect to focus marking would then only concern the way in which focus is grammatically marked. We argue that this conclusion is incorrect. Rather, focus marking appears to be obligatory in accent languages but not necessarily so in tone languages. The paper presents an empirical investigation of the focus strategies in Hausa, where focus marking with non-subjects is not obligatory. In addition, focus marking is not driven by the information-structural category *focus* directly, but relies on the pragmatic notion of emphasis, which in turn implies focus status.

### 1 Introduction

## 1.1 Focus: A Discourse-Semantic Category

Following Jackendoff (1972) and many others, we take *focus* to be a discourse-semantic category. In this analysis, focus refers to that part of the information conveyed in an utterance that is assumed by the speaker not to be shared by him and the hearer. In other words, focus constitutes the 'new' or 'important' information which contributes to an updating of Stalnaker's (1978) *Common Ground*. Semantically, focus can be taken to induce certain alternatives to the focus constituent. Following Rooth (1985, 1992), focus on a constituent  $\alpha_{<\beta,\gamma>}$  (the focus is represented in bold face, the subscript indicates  $\alpha$ 's ontological domain) introduces a set of alternatives A, the members of which are elements from the same ontological domain as the focus constituent:  $A = \{x \mid x \in D_{<\beta,\gamma>}\}$ .

Focus is often encoded grammatically, i.e. by syntactic, morphological or prosodic means. However, consistent focus marking is not obligatory cross-linguistically. Hence, it is important to keep apart the two notions of *focus*, an information-structural category, and *focus marking*. Focus marking of a constituent is sensitive to the linguistic context that usually precedes the sentence containing the focus. The structure of the respective context may give rise to several pragmatic interpretations of the focus. It is said that the context *controls* the focus (Uhmann 1991). There are four typical contexts for focus control. The most prominent one involves *wh*-questions, which trigger a focus in the answer (*new-information focus*, (1a)). The second involves contexts that are partially corrected in the focus clause (*corrective focus*, (1b)). Third, contexts may provide a set of items, one of which is selected in the focus clause (*selective focus*, (1c)). Finally, focus status is assigned to two or more elements of the same syntactic category and the same semantic word field that co-occur within one or across two adjacent utterances (*contrastive focus*, (1d)). The respective focus constituents are represented in bold face.

- (1) a. Who was liberated yesterday? **Simona** was liberated yesterday.
  - b. Peter bought a Mercedes. No, he bought a **Toyota**.

- c. Did you have bagels or muffins for breakfast? I had **bagels** for breakfast.
- d. An American **linguist** chided an American **politician**.

In our view, focus in (1) is a semantically uniform phenomenon. That is, these four foci do not instantiate different *semantic* types of focus, but only different *pragmatic* uses of focus. Semantically, the foci are identical in that they represent sets of alternatives as outlined above.

## 1.2 Background Information on Hausa

Hausa is by far the most widely spoken of the Chadic languages. These languages are spoken in the vicinity of Lake Chad, a lake with adjoining borders to Nigeria, Chad, Niger, and Cameroon. They belong to the Afro-Asiatic language family. Hausa is spoken by more than thirty-five million speakers. It is the first language of the ethnic Hausas in northern Nigeria as well as in the south of Niger. Hausa is also used as a lingua franca in many northern regions of Nigeria where it is establishing itself as a mother tongue in many cases (cf. Newman 2000).

Hausa is a tone language with three lexical tones: a high tone, which is not marked in the examples, a low tone (`), and a falling tone (^). The basic word order is SVO and pronominal subjects can be dropped. Temporal and aspectual information as well as subject agreement are encoded in a separate morpheme, which we will refer to as the *auxiliary*, and which is left-adjacent to the verb, cf. (2):<sup>1</sup>

(2) Kànde taa dafà kiifii.

K. 3sg.perf cook fish
'Kande cooked fish.'

The article is structured as follows: In section 2, we investigate two syntactic focus strategies in Hausa: The *ex situ* strategy marks focus syntactically, by movement, and morphologically in the verbal aspect, whereas the *in situ* strategy, which is restricted to non-subjects, does not mark focus in the same way. Section 3 shows that *in situ* focus is unmarked not only syntactically and morphologically, but also prosodically. Hausa thus provides evidence against the claim that focus must be marked universally. Sections 4 and 5 look at syntactic focus marking in more detail. Section 4 shows that there is no strict correlation between the choice of the *ex situ* or *in situ* strategy and a particular focus interpretation. Nonetheless, there is a strong tendency to realise new-information focus *in situ*. Section 5 shows that the *ex situ* strategy with non-subjects is not directly triggered by focus, but rather by a pragmatic notion of emphasis in the sense of discourse unexpectedness. Section 6 discusses the theoretical implications of our findings with respect to the questions of (i.) what triggers the *ex situ* focus strategy, and (ii.) how to deal with the absence of focus marking. In the final part of the paper, we discuss several alternative strategies that Hausa employs in order to compensate for the lack of expressiveness resulting from inconsistent focus marking.

### 2 Syntactic Focus Strategies in Hausa

Hausa has two strategies for expressing focus. A focus constituent can either be fronted (the ex situ strategy), or it can remain in its base-position (the in situ strategy, cf. Jaggar 2001, 2004,

Green & Jaggar 2003, Hartmann 2004). This section presents the syntactic and morphological differences between the two strategies.

### 2.1 Ex Situ Focus

The literature on Hausa traditionally assumes that focus constituents are fronted to a left-peripheral position (cf. Wolff 1993:504, Green 1997:110, Newman 2000:178, and Jaggar 2001:500f). The fronted constituent has to be a maximal projection, which is optionally followed by a focus-sensitive particle *nee* (masc./pl.) or *cee* (fem.). As the following examples show, subjects and objects (3), prepositional arguments and adjuncts (4), manner adverbs (5), as well as entire clauses (6) can be focused by being fronted. In the perfective and the continuous aspects, focus is additionally marked by a special form of the auxiliary, which is traditionally referred to as the *relative* form. While the *absolute* form is the default form (and therefore not glossed) that appears in basic declarative sentences, the relative form appears in connection with focus fronting, *wh*-question formation, and relativisation, i.e. with all kinds of A'-movement.

- (3) a. [DP **Kànde**] cèe ta-kèe dafà kiifii.

  K. PRT 3sg-rel.cont cooking fish 'KANDE is cooking fish.'
  - b. [DP **Kiifii**] nèe Kande ta-kèe dafàa-waa. fish PRT K. 3sg-rel.cont cook-NMLZ 'Kande is cooking FISH.'
- (4) a. [PP Baayan bishiyàa] ya-kèe. (Newman 2000:188) behind tree 2sg-rel.cont 'He is behind the TREE.'
  - b. [PP Dà wu kaa] nèe ya sòokee shì. (Newman 2000:192) with knife PRT 3sg.rel.perf stab him 'He stabbed him with a KNIFE.'
- (5) [AdvP Maza-maza] nèe su-kà gamà aikì-n. (Newman 2000:192) quick-quick PRT 3pl-rel.perf finish work-DET 'Very QUICKLY, they finished the work.'
- (6) [CP **Don** in biyaa kà ku din] nee na zoo (Jaggar 2001:500) in.order.to 1sg.subj pay you money PRT 1sg.rel.perf come 'It's in order to pay you the MONEY that I've come.'

Notice that focus fronting is subject to general constraints on A'-movement, which will trigger focus pied-piping in certain cases. E.g., focused lexical heads cannot move alone, but have to focus pied-pipe their maximal projection, see section 5.1 for more discussion.

Focused VPs can also occur *ex situ*, but only when nominalised. In (7), the fronted verb is nominally inflected by the genitive morpheme -*n* which connects it to the following objects.

(7) [Biyà-n hàr̃aajì-n] (nee) Tankò ya yi. (Newman 2000:193) paying-GEN taxe-DET PRT T. 3sg.rel.perf make

'It was paying the TAXES that Tanko did.'

Since Hausa is an SVO language, focus fronting of subjects is vacuous and does not result in a difference in word order: The only indication that A'-movement has taken place is the relative morphology of the auxiliary, at least in the perfective and the continuous aspects. In all other aspects (future, habitual and subjunctive), the verbal morphology is insensitive to A'-movement. Therefore subject foci are syntactically and morphologically unmarked in the future, habitual and subjunctive aspects, as illustrated in (8) for the future aspect.

(8) Wàaneenèezâi tàfi Jaamùs? Audù zâi tàfi Jaamùs. who FUT.3sg go Germany 'Who will go to Germany?' Audu will go to Germany.'

#### 2.2 In Situ Focus

Focus constituents may be fronted, but fronting is not obligatory. As Jaggar (2001), (2004), Green & Jaggar (2003) and Hartmann (2004) show, Hausa also allows for *in situ* focus with non-subjects. If a constituent is focused in its base position, it does not move, and the auxiliary does not appear in the relative form. In the absence of the optional particle *nee/cee* in sentence-final position, *in situ* focus is syntactically and morphologically unmarked. This parallels to some extent the situation found with *ex situ* subject foci in the future, habitual and subjunctive aspect, which are not syntactically or morphologically marked either (cf. section 2.1).

# 2.2.1 Non-Subjects

The data we elicited confirm the findings of Jaggar (2004), who independently investigated the distribution of *in situ* focus in Hausa. The data in (9) illustrate object *in situ* focus. Notice that the form of the auxiliary is relative in the *wh*-question, but absolute in the answer containing the *in situ* focus. *In situ* focus is also possible with prepositional objects (10), and with the NP-complements of PPs (11).

- (9) Mèe su-kà kaamàa? Sun kaamà [NP dawaakii] (nè). what 3pl-rel.perf catch 'What did they catch?' Sun kaamà [NP dawaakii] (nè). They caught HORSES.'
- (10) (À) cikin mèe su-kà sâa ku di-n-sù? at inside-of what 3pl-rel.perf put money-GEN-their 'Where did they put their money?'
  Sun sâa ku di-n-sù cikin [NP àkwàatì].
  3pl.perf put money-GEN-their inside.of box 'They put their money into a BOX.'
- (11) Dà mèe ya sòokee shì? Yaa sòokee shì dà [NP wu ƙaa]. with what 3sg.rel.perf stab him 3sg.perf stab him with knife 'With what did he stab him?' 'He stabbed him with a KNIFE.'

The examples in (12), (13) and (14) exhibit VP-, V- and sentential focus *in situ*. In contrast to *ex situ* focus, predicates do not have to be nominalised when focused *in situ*.

- (12) Mèe Audù ya yi jiyà? Jiyà Audù yaa [vp tàfi tashàa]. what A. 3sg.rel.perf do yesterday yesterday A. 3sg.perf go station 'What did Audu do yesterday?' 'Yesterday, Audu went to the STATION.'
- (13) Mèe Tankò ya yi wà hàraajì-n? Tankò yaa [v biyaa] hàraajì-n (ne). what T. 3sg.rel.perf do to taxes-DET T. 3sg.perf pay taxes-DET PRT 'What did Tanko do with the taxes?' 'Tanko PAID the taxes.'
- (14) Mèeneenèe ya fàaru? **Tankò yaa biyaa hàr̃aajìn** (ne). what 3sg.rel.perf happen T. 3sg.perf pay taxes PRT 'What happened?' 'Tanko paid the TAXES.'

Since the *in situ* strategy does not involve syntactic movement it is also not subject to constraints on movement. Consequently, *in situ* focus is possible with non-maximal constituents, as illustrated in (15) where the preposition in the answer is focused *in situ*.

(15) *Ìnaa fensìr? Ya-nàa kân teebùr̃ koo kàr kashin teebùr̃?*where pencil 3sg-cont head table or underside.of table 'Where is the pencil? Is it on top of the table or under the table?'

Fensìr̃ ya-nàa [P kàr kashin] teebùr̃.

pen 3sg-cont underside.of table 'The pen is UNDER the table.'

Wh-expressions can also appear in situ and ex situ. The two strategies do not have to be identical in a question and the corresponding answer. In other words, it is common, but not obligatory that the answer to an ex situ question contains an ex situ focus. This is shown in the following example, taken from Hausar Baka (HB), a collection of every day dialogues by Randell, Bature and Schuh (1998):

- (16) A: Yànzu wannàn **mèe** ka-kèe yî? ex situ wh (HB 3.16) now this what 2sg-rel.cont doing 'Now, with this, what are you doing?'
  - B: Wannàn inàa shâ ne. in situ focus this 1sg.cont drinking PRT (absolute AUX) 'This, I am DRINKING.'
  - A: Kanàa mèe? in situ wh (echo)
    2sg.cont what
    'You are doing WHAT?'
  - B: **Shâ** na-kèe. ex situ focus drinking 1sg-rel.cont (relative AUX) 'I am DRINKING.'

### 2.2.2 Subjects

Turning to focused subjects, it has been observed that subjects cannot be realised *in situ* (Jaggar 2001, Green & Jaggar 2003). The auxiliary obligatorily appears in the relative form, thereby indicating vacuous movement of the subject, cf. (17).

(17) Wàa ya-kèe kirà-ntà? **Daudà** ya-kèe /\*ya-nàa kirà-ntà. who 3sg-rel.cont call-her 'Who is calling her?' Dauda is calling her.'

Summing up, Hausa *in situ* focus differs from *ex situ* focus in three respects. First, it is neither categorially nor structurally restricted: Any syntactic category and any non-maximal projection, in particular lexical heads, can be focused *in situ*. Second, *in situ* focus is not marked syntactically by word order variation nor morphologically by a morphological change in the auxiliary. Since the sentence final focus sensitive particle *nee/cee* is not obligatory, it cannot serve as a general indicator of *in situ* focus. Third, Hausa exhibits a subject – non-subject asymmetry in that subjects must be focused *ex situ*. The auxiliary necessarily appears in its relative form. It follows that focused subjects must be syntactically marked for focus, whereas non-subjects do not. A comparable special syntactic status for focused subjects has been observed for many other Chadic languages, see e.g. Schuh (1982) for Bade and Ngizim, Schuh (1998) for Miya, Hartmann & Zimmermann (2004) for Tangale, and Gimba & Schuh (2004) for Bole. Zerbian's (this volume) discussion of focus in Northern Sotho demonstrates that a comparable special status for subjects is also found outside the Chadic family.<sup>4</sup>

Why should focused subjects in Hausa and other languages be special in that they must be syntactically marked? Intuitively, the reason seems clear. The default subject position triggers a topic interpretation (see Givón 1976). Therefore, if a subject is to be interpreted as focus, and not as topic, something special has to be done. The subject has to be dislocated, which is reflected by a change in the morphological form of the auxiliary.

### 2.3 Co-Occurrence of In Situ and Ex Situ Focus

The existence of two focus strategies in Hausa is further demonstrated by their joint application in multiple questions and the corresponding answers. Since there is only one syntactic position for a fronted focus (see Green 1997), not all foci in such multiple focus constructions can occur ex situ (18a). Instead, only one focus is fronted, while the other(s) remain(s) in situ (18b). Of course, it is also possible to realise all foci in situ, as shown in (18c).

- (18) Suwàa sukà ganì à ìnaa?
  who.pl 3pl.rel.perf see at where
  'Whom did they see where?'
  a. A1: \*Musa nèe à kàasuwaa nèe na ganii,
  M. PRT at market PRT 1sg.rel.perf see
  \*Hawwà cee à cikin gidaa nèe na ganii.
  H. PRT at inside house PRT 1sg.rel.perf see
  b. A2: Musa nèe na ganii à kàasuwaa, Hawwà cee na ganii à cikin gidaa.
  - c. A3: *Naa ga Musa à kàasuwaa, naa ga Hàwwa à cikin gidaa.* 'I saw MUSA at the MARKET, I saw HAWWA inside the HOUSE.'

The existence of two focus positions in Hausa raises three interesting issues that we turn to in the following sections. First, is *in situ* focus, which is neither syntactically nor morphologically marked, prosodically marked instead? This question will be answered in the negative in section 3 where we present a phonetic study of Hausa focus. Second, are the two syntactic focus positions linked to different focus interpretations? Third, is *in situ* focus a marked exception, or is it a regular means of expressing focus? Answers to the last two questions will be given in section 4.

# **3** On Prosodic Focus Marking in Hausa or the Absence Thereof

Cross-linguistically, there are a number of languages that employ a combination of syntactic and prosodic focus marking. For instance, in German focus is marked prosodically by a H\*+L pitch accent (see Uhmann 1991), but in addition, the focus constituent may also optionally move to sentence-initial position (Frey 2004, Fanselow 2004). In Hungarian, overt focus movement is accompanied by prosodic marking either on the moved constituent or elsewhere in the clause (Roberts 1998, Szendröi 2003). Looking at tone languages, Chinese also makes use of intonation in addition to syntactic means in order to mark focus (Xu 1999 and Xu 2004). More generally, prosodic prominence is often argued to be a near universal focus-marking device (see e.g. Gundel 1988). All this, together with the fact that prosody is known to play a role in connection with *ex situ* focus in Hausa (Leben, Inkelas and Cobler 1989, see below), leads one to expect that it should also play a role in *in situ* focus marking in Hausa.

In this section, we show that this expectation is not borne out. Instead, *in situ* focus in Hausa is not marked at all, at least when it comes to new-information focus in Q/A-pairs. This result is remarkable in light of the fact that grammatical focus marking is often taken to be obligatory in the theoretical literature on focus.

In section 3.1, we give a brief introduction to the intonational phonology of Hausa. In 3.2, we show – based on qualitative, quantitative and perceptual analyses – that *in situ* focus in Hausa is not marked at all, neither syntactically nor prosodically. In 3.3, we demonstrate that the absence of prosodic focus marking with *in situ* focus is not a peculiarity of Hausa, but is also attested in other African languages from within and outside the Chadic language family.

# 3.1 Hausa Intonational Phonology

Leben, Inkelas and Cobler (1989) and Inkelas and Leben (1990) identify a number of intonational processes in Hausa. Like other tone languages, Hausa exhibits the phenomenon of *downdrift*: In the course of an utterance, the absolute pitch of H tones and L tones decreases with the result that a late H tone may be lower than an early L tone. While downdrift is a global rule that usually affects the entire utterance, there are also more local rules that apply within a more restricted domain, the *intonational phrase* (Leben, Inkelas and Cobler 1989: 46). Longer Hausa utterances usually divide into several such intonational phrases. Quite generally, there appear to be intonational phrase boundaries between an *ex situ* focus constituent and the rest of the clause, between a subject and the rest of the clause, and between the direct object and subsequent embedded clauses and/or adverbials (phrase boundaries are marked by a slash):

(19) a. *Maalàm Nuhù* nee / ya hanà Lawàn / hiira dà Hàwwa. Mister N. PRT 3sg.rel.perf prevent L. chat with H. 'It was Mister Nuhu / who prevented Lawan / from chatting with Hawwa.'

b. Maalàm Nuhù / yaa hanà Lawàn / hiira dà Hàwwa.

Mister N. 3sg.perf prevent L. chat with H.

'Mister Nuhu / prevented Lawan / from chatting with Hawwa.'

Notice that there is no intonational phrase boundary between the verb and the object NP, which suggests a close structural relationship between the two constituents.

Leben, Inkelas and Cobler (1989) isolate three further prosodic processes that can serve as diagnostics for intonational phrase boundaries (Leben, Inkelas and Cobler 1989: 47-49). First, there is an optional process of Low Raising. It assimilates an L tone between two H tones upward and cannot apply across intonational phrase boundaries. For instance, the low tone on Lawàn in (19) cannot be raised since it occurs immediately before a phrase boundary. Second, High Raising, which raises the second H tone in a HHL sequence, is also blocked at intonational phrase boundaries. In contrast, High Base Value Resetting only applies at intonational boundaries. It (re)sets the pitch of the first H tone in an intonational phrase independently of the pitch of the preceding H tone. In effect, High Base Value Resetting interrupts the downward trend induced by downdrift, bringing the pitch back to a higher value from where it can downdrift again. We will see graphic illustrations for some of these processes in the next section. What is important for our purposes is that the application or blocking of these processes constitutes a suitable diagnostic for the presence or absence of an intonational boundary. As shown by Kanerva (1990), Truckenbrodt (1995), Downing (2002), and many others, prosodic boundaries are often used in place of pitch as a prosodic focus marking device in African tone languages.

Turning to pitch, Leben, Inkelas and Cobler (1989) discuss a process of *local H raising* 'where a single High tone on an individual word *is raised to highlight that word*' (Leben, Inkelas and Cobler 1989: 46, our italics). An example in question is the H tone on *Nuhù* in the *ex situ* phrase *Maalàm Nuhù* in (19a). The existence of local H raising with *ex situ* foci shows that Hausa can mark a focus constituent both syntactically and (somewhat redundantly) prosodically. Nonetheless, we will see shortly that *in situ* focus in Hausa is not generally marked.

### 3.2 No Prosodic Marking of In Situ Focus in Hausa

In this section, we present the results of a pilot elicitation study of the prosodic properties of *in situ* focus in Q/A-pairs. We will show that neither a qualitative analysis, nor a quantitative analysis, nor a follow-up perception study support the assumption that *in situ* foci are prosodically prominent in terms of pitch or phrase boundaries.<sup>6</sup>

#### 3.2.1 Experimental Set-Up

In order to check for the prosodic properties of *in situ* focus constituents, we had a native speaker of Hausa read a total of 16 Q/A-pairs, where the answers were of the form *Hàliimà taa yankà X* 'Halima 3sg.perf cut X'. We controlled the answers for two conditions: The first condition concerns the scope of the focus induced by the question (all-new: *What happened?*, VP: *What did Halima do?*, OBJ: *What did Halima cut?*, and V: *What did Halima do with X?*). The variation in focus served the purpose of checking whether a difference in focus structure resulted in a difference in prosodic structure, either in terms of pitch or of phrasing. The second variation concerned the tonal pattern of the object constituent *X*. We chose four NPs with the tonal patterns HH (*kiifii* 'fish'), HL (*naamàa* 'meat'), LH (*kàazaa* 'chicken'), and LL(L) (*àyàbà* 'banana'), respectively. This condition was introduced in order to check for potential interactions

between the lexical tone structure of the object NP and certain supra-segmental effects as discussed in the preceding section. The sentences were recorded in a sound-proof acoustic lab. Subsequently, we identified their f0-contours, using *praat*.

## 3.2.2 Qualitative and Quantitative Results

Figures 1-4 show exemplarily that there are no striking differences in the pitch contour of the recorded sentences, in particular not on or around the focus constituents. This holds no matter whether the focus comprises the entire clause, the VP, the direct object, or the verb alone.

### **INSERT FIGURE 1-4 ABOUT HERE**

Since there is no evidence for pitch raising or pitch lowering directly on the focus constituent nor in the surrounding environment, we tentatively conclude that pitch is not used to mark *in situ* focus in Hausa.

Looking at figures 1-4 in more detail, we see that they provide evidence for several of the tonal processes identified by Leben, Inkelas and Cobler (1989). All four sentences exhibit the phenomenon of downdrift: The H tones towards the end of the clause are realised with a lower pitch than those at the beginning. In addition, the data provide evidence for two of the three tonal processes that were argued to provide evidence for the absence or presence of intonational phrase boundaries.

Low Raising is instantiated on the second syllable of the verb yan-kà, whose L tone is raised in assimilation with the surrounding H tones. Low Raising results in a relatively flat structure and shows that there is no intonation boundary between the verb and the object NP. Crucially, Low Raising is attested in Figure 3, which shows the realisation of narrow focus on the direct object. This suggests that in situ focus on an object NP in Hausa is not marked by a prosodic boundary before the object NP.

High Raising is instantiated on the first syllable of the verb yan-kà, whose H tone is raised higher than that of the preceding auxiliary taa in an HHL sequence. The application of High Raising shows that there is no intonation boundary between the auxiliary and the verb. Crucially, High Raising is attested in Figure 4, which shows the realisation of narrow in situ focus on the verb. This suggests that in situ focus on a verb in Hausa is not marked by a prosodic boundary before the verb either. The same applies to VP-focus in Figure 2.

Since there is no evidence for an intonation boundary preceding or following the focus constituent, we tentatively conclude that prosodic boundaries are not used for marking *in situ* focus in Q/A-pairs in Hausa, contrary to what we find in some Bantu languages. <sup>10</sup> In particular, sentences with narrow focus on the object (Figure 3) and narrow focus on the verb (Figure 4) cannot be prosodically distinguished. The focus constituent is not realised with a particular (raised) pitch, nor is there a prosodic boundary preceding or following the focus constituent.

An additional quantitative analysis of the acoustic parameters pitch, duration, and intensity provided no evidence for prosodic marking of *in situ* focus in Q/A-pairs either. The focus constituent is not realised with a particular pitch, nor with a particular intensity, nor is it lengthened. Even though the study has no statistical significance, we feel justified in taking these findings as support for the central claim of this section, namely that *in situ* focus in Q/A-pairs is not marked prosodically in Hausa.

In the quantitative study, we measured five acoustic parameters (mean pitch, maximum pitch, minimum pitch, duration, and intensity) for each of the four constituents *Hàliimà* (SUBJ), taa (AUX), yankà (V), and naamàa / àyàbà / kiifii / kàazaa (OBJ) of our sample sentence

Hàlimà taa yankà X 'Halima cut X' in each focus condition (OBJ, VP, V, all-new). Measurements were taken for a pitch range from 75 Hz to 300 Hz, the standard pitch range for male speakers (see Boersma & Weenink 2003).

Tables 1-5 present the average values for mean pitch, maximum pitch, minimum pitch, intensity, and duration over the four instantiations of *Hàliimà taa yankà X*. By considering only average values, we hope to neutralise the potentially misleading effects of incidental paralinguistic differences, e.g. the effects of a raised voice (see e.g. Ladd 1996: 270). At the same time, the average values should bring out more clearly, i.e. not obscured by incidental paralinguistic effects, any categorial, focus-related differences, if they exist. For instance, if a particular focus constituent, say the verb, was prosodically prominent in some way, say, if it was realised with higher pitch, or with a longer duration, or with a higher intensity, this should show in the average values. Notice that the shaded cells give the values for verb and object in the respective focus conditions, i.e. verb focus and object NP focus. If narrow *in situ* focus was highlighted prosodically, we would expect a significant aberration in these cells.

### **INSERT TABLE 1-5 ABOUT HERE**

Looking at the pitch values in tables 1-3 first, we see the effects of downdrift: The values in the more rightward columns are lower than the values in the more leftward columns. On the other hand, the pitch values do no differ significantly for the various focus conditions. With the exception of the second column in table 2 (cf. endnote 12), there is only slight variation of mean, maximum and minimum pitch within each column (2-5 Hz). Nor is it the case that the mean or maximum pitch of a constituent is higher, let alone significantly higher, when this constituent is focused. While the average pitch on narrowly focused verbs is minimally higher than on verbs that are not in focus, or part of a wider focus, the same cannot be said for their maximum pitch, nor for mean or maximum pitch on narrowly focused objects. This shows that *in situ* focus is not marked by a significant change in pitch in Hausa Q/A-pairs. The values for intensity and duration in tables 4 and 5 show that *in situ* focus is not indicated by *stress* either, where stress is to be understood as phonetic salience in terms of loudness or duration (Ladd 1996: 58). While narrowly focused verbs are realised with a slightly higher (<0,8 db) intensity, this does not hold for narrowly focused objects (cf. table 4). And while the duration of narrowly focused objects is minimally longer (0,1 s), this does not hold for narrowly focused verbs (cf. table 5).

Pending a statistically more grounded investigation, the quantitative analysis thus confirms our tentative conclusion that *in situ* focus in Q/A-pairs is not prosodically marked in Hausa.

# 3.2.3 A Perception Study of In Situ Focus

A follow-up perception study leads one to the same conclusion. Hausa speakers seem unable to distinguish between otherwise identical utterances with different *in situ* foci.

In the first part of the perception study, the same Hausa speaker had to listen to 16 target structures in form of simple Q/A-pairs: Each of the four focus-controlling questions (all-new, VP, OBJ, V) was combined with the four instantiations of the sentence *Halima has cut meat* under all-new, VP, OBJ, and V-focus control. The speaker was instructed to judge for each question-answer sequence whether it was (a.) well-formed, (b.) not well-formed, or (c.) whether he was not sure. The expectation was that the speaker should reject all but the four *matching* structures (i.e. V-V, VP-VP, OBJ-OBJ, all-new-all-new) if there were subtle prosodic differences in the realisation of the various *in situ* foci. Instead, he judged 12 out of 16 target structures to be well-formed. Moreover, he assigned the four remaining Q/A-pairs, which were introduced by the

all-new question *What did you see at home?*, the same slightly degraded status, commenting that the answer to such a question should be introduced by *Na ga* ... 'I saw (that) ...'. In brief, the native speaker could hear no difference at all between the various instantiations of the same sentence with different *in situ* foci.

In the second part of the study, the speaker was presented with two potential answers to each question. One of these answers was the original answer to that question. The second answer was taken from another focus-context. The set up in terms of minimal answer pairs was chosen in order to draw the speaker's attention to possible subtle differences in the realisation of different focus structures. Using different instantiations of the sentence *Audù yaa ga Maanii* 'Audu 3sg.perf see Mani' in response to the four questions with different focus control, we constructed 12 target structures.<sup>13</sup> The speaker was instructed to specify which of the two alternative answers was more appropriate in the given context, or whether both were equivalent. The expectation was that the speaker would choose one of the two alternative answers as more appropriate if there were subtle prosodic differences in the realisation of the various *in situ* foci. Instead, he judged the answers to be equivalent in 10 out of 12 cases. In the two cases where the answers were judged to be different, he chose the second answer as more appropriate, possibly an ordering effect (see endnote 14). So, once again, it seems that native speakers perceive no difference in the realisation of different *in situ* foci. The perception study thus gives support to the claim that *in situ* focus is not generally marked in Hausa.

### 3.3 No Prosodic Marking of In Situ Focus in Other Languages

The fact that *in situ* focus does not need to be syntactically, or morphologically, or prosodically marked may be surprising from a European, accent-based perspective, which assumes obligatory focus marking to be the norm. However, our results, though not statistically significant, are backed up by the fact that the absence of focus marking is attested in a range of languages both from within and without the Chadic family.

The focus marking system of Tangale, another Chadic language spoken in Northern Nigeria, resembles that of Hausa in several respects. First, the subject is the only syntactic constituent that is consistently marked for focus. Second, in the continuous and future aspect focus marking on non-subjects is absent, at least for some speakers. The following sentence could be used as an out-of-the-blue utterance (all-new focus), or in response to the questions What is Laku doing? (VP-focus), What is Laku writing? (OBJ-focus), or Is Laku reading a letter or writing a letter? (V-focus) (Hartmann & Zimmermann 2004).

(20) Lakú n ball wasíka. L. CONT writing letter 'Laku is writing a letter.'

Similarly, the realisation of different *in situ* foci is identical in the Bantu language Northern Sotho (Sabine Zerbian, p.c.). The following example from Zerbian (in prep.) could express focus either on the verb or on the locative phrase, with no phonetic or perceptual difference.

(21) Ke tla shóma polase-ng. 1st FUT work cl9.farm-LOC 'I will work on the farm.' Finally, the Kwa-language Ewe does not mark *in situ* focus either, i.e. neither syntactically nor prosodically (Ines Fiedler, p.c.).

(22) What did the woman eat?

ny śnù á dù àyī máwó.

woman the eat beans that.PL

'The woman ate the BEANS.'

Summing up, it was shown that Hausa *in situ* focus may be prosodically unmarked, and therefore does not have to be marked at all. It was also shown that the absence of focus marking is not restricted to Hausa, but that it is attested in a range of African languages from different families. We will return to the theoretical implications of the absence of focus marking in section 6.2.

## 4 Syntactic Focus Marking and Interpretation

As outlined in section 2, Hausa has two positions for focus constituents, the base-generated *in situ* position and the left-peripheral *ex situ* position. In line with much current literature on syntactic focus marking one could therefore assume that the realisation of a focus as *in situ* or *ex situ* in Hausa comes along with different focus interpretations, as has been observed for other languages. In Hungarian, for instance, *ex situ* foci receive an identificational or exhaustive interpretation, whereas *in situ* foci receive a non-exhaustive interpretation as new information (Kiss 1998). In Finnish, *ex situ* foci receive a *kontrastive* interpretation. The term is taken from Vallduví and Vilkuna 1998 and expresses exhaustive quantification over alternatives. *In situ* foci, on the other hand, receive a plain rhematic or new information interpretation (Vallduví and Vilkuna 1998). More generally, if a focus constituent appears *ex situ*, it has a meaning (e.g. exhaustivity, identification, kontrast etc.) that is typically missing if the focus remains *in situ* in these languages. This state of affairs is summarised in the form of the Meaning-Structure Mapping Hypothesis in (23).

(23) *Meaning-Structure Mapping Hypothesis:*Different syntactic focus positions are linked to different semantic interpretations.

In section 4.1, we show that this hypothesis does not hold for Hausa, where we do not find a strict 1:1 correlation between syntactic focus position and focus interpretation. This result confirms earlier findings by Green and Jaggar (2003). Nonetheless, we will present the results of a quantitative study of focus in non-elicited utterances in section 4.2, which shows that Hausa, too, exhibits a clear tendency for new information focus to be realised *in situ* and for other types of focus (e.g. corrective, selective, contrastive) to be realised *ex situ*.

### 4.1 Hausa – A Counterexample to the Meaning-Structure Mapping Hypothesis

This section shows that in Hausa there is no strict correlation between the two syntactic focus positions and particular semantic interpretations, as is predicted by the Meaning-Structure Mapping Hypothesis. We show that an *ex situ* or *in situ* realisation is possible with all instances of contextually controlled focus, i.e. with new information, selective, corrective and contrastive

focus, cf. section 1.1. Furthermore, an exhaustive interpretation is available for focus constituents in both the *ex situ* and *in situ* positions.

As argued in Jaggar (2001), (2004), Green and Jaggar (2003) Hartmann (2004), focus can express new information both *ex situ* and *in situ*, e.g. when controlled by a preceding *wh*-question. This pragmatic use of focus has been demonstrated at length in sections 2.1 and 2.2. Closer scrutiny shows that the same holds for all other instances of focus.

The sentence pairs in (24) and (25) show that corrective focus can also appear *ex situ* or *in situ*. In (24), the focused subject must be *ex situ*, since the auxiliary appears in the relative form:

- (24) Tsoohuwa-r̃-sà cee ta mutù? Aa'àa, màata-r̃-sà cee ta mutù. mother-of-his PRT 3sg.rel.perf die 'Was it his mother who died?' 'No, it was HIS WIFE who died.'
- (25) Nairàa àshìrin zaa kà biyaa in yaa yi makà.

  naira twenty fut 2sg.subj pay if 3 sg.perf do for.you

  'It is twenty Naira that you will pay once he has done it for you.'

  A'a, zân biyaa shâ bìyar nèe.

  no fut.1sg pay fifteen PRT

  'No, I will pay FIFTEEN.' (HB 3.03)

Contrastive focus can be realised *in situ* or *ex situ* as well. <sup>14</sup> The *in situ* option is illustrated in (26), where the locative PP of the first speaker's utterance is contrasted with another locative PP in the second speaker's question. The *ex situ* option is illustrated in (27), where the nominalised verb *hiira* is contrasted with another nominalised *ex situ* predicate.

- (26) In mùtûm ya-nàa yîn sallàa, baa àa bî ta gàba-n-sà.
  if man 3sg-cont makeprayer neg 4sg.cont follow at front-of-him
  'If a man is praying, one doesn't pass in front of him.'

  Tô, zân iyà bî ta baaya-n-sà?
  alright 1sg.fut can follow at back-of-him
  'Alright, but can I pass BEHIND him?'

  (HB 1.10)
- (27) Koo **hiira** baa àa yî, sai dai **cî** kawài a-kèe ta yî. any chatting neg 4sg.cont do PRT PRT eat only 4sg-rel.cont keep.on do 'There is no chatting at all, it is only EATING that is going on.' (HB 2.03)

Notice that the focus on  $c\hat{i}$  'eating' is also exhaustively interpreted in the presence of the focus sensitive particle  $kaw\dot{a}i$  'only'.

The dialogue in (28) is another interesting example where the *in situ* focus position is utilised to realise different pragmatic uses of focus. The first part of the answer contains a new information focus *in situ*. In the second part, the focus constituent occurs also *in situ* and is contrasted with the preceding new-information focus.

(28) Wànè irìn mijìi ki-kèe sô kì àuraa? which kind man 2sg-rel.perf like 2sg.subj marry 'Which kind of man would you like to marry?'

Naa fi sôn mài gàskiyaa dà rikò-n àmaanàa,
1sg.perf exceed like owner.of truth and keeper-of trust
baanàa sôn mài cîn àmaanàa.
1sg.cont like owner.of eat trust
'I prefer someone TRUTHFUL and TRUSTWORTHY, I don't want somebody who
BREAKS THE TRUST.' (Journal Garkuwa #18, October 2001: 30-31)

Selective focus can also be realised in both focus positions. (29) illustrates selective *ex situ* focus, (30) illustrates its *in situ* counterpart.

- (29) Gùdaa koo baarii? Gùdaa na-kèe sô!
  whole or half whole 1sg-rel.perf want
  '(Do you want) a whole or a half?' 'I want a WHOLE.' (HB 1.10)
- (30) Tô, bâs zaa-kà hau koo kùwa Fìijô? Nii naa fi sôn hawaa **Fìijô**. well bus fut-2sg climb or PRT Peugeot 1sg 1sg exceed want climbing Peugeot 'Well, will you go by bus or by Peugeot?' 'Me, I prefer to take the PEUGEOT.'

  (HB 3.04)

Finally, exhaustively interpreted foci can also occur in their base or in a dislocated position in Hausa. In our opinion, exhaustive focus is not structurally encoded, but induced by focus sensitive particles, such as *kawài/ kadài* 'only' and *nee/cee* (see endnote 3). (31) illustrates exhaustive focus *in situ* (a) and *ex situ* (b). (32) is another example of exhaustive *in situ* focus.

- (31) a. *D'àalìbai sun sàyi lìttàttàafai kawài*. students 3pl.perf buy books only 'The students bought only BOOKS.'
  - b. **Lìttàttàafai** kawài daalibai su-kà sàyaa. books only students 3pl-rel.perf buy 'The students bought only BOOKS.'
- (32) A: Nii kò, bá ni sôn dooyàa. I PRT NEG 1sg.cont like yam 'As for me, I don't like yams.'
  - B: Tòo bàa sai kì ci **shìnkaafaa** kawài ba?

    PRT NEG PRT 2sg.subj eat rice only NEG

    'Well, but you don't eat only rice, don't you?' (HB 2.03)

Summing up, different pragmatic uses of focus as well as the purported various kinds of semantic interpretations argued for in the literature do not depend on the syntactic position of the focus constituent in Hausa. This result matches the conclusions of Green & Jaggar (2003). The Hausa data suggest that the proposed strict 1:1 correspondence between syntactic structure and focus interpretation is not a language universal. Notice that this result comes through independently of the question of whether or not there really are different kinds of semantic focus in languages like Hungarian. However, the Hausa data fit in nicely with analyses – such as ours –

that assume only one basic semantic representation in terms of alternatives for all instantiations of focus

Notice further that this result is in line with the fact that focused subjects must be focused *ex situ* in Hausa (see section 2.2.2). To say that there is a strict correlation between structure and semantic interpretation would predict that focused subjects should always have a specific exhaustive or contrastive interpretation associated with the *ex situ* position, contrary to the facts.

This answers the second of our questions about *in situ* focus from the end of section 2. We now turn to the last question concerning the relative frequency of *in situ* foci in comparison to their *ex situ* counterparts. We will see that even though the Meaning-Structure Mapping Hypothesis does not hold for Hausa in its strict form, there is nonetheless an observable tendency for focus constituents to be realised *ex situ* in specific pragmatic interpretations of focus.

## 4.3 Ex Situ versus In Situ: A Quantitative Study

Given that focused non-subjects can occur both *in situ* and *ex situ* in Hausa, the question remains how often the *in situ* variant is actually chosen in natural spoken language. In order to determine this frequency, we have carried out a quantitative study based on the transcripts of the *Hausar Baka* course videos by Randell, Bature, and Schuh (1998). The language in these videos is ordinary language as used in everyday activities, such as going to school, market scenes, etc.. We take it to constitute an adequate sample of present day Hausa as spoken in Northern Nigeria.

In order to come to a reliable quantitative measurement, we adhered to the following counting procedure: (i.) We counted all genuine wh-questions, both ex situ and in situ, which are easily identified by the presence of a wh-expression, but excluding conventionalised questions used in greetings; (ii.) we counted all ex situ and in situ answers to wh-questions as instances of new information focus. The in situ answers came in three types: direct answers repeating the structure of the preceding wh-question with the focus constituent in situ; direct thetic answers, where the new information is provided in form of a thetic statement involving the phrases àkwai 'there is', baabù 'there is not' and ga 'here is'; and delayed answers, where there is intervening material between the wh-question and answer, but where the answer refers unmistakably back to the question; (iii.) we counted all other ex situ constructions that were identifiable on the base of a change in word order and/or verbal aspect (see section 2); and (iv.) we counted all occurrences of in situ focus that were identifiable on the base of contextual focus control as defined in section 1.1: These included, apart from O/A-pairs, instances of selective, corrective, and contrastive focus. 16 Notice that we did not consider other instances of new information in sentences with normal word order, such as story openers, answers to Y/N-questions, responses to requests for directions etc. This means that we did not capture all in situ occurrences of new-information focus. As a result, the present number of occurrences of in situ focus only indicates the lower boundary of the actual number of in situ foci. As table 6 shows, even this lower boundary is far from being insignificant.

### **INSERT TABLE 6 ABOUT HERE**

Table 6 shows that almost one third (140/494 = 28%) of all focus instances that are clearly identifiable on the base of syntactic (ex situ), morphological (wh-expressions) or pragmatic criteria (focus control), are realised in situ. In light of this, it is surprising that the existence of in situ foci has escaped the attention of researchers for so long (see also Jaggar 2004 on the same point). Closer inspection, however, suggests a potential reason for this lack of attention. Table 7

presents a more fine-grained classification of *ex situ* and *in situ* focus in *wh*-questions, answers to *wh*-questions and other (i.e. selective, corrective and contrastive) instances of focus respectively. The figures show that *ex situ* and *in situ* foci are not evenly distributed over these three categories:

### **INSERT TABLE 7 ABOUT HERE**

Table 7 shows that more than two thirds of all *in situ* foci, namely 99 out of 140, were used to provide new information in Q/A-pairs. Even more striking is the fact that the number of *in situ* answers (99) exceeds the number of *ex situ* answers (25) by a factor of 4. This means that the *in situ* strategy is indeed the prominent strategy to provide new information in Q/A-pairs. In contrast, the *ex situ* strategy is the prominent strategy to realise *wh*-questions (175 *ex situ* vs 29 *in situ*). *Wh*-questions also constitute the largest subgroup (about  $\frac{1}{2}$ ) of all *ex situ* constructions, whereas they only make up about 1/5 (29 out of 140) of all *in situ* constructions (mostly with the adverbial questions words nawa 'how many', *inaa* 'where, how' and yaya 'how'). The most striking difference between the *ex situ* and *in situ* strategies concerns the realisation of selective, corrective and contrastive focus, though. Here, we find that the vast majority of all such cases is realised by means of the *ex situ* strategy (154 *ex situ* vs 12 *in situ*, i.e. more than 90%!). Instances of selective, corrective, or contrastive focus constitute more than 40% of all *ex situ* constructions, whereas they constitute less than 10% of the *in situ* cases.

Summing up, the quantitative analysis shows that instances of *in situ* focus make up a significant proportion of all focus occurrences. This finding confirms Jaggar's (2004: 4) claim that *in situ* focus is indeed more frequent than previously thought. Furthermore, the following tendencies concerning the realisation of focus have emerged: First, *wh*-questions are mostly realised *ex situ* (see also Jaggar 2004: 5). Second, answers in Q/A-pairs are mostly realised *in situ*.<sup>17</sup> And third, instances of selective, corrective, or contrastive focus are predominantly realised *ex situ*.

This said, we would like to stress that the observed generalisations are mere tendencies and that none of the discussed instances of focus is categorically excluded from occurring either *in situ* or *ex situ*. Hence, there is no grammatical condition that would enforce movement of a focus constituent to an *ex situ* position (*pace* Green 1997). The optionality of such movement with non-subjects suggests rather that the fronting of focused non-subjects is conditioned by pragmatic factors. We will now look at focus fronting in some more detail.

## 5 The Ex Situ Strategy: Focus Pied-Piping and Partial Focus Movement

Sections 2 and 4 have established the following facts concerning the syntactic realisation of focus in Hausa. First, there is an asymmetry between subjects and non-subjects. Focused subjects must be realised *ex situ*. Focused non-subjects can be realised *ex situ* or *in situ*. This means that focus on non-subjects is not always marked syntactically. Second, there is no strict correlation between the *ex situ* realisation of a focus and a specific pragmatic usage and/or a specific semantic interpretation. This gives rise to the question of what motivates movement of focused non-subjects to an *ex situ* position at all? In this section, we show that under certain conditions more or less than just the focus constituent can be fronted in Hausa. In section 5.1, we show that more than just the focus constituent can move to the *ex situ* position (*focus pied-piping*). In section 5.2, we show that only part of the focused constituent can move to the *ex situ* position

(partial focus movement). It follows that the ex situ position is not a fully reliable diagnostic for focus constituents and that movement to the ex situ position should not be conceived of as being primarily triggered by focus as such. Section 5.3, in turn, shows that movement of a constituent to the ex situ position is not totally unrestricted and depends on the focus of the sentence in that the fronted constituent must contain at least part of the focus of the sentence. In all the data presented, focus is controlled for by antecedent wh-questions.

## 5.1 Focus Pied-Piping in Hausa

In section 2.1, overt movement of a focus constituent was argued to be an instance of A'-movement. As such it is subject to structural restrictions, such as syntactic island constraints (Tuller 1986). In addition, overt movement of focus constituents is subject to a second structural constraint, also typical of A'-movement: The *structure preservation principle* (Emonds 1976) demands that only full XPs be moved to the *ex situ* position. In contrast, non-maximal projections, such as prepositional heads (34), parts of nominal N-of-N complexes, adjectival heads, or transitive verbs (35) cannot move to the *ex situ* position in isolation when focused. Instead, they must pied-pipe the next higher maximal projection, as shown in the answers. Following Roberts (1998:136), we refer to this instance of pied-piping as *focus pied-piping*.

- teebùr kò kàr kashi-n teebùr? (34) İnaa fensir? Ya-nàa kâ-n 3sg-cont head-of table or underside-of table 'Where is the pen? Is it on top of the table or under the table?' A1: \*( $\hat{A}$ ) **kàr kashi-n**<sub>1</sub> nèe fensì $\tilde{r}$  ya-kèe t<sub>1</sub> teebùr̃ at underside-of PRT pen 3sg-rel.cont table teebùr] | nee fensìr va-kèe A2: \( \begin{aligned} \hat{A} \end{aligned} \hat{R} \aligned \hat{R} \ali  $t_1$ PRT pen at underside-of table 3sg-rel.cont 'The pen is UNDER the table.'
- (35) Mèeneenèe ya yi dà wàsii kàa? what 3sg.rel.perf do with letter 'What did he do with the letter?'

  Kàràatun wàsii kàa nee ya yi. read letter PRT 3sg.rel.perf do 'He READ the letter.'

Given the standard assumption that material in the *ex situ* position is the focus constituent of the sentence (e.g. Green 1997, Newman 2000, Jaggar 2001), it could be argued that focus piedpiping in (34) and (35) is an instantiation of *overfocus* (Krifka 2001, 2004). Overfocus in the answer makes question-answer pairs incongruent, since the backgrounds of question and answer do not match one another. By way of illustration, (36) shows that the underlined backgrounds of question and (overfocused) answer in (34) do not match.<sup>18</sup>

(36) Q:  $\langle \underline{\lambda}R.[R(pencil)(table)]$ , SPATIAL RELATION> A:  $\langle \underline{\lambda}P.[P(pencil)]$ , LOCATION> This result is interesting because overfocus is argued to be impossible in accent languages, which mark focus by pitch accent (Krifka 2001). Indeed, marking the entire PP for focus in the English counterpart to (34) by assigning pitch accent to the most deeply embedded element *table* results in an incongruent question-answer pair.

(37) Is the pencil ON or UNDER the table? \*The pencil is [on the TABLE]<sub>FOC</sub>.

On the other hand, overfocus in (34)-(35) is conditioned by syntactic constraints on movement, in this case the need to avoid a violation of the *structure preservation principle*. In this respect, Hausa does not differ from accent languages, which also exhibit pied-piping whenever focus on non-maximal constituents is expressed by overt syntactic movement in addition to pitch accent.

### 5.2 Partial Focus Movement in Hausa

Along with cases in which more than the focus constituent is moved (for structural reasons), there are also cases in which not the entire focus constituent, but only a sub-constituent is overtly moved. The following example is again taken from Hausar Baka:

(38) Mèe ya fàaru? **B'àràayii** nèe su-kà yi mîn saatàa! what 3sg.rel.perf happen 'What happened?' **B'àràayii** nèe su-kà yi mîn saatàa! robbers PRT 3pl-rel.perf do to.metheft 'ROBBERS have stolen from me!' (HB 4.03)

As is clear from the controlling *wh*-question, the entire answer clause must be interpreted as new-information focus. Nonetheless, only the subject of the utterance moves to the left-peripheral position. This is clear from the accompanying particle *nèe* and the relative form of the auxiliary. A parallel case is found in our own elicited data:

(39) Mèeneenèe ya fàaru? **Dabboobi-n jeejii** nee mutàanee su-kà kaamàa. what 3sg.rel.perf happen animals-of bush PRT men 3pl-rel.perf catch 'What happened?' (The) men caught WILD ANIMALS.'

Again, the entire answer constitutes the new-information focus, but only a sub-constituent, in this case the direct object, is moved to the initial position. Now, if the *ex situ* strategy was the only means to realise focus in Hausa, we could rightfully treat the examples in (38) and (39) as instances of *underfocus* (see e.g. Krifka 2001, 2004). However, given that the possibility of realising focus *in situ* has been independently established for Hausa, it may be more appropriate to speak of *discontinuous focus*, or *partial focus movement* instead. <sup>20</sup>

When asked as why only the object could be fronted, both our informants indicated that the object provided the *interesting* or *surprising* part of the utterance. This is reminiscent of an observation made by Xu (2004) for Chinese, who shows that the relative *informativity* or *relevance* of several new-information focus constituents governs the linear order of these constituents, with the most informative or relevant constituent coming last. In addition, the contrast in felicity between (38, 39) and (i) in endnote 20 further underlines the fact that partial focus movement does not depend on structural factors alone. If so, this may be evidence for the claim that overt focus movement with non-subjects is subject to pragmatic factors, along with strictly grammatical ones.

The observed tendency to realise material that is more surprising, more important, or more relevant in some sense is reminiscent of Gundel's (1988) *First Things First Principle*, Givón's

(1988) principle Attend to the most urgent task first, and to Legendre's (2001) high-ranked OT-constraint Align Noteworthy. Applied to example (39) above, partial focus movement would signal a particular attitude of the speaker: The fact that wild animals were caught is presented as the most exciting or surprising part of the information conveyed irrespective of the focus-background structure imposed by the context. As vague as these communicative or functional principles may appear at first sight, they seem to provide a more adequate account of focus movement in Hausa than those accounts that rely on purely grammatical mechanisms. In section 6.1, we will take up this issue again.

#### 5.3 Conditions on Focus Movement

The foregoing discussion may have led to the erroneous impression that what we refer to as focus movement is a largely arbitrary process not subject to any structural conditions. The following data show that this impression is incorrect and that there are some, albeit weaker criteria for question-answer congruence with *ex situ*-constructions that justify our continued use of the notion *focus movement*.

The first criterion for *ex situ*-answers is that even though the fronted constituent does not have to be identical with the focus of the answer, it must at least overlap in order for a sequence of *wh*-question and *ex situ* answer to be well-formed. (40) and (41) show that a Q/A-pair is not well-formed unless the fronted element contains at least part of the new-information focus:

- (40) Wàa ya sàyi taabàa? #Taabàa cee Audù ya sàyaa. who 3sg.rel.perf buy cigarette 'Who bought a cigarette?' #Taubàa cee Audù ya sàyaa. cigarette PRT A. 3sg.rel.perf buy 'Audu bought a CIGARETTE.'
- (41) Mèeneenèe Bàlaa ya yii? #Bàlaa nèe ya gyaarà mootàa. what B. 3sg.rel.perf do B. PRT 3sg.rel.perf repair car 'What did Balaa do?' 'BALA repaired the car.'

In (40), the direct object is fronted even though it is the subject *Audù* that is the new-information focus. In (41), the subject is fronted even though it is the VP *gyarà mootàa* that is the new-information focus. The ill-formedness of both Q/A-pairs suggests that focushood is still a necessary condition for the *ex situ* strategy movement in that at least part of the fronted constituent must be in focus.

An additional condition on the realisation of *ex situ* focus in Q/A-pairs requires that the fronted focus constituent in the answer must be in the domain of the *wh*-element of the question. The *wh*-word *wàaceecèe* 'who (fem.)' in (42) introduces a presupposition to the effect that the questioned constituent be feminine. This presupposition clashes with the masculine gender of the fronted subject in the answer:

(42) Wàa-ceecèe ta daawoo dàgà Ìkko?
who-fem 3sg.fem.rel.perf return from Lagos
'Who (of female sex) returned from Lagos?'
#Musa (nèe) ya daawoo dàgà Ìkko.
M. PRT 3sg.masc.rel.perf return from Lagos
'Musa returned from Lagos.'

In conclusion, we have seen that in spite of the possibility of focus pied-piping and partial focus movement, there are nonetheless clear criteria for the well-formedness of *ex situ*-constructions in Q/A-pairs in Hausa. The generalisation for *ex situ*-constructions is thus as given in (43):

## (43) Ex Situ Generalisation:

The fronted constituent in an ex situ-construction must

- i. Overlap in part or be identical with the focus constituent
- ii. Satisfy additional presuppositions introduced by the preceding linguistic context, e.g. by the special morphological shape of wh-elements.

Condition (i.) ensures that every *ex situ* constituent relates directly to the focus constituent of the clause in one of three ways (identity, superpart, subpart). The important role played by focus in conditions (i.) and (ii.) is reflected by our continued use of the label *focus movement* for the movement operation involved in the *ex situ* strategy. The reader should recall from section 2.2, though, that movement of a focus constituent is not obligatory, i.e. not forced by structural factors, unless the focus constituent happens to be the subject of the clause.

To conclude, more or less than just the focus constituent can be realised *ex situ* in Hausa, as long as part of the moved constituent is in focus, or as long as the moved constituent makes up part of the focus. It follows that although the *ex situ* position is always correlated with the focus of a clause, it is not a 100% reliable diagnostic for focus. For this reason, it is incorrect to refer to this position as the *focus position*. Rather, the *ex situ* position provides a slot for constituents which must be (part of) the focus, but which are pragmatically prominent in the sense that they are 'surprising', 'most relevant', or 'emphasised' in the traditional Africanist usage.

# 6 On Pragmatically Induced Movement and the Absence of Focus-Marking

The preceding sections have identified two interesting properties of focus marking in Hausa: (i.) focus on non-subjects need not be marked; and (ii.) syntactic focus movement seems to be subject to pragmatic factors. These findings have interesting theoretical consequences that we discuss now.

### 6.1 Pragmatic Movement

### 6.1.1 Partial Focus Movement Again

Let us begin by recapitulating an interesting property of *ex situ* focus in Hausa. The examples (38) and (39) in section 5.2 showed that it is sometimes possible to distribute the focus over the two focus positions, i.e. the *ex situ* and the *in situ* position. In other words, only part of the focus is fronted in such sentences. For instance, the *wh*-question in (39) determines that the entire answer constitutes the new-information focus. Nonetheless, only the object is fronted by way of partial focus movement in (39). That the moved constituents are partial foci in (38) and (39) is evidenced by our two reliable indicators of focus: In both examples, the auxiliary appears in the relative form, and the moved constituents are followed by the focus sensitive particle *nee*.

In view of these data, the legitimate question arises why these constituents move. After all, since new information focus is preferably realised *in situ* (see subsections 2.2 and 4.3), an update of the common ground would have been satisfied if everything remained in its base-position. One might object that new-information focus *may* appear in the *ex situ* position (see section 2.1).

But even then, it remains mysterious why only a part of the new information focus moves to the sentence-initial position.

Last but not least, it is not clear what triggers partial focus movement syntactically. Following Green (1997),  $ex\ situ$  focus is triggered by a focus feature in  $F^0$ , the head of the focus phrase FP. This feature attracts the focus, causing it to leave its base-position. This is illustrated in (44):

(44) 
$$[FP [XP]_{FOC} [F, F^0 [S ... t_{XP} ...]]]$$

This mechanism accounts for all cases where the entire focus moves to the initial position. However, it fails to account for cases of partial focus movement. It is unclear to us how the focus feature should be specified in such a way that its morpho-syntactic requirements can be checked by the entire focus constituent in some cases, but by a subpart thereof in others. We therefore have to look for an alternative solution to this problem. We propose that *ex situ* focus in Hausa is always pragmatically triggered. A focus constituent, or part of it, is fronted if and only if the speaker considers it to be pragmatically salient, i.e. if he wants to emphasise it. Before we lay out our views in more detail, we take another brief look at accent languages to see how these languages express emphasis.

### 6.1.2 Emphatic Intonation in Accent Languages

Focus in accent languages is realised by an H\*+L tone on the focus exponent, i.e. on the prosodically most prominent syllable within the focus constituent. This tonal accent is used for all focus types defined in section 1.1, i.e. new information, corrective, selective and contrastive focus.

However, it has often been claimed that the quality of the H\*+L tone may vary depending on the type of focus it realises. Thus, with corrective, selective or contrastive focus, the tonal accent is said to involve a higher pitch range, a steeper local rise of the basic f0 frequency, or extra length compared to the realisation of simple new information focus (see, e.g., Alter et al. (2001)). Other studies come to similar results: It seems as if a contrastive focus is realised with more prosodic emphasis than a new information focus (see Chafe 1976, Couper-Kuhlen 1984, Bannert 1985). However, it is not clear if this distinction is categorial, i.e. if there is a grammatical category of *contrastive accent*, or if the different realisation of the H\*+L accent in different focus contexts is gradient (Bolinger 1961, 1989, Lambrecht 1994, Gibbon 1998). The results of a perception study by Alter et al. (2001) support the latter view. The authors show that *contrastive accents* are usually accepted in contexts which license new information foci. The reverse, i.e. the acceptance of *new information accents* in contexts triggering a contrastive focus seems less felicitous. The judgments depend on the structure of the context provided and are far from clear.

More prosodic emphasis is also put on an accent if the speaker wants to express emotional states such as surprise, irritation or incredulity. According to Bannert (1985), the tonal manifestation of this accent in German is similar to the tonal realisation of a contrastive focus. As Gibbon (1998: 91) puts it: "Emphatic, or emotive accents are not necessarily different in kind from other accents, but basically just have 'more of everything'. In particular, they have broader pitch modulation and more extreme syllable lengthening than non-emphatic accents, as in  $\int Schön!$  'Lovely!', where the  $\ddot{o}$  may be extremely long."

To conclude, the H\*+L focus accent can be realised with more or less emphasis along a gradient scale in German and English. A more emphatic realisation does not necessarily indicate anything, but it can indicate a contrastive (or selective/corrective) focus, or it can express an

emotional state. In the next subsection, we turn back to Hausa and show how a tonal language expresses emphasis.

## 6.1.3 Pragmatically Driven Movement in Hausa

Recall from section 4.3 that Hausa shows a clear tendency to realise new information focus *in situ*, whereas corrective, selective and contrastive focus are mostly realised *ex situ*. Thus, while accent languages use prosodic emphasis to differentiate between various pragmatic uses of a focus, the tonal language Hausa uses syntactic means to highlight the differences between them.

In this section we would like to argue that focus fronting in Hausa is always pragmatically induced. A focus constituent is fronted if it serves to guide the hearer's attention to unexpected discourse moves. This kind of highlighting is independent of and superimposed on the basic semantic effects of focus. As discussed in section 1.1, these basic effects consist in separating presupposed from non-presupposed information and in introducing alternatives to the focus constituent. In our view, a focus constituent, or part of it, appears *ex situ* in order to mark its content or discourse function as unexpected or surprising in a given discourse situation.

Answers containing information focus are prototypical instances of discourse moves that are *un*surprising. Once a question has been asked, the most likely continuation of the discourse will be an answer providing the requested new information. In other words, the presence of a new information focus can be anticipated by the preceding question. It is expected (even though its specific lexical content is yet unknown), and therefore need not be specifically marked. In our view, it is this basic characteristic of answers as anticipated discourse moves that is responsible for the tendency to realise information focus in answers *in situ*. The hearer's awareness does not have to be directed to the information focus by syntactic movement since this information is what he has asked for in his question.

Given that the hearer's awareness need not be directed to the information focus in answers per se, syntactic movement can be employed to direct his attention to those parts of the new information that the speaker judges as particularly important. This strategy is chosen whenever a new-information answer is realised ex situ, or with instances of partial focus movement. In example (39) from section 5.2, it is not surprising that there is an answer to the question, nor that the men caught something. Unexpected, however, is the fact that they caught wild animals (dabbobin jeejìi). Therefore, although the whole IP is in focus in the given question-context, only the object is fronted, thereby giving it more emphasis.

The prototypical discourse move following a declarative statement consists in the indication of agreement with what was said, often in form of a short yes, hmmm, or  $t\hat{o}$  in Hausa. In contrast, the unexpected move in such a situation is a rejection and correction of the previously made statement. According to this line of thinking, the fact that corrective focus, for instance, is mostly realised  $ex\ situ$  (see section 4.3) is simply a reflex of the marked status of corrections as unexpected discourse moves. Fronting the corrective focus constituent furthermore helps to identify the exact location of the disagreement.

It should be clear that this notion of emphasis as directing the hearer's awareness to unexpected discourse moves and/or unexpected contents of the focus constituent is likely to be subject to subjective factors (what a certain speaker considers surprising or unexpected at a given discourse stage) as well as to intercultural factors (what counts as unexpected in a culture). This is nicely illustrated by example (45), repeated from section 4.1.

## (45) A: Nairàa àshirin zaa kà biyaa in yaa yi makà.

naira twenty fut 2sg pay if 3sg do for.you
'It is twenty Naira that you will pay if he makes it for you.'
B: A'a, zân biyaa **shâ bìyar** nèe.
no fut.1sg pay fifteen PRT
'No, I will pay FIFTEEN.' (HB 3.03)

Speaker B corrects A's previous statement, but he does so without fronting the focus constituent. In the cultural context of Hausa speakers, this kind of negotiation is the norm. The fact that speaker B corrects the requested amount of Naira *in situ* is predicted by our approach. In the cultural setting of Northern Nigeria, nobody would be surprised by B's intention to pay less than he was asked for. Therefore, the corrective focus constituent can remain *in situ*.

As we already indicated at the end of section 5.2, focus movement in Hausa is determined by pragmatic factors, such as emphasis or noteworthiness (cf. Gundell 1988, Givón 1988, Legendre 2001). These are pragmatic principles of language use, which are possibly weaker than hard grammatical constraints. In view of the Hausa focus data, however, they make better predictions. *Ex situ* focus is the *preferred* option for expressing emphasis, but it is not *obligatory*. While feature driven accounts run into notorious problems when faced with optional movement, pragmatic principles such as Gundel's or Givón's appear to be more adequate.

It seems, then, that saying that syntax is not blind to pragmatic considerations has farreaching consequences for the architecture of the grammatical system as a whole. In particular, it
is incompatible with grammatical models that assign syntax a predominant role in that it feeds
both the phonological as well as the semantic/pragmatic component (Chomsky 1981). It is
compatible, however, with claims in the recent literature (see e.g. Krifka 1998, Szendröi 2003
and references therein) that syntax is not entirely blind to properties of the phonological
interface, at least what concerns prosodic requirements. It could be, then, that syntax is sensitive
to requirements of the semantic/pragmatic interface, too. That this is indeed the case, at least
with genuine semantic phenomena such as quantifier scope, has been argued by Fox (1995).
Along the same lines, syntax might well be sensitive to other semantic-pragmatic factors, such as
emphasis. Ultimately, then, the Hausa data may provide evidence in favour of a grammatical
model that postulates separate grammatical semantic-pragmatic, syntactic, and phonological
modules that are connected by correspondence rules (see e.g. Jackendoff 1997).

In conclusion, apart from structuring the content of an utterance into focus and presupposition, languages can mark a focus to a greater or lesser extent. One factor that determines the grade of expressiveness in focus marking is emphasis. Focus is usually stronger marked if a focus constituent is more surprising, more important, or more relevant. We have tried to capture these notoriously vague notions in terms of *discourse surprise* or *discourse expectancy*, where discourse can be viewed as a language game. Languages differ typologically in their means to express a focus and consequently to express emphatic focus. Accent languages use prosody: emphasis is achieved by stronger stress. In contrast, tone languages employ pragmatically-driven syntactic movement for expressing emphasis: A more emphatic focus is realised *ex situ*, a less emphatic one remains in its base-position, unless it is the subject. These two ways of marking emphatic focus differ in that prosodic emphasis is gradient, while syntactic movement is categorial in nature.

The aim of this section is to discuss the theoretical consequences of the partial absence of focus marking in Hausa. We conclude that our empirical findings for Hausa are incompatible with standard theories of focus, which therefore cannot lay claim to universality.

Standard theories of focus that were mostly designed for accent languages (from Jackendoff 1972 to Schwarzschild 1999) generally assume that focus must be marked, e.g. by pitch accent. In addition, there is a systematic relation between the focus of a sentence and the location of the pitch accent. This connection is usually established by a syntactic focus feature, which, following e.g. Selkirk (1995), is assigned to a word carrying a pitch accent (her *Basic Focus Rule*). The F-feature projects up the argument structure (*Focus Projection*), and that F-marked constituent that is not dominated by any other F-feature corresponds to the pragmatically expected focus of the sentence. This is illustrated in (46) for English.

(46) What did Mary do? She  $[VP \text{ talked}_F]_{PP}$  to  $[NP \text{ her}_F]_N \text{ SISTER}_F]_F]_F$ .

Regarding the Hausa facts, Selkirk's theory and variations thereof run into serious problems: Since *in situ* focus is not marked at all in Hausa (cf. section 3), there is no prosodic (or syntactic) cue for the Basic Focus Rule to apply. As a consequence, there is no *starting point* for focus projection. But without focus projection, Hausa grammar does not have the possibility to mark the internal focus structure of a phrase. It follows that a calculation of a constituent's information status as given or new (Schwarzschild 1999), depending on the presence or absence of F-features, is impossible in Hausa.<sup>21</sup>

The situation does not improve even if we restrict ourselves to instances of *ex situ* focus. As shown in sections 5.2 and 6.1.1, syntactic movement is not a reliable focus marker either as the fronted constituent may comprise just a part of or more than the focus constituent. Since the fronted constituent is not necessarily identical to the focus of the clause, we cannot simply assign it a focus feature. In addition, since focus movement is obligatory only for subjects, syntactic movement cannot be a general focus marking device either. To conclude, it appears that focus in Hausa is marked inconsistently and even if it is marked there is no simple way to indicate the precise internal focus structure of the focus constituent.

In principle, there appear to be two ways to make sense of the lack of consistent focus marking in Hausa. First, one could argue that focus does not exist as a grammatical category in Hausa, which is reflected by a lack of formal F-features. From this, it would follow that focus need not be marked grammatically. The lack of focus as a grammatical category would be partly compensated for by a category of *emphasis*, which resembles Valduví & Vilkuna's (1998) notion of kontrast, and which is responsible for syntactic movement. There are, however, a number of arguments against this solution. First, focus plays a grammatical role in the case of focused subjects, which must be fronted (see section 2.2). Second, focus also plays a grammatical role in that it negatively constrains focus movement. In section 5.3, it was shown that not just any category can be fronted: An ex situ realisation is restricted to those constituents that form part of, or contain, or are identical to the focus constituent. Third, without the notion of focus as a grammatical category it would be impossible to account for the fact that constituents that provide new-information form a natural class with selectively, contrastively and correctively focused constituents. These are all the constituents that can undergo syntactic movement to the designated initial position. Finally, giving up the notion of focus as inducing alternatives would require a reanalysis of those elements that are commonly known as focus-sensitive elements. As shown in section 4.2, such elements exist in Hausa, and they can combine with in situ and ex situ

expressions alike. We therefore conclude that focus does exist as a grammatical category in Hausa even though it is not consistently marked.

An alternative and – in our view – more promising solution is to count Hausa among those languages that do not require obligatory focus marking. This characterisation of Hausa is reminiscent of the distinction between obligatory and non-obligatory focus-marking systems in Heine & Reh (1983) (see also Bearth 1999: 127-128). On this analysis, focus is present as an underlying grammatical category in Hausa, and possibly in form of a formal feature F as well, but it is not consistently marked. It follows that it can be grammatically marked, e.g. in the case of focused subjects. Furthermore, the category *focus* constrains the application of focus movement for reasons of emphasis. The *ex situ* realisation of an emphasised constituent gives an indirect indication of its status as being focused. The assumption of a category *focus* also accounts for the fact that expressions providing new-information behave like selectively, contrastively, or correctively used expressions in that they can undergo focus movement. Finally, an analysis in terms of non-obligatory focus-marking directly accounts for the existence and semantic behaviour of focus-sensitive particles.

We therefore conclude that focus is a grammatical category in Hausa, but that it need not be marked, except on subjects. Existing theories of focus that are based on accent languages cannot account for the absence of focus marking in Hausa and thus cannot lay claim to universality.

## 6.3 Compensating for the Lack of Focus Marking

Given the conclusions of the preceding section, the question arises as to whether the information structure is hopelessly underspecified in Hausa, or whether it can achieve the same degree of expressiveness as languages with obligatory focus-marking. In this section we argue for the latter option. We discuss two alternative strategies of information-structuring, *topic marking* and *intersentential marking*, which allow for the indirect identification of a focus constituent in the absence of explicit focus marking within the clause.

Turning to topic marking first, the prominent status of topics in Hausa is reflected by the fact that there is a default position for topics, the *in situ* subject position. As argued in section 2.2.2, a subject in base position is automatically understood as a topic. This accounts for the fact that focused subjects in Hausa and many other languages have to move. The status of Hausa as a *topic-prominent language* is underlined by the rich inventory of topic markers (*dai, fa, kàm, kùwa, kò, maa*, translation not always clear), which occur all-pervasively in the language. As pointed out by Bearth (1999: 135), the topic-prominence of Hausa is of relevance to the discussion of focus marking because topic and focus interact closely in determining the information-structure of a clause. In particular, the presence of topic markers allows for indirect focus marking in the following way: Marking a constituent as topic disqualifies it as a possible candidate for the focus constituent. The focus constituent must then be among those constituents that are not marked for topic.<sup>23</sup>

The following examples show that topic marking is a particularly effective means of indirect focus marking in Hausa since more than one constituent can be marked as topic in the left periphery of the clause. In (47a), from Newman (2000: 617), narrow focus on the *in situ* verb is indirectly marked by marking both subject and object as topic.

(47) a. Audù **fa**, hùulaa **kàm**, yaa sàyaa. Audu TOP cap TOP 3sg.m.perf bought

```
'As for Audu, regarding his cap, he BOUGHT (it).'
b. Shii maa askèewaa zaa-à yî. (HB 3.11b)
3.sg.m TOP shaving FUT-4 do
'It (the beard), one will SHAVE (it).'
```

In (47b), we find a combination of topic marking on the object and *ex situ* realisation of the nominalised verb. The net result is, again, narrow focus on the verb. What we find, then, is that topic marking in Hausa provides a possibility for unambiguously identifying focus constituents, both *in situ* and *ex situ*, by exclusion.

The second compensating strategy, inter-sentential marking, is typically found in instances of all-new focus, where the entire content of the clause is presented as new. In such a situation, which is typically found in narrative sequences, the information status of the clause as all-new is indicated by particles, such as *kuma* 'also', *sai* 'then', or subordinating sequences such as *naa gaa* 'I saw ...', *yaa cê* 'he said'.<sup>24</sup> The main function of these particles and subordinating particles is to provide a discourse-link, indicating that the following material is new information. The following sequence from an interview in the journal *Majigi* (volume 2, June 2002, page 27) is a nice illustration of inter-sentential focus marking (and topic marking) in action: Intersentential particles are highlighted in bold, new information is highlighted by italics. Notice that vowel length and tone are usually not marked in written Hausa texts.

- (48) Context: First, we would like you to begin with presenting yourself and also a short history of you.
  - a. Ni dai *suna-na Sadi Sidi Sharifai* I TOP name-my Sadi Sidi Sharifai 'As for me, my name is Sadi Sidi Sharifai.'
  - b. **kuma** *am-haife ni a cikin gari Kano anguwa-r sharifai*, also 4.perf-give.birth me inside town Kano quarter-of Sharifai '(Also) I was born in the city of Kano in the quarter Sharifai.'
  - c. na *yi karatu a makaranta-r festival primary school* 1sg-perf do school at school-of Festival primary school 'I went to school in the school of Festival primary school.'
  - d. **kuma** *na yi sakandare a makaranta-r kwakwaci da ke Kano* also 1sg do secondary at school-of k. REL rel.cont Kano '(Also) I went to secondary school in the *k'wak'waci* school in Kano.'
  - e. **kuma** *ni ba-n* wuce dan shekara ashirin da uku ba also I NEG-1sg pass year twenty-three NEG '(Also) I am 23 years old.'

To summarise, Hausa is a language that does not mark focus on non-subjects consistently. But this does not mean that Hausa information-structure is under-specified and that there are no alternative means to identify the focus of an utterance. We have shown that Hausa has at least two alternative strategies that compensate for the lack of overt focus marking. Topic marking can serve to mark a focus indirectly by exclusion. Inter-sentential particles linking narrative sequences mark the following material as all-new.

In this section, we have argued that focused non-subjects are realised *ex situ* for reasons of emphasis rather than because of their focus status. The *ex situ* strategy was argued to be the categorical counterpart to the gradient means of expressing emphasis by pitch modulations,

which is typically found in accent languages. Finally, it was shown that Hausa has alternative discourse-structuring strategies that compensate for the lack of direct focus marking.

### 7 Conclusion

This paper presented a thorough discussion of focus and focus marking in Hausa. The most striking result from a typological perspective is that focus in Hausa, though present as a grammatical category, is not consistently marked – unlike in accent languages. It was shown that *in situ* focus is marked neither syntactically, nor morphologically, nor prosodically. At the same time, we have shown that the *ex situ* realisation of focused non-subjects is determined by discourse-pragmatic factors, rather than by their focus status. The focus status of a constituent plays only an indirect role for overt movement in that elements must be focused so that they can be emphasised in a given discourse situation.

The conclusion that focus is marked inconsistently in Hausa raises the question of whether or not a unified analysis of focus in Hausa *and* accent languages is possible. After all, the focus properties of accent languages suggest that focus in these languages is always marked somewhere on the focused constituent. Now, this impression may be wrong. Instead, the obligatory presence of a main 'focus' accent (in German and English the contour tone H\*+L) could simply follow from a prosodic requirement: Place a main accent somewhere in the clause. A correspondence requirement could then ensure that placement of the main accent is not in conflict with information-structural requirements. This would guarantee that the main accent is placed somewhere within the focus constituent.

If these speculations are on the right track, the obligatory occurrence of the main accent in accent languages may not be the result of obligatory focus marking. Rather, its occurrence and placement could be the result of the interaction of various prosodic, information-structural, and syntactic constraints. Seen in this light, the Hausa data may be of crucial importance for the discussion of focus marking in accent languages and focus marking in general.

### Notes

- This article was written within the project B2 "Focusing in Chadic Languages" funded by the German Science Association (DFG) as part of the SFB 632 "Information Structure". We would like to express our gratitude to the DFG, as well as to our Hausa consultant, Mr Danasabe. We also want to thank Sabine Zerbian for her very helpful comments, as well as Elizabeth Medvedovsky for checking our English, and Alhaji Maina Gimba for checking our Hausa.
- Where possible, we indicate the border between person marking and aspectual marking within the auxiliary by a hyphen. A dot between two morphemic translations (e.g. *3sg.perf*) indicates that the glossed unit is a porte-manteau morpheme, which cannot be further analysed. We use the following abbreviations in the glosses: 1,2,3,4 = person number markers, sg = singular, pl = plural, perf = perfective, rel.perf = relative perfective, cont = continuous, rel.cont = relative continuous, subj = subjunctive, fut = future, fem = feminine, masc = masculinum, NEG = negation, NMLZ = nominalizer, PRT = particle, TM = topic marker, DEF = definite, VENT = ventive.
- <sup>2</sup> If a sentence has a topic as well, the *ex situ* focus will always follow the topic, cf. (i):
  - (i) Audù fà, hùulaa cèe ya sàyaa. (Newman 2000:118)

A. TM cap PRT 3sg.rel.perfbuy

'As for Audu, it was a cap which he bought.'

There are several proposals in the literature concerning the nature of this particle. The first goes back to McConvell (1973) and Jaggar (1978) who treat the particle as a copula since it also appears in copula constructions. Tuller (1986), followed by Green (1997), reanalyses the particle as a focus marker. Green (1997, 2004) presents a unified account of focus and copula constructions assuming that the particle is a focus marker in both. In Hartmann & Zimmermann (in prep.) we argue that the occurrence of the particle is far from being optional. It appears primarily with exhaustively interpreted focus constituents. Therefore we treat the particle as an exhaustivity marker. Since nothing hinges on the right choice here, we use the neutral gloss *PRT* (particle) throughout the article.

A special syntactic status for focused (*wh*-) subjects can be observed in many more languages: For instance, in Kinyarwanda, Dzamba, and Kitharaka (Bantu), and also in Malagasy, Tagalog, and Javanese (Austronesian), *wh*-subjects have to move, whereas *wh*-objects can remain *in situ* (see Sabel & Zeller, to appear, and references therein).

- Unfortunately, the discussion of local H raising in Leben, Inkelas and Cobler (1989) is empirically restricted and leaves open a number of questions, e.g. What happens if the fronted constituent only contains L-toned syllables, hence no target for H raising, as in Ayaba Hàliimà tà yankà 'It is bananas that Halima has cut'? Does H raising only apply with ex situ subjects or with other constituents as well? We plan to address these issues in future research.
- Contrasting with our experimental results, Green & Jaggar (2003) and Jaggar (2004) report impressionistic judgments that the *in situ* focus constituent is marked prosodically. Inkelas & Leben (1990) also discuss a few instances of (contrastive) *in situ* focus that are prosodically prominent after H raising. Unfortunately, we were unable to reproduce Inkelas & Leben's results in our experiments.
- The total number of recorded Q/A-pairs was 160. The remaining sentences were partly included in order to test for the prosodic properties of in situ focus with another verb, *gaanii* 'to see', and for other grammatical conditions (presence or absence of sentence-final particle

nee/cee, the prosodic realisation of ex situ focus with and without focus particle, and with and without relative morphology). In addition, we included 32 arbitrary Q/A-pairs, both in situ and ex situ, as distractors. The 160 Q/A-pairs were divided in four blocks of 40 each. In between blocks, the native speaker was asked to read a longer dialogue taken from Hausar Baka as well as sections of two interviews from two Hausa journals.

We followed the experimental set-up in Uhmann (1991), where the focus of an utterance is

also controlled by a preceding question.

We chose the sentence *Hàliimà taa yankà naamàa* 'Halima has cut meat' for illustration because of its segmental make up: It has the smallest number of voiceless obstruents, which are known to disturb the pitch contour.

Our data further suggest that the intonational phrase boundary after *in situ* subjects postulated by Leben, Inkelas and Cobler (1989) (see 19b) is optional rather than obligatory. Low Raising does not seem to be blocked on the final L tone of the subject *Hàlimà*. In addition, a pause after the subject occurs in only 2 out of 16 cases. On the other hand, if a pause occurs at all in the recorded material, it occurs between subject and auxiliary. This adds further support to our conclusion that *in situ* focused verbs or objects are not indicated by intonational boundaries.

In the case of the object, which is instantiated by four different lexical items, it may be more appropriate to speak of the *arithmetic means*, rather than the average. Nonetheless, even though the prosodic shape of these elements differs, any effect of focus on pitch, intensity, or

duration should show up in this figure as well.

The 16 target structures were part of an overall set of 38 Q/A-pairs, all formed out of previously recorded material. The rest of the pairs, both matching and non-matching Q/A-pairs, were used as fillers. The Q/A-pairs were given in random order, with three filler pairs introducing and three filler pairs concluding the main test (in order to counter potential effects of initial confusion or fatigue). The fillers served the secondary function of making sure that the subject did not answer randomly. Indeed, the subject judged 19 out of the 22 fillers (> 86%) correctly as well-formed or not well-formed, indicating that the reliability of the test results is quite high.

The 12 target structures were part of an overall set of of 28 Q/doubleA-pairs, all formed out of previously recorded material. The rest of the pairs, both matching and non-matching Q/A-pairs, were used as fillers. The Q/A-pairs were given in random order, with two filler pairs introducing, and two filler pairs concluding the main test (in order to counter potential effects of initial confusion or fatigue). For methodological reasons, each Q/doubleA-pair was presented in the following way: Q - A1 - Q - A2, i.e. the question was repeated before the second answer was given. In order to counter possible ordering effects, i.e. the tendency observed in test persons to judge the second of two alternatives as better, we gave the original answer as A1 in half of the cases, and as A2 in the other half.

In Miya, a western Chadic language, a similar situation holds with respect to *in situ* focus: 'Miya can express contrastive focus with a pseudo-cleft construction, but the regular focus construction used to answer questions can also express contrastive focus.' (Schuh 1998: 332). In contrast to Hausa, *ex situ* foci are always contrastive: According to Schuh, the subject in (i) as well as the object in (ii) are contrastive foci (FM = focus marker):

- (i) mən jiy baa də ra-tlən aa wàshasham
  - I FM one who perf exceed-them with years

'I am the one who has spent longer than (any of) them.'

(ii) Tə jiy ba faarà zahiya-yá gwalfə ta miyà

he FM one.who do.first make-into.him leadership of Miya 'He's the one to whom they gave the leadership.'

<sup>15</sup> See Jaggar (2004) for the importance of such quantitative studies.

- We considered both verbal and verbless clauses. In identifying *in situ* and *ex situ* occurrences of focus in verbless clauses, we adhered to Jaggar's strategy according to which an element counts as being realised *in situ* when it occurs in its normal (non-initial) base position. In contrast, *ex situ* elements are those that have been fronted from their unmarked position to a clause-initial position.
- This tendency is also reflected in the set-up of many grammatical question-answer drills in textbooks (Cowan and Schuh 1976, Jungraithmayr and Möhlig 1986), where *ex situ* questions are frequently to be answered by an *in situ* focus.
- We use the formalism of the structured meaning account of focus. *R* stands for a variable over 2-place relations, *P* for a variable over 1-place predicates, see von Stechow (1991) and Krifka (2001) for more discussion.
- Notice that such partial focus movement is not always possible. The following Q/A-pair was judged infelicitous:
  - (i) Mèe Audù ya yii? #Firjìi nee ya sàyaa. what A. 3sg.rel.perf do fridge PRT 3sg.rel.perf buy 'What did Audu do?' 'He bought A FRIDGE.'
- <sup>20</sup> Partial focus movement is also possible in German, see (i) (Fanselow 2004: 2) and Hungarian, see (ii) (Roberts 1998: 137):
  - (i) What happened last weekend?

    Ein BUCH habe ich gelesen.

    a book have I.nom read

    'I read a book.'
  - (ii) Péter a Hamletet olvasta fel a kertben (nem pedig úszott)
    Peter the Hamlet read PFX the garden-INE not ratherswim
    'What Peter did was read Hamlet in the garden (rather than swim).'
  - In (i), the object appears in the sentence initial position, although the question asks for an allnew focus. In (ii), only the object moves to the preverbal focus position, although the whole VP is interpreted as a contrastive focus.
- Constraint-based approaches run into the same problems, since they also assume that focus must be prosodically prominent. This is reflected in constraints such as *FOCUS PROMINENCE* (Büring 2001, Selkirk 2004) or *FOC* (Schwarzschild 1999). Given that these constraints can in principle be also ranked low, their effect might not always show up. However, focus prominence is still considered indispensable in these theories, leading to the same problems as syntax-based focus theories à la Selkirk (1984, 1995).
- The discussion in Heine & Reh (1983) is restricted to languages that mark focus morphologically, but the distinction seems to hold more generally for other focus marking devices, too.
- Bearth (1999: 129) calls this indirect strategy of focus marking *subtractive morphological focus marking*. The same strategy seems to be the discourse-functional trigger for the syntactic process of scrambling in German. There, a constituent can be focused by moving any non-focal material intervening between the focus constituent and the verb to a scrambled (topic?) position.

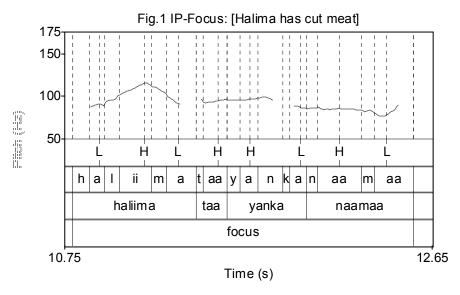
<sup>24</sup> Interestingly, the auxiliary occurs in the relative form with some of these particles in the absence of overt A'-movement.

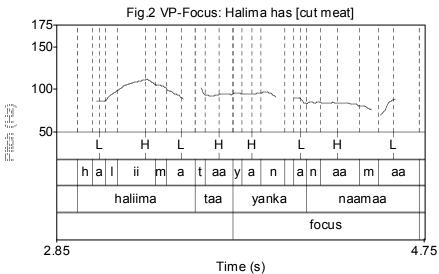
#### References

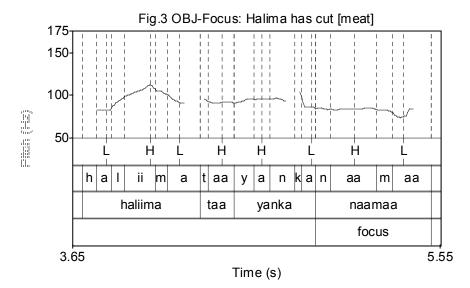
- Alter, K., Mleinek, I., Umbach, C. and Rohe, T. 2001. "Kontrastprosodie in Sprachproduktion und -perzeption". *Linguistische Arbeitsberichte (LAB)* 77: 59-81.
- Bannert, R. 1985. "Fokus, Kontrast und Phrasenintonation im Deutschen". Zeitschrift für Dialektologie und Linguistik 52: 289-305.
- Bearth, T. 1999. "The contribution of African linguistics towards a general theory of focus. Update and critical review". *Journal of African Languages and Linguistics* 20: 121-156.
- Boersma, P. and Weenink, D. 2003. Praat Manual. http://www.praat.org
- Bolinger, D.D. 1961 "Contrastive accent and contrastive stress". Language 37: 83-96.
- Bolinger, D.D. 1989. Intonation and Its Uses. Stanford: Stanford University Press.
- Büring, D. 2001. "Let's Phrase It! Focus, Word Order, and Prosodic Phrasing in German Double Object Constructions". In *Competition in Syntax*, G. Müller and W. Sternefeld (eds), 69-105. Berlin: Mouton de Gruyter.
- Chafe, W. 1976. "Givenness, contrastiveness, definiteness, subjects, topics, and point of view". In *Subject and Topic*, C. Li (ed.), 25-56. London, New York: Academic Press.
- Chomsky, N. 1981. Lectures on Government and Binding. Dordrecht: Foris.
- Couper-Kuhlen, E. 1984. "A new look at contrastive intonation". In *Modes of Interpretation*. *Essays presented to Ernst Leisi on the occasion of his 65th birthday*, R.J. Watts and U. Weidmann (eds), 137-158. Tübingen: Gunter Narr.
- Cowan, R. and Schuh, R. 1976. Spoken Hausa. Ithaca: Spoken Language Service Inc.
- Downing, L. 2002. "Fitting focus phrasing into the Prosodic Hierarchy". SOAS Working Papers in Linguistics 12: 111-133.
- Emonds, J. 1976. A Transformational Approach to English Syntax. New York: Academic Press.
- Fanselow, G. 2004. "Cyclic Phonology-Syntax-Interaction: Movement to First Position in German". In *Interdisciplinary Studies on Information Structure. Working Papers of the SFB* 632, S. Ishihara, M. Schmitz and A. Schwarz (eds), 1-42. Potsdam: Universitätsverlag.
- Fox, D. 1995. "Economy and Scope". Natural Language Semantics 3: 283-341.
- Frey, W. 2004. "The Grammar-Pragmatics Interface and the German Prefield". *Sprache und Pragmatik* 52: 1-31.
- Gibbon, D. 1998. "German Intonation". In *Intonation Systems*, D. Hirst and A. di Cristo (eds), 78-95. Cambridge: Cambridge University Press.
- Gimba, M. and Schuh, R. 2004. Draft chapters of a forthcoming Reference Grammar of Bole, http://www.humnet.ucla.edu/humnet/aflang/Bole/bole\_papers.html
- Givón, T. 1976. "Topic, Pronoun and Grammatical Agreement". In *Subject and Topic*, C. Li (ed.), 151-188. London, New York: Academic Press.
- Givón, T. 1988. "The Pragmatics of Word Order: Predictability, Importance and Attention". In *Studies in Syntactic Typology*, M. Hammond, E.A. Moravcsik and J.R. Wirth (eds), 243-284. Amsterdam: John Benjamins.
- Green, M. 1997. Focus and Copular Constructions in Hausa. PhD Dissertation, SOAS, London.
- Green, M. 2004. Predication, Equation and Information Structure: Evidence from Hausa Copular Sentences. Ms. University of Sussex.

- Green, M. and Jaggar, P. 2003. "Ex-situ and in-situ focus in Hausa: syntax, semantics and discourse". In *Research in Afroasiatic Grammar 2 (Current Issues in Linguistic Theory)*, J. Lecarme, J. Lowenstamm and U. Shlonsky (eds), 187-213. Amsterdam: John Benjamins.
- Gundel, J. 1988. "Universals of Topic-Comment Structure". In *Studies in Syntactic Typology*, M. Hammond, E.A. Moravcsik and J.R. Wirth (eds), 209-239. Amsterdam: John Benjamins.
- Hartmann, K. 2004. "Focus Constructions in Hausa". To appear in *The Architecture of Focus*, V. Molnár and S. Winkler (eds). Berlin: Mouton de Gruyter.
- Hartmann, K. and Zimmermann, M. 2004 "Focusing in Chadic The Case of Tangale Revisited". In *Interdisciplinary Studies on Information Structure. Working Papers of the SFB* 632, S. Ishihara, M. Schmitz and A. Schwarz (eds), 207-243. Potsdam: Universitätsverlag.
- Hartmann, K. and Zimmermann, M. In prep. "Exhaustivity Particles in Hausa: A Reevaluation of the Particle nee/cee".
- Heine, B. and Reh, M. 1983. *Grammaticalization and Reanalysis in African Languages*. Hamburg: Helmut Buske Verlag.
- Inkelas, S. and Leben, W.R. 1990 "Where Phonology and Phonetics Intersect: the Case of Hausa Intonation". In *Papers in Laboratory Phonology I: Between the Grammar and Physics of Speech*, M.E. Beckman and J. Kingston (eds), 17-34. Cambridge: Cambridge University Press.
- Jackendoff, R. 1972. Semantic Interpretation in Generative Grammar. Cambridge, MA: MIT Press.
- Jackendoff, R. 1997. The Architecture of the Language Faculty. Cambridge, MA: MIT Press.
- Jaggar, P. 1978. "And What About...?" Topicalisation in Hausa". *Studies in African Linguistics* 9: 69-81.
- Jaggar, P. 2001. Hausa. Amsterdam: John Benjamins.
- Jaggar, P. 2004 "More on In Situ Wh- And Focus Constructions in Hausa". To appear in *Chadic Linguistics/Linguistique Tchadique/ Tschadistik* 3, D. Ibriszimow, H. Tourneux and E. H. Wolff (eds). Cologne: Köppe.
- Jungraithmayr, H. and Möhlig, W. 1986. Einführung in die Hausa-Sprache. Berlin: Reimer.
- Kanerva, J. 1990. "Focusing on Phonological Phrases in Chichewa". In *The Phonology-Syntax Connection*, S. Inkelas and D. Zec (eds), 145-161. Chicago: CSLI.
- Kiss, K.E. 1998. "Identificational Focus Versus Information Focus". Language 74: 245-273.
- Krifka, M. 1998. "Scope Inversion under the Rise-Fall-Contour in German". *Linguistic Inquiry* 29: 75-112.
- Krifka, M. 2001. "For a Structured Meaning Account of Questions and Answers". In *Audiatur Vox Sapientia*. *A Festschrift for Arnim von Stechow*, C. Féry and W. Sternefeld (eds), 287-319. Berlin: Akademie Verlag.
- Krifka, M. 2004. "The Semantics of Questions and the Focusation of Answers". In *Topic and Focus: A Cross-Linguistic Perspective*, C. Lee, M. Gordon and D. Büring (eds), 139-151. Dordrecht: Kluwer Academic Publishers.
- Ladd, R.D. 1996. Intonational Phonology. Cambridge: Cambridge University Press.
- Lambrecht, K. 1994. *Information structure and sentence form: Topic, focus, and the mental representation of discourse referents.* Cambridge: Cambridge University Press.
- Leben, W. R., Inkelas, S. and Cobler, M. 1989. "Phrases and Phrase Tones in Hausa". In *Current Approaches to African Linguistics*, P. Newman and R. Botne (eds), 45-61. Dordrecht: Foris.
- Legendre, G. 2001. "An Introduction to Optimality Theory in Syntax". In *Optimality-Theoretic Syntax*, G. Legendre, J. Grimshaw, and S. Vikner (eds), 1-27. Cambridge, MA: MIT Press.

- McConvell, P. 1973. Cleft Sentences in Hausa? A Syntactic Study of Focus. PhD Dissertation, SOAS, London.
- Newman, P. 2000. The Hausa Language. New Haven & London: Yale University Press.
- Randell, R., Bature, A. and Schuh, R. 1998. Hausa Bakar. http://www.humnet.ucla.edu/humnet/aflang/hausarbaka/
- Roberts, C. 1998. "Focus, the Flow of Information, and Universal Grammar". In *The Limits of Syntax*, P. Culicover and L. McNally (eds), 109-160. New York: Academic Press.
- Rooth, M. 1985. Association with Focus. PhD Dissertation, UMass, Amherst.
- Rooth, M. 1992. "A Theory of Focus Interpretations". Natural Language Semantics 1: 75-116.
- Sabel, J. and Zeller, J. To appear. "Wh-question formation in Nguni". In *Proceedings of the 35<sup>th</sup> Annual Conference on African Linguistics*.
- Schuh, R. 1982. "Questioned and focused subjects and objects in Bade/Ngizim". In *The Chad Languages in the Hamitosemitic-Negritic Border Area*, H. Jungraithmayr (ed.), 160-174. Berlin: Reimer.
- Schuh, R. 1998. A Grammar of Miya. Berkeley, Los Angeles: University of California Press.
- Schwarzschild, R. 1999. "GIVENness, AVOIDF and Other Constraints on the Placement of Accent". *Natural Language Semantics* 7: 141-177.
- Selkirk, L. 1984. *Phonology and Syntax. The Relation between Sound and Structure*. Cambridge, MA: MIT Press.
- Selkirk, L. 1995. "Sentence Prosody: Intonation, Stress, and Phrasing". In *Handbook of Phonological Theory*, J. Goldsmith (ed.), 550-569. Oxford: Blackwell.
- Selkirk, L. 2004. "Bengali Intonation Revisited: An Optimality Theoretic Analysis in which FOCUS Stress Prominence Drives FOCUS Phrasing". In *Topic and Focus: Cross-linguistic Perspectives on Intonation and Meaning*, C. Lee, M. Gordon and D. Büring (eds), 217-246. Dordrecht: Kluwer.
- Stechow, A. v. 1991. "Focusing and Backgrounding Operators". In *Discourse Particles*, W. Abraham (ed.), 281-337. Dordrecht: Kluwer.
- Stalnaker, R. C. 1978. "Assertion". In *Pragmatics*, P. Cole (ed.), 315-332. New York: Academic Press.
- Szendröi, K. 2003. "A Stress-Based Approach to the Syntax of Hungarian Focus". *The Linguistic Review* 20: 37-78.
- Truckenbrodt, H. 1995. Phonological Phrases: Their Relation to Syntax, Focus, and Prominence. PhD Dissertation, MIT, Cambridge, MA.
- Tuller, L. 1986 Bijective Relations in Universal Grammar and the Syntax of Hausa. PhD Dissertation, UCLA, Los Angeles.
- Uhmann, S. 1991. Fokusphonologie. Tübingen: Niemeyer.
- Vallduví, E. and Vilkuna, M. 1998. "On Rheme and Kontrast". In *The Limits of Sytnax*, P. Culicover and L. McNally (eds), 79-106. New York: Academic Press.
- Wolff, E.H. 1993. Referenzgrammatik des Hausa. Münster: LIT.
- Xu, L. 2004. "Manifestation of Informational Focus". Lingua 114: 277-299.
- Xu, Y. 1999. "Effects of Tone and Focus on the Formation and Alignment of F0 Contours". Journal of Phonetics 27: 55-105.
- Zerbian, S. This volume. "Subject/Object-Asymmetry in Northern Sotho".
- Zerbian, S. In prep. Information structure in Northern Sotho, PhD Dissertation, Humboldt-Universität, Berlin.







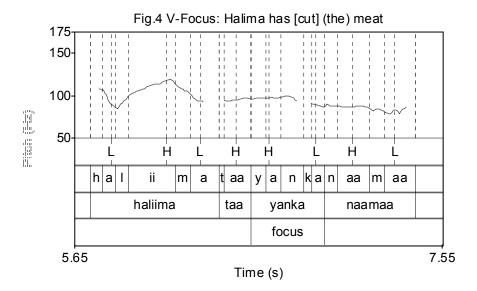


Table 1: Average mean pitch of constituents in 'Hàliimà taa yankà X' (in Hz)

	SUBJ	AUX	V	OBJ
OBJ-focus	100.05	95.85	94.90	84.27
VP-focus	102.39	95.86	95.65	85.51
V-focus	104.02	97.47	96.91	84.03
all-new focus	100.79	95.45	95.24	83.86

Table 2: Average maximum pitch of constituents in 'Hàliimà taa yankà X' in (Hz)

	SUBJ	AUX	V	OBJ
OBJ-focus	114,71	115,90**	105,01	91,27
VP-focus	117,98	107,98	100,67	96,46
V-focus	120,79	113,52	104,48	92,83
all-new focus	114,92	108,75	103,65	101,18

Table 3: Average minimum pitch of constituents in 'Hàliimà taa yankà X' in (Hz)

		······	*** *** ()	
	SUBJ	AUX	V	OBJ
OBJ-focus	83.33	92.70	80.25	77.19
VP-focus	85.28	93.58	82.35	76.43
V-focus	86.25	94.23	82.20	76.42
all-new focus	85.15	91.63	83.57	75.84

Table 4: Average intensity of constituents in 'Hàliimà taa vankà X' in dB

		- · · · · · · · · · · · · · · · · · · ·		
	SUBJ	AUX	V	OBJ
OBJ-focus	67.86	63.58	67.83	63.36
VP-focus	68.69	72.33	68.65	62.43
V-focus	69.58	61.69	69.42	64.20
all-new focus	69.05	67.16	68.62	62.16

Table 5: Average duration of constituents in 'Hàliimà taa yankà X' (in s)

	SUBJ	AUX	$\overline{V}$	OBJ
OBJ-focus	0.67	0.20	0.48	0.57
VP-focus	0.63	0.195	0.41	0.55
V-focus	0.66	0.17	0.43	0.52
all-new focus	0.675	0.2	0.45	0.56

<sup>\*\*</sup> We take the high values in this column to be the result of a disturbance created by the plosive /t/ in *taa*.

Table 6: Occurrences of ex situ and in situ focus

	ex situ focus	in situ focus	Σ
#	354	140	494

Table 7:Occurrences of ex situ and in situ focus in wh-questions, answers, and other instances of focus

	answers, and other instances of focus							
	ex situ			in situ			$\Sigma ex$	$\Sigma in$
							situ	situ
	wh	answer	other	wh	answer	other		
#	175	25	154	29	99	12	354	140