

Focus Realization in West Chadic*

Malte Zimmermann, Humboldt University Berlin

1. Introduction

This chapter gives a descriptive overview over the realization of focus in a sub-branch of Chadic (Afro-Asiatic). The discussion is mainly restricted to four languages: Hausa, Tangale, Bole, and Guruntum, all of which belong to the Western branch of Chadic according to Newman's (1977) classification. However, reference to other West Chadic languages will be made where appropriate. The discussion draws in part on existing accounts in the literature, and in part on new observations from recent fieldwork.

West Chadic languages are mainly spoken in Northern Nigeria, and thus stand in no immediate geographic contact to the other languages discussed in this volume. Apart from their geographical closeness, the languages under discussion share a great number of grammatical properties. All four languages are tone languages with two lexical tones, H and L, and a falling (and sometimes a rising) contour tone. All languages have the basic word order SVO, and case is not morphologically marked. The languages are aspectual rather than tense languages. Temporal-aspectual information is encoded in form of TAM-markers, usually preceding the verb. Neutral sample sentences from each of the four languages are given in (1):

- (1) a. *Kandé t́áa dáfa kíífí* *Hausa*
Kande 3sg.f.perf cook fish
'Kande cooked fish.'
- b. *Lakú né šwad yílaa* *Tangale*
Laku PROG hitting Yila
'Laku is hitting Yila.' (Kidda 1993:122, ex.(36ii.b))
- c. *Léngi a jii kapp-a mordó* *Bole*
Lengi 3agr PROG plant-prog millet
'Lengi is planting millet.' (Maina Gimba, p.c.)
- d. *Aúdu ba shí sháu* *Guruntum*
Audu PROG eat food
'Audu is eating food.' (Haruna 2003:121)

The chapter is structured as follows. Section 2 illustrates the different means of focus realization in different West Chadic languages. The section also shows that focus can be realized redundantly, i.e. simultaneously by more than one grammatical means in a language. Section 3 discusses the optional absence of focus realization on non-subjects in Hausa, Bole, and Tangale. This finding is surprising from the perspective of European intonation languages, in which focus appears to be obligatorily realized by means of a nuclear pitch accent. Section 4 discusses the emergence of focus ambiguities in the various languages, showing that focus ambiguities arise for different reasons in different languages. Section 5

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deals with the relationship between overt focus realization and interpretation. Section 6 concludes.

2. Strategies of Overt Focus Realization

This section discusses various ways of grammatical focus realization in West Chadic. It should be emphasized right from the start, though, that – unlike in intonation languages – focus need not be grammatically realized in most of the languages discussed here. The lack of focus realization will be discussed at length in section 3. In other words, when we talk about focus realization (or the preferred strategy of focus realization) in West Chadic we only talk about how focus is grammatically realized when it is expressed, leaving open the possibility that focus realization is absent altogether.

With this caveat in place, even a quick survey shows that the languages under discussion realize focus by various grammatical means, namely syntactically, prosodically, or morphologically. What is common to all languages is that there is one preferred grammatical strategy of realizing focus in all cases in which focus is overtly expressed. This preferred strategy may be accompanied by other grammatical processes, but crucially focus cannot be realized without it.

2.1 Hausa

Hausa realizes focus syntactically by moving the focus constituent to a left-peripheral focus position (Tuller 1986, Green 1997, Newman 2000, Jaggar 2001), compare the case of object focus in (2a) with the neutral sentence (1a). The fronted constituent must be a maximal projection. In addition, movement is accompanied by a change in the form of the TAM-marker in progressive and perfective sentences, indicating the application of A'-movement (Tuller 1986): The absolute form *taa* is replaced by the relative form *ta* in (2). Focus on subjects, which are canonically realized in sentence-initial position, is realized in form of vacuous movement, as witnessed by the obligatory occurrence of the relative TAM-marker *ta* in (2b) (Jaggar & Green 2003, Jaggar 2004).

(2) Syntactic Realization of Focus in Hausa:

- | | | |
|----|--|----------------|
| a. | <i>Kíifíi</i> ₁ (nee) <i>Kandé tá</i> <i>dáfaa</i> <i>t</i> ₁ .
fish PRT Kande 3sg.f.perf. rel cook
‘Kande cooked FISH.’ | <i>O-focus</i> |
| b. | <i>Kandé</i> ₁ (cee) <i>t</i> ₁ <i>tá</i> / * <i>táa</i> <i>dáfa</i> <i>kíifíi</i> .
Kande PRT 3sg.f.perf. rel 3sg.f.perf cook fish
‘KANDE cooked fish.’ | <i>S-focus</i> |

The fronting strategy is applicable not only to arguments and adjuncts, but also to VPs. However, the verbal head of the VP must be nominalized for the VP to undergo focus fronting (Newman 2000:193), cf. (3b). Fronting of a finite VP, as in (3c), is ruled out.

- | | | |
|--------|--|-----------------|
| (3) a. | <i>Muusaa yaa</i> <i>kařàntà wàsiiKàa</i>
Musa 3.sg.perf read letter
‘Musa read a letter.’ | <i>neutral</i> |
| b. | <i>Kàřàatu-n wàsiiKàa</i> <i>cee ya</i> <i>yi</i> .
<i>reading-of letter</i> PRT 3sg.perf. rel do
‘Reading a letter is what he did.’ | <i>VP-focus</i> |

- c. *Kařàntà wàsìikàa cee ya yi.
read letter PRT 3sg.perf.rel do

The data in (2) and (3) show that the fronted constituent is optionally followed by a focus-sensitive particle *nee* (masc./pl.) or *cee* (fem.). In addition, focus is indicated by the relative TAM-morphology in (2) and (3). Finally, Leben et al. (1989) observe that focus fronting is accompanied by a prosodic process of H-tone raising, which raises the pitch of any H-tones in the fronted material to an extra-high level. Summing up, focus in Hausa can be expressed redundantly by various grammatical means, namely syntactically (fronting), morphologically (TAM-morphology, focus particle), and prosodically (H-tone raising). Nonetheless, syntactic fronting is the prime means of expressing focus in Hausa in that it must apply when focus is expressed overtly. The other processes are either optional companions to focus fronting (focus particles), or they arise as a direct consequence of the fronting operation (TAM-morphology, H-tone raising).

2.2 Tangale

Tangale realizes focus prosodically in form of a phonological phrase (ϕ)-boundary, which is typically placed before the focus constituent. The presence of a ϕ -boundary results in the blocking of tonal processes that would usually apply, such as *vowel elision (VE)* and *left line delinking (LLD)* (Kenstowicz 1985, Tuller 1992).¹ VE deletes the final vowel of a stem or a word when in close syntactic connection with some following phonological material. LLD cuts the association line of a lexical tone with its original tone-bearing unit after rightwards spreading. In the neutral sentence (4a), verb and object are not separated by a ϕ -boundary, and application of VE and LLD derives the surface form *dob-ug* from the underlying form *dob-gó*, as indicated in (5). The underlying form *dob-gó* surfaces in (4b), where the object is focused (examples from Kenstowicz 1985:84, exs.(15ef)).

- (4) a. Kay **dob-ug** Máláy. *neutral*
 Kay call-perf Máláy
 ‘Kay called Malay.’
 b. Kay **dob-gó**) ϕ nóŋ. *O-focus*
 Kay call-perf who
 ‘Who did Kay call?’

- (5) *dob-gó* $\xrightarrow{\text{VE + LLD}}$ *dob-g* $\xrightarrow{u\text{-epenthesis}}$ *dob-ug*

While the focus-indicating ϕ -boundary precedes focused non-subjects in their canonical base position, focused subjects cannot occur in their canonical sentence-initial position. Instead, they must occur in a post-verbal position, i.e. either sentence-finally, or in a position immediately following the object, but separated from the object by a prosodic boundary (Kenstowicz 1985, Tuller 1992). In (6) the prosodic boundary before the subject NP is indicated by the non-application of final decontouring (Kidda 1993: 131, ex.(47))

- (6) Q: pad-go taabéè) ϕ nóŋ? A: pad-go taabéè) ϕ kai
 buy-perftobacco who buy-perftobacco Kai
 ‘Who bought tobacco?’ ‘KAI bought tobacco.’

¹ Other prosodic processes that are blocked before, and can therefore serve as diagnostics for ϕ -boundaries are Right-Line Delinking, final decontouring from falling to H, and p-lowering from H to L (Kidda 1993).

The post-verbal realization of the focused subject in (6) seems to be linked to the fact that Tangale realizes focus by means of prosodic boundaries. A subject in default initial position is always preceded by a prosodic boundary such that one cannot tell whether or not focus is realized on a subject. Whence comes the need for focused subjects to invert and occur in a position in which they can be unambiguously marked for focus by a preceding ϕ -boundary. Ultimately, then, the syntactic reordering appears to be triggered by prosodic needs. In this respect, Tangale resembles the Romance languages Spanish and Italian, where focused subjects must also invert for prosodic reasons (Zubizarreta 1998, Samek-Lodovici 2005).

2.3 *Bole*

Bole has a split system of focus realization. Focus on non-subjects is realized morphologically by means of the marker *yé*, which precedes the focus constituent (Gimba 2005). Compare the neutral sentence (1c) from above with instances of O-focus and locative ADJ-focus in (7ab) (all Bole data provided by Maina Gimba, p.c.):

- (7) a. Q: Léngì à jìi kàpp-à **yé** lè? *O-Focus*
 Léngì 3agr PROG plant-prog PRT what
 ‘What is Lengì planting?’
 A: Léngì à jìi kàpp-à **yé** mòrdó.
 Léngì 3agr PROG plant-prog PRT millet
 ‘Lengì is planting MILLET.’
- b. Q: Léngì à jìi kàpp-à mòrdó **yé** gà àw? *ADJ-focus*
 Léngì 3agr. PROG plant-prog millet PRT LOC where
 ‘Where is Lengì planting the millet?’
 A: Léngì à jìi kàpp-à mòrdó **yé** gà gà kòorí.
 Léngì 3agr PROG plant-prog millet PRT LOC in farm
 ‘Lengì is planting the millet ON THE FARM.’

Notice that *yé* acts as a background marker on the preceding material rather than as a focus marker on the material following (Schuh 2005). Prosodically, *yé* is restricted to occur at the right edge of phonological phrases (as are other functional elements, e.g. the negation marker *sa*). From this, it follows that the focus constituents in (7ab) are preceded by a prosodic ϕ -boundary in addition to the morphological marker.

The focused non-subjects in (7ab) occur in their canonical base position. In contrast, focused subjects must invert and occur in a right-peripheral position, similar to what happens in Tangale, cf. (8):

- (8) Q: (An) jìi kàpp-à mòrdó **yé** lò?
 (3agr.) PROG plant-prog millet PRT who
 ‘Who is planting the millet?’
 A: (An) jìi kàpp-à mòrdó **yé** Léngì.
 (3agr) PROG plant-prog millet PRT Lengì
 ‘LENGI is planting the millet.’

Although postverbal focused subjects are in most cases preceded by the *yé*-marker (especially with transitive verbs), the latter is not obligatorily (Russell Schuh, p.c.), cf. (26b) below. From this, we can conclude that Bole has two independent means of realizing focus: Focus on non-subjects is realized morphologically by means of the *yé*-marker. Focus on subjects is realized syntactically by means of subject inversion. Unlike in Tangale, then, the inversion of focused

subjects seems not primarily triggered by prosodic factors, even though the postposed subject does not integrate with the rest of the clause, but must be preceded by a prosodic boundary.

2.4 Other Languages with Subject Inversion (Schuh 1972, 1982, Tuller 1992)

Tangale and Bole are by no means the only West Chadic languages that exhibit subject inversion with focused subjects. Schuh (1971, 1982), and following him Tuller (1992), discuss a range of other languages in which focused (including questioned) subject NPs are realized in a marked postverbal position, whereas focused (including questioned) objects occupy the same position as normal object NPs, i.e. following the verb. This holds for Duwai, Ngizim and Bade from the B subbranch of West Chadic, as well as for Kanakuru from the A subbranch. The data in (9) – (11) are taken from Schuh (1982: 161ff.), the data in (12) are from Tuller (1992), who attributes them to Newman (1974):

(9) *Duwai*

- | | |
|---------------------------|--------------------------|
| a. Dùgwé màakó ndúunyè? | <i>O-focus</i> |
| ‘Who did Dugwe look for?’ | |
| b. dée nḡ ndíyè? | <i>S-focus, inverted</i> |
| ‘Who came?’ | |
| c. dèe nḡ Múusá | <i>S-focus, inverted</i> |
| ‘MUSA came.’ | |

(10) *Ngizim*

- | | |
|----------------------------|--------------------------|
| a. Tìjání máakó tàì? | <i>O-focus</i> |
| ‘Who did Tijani look for?’ | |
| b. dèe -n tâì? | <i>S-focus, inverted</i> |
| ‘Who came?’ | |
| c. dèe-n Múusá | <i>S-focus, inverted</i> |
| ‘MUSA came.’ | |

(11) *Gashua Bade*

- | | |
|---------------------------|--------------------------|
| a. Dùgwíí máakó tàì | <i>O-focus</i> |
| ‘Who did Dugwi look for?’ | |
| b. dàawà n-áì? | <i>S-focus, inverted</i> |
| ‘Who came?’ | |
| c. dàawà-n Múusá | <i>S-focus, inverted</i> |
| ‘MUSA came.’ | |

(12) *Kanakuru*

- | | |
|---|--------------------------|
| a. kaa nai mandai ? | <i>O-focus</i> |
| you call who | |
| ‘Who are you calling ?’ | |
| b. na dibəre gami mandai? | <i>S-focus, inverted</i> |
| buy ram-the who | |
| ‘Who will buy the ram?’ | |
| c. are lowoi jewoi la lusha | <i>S-focus, inverted</i> |
| bury boy-the slave-the in bush | |
| ‘THE SLAVE buried the boy in the bush.’ | |

Duwai, Ngizim and Bade resemble Bole in that the inverted subject is preceded by a morphological marker, but unlike in Bole this marker is obligatory with focused subjects.² Kanakuru resembles Tangale in that there is no such morphological marker preceding the focused subject. The inversion of focused subjects in Tangale and Bole seems therefore representative for a whole range of West Chadic languages.

2.5 Guruntum

Guruntum is another language that realizes focus morphologically, but in a more direct way than Bole: Guruntum has a focus marker *a*, which typically precedes the focus constituent. (13a-c) illustrate for narrow focus on the object, the subject, and the adjunct respectively:

- (13) a. Q: **Á** kwá bà wúm kwálingálá-ì? A: **Á** fúrmáyò bà wúm kwálingálá.
 FOC who PROG chew colanut-the FOC fulani PROG chew colanut
 ‘Who is chewing the colanut?’ ‘THE FULANI is chewing colanut.’
- b. Q: **Á** kǎǎ màì tí bà wúmì? A: Tí bà wúm-á kwálingálá.
 FOC what REL 3sg PROG chew 3sg PROG chew-foc colanut
 ‘What is he chewing?’ ‘He is chewing COLANUT.’
- c. Q: Tí bà dáan-à yáú? A: Tí bà dáan-à gǎǎ shìndí.
 3sg PROG sit-foc where 3sg PROG sit-foc on stone
 ‘Where is he sitting?’ ‘He is sitting ON THE STONE.’

As the *a*-marker is a genuine focus marker (as opposed to the background marking element *yé* in Bole) and freely occurs at the left edge of prosodic domains, it can express focus on all constituents, including subjects, in their canonical position. It follows that focused subjects in Guruntum are not inverted, but get marked for focus in preverbal position.

2.5 Conclusion

This section has shown that there is no uniform strategy of realizing focus in West Chadic: Focus is realized syntactically (Hausa), prosodically (Tangale), morphologically (Guruntum), and morphologically and syntactically (Bole). At the same time, it should be pointed out again that the existence of various strategies of realizing focus does not imply that constituent focus is obligatorily realized in West Chadic. The next section will show that this is not the case, and that focus need not be grammatically realized in many West Chadic languages.

3. Lack of Focus Realization

While all languages discussed here have grammatical ways of expressing focus, this does not mean that they always make use of this option. This section shows that focus on non-subjects is frequently unrealised in Hausa, Bole, and Tangale. The lack of focus realization may be either optional, as e.g. in Hausa and Bole (3.1), or it may be obligatory for structural reasons in certain syntactic contexts, as e.g. in Tangale (3.2). In all the languages discussed, subjects differ from non-subjects in that focus on them *must* be overtly realized (3.3).

3.1 Optional Absence of Focus Realization

Recent studies of focus in Hausa by Jaggar (2001, 2004), Jaggar & Green (2003), Hartmann (2006), and Hartmann & Zimmermann (to appear) all show that - contrary to traditional

² Interestingly, this morphological marker is always absent with focused non-subjects, again unlike in Bole, see section 3

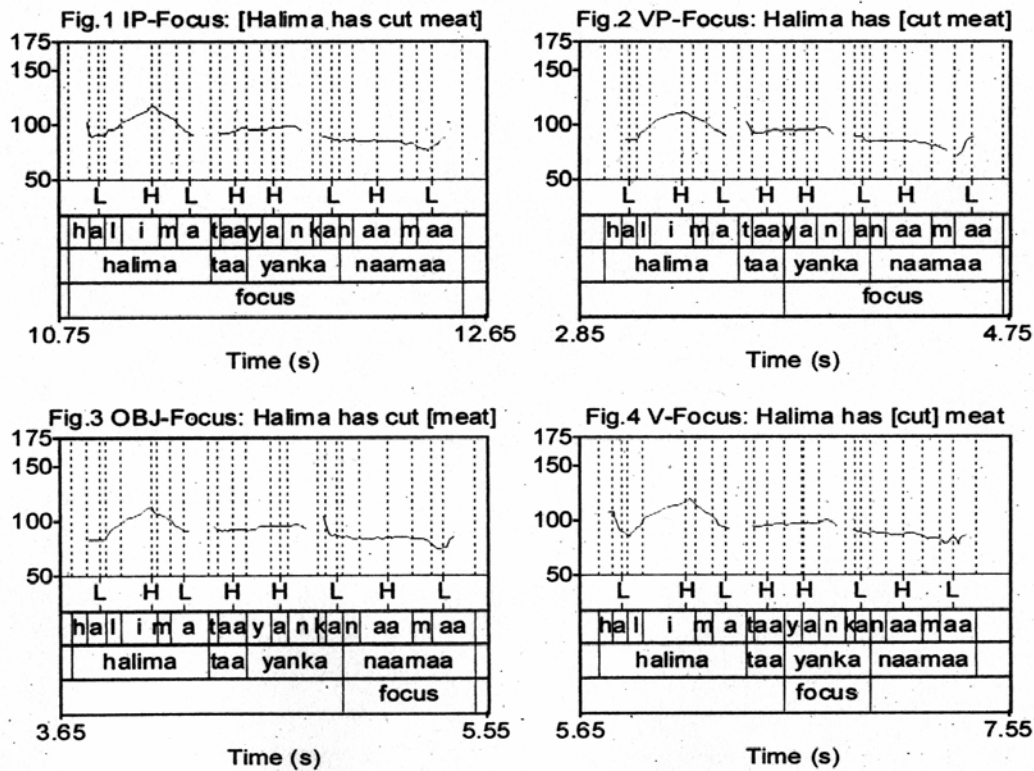
wisdom - focus on non-subjects need not be explicitly marked by syntactic movement. Instead, the focused constituent may optionally remain *in situ*, i.e. in its canonical position. (14ab), from Hartmann & Zimmermann (to appear) illustrate this for focus on an object NP and on a locative adjunct respectively:

- (14) a. Q: Mèe su-kà kaamàa? A: Sun kaamà dawaakii.
 what 3pl-rel.perf catch 3pl.perf catch horses
 ‘What did they catch?’ ‘They caught HORSES.’
- b. Q: (À) cikin mètè su-kà sâa kudî-n-sù?
 at inside-of what 3pl-rel.perf put money-GEN-their
 ‘Where did they put their money in?’
 A: Sun sâa kudî-n-sù cikin àkwàatì.
 3pl.perf put money-GEN-their inside.of box
 ‘They put their money into a BOX.’

The *in situ* pattern is far from being a marked, and thus only rarely attested option. Based on a corpus study, Hartmann & Zimmermann (to appear) show that about one third of all instances of focus in the corpus were realized *in situ*. Regarding the expression of new-information focus, as found in answers to *wh*-questions, the *in situ* strategy is even the predominant strategy: About 4/5 of all new information foci in the corpus answers were realized *in situ*.

Hartmann & Zimmermann (op.cit.) also show that the lack of syntactic focus realization is not compensated by other grammatical means, say by prosodic marking. Based on qualitative and quantitative analyses, as well as on a perception study, they conclude that *in situ* foci are not marked by prosodic means, say in form of tonal raising/lowering or prosodic phrase boundaries. Figures 1-4, from Hartmann & Zimmermann (op. cit.) exemplarily show that there are no striking differences in the pitch contour of sentence (15) when uttered under varying focus conditions. In particular, there is no significant variation on or around the focus constituent. This holds no matter whether the focus comprises the entire clause (all-new focus, fig.1), the VP (fig.2), the object NP (fig.3), or the verb alone (fig.4).

- (15) Halíima táa yánka náamaa.
 Halima 3sg.f.perf cut meat.
 ‘Halima cut meat.’



The same results obtain if we look at longer utterances which could provide evidence for prosodic phrase boundaries, such as (16a), a double object-construction, and (16b), a sentence with object NP and locative adjuncts.

- (16) a. Ìbrahìm yaa bai wà ða-n Musa lèemoo bìyar.
 Ibrahim 3.sg.m.perf give to son-of Musa lemon five
 ‘Ibrahim gave five lemons to Musa’s son.’
- b. Maalàm Shehù yaa kiiraa Dèelu à cikin gàrii.
 Malam Shehu 3.sg.m.perf call Deelu P inside town
 ‘Malam Shehu called Delu in the town.’

The sentences in (16) are such that the sequence of lexical tones allows for the detection of prosodic phrase boundaries on the focus constituent by way of the (non-) application of certain tonal processes that are sensitive to such boundaries (see Leben et al. 1989).³ Figure 5 shows the pitch contours of a male speaker for focus on the entire sentence (all-new), the VP, the first object NP, the second object NP, the cardinal modifier, as well as for discontinuous focus on verb and second object NP. Figure 6 shows the pitch contours of a female speaker for focus on the entire sentence (all-new), the verb alone, the VP, the object NP, and the locative adjunct.

³ Leben et al. (1989) identify three such processes: *Low raising* raises the L-tone in an HLH-sequence and is blocked by prosodic phrase boundaries. *High raising* raises the second H-tone in an HHL-sequence and is also blocked by prosodic boundaries. *High Base Value Resetting*, in contrast, only applies at prosodic boundaries and resets the pitch of the first H tone in a prosodic phrase independently of the pitch of the preceding H tone.

Fig.5: F0-contour of (16a) (male)

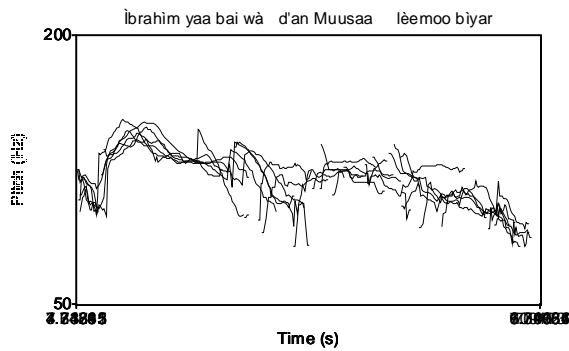
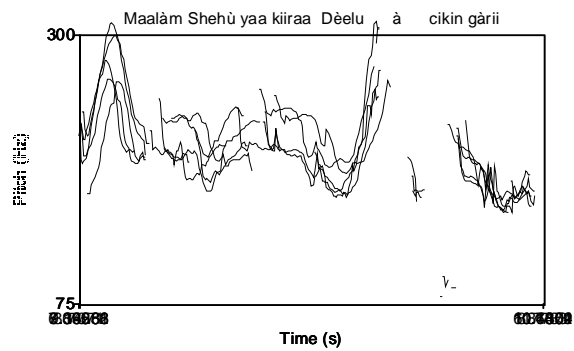


Fig.6: F0-contour of (16b) (female)



Figures 5 and 6 clearly show that there is no effect of the focus constituent on the prosodic realization of the sentences. The various pitch contours under varying focus conditions show no significant differences. Notice that the adjunct phrase *à cikin gàrii* in (16b) is always separated from the core clause, as can be seen from the break in the contour between *Dèelu* and *à* and the application of High Base Value Resetting on the first H-tone of *cikin* (see fn.3). Similar prosodic breaks are not found elsewhere in the sample sentences. In other words, the information-structural status of *in situ* foci in Hausa is neither expressed syntactically, nor prosodically. That is, Hausa is a clear example of a language in which the information-structural category of focus need not be grammatically realized.

The same holds for Bole, where the insertion of the focus marker *yé* (plus the necessary prosodic boundary) is likewise optional with non-subjects. It follows that the examples for object and adjunct focus from (7) above can also be realized without the *ye*-marker. The resulting structures in (17ab) are formally indistinguishable from the corresponding neutral clauses (Maina Gimba, p.c.):

- (17) a. Q: Léngì à jìi kàpp-à lè? *O-Focus*
 Lengì 3agr PROG plant-prog what
 ‘What is Lengì planting?’
 A: Léngì à jìi kàpp-à mòrdó.
 Lengì 3agr PROG plant-prog millet
 ‘Lengì is planting MILLET.’
- b. Q: Léngì à jìi kàpp-à mòrdó gà àw? *ADJ-focus*
 Lengì 3agr. PROG plant-prog millet LOC where
 ‘Where is Lengì planting the millet?’
 A: Léngì à jìi kàpp-à mòrdó gà gà kòorí.
 Lengì 3agr PROG plant-Prog. millet LOC in farm
 ‘Lengì is planting the millet ON THE FARM.’

(18ab) illustrate the absence of the grammatical realization of VP- and V-focus:

- (18) a. Q: Léngì à jìi íi-ná (yé) lè? *VP-focus*
 Lengì 3agr PROG do-prog PRT what
 ‘What is Lengì doing?’
 A: Léngì à jìi kàpp-à mòrdó
 Lengì 3agr PROG plant-prog millet
 ‘Lengì is planting MILLET’
- b. Q: Léngì à jìi íi-ná (yé) lè gà mòrdó yê? *V-focus*
 Lengì 3agr PROG plant-prog PRT what with millet DEF
 ‘What is Lengì doing with the millet?’

A: Léngì à jìi kàpp-à mòrdó yê.
 Léngì 3agr PROG plant-prog millet DEF
 ‘Lengi is PLANTING the millet.’

Finally, the data in (19a-c) show that the lack of focus realization is not restricted to the imperfective aspect, but that it is also found in the perfective aspect. In this respect, Bole differs from Tangale, where the realization of focus is only absent in imperfective sentences (see 3.2).

- (19) a. Q: Léngì kàpp-ák (yé) lè? *O-Focus*
 Léngì plant-Perf-f.agr PRT what
 ‘What did Lengi plant?’
 A: Léngì kàpp-ák (yé) mòrdó.
 Léngì plant-Perf.-f.agr F millet
 ‘Lengi planted MILLET.’
- b. Q: Léngì ák (yé) lè? *VP-focus*
 Léngì do-perf.f.agr PRT what
 ‘What did Lengi do?’
 A: Léngì kàpp-ák mòrdó.
 Léngì plant-perf.f.agr millet
 ‘Lengi planted MILLET.’
- c. Q: Léngì ák (yé) lè gà mòrdó yê? *V-Focus*
 Léngì do-perf.f.agr PRT what with millet DEF
 ‘What did Lengi do with the millet?’
 A1: Léngì kàpp-ák mòrdó yê.
 Léngì plant-perf.f.agr millet DEF
 ‘Lengi PLANTED the millet.’

In conclusion, the information-structural focus status of a non-subject constituent need not be grammatically expressed in Hausa and Bole. It follows that the overt realization of focus is not strictly determined by grammatical factors, nor by the need to express focus at all cost. We turn to the question of what triggers the overt realization of focus on non-subjects in languages in which it is optional in section 5.

3.2 Obligatory Absence of Focus Realization

In the previous sub-section, it was shown that focus on non-subjects in Hausa and Bole can be realized or not, irrespective of grammatical factors. Languages such as Ngizim, Duwai and Bade, in contrast, exhibit the obligatory absence of focus realization on certain constituents. In these languages, focus on non-subjects can never be grammatically realized, not even optionally (Russell Schuh, p.c.).⁴ This sub-section will concentrate on a less extreme case, though, where focus cannot be realized in certain syntactic environments for structural reasons: In Tangale, focus on object NPs cannot be realized by a preceding prosodic phrase boundary in the imperfective aspects, i.e. in the progressive and the future. This is unlike what was observed for the perfective aspect, where a prosodic boundary precedes the focused object (see 2.2). The absence of prosodic boundaries before focused objects in the

⁴ In the absence of more detailed information, I will have to leave it open whether the impossibility of the morphological focus markers in (9) to (11) before non-subjects follows for structural, e.g. prosodic reasons.

imperfective is illustrated in (20), a naturally occurring example from a corpus of Tangale folktales (Jungrauthmayr 2002):

- (20) si wána n yaaz nân?
 si ware-na n yaa-zi nân
 2sf go-VPF PROG do-VN what
 ‘She had come here to do what?’

That there is no prosodic boundary before the focused object in (20) can be seen from the fact that vowel elision (VE) applies to the last vowel of the preceding verb, reducing the form *yaazi* to *yaaz*. Hartmann & Zimmermann (2004) provide similar data which show that focus on non-subjects, i.e. on object NP, VP, and verb alike, is systematically unrealised in the imperfective: There are no prosodic differences whatsoever between neutral sentences on the one hand (cf. 21), and sentences with O-focus, VP-focus, or V-focus, and on the other (cf. 22a-c).⁵ In each case, VE obligatorily deletes the final vowel on the verbal noun *balli* > *ball*.

- (21) Lakú n ball wasíka *neutral*
 L. PROG writing letter
 ‘Laku is writing a letter.’

- (22) a. Q: Lakú n ball nán? A: Lakú n ball wasíka *O-focus*
 L. PROG writing what L. PROG writing letter
 ‘What is Laku writing?’ ‘Laku is writing A LETTER.’

- b. Q: Lakú n yaaj nán? A: Lakú n ball wasíka *VP-focus*
 L. PROG doing what L. PROG writing letter
 ‘What is Laku doing?’ ‘Laku is [writing A LETTER]_F.’

- c. Q: Lakú n ball wasíka yáa mad wasíka? *V-focus*
 L. PROG writing letter or reading letter
 ‘Is Laku WRITING a letter or READING a letter?’
 A: Lakú n ball wasíka
 L. PROG writing letter
 ‘Laku is WRITING a letter.’

The absence of focus realization in (22a-c) has to do with the fact that the standard way of realizing focus in Tangale, i.e. the insertion of a prosodic phrase boundary between verb and object is bled by the syntactic structure of the imperfective together with general structural conditions on VE. As in Hausa, Tangale verbs are nominalized in the imperfective, and form an N-N associative complex with their nominal complement.⁶ Kenstowicz (1985:85) shows that VE obligatorily applies in such N-N-configurations, presumably because the two N-elements stand in a close syntactic relation, cf. (23).

- (23) ayaba noŋ → ayab(*a) noŋ
 banana who
 ‘whose banana’

⁵ This claim is at odds with observations in Kidda (1993:127) according to which VE in the imperfective is blocked before focused objects, as in the perfective. However, as the elicited data are backed up by corpus data such as (20), I will continue to assume that focus on non-subjects is not realized in the imperfective aspect, delegating the issue to further research.

⁶ This pattern seems widespread in West Chadic. See e.g. Schuh (1982) on parallel facts in Duwai, Ngizim, and Bade.

But if VE applies obligatorily in this syntactic configuration, it will no longer be able to serve as a diagnostic for O-focus and V(P)-focus in the imperfective aspect. In other words, narrow focus on V(P) or object cannot be grammatically expressed by a prosodic phrase boundary in the imperfective because of the specific structural relation between nominalized verb and its complement in this aspect. Moreover, Hartmann & Zimmermann (2004) show that - as in Hausa - the lack of focus realization in the standard way (here: in form of prosodic phrase boundaries) is not compensated for by other prosodic means, e.g. by pitch raising or lowering. This conclusion is based on a closer inspection of the pitch contours associated with the different focus structures in (21) and (22a-c). Hartmann & Zimmermann show that the pitch contours of neutral focus (cf. 21), O-focus (cf. 22a), VP-focus (cf. 22b) and V-focus (cf. 22c) are identical in all relevant aspects.

To conclude, focus on non-subjects is never realized in Tangale imperfective sentences for structural reasons. Prosodic boundaries cannot be inserted in N-N configurations, which are also involved in deverbal imperfective structures.

3.3 *The Special Status of Subjects*

The foregoing discussion of grammatically unrealized foci has exclusively focused on non-subjects. This is because Hausa, Tangale, and Bole exhibit a clear-cut asymmetry between subjects and non-subjects when it comes to focus realization. While focus can or must be unrealised with non-subjects, focus on subjects must always be expressed.

As shown in connection with (2b), repeated as (24a), subject focus requires the relative TAM-marker, which indicates that vacuous focus movement has taken place (Jaggar 2001, 2004, Green & Jaggar 2003). (24b) shows the same for sentences in the progressive aspect:

- (24) a. *Kandé*₁ (cee) t₁ **tá(*a)** dáfa kíffí.
 Kande PRT 3sg.f.perf.rel cook fish
 ‘KANDE cooked fish.’
- b. Q: *Wàa ya-kèè* kirà-ntà?
 who 3sg-rel.prog call-her
 ‘Who is calling her?’
- A: *Daudà ya-kèè* /*-nàa kirà-ntà.
 Dauda 3sg-prog.rel /*-prog call-her
 ‘DAUDA is calling her.’

In Tangale, focused subjects cannot remain in their canonical pre-verbal position, but must undergo subject inversion to a post-verbal position, cf. (6), repeated as (25a). This is true even for focused subjects in the imperfective aspect, in which focus is otherwise unmarked (25b).

- (25) a. pad-go taabèè)φ *kai* / **kai* pad-go taabèè
 buy-perftobacco Kai Kai buy-perftobacco
 ‘KAI bought tobacco.’
- b. Q: bal wasíka-i nóŋ? A: (wasíka-i) ball-í Músa
 writing letter-the who letter-the writing-it Musa
 ‘Who is writing the letter?’ ‘MUSA is writing the letter.’

In Bole, focused subjects cannot remain in their canonical pre-verbal position either. As in Tangale, they must undergo subject inversion to a post-verbal position, where they typically follow the *ye*-marker. This is shown for transitive clauses in (26a), repeated from above, and

for intransitive clauses in (26b). Notice that the *ye*-marker is optional in (26b), where the focused subject follows directly on the verb.

- (26) a. (An) j̄i k̄app-à m̀òrdó *(yé) Léngì.
 (3agr) PROG plant-prog millet PRT Lengi
 ‘LENGI is planting the millet.’
- b. Q: (An) d́ów-úu (yé) lò?
 (3agr) sit-perf PRT who
 ‘Who sat?’
- A: (An) d́ów-úu (yé) Bámói.
 (3agr) sit-perf PRT Bamoi
 ‘BAMOI sat./ The one who sat is Bamoi.’

Finally, focus on subjects in Ngizim, Duwai and Bade is always doubly marked by way of subject inversion and a morphological marker, whereas focus on non-subjects is never grammatically marked.

Presumably, the special status of focused subjects in West Chadic follows from the fact that the canonical preverbal subject position triggers a topic interpretation (see Chafe 1976, Givon 1976). Therefore, if a subject is to be interpreted as focus (and not as topic) something special has to be done, i.e. the focused subject needs to be grammatically marked as such (Hartmann & Zimmermann 2004, to appear).

Summing up, focused subjects in West Chadic are special in that their focus status must be grammatically expressed. The obligatory realization of focus on subjects in West Chadic is significant for it shows that the grammar of these languages must be sensitive to an information-structural category of *focus*, which crucially subsumes instances of rhematic new-information focus. If the realization of focus was restricted to contexts in which the focus constituent is emphasized in one way or other, e.g. to instances of corrective or contrastive focus, we would not expect focus realization to be obligatory with new-information subject foci, contrary to fact. In other words, the facts surrounding focus realization in West Chadic cannot be reduced to the notions of *contrastiveness* or *emphasis*, although these may play an additional role (see section 5). Notice, finally, that Guruntum obligatorily realizes focus on all major constituents. It follows that the lack of focus realization with non-subjects is perhaps a typical property of West Chadic, but certainly not a defining characteristic of this language group as a whole.

4. Focus Ambiguities

This section discusses patterns of focus ambiguity found in West Chadic. It will be shown that focus ambiguity in West Chadic arises for three different reasons. It can follow from the absence of focus realization (4.1). It may be due to general structural restrictions, e.g. on movement or on the insertion of prosodic boundaries (4.2). Or it can result from categorial restrictions on the realization of focus (4.3).

4.1 Focus Ambiguity in the Absence of Focus Realization

As discussed at length in section 3, focus on non-subjects need not be grammatically realized in Hausa and Bole, and can never be realized in Tanagle imperfective sentences. It follows directly that such unmarked clauses are ambiguous between various (non-subject) focus readings. In the Hausa sentences (14a) and (15), for instance, the object NP, the VP, the verb, or even the entire clause could be in focus. In addition to these readings, (14b) has an

additional reading with focus on the locative adjunct.⁷ Parallel facts obtain for the Bole sentences in (17) to (19), and for the imperfective Tangale sentences in (20) to (21). In all these cases, the burden of focus resolution is shifted fully from the grammatical to the pragmatic component.

4.2 Focus Ambiguity Resulting from General Structural Restrictions

Another source of focus ambiguities in West Chadic are general restrictions on the grammatical operations that are employed to realize focus, i.e. on movement in Hausa, or on the placement of prosodic boundaries (Tangale) and morphological markers (Bole, Guruntum).

In Hausa, where focus is realized syntactically in form of A'-movement, the focus movement is subject to general syntactic restrictions such as island constraints (Tuller 1986) and the *structure preservation principle* (Emonds 1976). The latter requires that only full XPs be moved to the focus position. In contrast, non-maximal projections, such as prepositional heads (cf. 27a), or transitive verbal heads (cf. 27b) cannot move to the focus position in isolation. Instead, they must pied-pipe the immediately dominating maximal projection, see Hartmann & Zimmermann (to appear) for details:

- (27) a. Q: Ìnaa fensĩr? Ya-nàa kâ-n teebũr kò kàrkashi-n teebũr?
 where pen 3sg-prog head-of table or underside-of table
 'Where is the pen? Is it on top of the table or under the table?'
 A1: *(À) kàrkashi-n₁ nèe fensĩr ya-kèe t₁ teebũr
 at underside-of PRT pen 3sg-prog.rel table
 A2: [(À) kàrkashi-n teebũr]₁ nee fensĩr ya-kèe t₁.
 at underside-of table PRT pen 3sg-prog.rel
 'The pen is UNDER the table.'
- b. Q: Mèeneenèe ya yi dà wàsiikàa?
 what 3sg.perf.rel do with letter
 'What did he do with the letter?'
 A: Kàràatun wàsiikàa nee ya yi.
 read letter PRT 3sg.perf.rel do
 'He READ the letter.'

In Tangale, phonological phrase boundaries cannot be inserted inside (complex) NPs, such as associative N₁-of-N₂ constructions (see 3.2). As a result, focus on the entire complex NP, or on the N₂-part are marked alike by a prosodic boundary preceding the complex NP (Kenstowicz 1985, Hartmann & Zimmermann 2004). This is illustrated in (28) where the prosodic boundary precedes the complex NP even though only the question word *noŋ* 'who' is focused. The prosodic boundary is indicated by the blocking of VE on the verb *múdúdgó*:

- (28) múdúdgó [lów(*o) noŋ] (Kenstowicz 1985:87, ex. 22c)
 die-perf child who
 'Whose child died?'

While the question in (28) is unambiguous, any potential answer to (28) of the form 'X's child died' will have to contain a prosodic boundary before the complex NP. For this reason, it can

⁷ Zimmermann (2006a) shows that these different focus readings actually exist: they play a crucial role in the association with adverbial quantifiers.

serve as an answer both to the question ‘Who died?’ (focus on complex NP) and to the question ‘Whose child died?’ (focus on $N_2 = (28)$). Entirely parallel facts are observed for Bole in (30) and Guruntum in (31). In both languages, the morphological markers *yé* and *a*, which are employed in realizing focus, cannot be inserted inside a complex N-of-N-construction, as illustrated schematically in (29):⁸

(29) * [_{NP} N_1 *ye/a* N_2]

Because of (29), *yé* and *a* will have to precede the complex NP irrespective of the focus structure. As a result, the structures in (30A) and (31A) can serve as answers to either Q1 (focus on complex NP) or Q2 (focus on N_2):

- (30) Q1: *Á kǎǎ màì tí bà pí méérè?* *Guruntum*
 FOC what rel 3sg prog do theft
 ‘What is he stealing?’
- Q2: *Á [dòoré-i kwá] màì tí bà pí méérè?*
 FOC goat-the who rel 3sg prog do theft
 ‘Whose goat is he stealing?’
- A: *Á [dòoré-i rèená] (màì tí bà pí méérè).*
 FOC goat-theking (rel 3sg prog do theft)
 ‘He is stealing the king’s GOAT. / He is stealing THE KING’s goat.’
- (31) Q1: *Lengi bokk-ak (ye) lè?*
 Lengi burn-perf.f.agr PRT what
 ‘What did Lengi burn?’
- Q2: *Lengi bokk-ak (ye) kauye (*ye) lo?*
 Lengi burn-perf.f.agr PRT village PRT who
 ‘Whose village did Lengi burn?’
- A: *Bokk-ak (ye) [kauye (*ye) Bamoi].*
 burn-perf.f.agr PRT village PRT Bamoi
 ‘Lengi burnt Bamoi’s VILLAGE. / Lengi burnt BAMOI’s village.’

Finally, notice that the same ambiguity shows up in Hausa, where movement of N_2 to the focus position is blocked by island constraints on movement. In order to realize focus on N_2 , the entire NP must be pied-piped to the focus position.

5.3 Focus Ambiguity Resulting from Categorical Restrictions on Focus Realization

The third kind of focus ambiguity to be discussed is the most intriguing. It shows that Tangale and Guruntum realize narrow focus on the verb, the object NP, and likewise on VP, in identical fashion: The focus marker always precedes the object NP, not the verb (Hartmann & Zimmermann (2004), Zimmermann (2006b) and Hartmann & Zimmermann (submitted)). As a result, the structures in (32ab) are focus ambiguous and can serve as answers to *wh*-questions about the object, the VP, and the verb respectively:

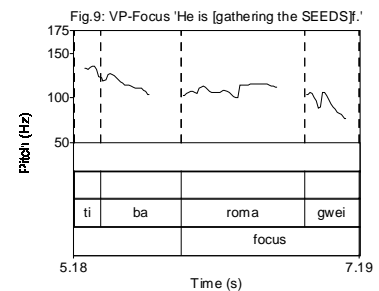
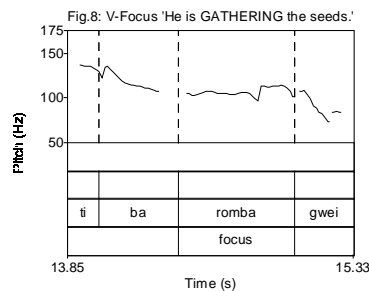
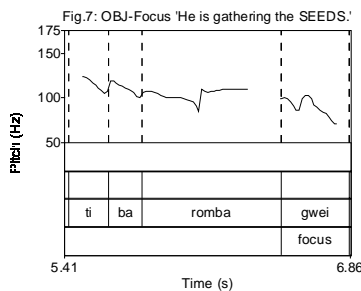
⁸ The impossibility of NP-internal *ye*-markers in Bole appears to follow from prosodic reasons. Recall that *yé* is prosodically restricted to occur at the right edge of phonological phrases. Now, if Bole resembles Tangale in that phonological phrase boundaries cannot be inserted inside NPs, the ban on NP-internal *yé* follows directly.

(32) a. Lak wai-gó lánda. Tangale
 Laku sell-perf dress
 ‘Laku sold A DRESS. / Laku SOLD a dress. / Laku [sold a DRESS]_F.’

b. Tí ba romb á g^wéì. Guruntum
 3sg PROG gather FOC seeds
 ‘He is gathering THE SEEDS /GATHERING the seeds/[gathering THE SEEDS]_F.’

The patterns of focus realization in (32ab) are remarkable for two reasons: First, narrow focus on the verb is realized on the object NP, a pattern totally unknown from intonation languages. Second, VP-focus is realized by a VP-internal prosodic boundary. Both phenomena are unexpected on standard accounts of focus, such as Selkirk’s (1995) Basic Focus Rule, or current theories of focus prominence, see e.g. Selkirk (2004) and Büring (2006).

That we are indeed dealing with focus ambiguity in Tangale is confirmed by Hartmann & Zimmermann (2004), who show that the prosodic realization of (32a) is fully identical under all three focus conditions. The same holds for Guruntum (32b) as shown in figures (7) to (9) for focus on object NP, V, and VP respectively.



As for why the realization of focus on object NP, V, and VP in (32ab) is identical, Zimmermann (2006b) and Hartmann & Zimmermann (submitted) argue that this focus ambiguity follows from a categorial restriction on the realization of focus. It has been observed that many Chadic languages (including Hausa) display a bias for realizing focus on nominal constituents (Hartmann & Zimmermann (2004)). Extending this observation to Tangale and Guruntum, Zimmermann (2006b) assumes the constraint in (33) to be active in both languages:

(33) FOCNP: No focus realization on non-nominal constituents

Now assume that narrow focus on the verb, or the VP needs to be realized in Tangale and Guruntum because focus prominence must be grammatically expressed in these languages.⁹ At the same time, it cannot be realized on the verb itself because of (33). As a result of this conflict, focus will be realized on the nearest constituent that complies with (33), i.e. on the direct object NP.

4.4 Summary

This section has shown that focus ambiguities in West Chadic arise for various reasons. Focus ambiguities may be due to the absence of focus realization, in which case there are no grammatical cues for focus resolution whatsoever. This option does not seem to exist for intonation languages in which focus must be realized by pitch accent. In addition, there are more interesting cases of focus ambiguity in which focus is grammatically realized, but not in

⁹ Unless the realization of focus is blocked by independent grammatical factors, as is the case in Tangale imperfective sentences, see section 3.2.

the expected position, but on an adjacent or structurally dominating element. Here, we find resemblances between West Chadic and intonation languages: The focus ambiguity with complex NPs (4.2) resembles the focus ambiguity found with complex NPs in Romance, where the nuclear pitch is always realized on the same element, irrespective of the focus structure of the NP. The focus ambiguity between VP and object NP in Tangale and Guruntum is also well-known from many other languages including Germanic and Romance. What has not been attested in other languages so far, though, is the focus ambiguity between narrow verb focus and focus on the object NP in Tangale and Guruntum. This pattern appears to be special to West Chadic.

On a final note, it is interesting to observe that focus ambiguities arise even in a language like Guruntum, which has a strategy of focus realization (*a*-insertion) that would allow for a lot of fine-grained distinctions in principle. A priori, there is nothing that would ban the *a*-marker from occurring before the verb if the verb is narrowly focused. This suggests that focus ambiguities arise as a compromise between the need to realize focus on a constituent, and structural constraints that ban the realization of focus on particular constituents.

5. Focus Realization and Interpretation

Let us finally turn to the question of what triggers the overt grammatical realization of focus (or the absence thereof) in those languages that optionally allow for the absence of focus realization, i.e. Hausa and Bole. In the syntactic literature it is often claimed that there is a relation between the syntactic realization of a focus constituent as *ex situ*, i.e. moved to a designated focus position, or *in situ*, i.e. in its canonical position, and the interpretation of focus (see e.g. Kiss 1998, Vallduví and Vilkuna 1998). In general, the *in situ* strategy is associated with a plain new-information reading of the focus, while the *ex situ* strategy is employed in more marked discourse-contexts: 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*.

A look at the West Chadic data confirms the picture found for the European languages, at the same time suggesting an even more general approach to the phenomenon, not in terms of the dichotomy *ex situ* vs *in situ*, but in terms of the dichotomy *grammatically realized focus* vs *unrealised focus*. First, recall from section 3.1 that focused non-subjects in Hausa can either be realized *ex situ* in a left-peripheral focus position (cf. 34a), or else they can remain *in situ* in their canonical position. In the latter case, focus is not realized at all, and the sentence is formally identical to a neutral all-new sentence (cf. 34b).

- (34) a. *Kūfīī*₁ (nee) Kandé tá dáfaa t₁. (= 2a) *O-focus realized*
 fish PRT Kande 3sg.f.perf.rel cook
 ‘Kande cooked FISH.’
- b. Kandé táa dáfa *kíifī* (= 1a) *O-focus unrealised*
 Kande 3sg.f.perf cook fish
 ‘Kande cooked FISH.’

A corpus study by Hartmann & Zimmermann (to appear) showed that focus in Hausa remains predominantly unrealised when it is interpreted as new-information focus, e.g. in answers to preceding questions: In about 4/5 of such cases, the focus was not realized. In contrast, more than 9/10 of all pragmatically marked instances of focus, such as contrastive or corrective foci, were grammatically realized by moving them to the focus position. Hartmann & Zimmermann (op. cit.) conclude from this that the grammatical realization of focus leads to a pragmatically marked interpretation of focus. The Hausa facts thus confirm the correlation between syntactic realization and interpretation, albeit only as a tendency.

The same facts appear to hold for Bole, only this time focus is not realized in form of syntactic movement, but in form of the morphological marker *ye*, which precedes the focus constituent. The semantic differences between (35a) with focus realization and (35b) without seem by and large to match those observed for Hausa. In general, presence of *yé* induces a larger degree of stress or emphasis on the focus constituent (Maina Gimba, p.c.), as would be appropriate e.g. in contrastive and corrective statements.

- (35) a. Léngì à jìi kàpp-à yé m̀òrdǒ. (= 7a) *O-focus realized*
 Léngì 3agr PROG plant-prog PRT millet
 ‘Lengi is planting MILLET.’
- b. Léngì a jii kapp-a mordó (= 1c) *O-focus unrealised*
 Léngì 3agr PROG plant-prog millet
 ‘Lengi is planting MILLET.’

As focus is not syntactically realized in Bole, the difference in focus interpretation cannot be captured in terms of different syntactic positions. Rather, the relevant difference seems to be - as it is in Hausa – whether or not focus is grammatically realized. If it is not, we get the weak new-information interpretation. If it is, the utterance receives a stronger, pragmatically more marked interpretation.

Summing up, the realization of focus in Hausa and Bole is optional only insofar as it is not required by the grammar. Rather, the realization of focus in these languages has an interpretive effect comparable to those found with the *ex situ* realization of focus in languages like Hungarian and Finnish. In contrast, a focus that is not grammatically realized will typically receive a weak interpretation as new-information focus. The present discussion thus differs from existing accounts in that the weak interpretation of focus as new-information is not linked to a particular, say VP-internal syntactic position, but to the complete absence of any formal marking. Finally, there is at least one West Chadic language in which the realization of focus and an additional formal marking for discourse-markedness are formally distinguished: In Guruntum, focus constituents obligatorily carry the *a*-marker, but a focus constituent can additionally be clefted, as in (36), thus receiving an extra amount of emphasis:

- (36) Q: Á kǎǎ màì tí náa wáli?
 FOC what REL 3SG catch farm
 ‘What did he catch at the farm?’
- A: Á fúl màì tí náa wáli.
 FOC cow REL 3SG catch farm
 ‘It was a COW that he caught at the farm.’

6. Conclusion

The present discussion of focus realization in West Chadic has delivered the following results. First, focus is realized by various grammatical means, i.e. syntactically, prosodically, and morphologically, in relatively closely related languages. Second, focus on non-subjects need not be realized in Hausa and Bole, and cannot be realized in imperfective sentences in Tangale. In contrast, focus on subjects is obligatorily realized in all the languages under discussion, presumably owing to the default status of unmarked subjects as topics in these languages. Third, West Chadic languages exhibit a number of focus ambiguities, which arise either from a lack of focus realization, or from structural and categorial restrictions on the realization of focus. A particularly interesting focus ambiguity is the one between narrow focus on the verb and narrow focus on the object NP in Tangale and Guruntum. This

ambiguity is unattested in intonation languages, and predicted not to exist by Selkirk's focus projection rules. Finally, it was shown that there is a correspondence between the apparently optional realization or non-realization of focus in Hausa and Bole and its interpretation. If focus on non-subjects is grammatically realized in these languages, it usually receives a marked interpretation as contrastive or corrective. Lack of focus realization, on the other hand, results in a weak interpretation as new-information focus.

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