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The grammatical expression of focus in West Chadic: Variation and uniformity in and across languages*

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Abstract

The article provides an overview of the grammatical realization of focus in four West Chadic languages (Chadic, Afro-Asiatic). The languages discussed exhibit an intriguing crosslinguistic variation in the realization of focus, both among themselves as well as compared to European intonation languages. They also display language-internal variation in the formal realization of focus. The West Chadic languages differ widely in their ways of expressing focus, which range from syntactic over prosodic to morphological devices. In contrast to European intonation languages, the focus marking systems of the West Chadic languages are inconsistent in that focus is often not grammatically expressed, but these inconsistencies are shown to be systematic. Subject foci (contrastive or not) and contrastive nonsubject foci are always grammatically marked, whereas information focus on nonsubjects need not be marked as such. The absence of formal focus marking supports pragmatic theories of focus in terms of contextual resolution. The special status of focused subjects and contrastive foci is derived from the Contrastive Focus Hypothesis, which requires unexpected foci and unexpected focus contents to be marked as such, together with the assumption that canonical subjects in West Chadic receive a default interpretation as topics. Finally, I discuss certain focus ambiguities which are not attested in intonation languages, nor do they follow on standard accounts of focus marking, but which can be accounted for in terms of constraint interaction in the formal expression of focus.

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1. Introduction

Drawing on findings from original fieldwork and on existing accounts in the literature, this article provides an overview of the grammatical realization of focus in four West Chadic languages (Chadic, Afro-Asiatic), all of which are

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1 spoken in Northern Nigeria. The central objectives of the article are twofold:
 2 To introduce new empirical data into the discussion of focus realization in the
 3 languages of the world, and to highlight certain aspects of the focus marking
 4 systems of these languages which are unexpected from the perspective of
 5 European intonation languages, and which shed new light on existing theories
 6 of focus marking. Empirically, I focus on the grammatical means used for
 7 the formal expression of focus in these languages, which are shown to differ
 8 widely across the four languages. I then turn to general differences between the
 9 focus marking systems of West Chadic languages, on the one hand, and Euro-
 10 pean intonation languages, on the other. In particular, the West Chadic lan-
 11 guages under discussion exhibit language-internal variation in the formal
 12 expression of focus: Information focus on nonsubjects frequently need not be
 13 marked, whereas subject foci (contrastive or not) and contrastive nonsubject
 14 foci are explicitly marked as such in the grammar. The frequent absence of
 15 formal focus marking is taken as support for pragmatic theories of focus,
 16 according to which focus must be contextually resolved. The special status of
 17 contrastive foci and focused subjects is derived from the Contrastive Focus
 18 Hypothesis, which requires unexpected focus constituents and focus meanings
 19 to be marked as such, and from the assumption that canonical subjects in West
 20 Chadic receive a default interpretation as topics. Finally, I discuss the emergence
 21 of certain focus ambiguities which are not attested in intonation languages, nor
 22 do they follow on standard accounts of focus marking, but which are accounted
 23 for in terms of constraint interaction in the formal expression of focus.

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26 1.1. *The languages*

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29 The languages to be discussed are Hausa, Tangale, Bole, and Gùrùntùm, all of
 30 which hail from the Western branch of the Chadic languages, according to
 31 Newman's (1977) classification. In addition, reference to other West Chadic
 32 languages will be made where appropriate. West Chadic languages are mainly
 33 spoken in Northern Nigeria. On top of their geographical closeness, the lan-
 34 guages discussed here share a great number of typological properties. All four
 35 languages are tone languages with two lexical tones, H (´) and L (˘), as well
 36 as a falling (^) (and sometimes a rising) contour tone. All languages have the
 37 basic word order SVO and no morphological case marking. The argument sta-
 38 tus of subjects and objects is thus mainly identified by their position relative
 39 to the verb. The languages are aspect languages rather than tense languages
 40 and encode aspectual information in form of TAM-markers, typically before
 41 the verb. (1) shows an all-new sample sentence from each language, where
 42 *all-new* means that the sentence is uttered out-of-the-blue or in response to

1 a *What happened?*-question, where the focus domain comprises the entire
2 clause.¹

- 3
4 (1) a. Hausa
5 *Kàndé t́áa dáfà kíifí*
6 Kande 3SG.F.PERF cook fish
7 ‘Kande cooked fish.’
8 b. Tangale
9 *Làkú né šwàd yílàa*
10 Laku PROG hitting Yila
11 ‘Laku is hitting Yila.’
12 (Kidda 1993: 122, ex.(36ii.b))
13 c. Bole
14 *Léngì à jìi kàpp-à mòrdó*
15 Lengi 3AGR PROG plant-NOM millet
16 ‘Lengi is planting millet.’
17 (Maina Gimba, p.c.)
18 d. Gùrùntùm
19 *Aúdù bà shí sháu*
20 Audu PROG eat food
21 ‘Audu is eating food.’
22 (Haruna 2003: 121)

23
24 The choice of the four languages for this article was mainly determined by the
25 fact that their focus marking systems differ and pattern alike in intriguing ways.
26 A closer inspection of these systems will thus shed more light onto the question
27 of which aspects of the grammatical realization of focus are universal, and
28 which ones are language specific.²

29
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31 1.2. *Central observations*

32
33 The following three observations concerning the explicit realization of focus in
34 West Chadic are of particular importance to the discussion of focus in general.
35 To begin with, the realization of focus is subject to *crosslinguistic variation*,
36 even among closely related languages. As will be shown in Section 2, Hausa
37 expresses focus syntactically, Tangale does so prosodically, Bole by means of
38 a mixture of syntactic and morphological means, and Gùrùntùm marks focus
39 morphologically. The observed differences give rise to the general question of
40 how to account for such parametric variation?

41 Second, the grammatical focus marking systems of these languages are two-
42 way split systems, with the splits occurring along two independent dimensions.

1 The first split concerns the grammatical function of the focus constituent.
 2 Three of the four languages discussed, namely Hausa, Tangale, and Bole, ex-
 3 hibit a *subject/nonsubject split* in the formal expression of focus. In these lan-
 4 guages, focused subjects are always unambiguously marked as such, whereas
 5 the formal expression of focus on nonsubjects either depends on discourse-
 6 semantic factors (Hausa, Bole), or is — in certain environments — altogether
 7 excluded by independent formal properties of the language (Tangale). In Hausa
 8 and Bole, focus on nonsubjects is only explicitly marked with special instances
 9 of focus, namely with instances of contrastive or emphatic focus (see Section
 10 1.3 below). In Tangale, by contrast, the split between subjects and nonsub-
 11 jects only shows up in certain structural environments (imperfective clauses)
 12 and appears to be conditioned by grammatical factors. While focus is sys-
 13 tematically marked in perfective clauses, its formal expression in imperfec-
 14 tive clauses is categorically blocked by the specific morphosyntactic form of
 15 such clauses. To make matters more complicated still, the fourth language,
 16 Gùrùntùm, differs from the other three in that it exhibits obligatory focus
 17 marking on subjects and nonsubjects alike. Gùrùntùm is thus quite similar to
 18 intonation languages, which always mark focus by means of a nuclear pitch
 19 accent.

20 The second split is only partly related to the first and concerns the pragmatic
 21 type of focus. All the languages under discussion make a difference between
 22 the expression of *information focus* and the expression of *contrastive*, or *em-*
 23 *phatic, focus*. Simplifying somewhat, contrastive focus must be grammatically
 24 marked, while information focus tends to be unmarked in the languages under
 25 discussion. This means that sentences with information foci typically occur in
 26 their canonical form without additional focus marking. In Gùrùntùm, which
 27 obligatorily expresses focus on all constituents, things are slightly different in
 28 that contrastive focus on nonsubjects is marked by a clefting strategy in addi-
 29 tion to regular focus marking. From a crosslinguistic perspective, these find-
 30 ings are interesting since the observable differences in the grammatical expres-
 31 sion of information and contrastive focus in these languages are not quantitative,
 32 but qualitative in nature — unlike in intonation languages, where one finds at
 33 best a gradual difference between the focus accents used for signaling informa-
 34 tion foci and contrastive foci, respectively (Bolinger 1961, 1989; Lambrecht
 35 1994; Gibbon 1998; Alter et al. 2001). By contrast, the West Chadic languages
 36 under discussion employ readily identifiable syntactic or morphological strate-
 37 gies for marking contrastive foci. Finally, the distinction between information
 38 and contrastive focus is only visible on nonsubjects, since focus on subjects is
 39 always marked; see in particular Section 3.3 for data and explicit discussion of
 40 this point. The interaction between the two orthogonal split systems gives rise
 41 to the following preliminary cross-classification, which will be slightly revised
 42 in Section 3.3:

Table 1. Information and contrastive focus on subjects and nonsubjects in West Chadic

	contrastive focus	information focus
subject	marked	marked
nonsubject	marked (<i>Gùrùntùm</i> : doubly marked)	unmarked (<i>Gùrùntùm</i> : marked)

The existence of the bottom-right cell is surprising from the perspective of intonation languages, in which the marking of all kinds of foci is taken to be obligatory; see, for instance, Selkirk (1984, 1995). Crosslinguistically, however, a parallel lack of explicit marking of (information) focus on nonsubjects has been observed for a range of languages; see, for instance, Sabel and Zeller (2006) on the Bantu language Nguni, Zerbian (2006) on the Bantu language Northern Sotho, and Fiedler et al. (2010) on Gur and Kwa languages. Apart from the question of what conditions trigger the absence of information focus marking on nonsubjects, Table 1 raises a number of additional questions concerning the grammatical realization of focus in natural languages: (i) What is the reason for the subject bias in the expression of focus?; (ii) Is this subject bias a universal property of natural languages, or specific to (a subset of) the African languages?; (iii) Does the categorical grammatical distinction between contrastive and information focus reflect a similar categorical distinction at the level of information structure?; (iv) What is the pragmatic or semantic essence of *contrastive foci*, such that it must be clearly signalled in many languages of the world; see, for instance, Vallduví and Vilkuna (1998) on Finnish, and Kenesei (2006) and Suranyi (in press) on Hungarian. Since contrastive (nonsubject) foci are morphosyntactically marked in West Chadic, and as such are easy to identify, it is hoped that their closer inspection will help in the task of specifying the exact contextual conditions and background assumptions that govern the use of contrastive foci in these languages, and crosslinguistically.

The third interesting aspect of the focus marking systems to be discussed is the emergence of *focus ambiguities* that derive from structural constraints on the grammatical placement of the focus marking device. It shows that some of the languages under discussion exhibit focus ambiguities that are not predicted to be possible on existing theories of (prosodic) focus marking (e.g., Selkirk 1984, 1995), which are largely formulated on the basis of European intonation languages. In particular, Tangale and *Gùrùntùm* exhibit a curious focus asymmetry between narrow focus on the verb and narrow focus on the direct object DP.

Taken together, the findings from this article constitute ample support for pragmatic approaches to focus, according to which the resolution of focus ambiguities, and more generally of focus as such, does not depend so much on grammatical factors, such as, for instance, overt focus marking and the percolation of F-features, but rather on contextual factors; see, for instance, Rooth (1992, 1996), Büring (2006, 2007), and Féry (2008), among others.

1 The article is organized as follows. The remainder of the introductory section
 2 gives a more precise characterization of the information-structural categories
 3 of focus, information focus, and contrastive focus. Section 2 introduces the
 4 different strategies of grammatical focus realization found in West Chadic.
 5 Section 3 discusses the (optional) absence of explicit focus marking on non-
 6 subjects in Hausa, Bole, and Tangale, as well as the obligatory presence of
 7 focus marking on subjects. It also puts forward a new perspective on the
 8 relation between different pragmatic types of focus, that is, information and
 9 contrastive focus, and their grammatical realization in terms of canonical and
 10 marked structures, respectively. Section 4 discusses the grammatical under-
 11 determination of focus in West Chadic and the emergence of focus ambiguities
 12 that arise from the interaction of information-structural and general structural
 13 constraints on the placement of focus markers. Section 5 concludes by sum-
 14 ming up the implications of the empirical findings for a general theory of focus
 15 marking in natural languages.

18 1.3. *Focus, information focus and contrastive focus*

19
 20 In this article, *focus* is understood as an information-structural category which
 21 helps in identifying a set of explicit or implicit propositional alternatives that
 22 are salient in the context; cf. Rooth (1992), Krifka (2008). This set of *focus*
 23 *alternatives* plays a crucial role in the dynamic interpretation of an utterance in
 24 a given discourse situation. By narrowing down the list of potential candidates
 25 that have to be considered for inclusion into the *Common Ground* (Stalnaker
 26 1978, Roberts 2004), focus alternatives thus significantly facilitate the task of
 27 information update between speaker and hearer (Zimmermann and Onéa, to
 28 appear). This broad conception of focus as inducing alternatives subsumes two
 29 special uses of focus, namely *information focus* and *contrastive focus*; see
 30 Rochemont (1986) and Aboh (2007), among many others. The view taken
 31 here thus differs from alternative accounts according to which only instances
 32 of contrastive focus evoke the existence of (relevant) alternatives; see, for
 33 instance, É. Kiss (1998), and Kratzer and Selkirk (2007) for proposals along
 34 these lines.

35 Viewed from the perspective of alternative semantics, the role of *informa-*
 36 *tion focus* exhausts itself in supplying a specific value from a set of alternatives
 37 A in an unbiased discourse context, which is typically set up by means of a
 38 preceding (implicit) question.

- 39
 40 (2) Q: What did Hawwa cook? (A = {bananas, cassava, beans, maize,
 41 fish, . . .})
 42 A: Hawwa cooked [FISH]_{FOC}.

1 In the case of (2), the meaning of the question together with the utterance con-
 2 text provides a range of alternatives from which the actual new information to
 3 be added to the Common Ground is chosen. The question-answer pair method
 4 illustrated in (2) figured prominently in the elicitation of the focus data from
 5 West Chadic to be discussed below.

6 Instances of contrastive focus are like information foci in that they, too, sup-
 7 ply a specific value from a set of alternatives (Delin and Oberlander 1995), but
 8 contrastive foci have another discourse-semantic function besides. Not only do
 9 they provide a value for the focus constituent, but, in addition, they indicate the
 10 existence of a contrast between the denotation of the focus constituent and one
 11 or more of its alternatives that are considered as strong contenders for inclusion
 12 into the Common Ground, either because of the preceding utterance context or
 13 because of general world knowledge. Contrastive foci are typically found in
 14 corrective statements, such as (3aB), in which the meaning of the focus con-
 15 stituent replaces an alternative that is a strong contestant for inclusion into the
 16 Common Ground, as it has been explicitly proffered by speaker A in the pre-
 17 ceding discourse; cf. Umbach (2004). Contrastive foci also occur in answers to
 18 *wh*-questions in which the ordinary denotation of the focus constituent can be
 19 taken to be less expected, or more surprising, than some of its implicit alterna-
 20 tives, due to general world knowledge. Because of their special discourse-
 21 semantic function, contrastive foci are typically realized in a noncanonical
 22 way. For instance, contrastive foci in English tend to be realized by contrastive
 23 pitch accents; see Bolinger (1961) for an early discussion.

- 24 (3) a. A: Hawwa cooked beans.
 25 B: No, Hawwa cooked [FISH]_{FOC}.
 26 b. Q: What did Hawwa cook?
 27 A: Hawwa cooked [CROCODILE]_{FOC}.

28 How should the notion of contrastive focus be modeled? In most treatments,
 29 contrast is simply understood as co-membership in the set of focus alternatives,
 30 but this simple kind of contrast is already implicit in the general alternative-
 31 based definition of focus and therefore will not do for our purposes. As an
 32 alternative, I submit that the use of contrastive focus marking on a focus con-
 33 stituent indicates a speaker-hearer mismatch that obtains whenever there is a
 34 conflict between the information asserted by the speaker and the (supposed)
 35 background assumptions of the hearer. To be concrete, the use of a contrastively
 36 marked focus constituent α by the speaker expresses a contrast between the
 37 information conveyed by the speaker in asserting α and the assumed expecta-
 38 tion state of the hearer (Zimmermann 2008):³

40 (4) *Contrastive Focus Hypothesis (CFH)*:

41 Contrastive focus marking on a focus constituent α is required if the
 42 speaker has reason to believe that the hearer will *not* consider (i.) the

1 content of α , or (ii.) the information-structural status of α as the focus of
 2 the utterance as likely to be(come) part of the Common Ground.

3
 4 According to (4i), a speaker will use a noncanonical contrastive marking on a
 5 focus constituent α if she has reason to suspect that the hearer does not expect
 6 the assertion of α as likely to be included into the Common Ground. Because
 7 of this, the speaker uses a non-canonical structure, that is, a structure that is
 8 grammatically marked in some way in order to guide the hearer's attention
 9 to the perceived mismatch, and thus to facilitate updating of the Common
 10 Ground with the contested new information.⁴ The reference to the unexpected
 11 information-structural status of α as *the focus of the utterance* in (4ii) becomes
 12 relevant in Section 3.3, where it is required in order to account for the manda-
 13 tory marking of focus on subjects, which — again — contributes to facilitating
 14 the updating of the Common Ground. Notice, too, that the CFH only makes a
 15 claim about the formal marking of *focus constituents*, the denotation of which
 16 is not yet part of the Common Ground, and hence not activated (Beaver and
 17 Clark 2008). Crucially, it makes no predictions concerning the formal realiza-
 18 tion of contrastive topics, which intuitively also appear to rely on a concept of
 19 alternatives, but which differ from contrastive foci in that they — as with other
 20 kinds of topics — refer to a set of contextually salient, or activated, discourse
 21 referents that already form part of the Common Ground in the generalized
 22 conception of Roberts (2004), and which provide an address under which *new*
 23 information can be stored (Krifka 2008).⁵

26 2. Strategies of focus realization

27
 28 Given the characterization of focus as an information-structural category from
 29 Section 1.3, it is necessary to distinguish between focus and the grammatical
 30 realization of focus by means of special focus marking devices, which may be
 31 syntactic, prosodic, or morphological in nature. Alternatively, a focus constitu-
 32 ent may also be realized without any special grammatical marking. In the for-
 33 mer case, the focus constituent is explicitly marked as such. In the latter case,
 34 the resulting sentence takes the form of a canonical (all-new) clause with a
 35 maximally underspecified focus-background structure. In this section, I intro-
 36 duce the different grammatical strategies of realizing focus explicitly in West
 37 Chadic. As will be shown, the languages under discussion mark focus by a vari-
 38 ety of grammatical means, including syntactic, prosodic, and morphological
 39 devices. At the same time, the languages have in common that there is a single
 40 preferred grammatical strategy for realizing focus *whenever focus is overtly*
 41 *expressed*. This preferred strategy may be accompanied by other grammatical
 42 processes, but, crucially, focus cannot be realized without it.

1 Before we look at the individual languages and strategies of focus realization
 2 in detail, it is worth pointing out, again, that information focus need not be ex-
 3 plicitly marked on nonsubjects in many of the languages under discussion, quite
 4 unlike what is found in intonation languages like English (Selkirk 1984, 1995).
 5 In such cases, the information-structural prominence of the (information) focus
 6 constituent is *not* reflected in the form of an absolute grammatical (i.e., pro-
 7 sodic, syntactic, or morphological) marking. In the following, whenever I refer
 8 to the grammatical realization of focus, or the preferred strategy of focus real-
 9 ization in West Chadic, I refer to the question of how focus is realized *if it is*
 10 *grammatically expressed in the form of a noncanonical structure*, leaving open
 11 the possibility that an explicit formal realization of focus is altogether absent;
 12 see Zerbian (2006), Hartmann and Zimmermann (2007a), Fiedler et al. (2010),
 13 Büring (2010), for further discussion of the absence of formal focus marking.

14
 15
 16 2.1. *Hausa: Syntax*

17
 18 Hausa marks focus syntactically by A'-moving the focus constituent to a left-
 19 peripheral focus position (Tuller 1986, Wolff 1993, Green 1997, Newman 2000,
 20 Jaggar 2001). Compare the fronted focused object DP in (5a) with the neutral
 21 all-new sentence in (1a). As is typical of A'-movement, the fronted constituent
 22 must be a maximal projection. Moreover, focus movement is accompanied by
 23 a change in the form of the TAM-marker from *absolute* to *relative* in the pro-
 24 gressive and perfective aspect. According to Tuller (1986), the relative form of
 25 the TAM-marker generally indicates the application of A'-movement, as it is
 26 not only found with fronted foci, but also in *wh*-questions and relative clauses.
 27 Consequently, the absolute TAM-marker *taa* from (1a) is replaced by its rela-
 28 tive variant *ta* in (5). The obligatory presence of the relative TAM-marker *ta* in
 29 (5b) shows that focus on subjects, which are canonically realized in sentence-
 30 initial position, is realized in the form of vacuous movement (Green and Jaggar
 31 2003, Jaggar 2006).⁶

- 32 (5) a. *O-focus*
 33 *Kíífíí*₁ (*nèe*) *Kàndé* *tá* *dáfàa* *t*₁.
 34 fish PRT.M Kande 3SG.F.PERF.REL cook
 35 'Kande cooked FISH.'
 36 b. *S-focus*
 37 *Kàndé*₁ (*cèe*) *t*₁ *tá* / **taa* *dáfà* *kíífíí*.
 38 Kande PRT.F 3SG.F.PERF.REL 3SG.F.PERF cook fish
 39 'KANDE cooked fish.'

40
 41 The fronting strategy is found not only with arguments and adjuncts, but also
 42 with VPs. However, the verbal head of the VP must be nominalized for the VP

1 to undergo such focus fronting (Newman 2000: 193), cf. (6b). Fronting of a
2 finite VP, as in (6c), is ruled out.

- 3
4 (6) a. *all-new*
5 *Múusáa yáa kářàntà líttáafii*
6 Musa 3SG.PERF read book
7 ‘Musa read a book.’
8
9 b. *VP-focus*
10 *Kàřàatú-n líttáafii (née) yá yí*
11 reading-of book PRT 3SG.PERF.REL do
12 ‘Reading a book is what he did.’
13
14 c. *Kářàntà líttáafii (née) yá *(yí)*
15 read book PRT 3SG.PERF.REL do

14 The data in (6) show that the fronted constituent is optionally followed by a
15 focus-sensitive particle *nee(masc.)/cee(fem.)*. Moreover, Leben et al. (1989)
16 observe that focus fronting is accompanied by a prosodic process of H-tone
17 raising, which raises the pitch of any H-tone on the fronted constituent to an
18 extra-high level. Summing up, focus in Hausa is often expressed by means of
19 several grammatical devices at the same time, namely syntactically (fronting),
20 morphologically (TAM-morphology, focus particle), and prosodically (H-tone
21 raising). Nonetheless, syntactic fronting is the prime means of expressing focus
22 in Hausa in that it must apply whenever focus is expressed overtly. The other
23 processes are either optional companions to focus fronting, as is the case with
24 the focus particles, which are inserted for independent semantic reasons (Hart-
25 mann and Zimmermann 2007c), or they arise as a direct consequence of the
26 fronting operation (TAM-morphology, H-tone raising).

27

28

29 2.2. *Tangale: Prosody and syntax*

30

31 Tangale marks focus prosodically in the form of a phonological phrase (φ -
32 boundary, which is typically inserted right before the focus constituent (Ken-
33 stowicz 1985, Tuller 1992). The presence of φ -boundaries results in the block-
34 ing of certain tonal and segmental processes that would apply in the absence of
35 such boundaries. Two of these are *vowel elision (VE)* and *left line delinking*
36 (*LLD*) (Kenstowicz 1985, Tuller 1992).⁷ VE deletes the final vowel of stems
37 or words that are in a close syntactic relationship (e.g., sisterhood) with some
38 following phonological material. In Tangale, VE typically detaches the final
39 vowel of a verb before the following direct object, and LLD detaches H-tones
40 that have spread to the right from their original tone-bearing unit. Both pro-
41 cesses are illustrated in the all-new sentence in (7a), where the application
42 of VE and LLD affects the surface realization of the underlying verbal form

1 *wai-gó* ‘sell-PERF’: VE deletes the final vowel of the suffix *-gó*. LLD detaches
 2 the H-tone of the suffix *-gó* after H-spreading onto the following object *landa*.
 3 The resulting surface form after vowel epenthesis of *u* for phonotactic reasons
 4 is *wayug*. The application of both processes, which is illustrated schematically
 5 in (7b), shows that verb and object are not separated by a ϕ -boundary in all-
 6 new sentences.

7 (7) *all-new*

8 a. *Làk wày-ùg lándà*

9 Lak sell-PERF dress

10 ‘Laku sold a dress.’

11 b. $wài-gó + ' \xrightarrow{VE + LLD} wai-g + ' \xrightarrow{u\text{-epenthesis}} way-ug + '$

12
 13 In the object focus sentence (8), by contrast, both VE and LLD fail to apply,
 14 such that the verb surfaces in its underlying form *wài-gó*. This shows that fo-
 15 cused objects are separated from the preceding verb by a ϕ -boundary:
 16

17 (8) Q: *Làk wài-gó) ϕ náy?*

18 Laku sell-PERF what

19 ‘What did Laku sell?’

20 A: *O-focus*

21 *Làk wài-gó) ϕ lándà*

22 Laku sell-PERF dress

23 ‘Laku sold [a DRESS]_F.’

24
 25 While the focus-indicating ϕ -boundary precedes focused nonsubjects in
 26 their canonical base position, focused subjects cannot occur in the canonical
 27 sentence-initial position. Instead, they must invert to a postverbal position, i.e.,
 28 either to the sentence-final position, or to a position immediately following the
 29 object, but separated from it by a prosodic boundary (Kenstowicz 1985, Tuller
 30 1992, Hartmann and Zimmermann 2007b). In (9a) from Kida (1993: 131, ex.
 31 47), the prosodic boundary before the subject DP is evidenced by the blocking
 32 of final decontouring on the pre-boundary vowel *éè* from HL to HH; see Note 7.
 33 (9b) illustrates the two possible realizations of focused subjects directly behind
 34 the object or in sentence-final position, respectively (examples from Tuller
 35 1992: 307, 322, without tones).

36
 37 (9) a. Q: *pàd-gò tàabéè) ϕ nóy?*

38 buy-PERF tobacco who

39 ‘Who bought tobacco?’

40 A: *pàd-gò tàabéè) ϕ kài*

41 buy-PERF tobacco Kai

42 ‘KAI bought tobacco.’

- 1 b. *wa patu ayaba (nug) ta luumo dooji (nug)?*
 2 FUT buy banana who at market tomorrow who
 3 ‘Who will buy bananas at the market tomorrow?’

4
 5 The inversion of focused subjects to a postverbal position has alternatively been
 6 analyzed in terms of right adjunction (Kenstowicz 1985), cf. (10a), or in terms
 7 of movement to a designated focus position (Tuller 1992), which can be either
 8 SpecCP, cf. (10bi), or a position at the left edge of VP. In the latter case, move-
 9 ment of the focused subject is accompanied by subsequent movement of the
 10 V+O-complex to I, cf. (10bii).

- 11 (10) a. [IP [IP t_{SUBJ} V O] S_{FOC}]
 12 bi. [CP [t_S V O XP] S_{FOC}]
 13 bii. [IP [V+O] [VP S_{FOC} [VP t_S t_{V+O}]]]

14
 15 With regard to the inversion of focused subjects, Tangale resembles the Ro-
 16 mance languages Spanish and Italian. Not surprisingly, then, the analysis in
 17 (10bii) is similar in spirit to Samek-Lodovici’s (2005) account of focused sub-
 18 ject inversion in Italian, whereas the analyses in (10a) and (10bi) resemble more
 19 closely Zubizarreta’s (1998) account of focused subject inversion in Spanish.
 20 According to Zubizarreta, the syntactic reordering of focused subjects is ulti-
 21 mately driven by prosodic requirements (*p-movement*), namely by the need for
 22 the focused subject to occur in sentence-final position where it can be assigned
 23 the main accent. In parallel fashion, the postverbal realization of focused sub-
 24 jects in Tangale may be linked to the fact that Tangale realizes focus by means
 25 of prosodic boundaries; see also Note 17. Since a subject in default initial posi-
 26 tion is always preceded by a prosodic boundary, one could not tell whether the
 27 subject is focused or not. Whence comes the need for focused subjects to invert
 28 to a position in which they can be unambiguously marked for focus by means
 29 of a preceding ϕ -boundary (Zimmermann 2006b). While this line of reasoning
 30 does not exclude the possibility of a purely syntax-internal motivation for sub-
 31 ject inversion, it tentatively suggests that the inversion of focused subjects in
 32 Tangale is ultimately conditioned by prosodic factors and the need for un-
 33 ambiguous focus marking on subjects; cf. Fiedler et al. (2010). Section 2.4
 34 provides additional arguments to the effect that subject inversion in Tangale
 35 does not involve syntactic clefting, nor does it in Bole, to which we turn next.

36 37 38 2.3. *Bole: Morphology and syntax* 39

40 Bole has a split system of explicit focus marking, making use of both morpho-
 41 logical and syntactic means in the realization of focus. Focus on nonsubjects is
 42 realized morphologically by means of a morphological marker *yé*, which pre-

cedes the focus constituent (Gimba 2005). Compare the all-new sentence (1c) from above with instances of O-focus and locative ADJ-focus in 11ab) (all the Bole data provided by Maina Gimba, p.c.):

(11) a. *O-Focus*

Q: *Léngì à jìi kàpp-à yé lè?*
 Lengì 3AGR PROG plant-NOM PRT what
 ‘What is Lengì planting?’

A: *Léngì à jìi kàpp-à yé mòrdó*
 Lengì 3AGR PROG plant-NOM PRT millet
 ‘Lengì is planting MILLET.’

b. *ADJ-focus*

Q: *Léngì à jìi kàpp-à mòrdó yé gà àw?*
 Lengì 3AGR PROG plant-NOM millet PRT LOC where
 ‘Where is Lengì planting the millet?’

A: *Léngì à jìi kàpp-à mòrdó yé gà gà kòorí*
 Lengì 3AGR PROG plant-NOM millet PRT LOC farm
 ‘Lengì is planting the millet ON THE FARM.’

Crucially, the sentences in (11b) would retain their word order even if focus were shifted to the direct object, which suggests that the focused constituents in (11ab) are indeed located *in situ* instead of, say, being (vacuously) moved to some right peripheral position. Moreover, 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, such as, for instance, the negation marker *sa*. From this, it follows that the focus constituents in (11ab) are preceded by a prosodic \emptyset -boundary in addition to the morphological marker.⁸

In contrast to the focused nonsubjects in (11ab), focused subjects do not occur in their canonical (i.e., preverbal) position. Instead, they must invert and occur in a right-peripheral position, similar to what happens in Tangale, cf. (12):

(12) Q: *À jìi kàpp-à mòrdó yé lò?*
 3AGR PROG plant-NOM millet PRT who
 ‘Who is planting the millet?’

A: *À jìi kàpp-à mòrdó yé Léngì*
 (3AGR) PROG plant-NOM millet PRT Lengì
 ‘LENGI is planting the millet.’

Although postverbal focused subjects are for the most part preceded by the *yé*-marker (especially with transitive verbs), the latter is not obligatory, at least with intransitive verbs (Russell Schuh p.c.); see also (35) in 3.3. From this, I

1 conclude that Bole has two largely independent means of realizing focus: Focus
 2 on nonsubjects is realized morphologically by means of the background marker
 3 *yé*, whereas focus on subjects is realized syntactically by means of subject in-
 4 version. As in Tangale, the postposed subject does not prosodically integrate
 5 with the rest of the clause, but must be preceded by a prosodic boundary.

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8 2.4. Subject inversion in Tangale and Bole ≠ (Pseudo-)Clefting

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10 Looking only at the Tangale focus data in (8) and (9), and in particular at the
 11 Bole focus data in (11) and (12), one could get the erroneous impression that
 12 the realization of (subject) focus in these languages relies on a syntactic strat-
 13 egy of clefting or pseudoclefting, as illustrated by the English example in (13a).
 14 Accordingly, one might be tempted to assign to the Bole sentence (12A) the
 15 incorrect syntactic structure in (13b), in which the backgrounded material is
 16 realized in form of an (empty headed) relative clause construction introduced
 17 by the marker *yé*, which would now be analyzed as a relative marker.

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(13) a. [_{DP} (The one) that is planting the millet] is Lengi.

b. *Incorrect structure for (12A):*

[[_À jii kàpp-à mòrdǒ] yé] Lengi_F.
 3_{AGR} PROG plant-NOM millet PRT Lengi

Analyses along these lines have been proposed for a number of African lan-
 guages; see, for instance, Frascarelli (2010) on Somali, and Zerbian (2006) on
 Northern Sotho, where focused subjects are syntactically realized by means of
 clefting. However, the following data show that an analysis of (subject) focus
 realization in Bole and Tangale in terms of clefting or pseudoclefting cannot be
 correct.

Observe first that the background marker *yé* in Bole is not identical to the
 relative marker *la*, which must furthermore *precede* the relative clause, as
 shown in (14).⁹

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(14) Bole

Ìn gómúu à [mèemù [lǎ Bámói èesúngò] yé]
 1SG met with man REL Bamoi called DEF
 ‘I met the person that Bamoi called.’

We conclude that the Bole sentences in (11) and (12) do not involve an empty-
 headed relative clause.

Second, inverted subjects and other focus constituents in postverbal position
 can be followed by additional background material in both languages. This is
 shown for Tangale in (15a) from Tuller (1992: 307, ex. (4b)), without tones,
 and for Bole in (15b):

1 (15) a. Tangale

2 *wa patu ayaba)φ nuŋ ta luumo dooji*
 3 FUT buy banana who at market tomorrow
 4 ‘Who will buy bananas at the market tomorrow?’

5 b. Bole

6 Q: Who is planting the millet at the farm?

7 A: *À jìi kàppà mòrdó yé Léngì gà gàa koori *(yê)*
 8 3SG IPF plant millet PRT Lengi in farm PRT
 9 ‘LENGI is planting the millet at the farm.’

10 The fact that backgrounded material can both precede and follow the focus
 11 constituent in (15ab) provides further evidence against an analysis of subject
 12 inversion in terms of a cleft construction, in which the background material
 13 typically forms a single constituent, such as, for instance, a relative clause.
 14 Moreover, the obligatory double occurrence of the Bole marker *yé* in (15bA)
 15 and in the object focus case in (16) shows that this expression indeed functions
 16 as a background marker preceding or following the focus constituent.¹⁰

17 (16) Q: *What* did Lengi plant yesterday?

18 A: *(Léngì kàpp-ák yé) mòrdó (nzòno yê).*
 19 Lengi plant-PERF.F PRT millet yesterday PRT
 20 ‘Lengi planted MILLET yesterday.’

21 Finally, sentences with focused subject inversion in Tangale differ semantically
 22 from their cleft or pseudocleft counterparts, which are also available in this
 23 language: Both the cleft sentence in (17A1) and the pseudocleft sentence in
 24 (17A2) receive an exhaustive interpretation, as witnessed by the infelicity of
 25 the subsequent additional statement (in bold). By contrast, such a subsequent
 26 addition is fine in the case of focused subject inversion, cf. (17A3), showing
 27 that this construction need not be interpreted exhaustively. All data are taken
 28 from Truckenbrodt et al. (2008), without tones.¹¹

29 (17)

30 Q: *põnuk polašara noŋ?*

31 know English who
 32 ‘Who knows English?’

33 A1: *a lakɔ-m pønuk polašara # tiju pønjin polašara takin*
 34 COP Laku-REL know English Tiju know English too
 35 ‘It’s LAKU who knows English’ ‘Tiju knows English, too.’

36 A2: *mu-m pønuk polašara ŋ laku # tiju pønjin polašara takin*
 37 person-REL knows English PRT Laku Tiju know English too
 38 ‘The one who knows English is LAKU.’ ‘Tiju knows English, too.’

39 A3: *pønuk polašara laku ✓ tiju pønjin polašara takin*
 40 knows English LAKU Tiju know English too
 41 ‘LAKU knows English.’ ‘Tiju knows English, too.’

1 Summing up, the data in (14) to (15) conclusively show that the postverbal
 2 realization of focused (subject) constituents does not involve a cleft or pseudo-
 3 cleft structure. Instead, I maintain that focused nonsubjects remain *in situ*,
 4 whereas focused subjects must invert to a position where they can be preceded
 5 by a prosodic boundary and the background marker *yé*.

7 2.5. *Subject inversion in other Chadic languages (Schuh 1971, 1982, Tuller*
 8 *1992)*

10 Tangale and Bole are not the only West Chadic languages exhibiting subject
 11 inversion with focused subjects. Schuh (1971, 1982), and following him Tuller
 12 (1992), discuss a number of languages in which focused subject DPs, including
 13 questioned subjects, are syntactically realized in a marked postverbal position,
 14 whereas focused object DPs, including questioned objects, appear in their can-
 15 onical position immediately following the verb. This holds for Duwai, Ngizim,
 16 and Bade from the B subbranch of West Chadic, as well as for Kanakuru from
 17 the A sub-branch. The data in (18) to (20) are taken from Schuh (1982: 161–
 18 ■■■), and the Kanakuru data in (21), without tones, are taken from Newman
 19 (1974: 63–64, 66):

- 21 (18) *Duwai*
- 22 a. *O-focus*
- 23 *Dùgwé màaká ndúunyè?*
- 24 D. look.for whom
- 25 ‘Who did Dugwe look for?’
- 26 b. Q: *S-focus, inverted*
- 27 *dée nà ndíyè?*
- 28 came FM who
- 29 ‘Who came?’
- 30 A: *S-focus, inverted*
- 31 *dèe nà Múusá*
- 32 same FM M.
- 33 ‘MUSA came.’

- 34 (19) *Ngizim*
- 35 a. *O-focus*
- 36 *Tijáani máaká tòi?*
- 37 T. look.for who
- 38 ‘Who did Tijani look for?’
- 39 b. Q: *S-focus, inverted*
- 40 *dèe -n tòi?*
- 41 came-FM who
- 42 ‘Who came?’

1 A: *S-focus, inverted*
 2 *děe-n Múusá*
 3 came-FM M.
 4 ‘MUSA came.’

5 (20) *Gashua Bade*

6 a. *O-focus*
 7 *Dùgwii máaká àì*
 8 D. look.for who
 9 ‘Who did Dugwi look for?’

10 b. Q: *S-focus, inverted*
 11 *dàawà n-áí?*
 12 came FM-who
 13 ‘Who came?’

14 A: *S-focus, inverted*
 15 *dàawà-n Múusá*
 16 came-FM M.
 17 ‘MUSA came.’

18 (21) *Kanakuru*

19 a. *O-focus*
 20 *kàa nai mandai?*
 21 you call who
 22 ‘Whom are you calling?’

23 b. *S-focus, inverted*
 24 *na dibàre gami mandai?*
 25 FUT buy ram-the who
 26 ‘Who will buy the ram?’

27 c. *S-focus, inverted*
 28 *are lowoi jewoi la lusha*
 29 bury boy-the slave-the in bush
 30 ‘THE SLAVE buried the boy in the bush.’

31 In light of these data, the inversion of focused subjects in Tangale and Bole can be
 32 taken as representative for a whole range of languages in the West Chadic group.¹²
 33 Duwai, Ngizim, and Bade more closely resemble Bole in that the inverted
 34 subject is preceded by a morphological marker, which derives from the definite
 35 determiner historically (Russell Schuh, p.c.).¹³ Kanakuru resembles Tangale in
 36 that there is no such morphological marker preceding the focused subject.

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 39 2.6. *Gùrùntùm*

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 41 The final Chadic language to be discussed, *Gùrùntùm*, also realizes focus
 42 morphologically, but in a more direct and more consistent way than Bole.

1 Gùrùntùm has a focus marker *a*, which typically precedes the focus con-
 2 stituent. (22a)–(22c) illustrate for narrow focus on object, subject, and adjunct
 3 respectively:

- 4
 5 (22) a. Q: *Á kwá bà wúm kwálingá-lá-ì?*
 6 FM who PROG chew colanut-the
 7 ‘Who is chewing the colanut?’
 8 A: *Á fúrmáyò bà wúm kwálingá-lá*
 9 FM fulani PROG chew colanut
 10 ‘THE FULANI is chewing colanut.’
 11 b. Q: *Á kǎǎ màì tí bà wúmi?*
 12 FM what REL 3sg PROG chew
 13 ‘What is he chewing?’
 14 A: *Tí bà wúm-á kwálingá-lá*
 15 3SG PROG chew-FM colanut
 16 ‘He is chewing COLANUT.’
 17 c. Q: *Tí bà dáan-à yâu?*
 18 3SG PROG sit-FM where
 19 ‘Where is he sitting?’
 20 A: *Tí bà dáan-à gǎǎ shindí*
 21 3sg PROG sit-FM on stone
 22 ‘He is sitting ON THE STONE.’
 23

24 As the *a*-marker is a genuine focus marker, as opposed to the background mark-
 25 ing element *yé* in Bole, and freely occurs at the left edge of prosodic domains,
 26 it can express focus on all constituents, including subjects, in their canonical
 27 position. It follows that focused subjects in Gùrùntùm are not inverted, but get
 28 marked for focus in preverbal position.
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31 2.7. Conclusion

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 34 There is no uniform strategy of realizing focus in West Chadic: Focus is real-
 35 ized by syntactic means (Hausa), by morphological means (Gùrùntùm), by a
 36 combination of prosodic and syntactic means (Tangale), or a combination of
 37 morphological and syntactic means (Bole). At the same time, the existence of
 38 different strategies of realizing focus should not be taken to imply that West
 39 Chadic languages consistently mark all kinds of focus on any kind of constitu-
 40 ent, as European intonation languages do. Quite to the contrary, the next sec-
 41 tion will show that focus on nonsubjects is often not explicitly marked in West
 42 Chadic.

3. The absence of overt focus marking on nonsubjects

The fact that all the languages under discussion have a special grammatical way of expressing focus does not imply that they would also make consistent use of this option across grammatical categories and across focus types. This section shows that focus on nonsubjects is frequently not marked in Hausa, Bole, and Tangale. This is quite unlike what is found in European intonation languages, where the focus constituent always carries a nuclear pitch accent, irrespective of its grammatical function and the pragmatic type of focus. In the West Chadic languages under consideration, the absence of explicit focus marking on nonsubjects may be optional, as is the case with *information focus* in Hausa and Bole (Section 3.1). Alternatively, focus marking on nonsubjects may be altogether impossible in certain syntactic environments for independent structural reasons, as is the case with information and contrastive foci in imperfective clauses in Tangale (Section 3.2). In all the languages discussed, focused subjects differ from focused nonsubjects in that focus marking on the former is mandatory with all kinds of foci, contrastive or not (Section 3.3). The Contrastive Focus Hypothesis from (4) above provides an account for the special behavior of focused subjects that crucially builds on the assumption that canonical preverbal subjects in West Chadic are typically interpreted as topics. As a result, the focus status of subjects is unexpected, and hence in need of explicit marking.

Notice that the term *optional focus marking* relates to the fact that the marked realization of focus is neither triggered nor restricted by grammatical factors, but simply depends on pragmatic considerations like the distinction between information focus and contrastive focus (see section 1.3). At the same time, there is no strong 1:1 correlation between the presence or absence of explicit focus marking and the pragmatic interpretation of a focus as contrastive or information focus, respectively. While contrastive foci must always be marked as such in Hausa and Bole, information foci may or may not be marked. This observation leads to a refinement of the *Contrastive Focus Hypothesis* in Section 3.4.

3.1. Absence of focus marking with information focus: Hausa and Bole

Recent studies of focus in Hausa by Jaggar (2001, 2006), Green and Jaggar (2003), Hartmann (2006) as well as Hartmann and Zimmermann (2007a) have shown that — contrary to received wisdom — focus on nonsubjects need not be explicitly marked by syntactic movement. Instead, the focused constituent may optionally remain *in situ*, i.e., in its canonical position. (23ab), from Hartmann and Zimmermann (2007a), illustrate this for focus on an object DP and a locative adjunct, respectively:

- 1 (23) a. *O-Focus*
 2 Q: *Mèe sú-kà káamà?*
 3 what 3PL-REL.PERF catch
 4 ‘What did they catch?’
 5 A: *Sún káamà dáwáakii*
 6 3PL.PERF catch horses
 7 ‘They caught HORSES.’
- 8 b. *ADJ-Focus*
 9 Q: (*À*) *cikín mée sú-kà sáa kùdî-n-sù?*
 10 at inside-of what 3PL-REL.PERF put money-of-3PL
 11 ‘What did they put their money in?’
 12 A: *Sún sáa kùdî-n-sù ciki-n àkwàati*
 13 3pl.PERF put mone-of-3PL inside-of box
 14 ‘They put their money into a BOX.’
 15

16 The *in situ* pattern is far from being a marked, and thus only rarely attested
 17 option. In a corpus study, Hartmann and Zimmermann (2007a) found that about
 18 one third of all instances of focus in the corpus were realized *in situ*. Regarding
 19 the expression of *information focus*, as found in answers to *wh*-questions, the
 20 *in situ* strategy is even the predominant strategy: About 4/5 of all new informa-
 21 tion foci in the corpus answers were realized *in situ*. At the same time, it does
 22 not seem to be the case that fronted foci occurring in answers to *wh*-questions
 23 always constitute instances of contrastive focus. This assumption seems neces-
 24 sary in order to account for the surprising fact that the focus fronting-strategy
 25 is commonly presented as the *default strategy* for answering *wh*-questions in
 26 textbooks and learner’s grammars, which is more than puzzling in light of the
 27 reported corpus findings; see Jaggar (2001, 2006) and Hartmann (2006) for
 28 discussion. In view of this, the emerging generalization seems to be that only
 29 contrastive foci, as discussed in Section 1.3, are in need of explicit grammatical
 30 marking in Hausa, whereas information foci may or may not be realized by
 31 means of special grammatical marking;¹⁴ see Section 3.4 for further discussion.

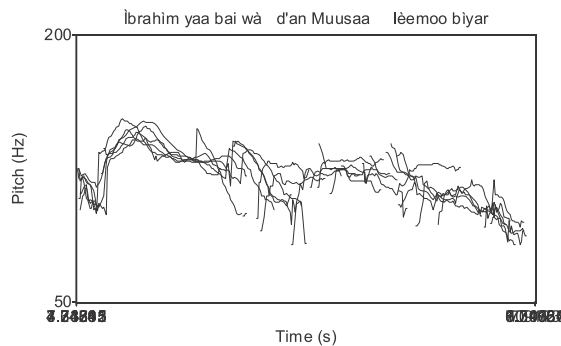
32 As for the prosodic realization of *in situ* foci in Hausa, Hartmann and Zim-
 33 mermann (2007a) show that the lack of syntactic focus realization is not com-
 34 pensated for by other grammatical means. Based on qualitative and quantita-
 35 tive analyses, as well as on a perception study, they conclude that *in situ* foci
 36 are not marked by prosodic means, say in the form of tonal raising/lowering
 37 or prosodic phrase boundaries. Figures 1–4, from Hartmann and Zimmermann
 38 (2007a), show that there are no striking differences in the pitch contour of sen-
 39 tence (24) when uttered under varying focus conditions. In particular, there is
 40 no significant variation on or around the focus constituent. This holds no mat-
 41 ter whether the focus comprises the entire clause (all-new focus, Fig. 1), the VP
 42 (Fig. 2), the object DP (Fig. 3), or the verb alone (Fig. 4).

- 1 (24) *Hàlìimà táa yánkà náamàa*
 2 Halima 3SG.F.PERF cut meat.
 3 ‘Halima cut meat.’

4 The same results are obtained if one considers longer utterances that would
 5 — in principle — provide evidence for the existence of prosodic phrase bound-
 6 aries, such as the double object-construction in (25a), and a sentence with object
 7 DP and locative adjunct in (25b).
 8

- 9 (25) a. *Ìbráhìm yáa báì wà dâ-n Múusáa lèemóo bìyár*
 10 Ibrahim 3SG.M.PERF give to son-of Musa lemon five
 11 ‘Ibrahim gave five lemons to Musa’s son.’
 12 b. *Máalàm Shéhù yáa kíráa Dèelú à cìkín gáríi*
 13 Malam Shehu 3SG.M.PERF call Deelu LOC inside town
 14 ‘Malam Shehu called Delu in town.’

15 The sentences in (25) are construed in such a way that the sequence of lexical
 16 tones should allow for the detection of prosodic phrase boundaries on the focus
 17 constituent, based on the (non)application of certain tonal processes that have
 18 been argued to be sensitive to such boundaries (e.g., Leben et al. 1989).¹⁵ Fig-
 19 ure 5 shows the overlaid pitch contours of a male speaker for focus on the
 20 entire sentence (all-new), the VP, the first object DP, the second object DP, the
 21 cardinal modifier, as well as for discontinuous focus on verb and second object
 22 DP. Figure 6 shows the pitch contours of a female speaker for focus on the
 23 entire sentence (all-new), the verb alone, the VP, the object DP, and the locative
 24 adjunct.
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39 Figure 5. *F0-contour of (25a) (male)*

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41 Figures 5 and 6 show in an impressionistic manner that there is no clear ef-
 42 fect of the focus position on the prosodic realization of the two clauses. The pitch

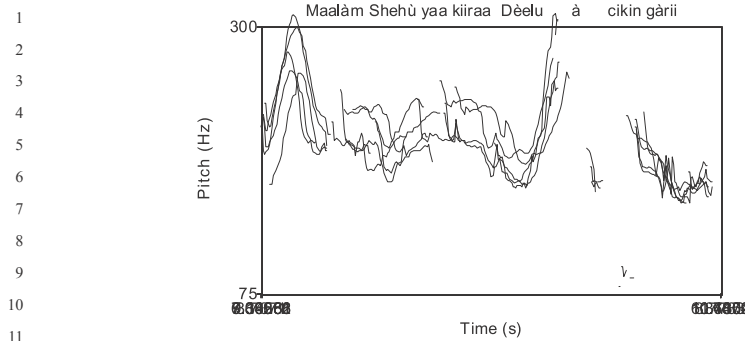


Figure 6. *F0-contour of (25b) (female)*

contours show no clearly discernible differences under the varying focus conditions. Notice that the adjunct PP *à cikin gàrii* in (25b) is always separated from the core clause, as can be seen from the prosodic break between *Dèelu* and *à* and the application of *High Base Value Resetting* on the first H-tone of *cikin*; see Note 15. Crucially for our purposes, comparable prosodic breaks are not found elsewhere in the sample sentences independent of their respective focus structures. In other words, the information-structural status of *in situ* foci in the Hausa sentences (25ab) is neither expressed syntactically, nor by prosodic means.

The same holds for Bole, where the insertion of the background marker *yé* before focused nonsubjects (plus the accompanying prosodic boundary) is likewise optional with instances of information focus. Because of this, all the examples of object and adjunct foci in (11) above can also be realized without the *yé*-marker. The resulting structures in (26ab) are formally indistinguishable from the corresponding all-new clauses (Maina Gimba p.c.):

(26) a. *O-Focus*

Q: *Léngì à jù kàpp-à lè?*
 Lengì 3AGR PROG plant-NOM what
 ‘What is Lengì planting?’

A: *Léngì à jù kàpp-à mòrdó*
 Lengì 3AGR PROG plant-NOM millet
 ‘Lengì is planting MILLET.’

b. *ADJ-focus*

Q: *Léngì à jù kàpp-à mòrdó gà àw?*
 Lengì 3AGR PROG plant-NOM millet LOC where
 ‘Where is Lengì planting the millet?’

A: *Léngì à jù kàpp-à mòrdó gà gàa kòrí*
 Lengì 3AGR PROG plant-NOM millet LOC farm
 ‘Lengì is planting the millet ON THE FARM.’

1 (27a) and (27b) illustrate the absence of the grammatical realization of VP- and
2 V-focus:

3 (27) a. *VP-focus*

4 Q: *Léngì à jù ù-ná (yé) lè?*
5 Léngì 3AGR PROG DO-NOM PRT what
6 ‘What is Lengi doing?’

7 A: *Léngì à jù kàpp-à mòrdó*
8 Léngì 3AGR PROG plant-NOM millet
9 ‘Lengi is PLANTING MILLET.’

10 b. *V-focus*

11 Q: *Léngì à jù ù-ná (yé) lè gà mòrdó yé?*
12 Léngì 3AGR PROG DO-NOM PRT what with millet DEF
13 ‘What is Lengi doing with the millet?’

14 A: *Léngì à jù kàpp-à mòrdó yé*
15 Léngì 3AGR PROG plant-NOM millet DEF
16 ‘Lengi is PLANTING the millet.’

17 Finally, (28a)–(28c) show that the lack of focus realization is not restricted to
18 the imperfective aspect, but is also found in the perfective aspect. In this
19 respect, Bole differs from Tangale, where the lack of focus realization is only
20 attested in imperfective sentences (see Section 3.2).
21

22 (28) a. *O-Focus*

23 Q: *Léngì kàpp-ák (yé) lè?*
24 Léngì plant-PERF.F. PRT what
25 ‘What did Lengi plant?’

26 A: *Léngì kàpp-ák (yé) mòrdó*
27 Léngì plant-PERF.F. PRT millet
28 ‘Lengi planted MILLET.’

29 b. *VP-focus*

30 Q: *Léngì ák (yé) lè?*
31 Léngì do-PERF.F. PRT what
32 ‘What did Lengi do?’

33 A: *Léngì kàpp-ák mòrdó*
34 Léngì plant-PERF.F. millet
35 ‘Lengi planted MILLET.’

36 c. *V-Focus*

37 Q: *Léngì ák (yé) lè gà mòrdó yé?*
38 Léngì do-PERF.F. PRT what with millet DEF
39 ‘What did Lengi do with the millet?’

40 A: *Léngì kàpp-ák mòrdó yé*
41 Léngì plant-PERF.F. millet DEF
42 ‘Lengi PLANTED the millet.’

1 In conclusion, the information-structural status of nonsubject constituents as
2 focused need not be expressed by means of special grammatical marking in
3 Hausa and Bole, at least with instances of information focus. It follows that the
4 explicit marking of focus on nonsubjects is not strictly determined by gram-
5 matical factors, nor by the need to express focus in terms of an absolute gram-
6 matical prominence. Once again, this is quite unlike what is found in intonation
7 languages, where the information-structural prominence of the focus constitu-
8 ent must be matched by an absolute prosodic prominence.¹⁶ I return to the
9 question of what triggers the explicit formal marking of focus on nonsubjects
10 in languages in which focus marking is optional in Section 3.4.

11 We conclude this section by referring to an anonymous reviewer's objection
12 that the mere existence of optional focus marking in Hausa and Bole does not
13 in general rule out the possibility that the realization of both marked and
14 unmarked instances of focus is grammatically determined in a uniform way in
15 these languages.¹⁷ While this is certainly correct, the question of whether or
16 not there is a uniform licensing mechanism for instances of (prosodically, syn-
17 tactically, morphologically) marked and unmarked foci in Hausa and Bole is
18 largely orthogonal to the central question at issue here, which is: What are the
19 relevant factors responsible for the marked or unmarked realization of foci in
20 languages in which explicit focus marking is optional? In this connection, the
21 data in this subsection have shown that a marked (i.e., noncanonical) realiza-
22 tion of nonsubject information foci in Hausa or Bole is not required by the
23 grammatical systems of these languages.

24 25 26 3.2. *Structural constraints on the realization of focus*

27
28 The previous sub-section has shown that information focus on nonsubjects
29 in Hausa and Bole can be grammatically realized or not, irrespective of gram-
30 matical factors. Other West Chadic languages, such as Ngizim, Duwai, and
31 Bade, present a more extreme case in that focus on nonsubjects is never gram-
32 matically realized, not even optionally (Russell Schuh, p.c.).¹⁸

33 This subsection presents the less extreme case of Tangale, in which general
34 structural factors block focus from being realized in certain syntactic environ-
35 ments. To be concrete, focus on object DPs cannot be realized by a preceding
36 prosodic phrase boundary in Tangale clauses marked for the imperfective
37 aspects progressive and future. This observation stands in stark contrast to
38 what was observed for the perfective aspect above, where a prosodic boundary
39 must precede focused object DPs (see 2.2). The absence of a prosodic boundary
40 before focused (questioned) object DPs in imperfective clauses is illustrated in
41 (29), a naturally occurring example from a corpus of Tangale folktales (Jun-
42 graithmayr 2002: 52):

- 1 (29) [CONTEXT: She asked: ‘What is it?']
 2 *sì wánà n yáa-z nân?*
 3 2SG.F go-VPF PROG do-NOM what
 4 ‘What have you come here for?’ (lit. ‘What have you come here to
 5 do?’)

6
 7 The absence of a prosodic boundary before the focused object DP in (29) is
 8 witnessed by the fact that vowel elision (VE) has applied to the final vowel of
 9 the preceding nominalized verb *yaazi* ‘doing’, reducing it to the surface form
 10 *yaaz*.¹⁹ Based on direct elicitations, Hartmann and Zimmermann (2007b) pro-
 11 vide comparable data to the effect that focus realization on the nonsubject cat-
 12 egories object NP, VP, and V is systematically absent in imperfective clauses.
 13 There are no prosodic differences whatsoever between all-new sentences on
 14 the one hand, cf. (30), and sentences with O-focus, VP-focus, or V-focus, and
 15 on the other, cf. (31a)–(31c).²⁰ In each case, VE obligatorily deletes the final
 16 vowel of the verbal noun *balli* > *ball*.

- 17 (30) *all-new*
 18 *Làkú n báll wàsiká*
 19 L. PROG writing letter
 20 ‘Laku is writing a letter.’
- 21 (31) a. *O-focus*
 22 Q: *Làkú n báll náy?* A: *Làkú n báll wàsiká*
 23 L. PROG writing what L. PROG writing letter
 24 ‘What is Laku writing?’ ‘Laku is writing a LETTER.’
- 25 b. *VP-focus*
 26 Q: *Làkú n yáaj náy?* A: *Làkú n báll wàsiká*
 27 L. PROG doing what L. PROG writing letter
 28 ‘What is Laku doing?’ ‘Laku is [writing a LETTER]_F.’
- 29 c. *V-focus*
 30 Q: *Làkú n báll wàsiká yáa múd wàsiká?*
 31 L. PROG writing letter or reading letter
 32 ‘Is Laku WRITING a letter or READING a letter?’
 33 A: *Làkú n báll wàsiká*
 34 L. PROG writing letter
 35 ‘Laku is WRITING a letter.’

36
 37 The absence of a grammatical realization of focus in (31a) can be derived from
 38 the fact that the prosodic realization of focus on object NPs in Tangale, namely
 39 the insertion of a phrase boundary between the verb and the subsequent object
 40 NP (see Section 2.2), is bled by the specific syntactic structure of imperfective
 41 clauses and general structural conditions on the application of VE. Same as in
 42 Hausa, Tangale verbs are nominalized in imperfective clauses, and as such form

1 an N-N complex with their nominal object complement.²¹ Kenstowicz (1985:
2 85) shows that VE must obligatorily apply in such N-N complexes, though,
3 because of the close syntactic relation between the two nominal expressions,
4 cf. (32).

5 (32) *ayaba noŋ* ⇒ *ayab(*a) noŋ*
6 banana who
7 ‘whose banana’
8

9 Given that VE is obligatory in syntactic N-N configurations, it follows that it
10 can no longer serve as a diagnostic for O-focus in the imperfective aspect. In
11 brief, narrow focus on object NPs (and V(P)s) in imperfective clauses can
12 never be grammatically expressed by means of a prosodic phrase boundary
13 because of the tight structural relation between the verbal noun and its nominal
14 complement. Moreover, Hartmann and Zimmermann (2007b) show that the
15 lack of focus realization in terms of phrase boundaries is not compensated for
16 by other prosodic means, such as, for instance, by pitch raising or lowering.
17 Their conclusion is based on a closer inspection of the pitch contours associated
18 with the different focus structures in (30) and (31), which reveals that the
19 pitch contours of all-new focus (cf. 30), O-focus (cf. 31a), VP-focus (cf. 31b),
20 and V-focus (cf. 31c) are identical in all relevant aspects. I conclude that there
21 are general structural factors in Tangale which ban focus on nonsubjects from
22 ever being realized in imperfective clauses. This is quite unlike what is ob-
23 served for European intonation languages, where the placement of focus pitch
24 accents is not subject to any categorial restrictions, such that focus pitch ac-
25 cents can be found on all syntactic constituents, and even on segmental subparts
26 of words (Artstein 2004).

27
28
29 3.3. *The special status of subjects*
30

31 The foregoing discussion of focus constituents with no special grammatical
32 marking has exclusively focused on nonsubjects, and for a good reason: The
33 three languages Hausa, Tangale, and Bole exhibit a striking asymmetry be-
34 tween subjects, on the one hand, and nonsubjects, on the other, when it comes
35 to the realization of focus. Crucially, focus on subjects must always be ex-
36 pressed, whereas focus on nonsubjects need not, or (in Tangale imperfective
37 clauses) must not be realized; see Zerbian (2006) and Fiedler et al. (2010) for
38 additional data and discussion.

39 As already shown in (5b), repeated as (33a), subject focus in Hausa requires
40 the relative TAM-marker, which marks the application of vacuous focus move-
41 ment (Jaggar 2001, 2006, Green and Jaggar 2003). (33b) shows the same for
42 sentences in the progressive aspect:

- 1 (33) a. **Kàndé₁** (cee) t₁ **tá(*a)** **dáfá** **kíifii**
 2 Kande PRT 3SG.F.PERF.REL cook fish
 3 ‘KANDE cooked fish.’
 4 b. Q: **Wàa** **yá-kèe** **kirà-ntà?**
 5 who 3SG-REL.PROG call-her
 6 ‘Who is calling her?’
 7 A: **Dáudà** **yá-kèe** /***-nàa** **kirà-ntà**
 8 Dauda 3SG-PROG.REL / *-PROG call-her
 9 ‘DAUDA is calling her.’

10
 11 As shown in Section 2.2, focused subjects in Tangale cannot be expressed in
 12 their canonical preverbal position, but must undergo subject inversion to a
 13 postverbal position. This was shown for perfective clauses in (8), and holds
 14 even true for focused subjects in the imperfective aspect, where focus is other-
 15 wise unmarked, cf. (34) from Hartmann and Zimmermann (2007b).

- 16 (34) Q: **bàl** **wàsikà-i** **nóy?**
 17 writing letter-DEF who
 18 ‘Who is writing the letter?’
 19 A: (**wàsikà-i**) **bàll-i** **Músà**
 20 letter-DEF writing-it Musa
 21 ‘The letter, MUSA is writing it.’

22
 23 In Bole, too, focused subjects must undergo subject inversion to a postverbal
 24 position. In Section 2.3, this was shown for transitive clauses in (12), and (35)
 25 presents an example with an intransitive verb. Notice that the *yé*-marker is
 26 optional in such cases, where the focused subject follows directly on the verb.

- 27 (35) Q: (**Án**) **dǒw-úu** (**yé**) **lò?**
 28 (3AGR) sit-PERF PRT who
 29 ‘Who sat?’
 30 A: (**Án**) **dǒw-úu** (**yé**) **Bámóí**
 31 (3AGR) sit-PERF PRT Bamoi
 32 ‘BAMOÍ sat./ The one who sat is Bamoi.’
 33

34 Finally, subject foci in Ngizim, Duwai, and Bade must always be marked as
 35 well, whereas focus on nonsubjects is never grammatically marked.

36 In sum, focused subjects in many West Chadic languages are special in that
 37 their focus status must be grammatically expressed. The obligatory realization
 38 of focus on subjects in West Chadic is significant, for it shows that the gram-
 39 mar of these languages must be sensitive to an information-structural category
 40 of *focus*. At the same time, the curious asymmetry found in the focus marking
 41 systems of West Chadic languages gives rise to two additional questions, which
 42 may turn out to be just two sides of the same coin: (i.) Why would subject foci

1 Focus Hypothesis: Since focused subjects are not the norm, but the exception,
 2 in West Chadic (and beyond), I take them to be conventionally marked as such
 3 by the grammatical systems of these languages in order to ease the burden of
 4 discourse integration and context updating for the hearer. In other words, there
 5 simply are no noncontrastive instances of subject focus in these languages.
 6 This necessitates a slight revision of Table 1 from Section 1.2 to the effect that
 7 the upper-right cell is not attested in languages with a strong subject-topic
 8 correlation.

10 Table 2. *Information and contrastive focus on subjects and nonsubjects in West Chadic (revised)*

	contrastive focus	information focus
13 subject	marked	—
14 nonsubject	marked (<i>Gùrùntùm</i> : doubly marked)	unmarked (<i>Gùrùntùm</i> : marked)

16
 17 The crucial factor distinguishing focused subjects from focused nonsubjects
 18 is thus the fact that the contrast need not hold between the denotation of the
 19 focus constituent and its focus alternatives for explicit focus marking to be
 20 licensed. Instead, it is sufficient that there be a contrast between the unexpected
 21 actual information-structural function of subjects as foci and their expected
 22 role as topics, in line with the more general discourse-oriented characterization
 23 of contrast from Section 1.3: The fact that focused (and hence nonactivated)
 24 subject constituents are not realized in their canonical preverbal (topic) position
 25 facilitates the information update in discourse since it prevents the hearer
 26 from mistakenly trying to look up the subject denotation in the set of salient
 27 (and hence activated) discourse referents in order to set it up as a topic for the
 28 rest of the clause.²⁶

29 We close this subsection by noting that *Gùrùntùm* obligatorily realizes focus
 30 on all major constituents, including nonsubjects. In this respect, *Gùrùntùm*
 31 resembles intonation languages, which also require the consistent marking of
 32 focus on subjects and nonsubjects by means of focus pitch accents. In light of
 33 this, I conclude that the subject/nonsubject asymmetry in the focus-marking
 34 system is perhaps a typical property of West Chadic languages, but certainly
 35 not a defining characteristic of this language group as a whole.

37 3.4. *Focus realization and focus interpretation*

38
 39 We conclude this section with some general remarks on the relation of gram-
 40 matical *focus realization* and *focus interpretation*. In the syntactic literature on
 41 focus, there is often claimed to be a one-to-one correlation between the syntac-
 42 tic realization of a focus constituent *ex situ*, i.e., in a designated focus position,

1 or *in situ*, i.e., in its canonical position, and its pragmatic interpretation; see, for
 2 instance, É. Kiss (1998) on Hungarian and Vallduví and Vilkuna (1998) on
 3 Catalan and Finnish. The *in situ* strategy is associated with instances of infor-
 4 mation focus, whereas the *ex situ* strategy is employed in more marked dis-
 5 course contexts, the generalization being that constituents in *ex situ*-position
 6 come with additional meaning effects, such as, for instance, exhaustivity, iden-
 7 tification, contrast etc., which are typically not observed with *in situ* foci.

8 The data from West Chadic by and large confirm the picture found for the
 9 European languages. At the same time, they suggest an even more general
 10 approach to the phenomenon, not in terms of the dichotomy *ex situ* vs. *in situ*,
 11 but in terms of the dichotomy *grammatically marked focus* vs. *grammatically*
 12 *unmarked focus*. Recall from Section 3.1 that focused nonsubjects in Hausa
 13 can either be realized *ex situ* in a left-peripheral focus position, cf. (37a), or
 14 else they can remain *in situ* in their canonical position. In the latter case, focus
 15 is not explicitly marked, and the sentence is formally identical to a neutral all-
 16 new sentence, cf. (37b).

- 17 (37) a. (= 5a) *O-focus realized*
 18 **Kúífú₁** (nèè) Kàndé tá dáfàa t₁.
 19 fish PRT Kande 3SG.F.PERF.REL cook
 20 ‘Kande cooked FISH.’
 21 b. (= 1a) *O-focus unrealized*
 22 Kàndé táa dáfà kúífú
 23 Kande 3SG.F.PERF cook fish
 24 ‘Kande cooked FISH.’
 25

26 As already mentioned in Section 3.1, the corpus study in Hartmann and
 27 Zimmermann (2007a) revealed that focus in Hausa remains predominantly
 28 unmarked when it is interpreted as information focus, such as, for instance, in
 29 answers to preceding *wh*-questions. In about 4/5 of such cases, the focus was
 30 not realized by special grammatical means. By contrast, more than 9/10 of all
 31 pragmatically marked instances of focus, such as contrastive or corrective foci,
 32 were grammatically realized by moving them to the focus position in the left
 33 periphery of the clause. Based on these findings, Hartmann and Zimmermann
 34 (2007a) concluded that the explicit (i.e., noncanonical) grammatical realization
 35 of focus leads to a pragmatically marked interpretation of focus as contrastive.
 36 This generalization appears to be too strong, however, in light of the full range
 37 of focus-marking patterns observable in West Chadic, or even in Hausa. At the
 38 same time, the *Contrastive Focus Hypothesis* (CFH) in (4), though intuitively
 39 appealing, is not specific enough. Since it makes no mention of information
 40 focus at all, it is consistent with information foci being grammatically marked
 41 or not. In view of these problems, Hartmann and Zimmermann’s one-way im-
 42 plication from noncanonical marking to marked interpretation is replaced with

1 the weaker *Focus-Marking Implication* (FMI) in (38). The FMI, which is a
 2 slightly adapted variant of a similar implication relation in Skopeteas and Fan-
 3 selow (2009), concerns the relation between information and contrastive foci,
 4 on the one hand, and their marked or unmarked realization, on the other. It can
 5 be conceived of as a refinement of the CFH, whose central insight it preserves:
 6 If there is a special way of marking focus on a grammatical category α in a
 7 language, it will inevitably show up with instances of contrastive focus. In
 8 addition, the FMI accounts for all the attested combinations of focus type and
 9 focus marking in West Chadic. The four different combinations that are pre-
 10 dicted to be (im)possible by the FMI are shown schematically in (39):

- 11 (38) *The Focus-Marking Implication:*
 12 If a noncanonical grammatical strategy is used in order to mark
 13 information focus (on a grammatical category α), it is also used to
 14 mark contrastive focus on α , but not vice versa.
- 15 (39) i. * contrastive focus: UNMARKED; information focus: MARKED
 16 ii. ✓ contrastive focus: MARKED ; information focus: UNMARKED
 17 iii. ✓ contrastive focus: MARKED ; information focus: MARKED
 18 iv. ✓ contrastive focus: UNMARKED; information focus: UNMARKED
 19

20 To begin with, the FMI generally precludes the combination in (39a), according
 21 to which information foci are marked in a noncanonical way, but contrastive
 22 foci are not. Secondly, it allows for the combination of marked contrastive foci
 23 and unmarked information foci in (39ii), which is at the heart of the *Contras-*
 24 *tive Focus Hypothesis* and all cartographic approaches that assume different
 25 kinds of syntactic realizations for different kinds of foci. The combination is
 26 licit because the implication goes from marked instances of information focus
 27 to marked instances of contrastive focus only, but not vice versa. This state of
 28 affairs is observed in Hausa and Bole, which both mark contrastive focus on
 29 subjects and nonsubjects in a noncanonical way, whereas information focus on
 30 nonsubjects remains mostly unmarked. Third, the FMI correctly predicts the
 31 consistent marking of contrastive and information foci in a language, cf. (39iii).
 32 This is the case in Güruntùm, in which consistent morphological marking of
 33 information focus on all constituents is licit since contrastive foci are gram-
 34 matically marked as well. Fourth, the FMI also captures the systematic lack of
 35 a formal grammatical marking on focus constituents, contrastive or not, cf.
 36 (39iv): If information foci are not grammatically marked to begin with, the
 37 implication in (38) does not apply. This state of affairs is observed for the West
 38 Chadic languages Ngizim, Duwai and Bade, which have no formal means of
 39 marking focus on nonsubjects, contrastive or not. Finally, coming back to Hausa,
 40 the FMI also accounts for the at first sight problematic fact — mentioned in
 41 passing in Section 3.1 — that information foci in answers to *wh*-questions can
 42 be optionally realized *ex situ*, without incurring additional discourse-semantic

1 effects. This is licit, according to the FMI, as long as contrastive foci are ob-
 2 ligatorily realized *ex situ*, which they are in Hausa (in line with the CFH).

3 Summing up, the revised account of the grammatical realization of different
 4 kinds of foci, and in particular the proposed implicational relation from gram-
 5 matically marked information foci to grammatically marked contrastive foci,
 6 preserves the central insight of the *Contrastive Focus Hypothesis*, which re-
 7 tains its status as a useful descriptive generalization, and according to which a
 8 contrastive interpretation of a focus constituent is typically signalled by means
 9 of a noncanonical grammatical marking. At the same time, the FMI expands
 10 the empirical coverage in that it exceptionally allows for contrastive foci to go
 11 unmarked (given that the language lacks grammatical means of expressing
 12 nonsubject focus in general), and for nonsubject information foci to be gram-
 13 matically marked, as is optionally the case in Hausa.²⁷ Concerning claims in
 14 the syntactic literature that there is a relation between the marked or unmarked
 15 syntactic realization of a focus, on the one hand, and its marked or unmarked
 16 interpretation, on the other, the Hausa facts confirm the existence of such a
 17 relation, albeit in the form of a (much) weaker one-way implication.

18 Similar facts are observed for Bole, which differs from Hausa in that focus
 19 on nonsubjects is not explicitly marked by means of syntactic movement, but
 20 by means of the morphological marker *yé* preceding the focus constituent. The
 21 semantic differences between (40a), with explicit focus realization, and (40b)
 22 without, by and large match those observed for Hausa *ex situ* and *in situ* focus.
 23 In general, the presence of *yé* induces a certain degree of stress or emphasis
 24 on the focus constituent (Maina Gimba, p.c.), as would be appropriate, for
 25 instance, in corrective statements.

- 26 (40) a. (= 11a) *O-focus realized*
 27 *Léngì à jìi kàpp-à yé mòrdó*
 28 Léngì 3_{AGR} PROG plant-NOM PRT millet
 29 'It is MILLET that Lengì is planting.'
 30 b. (= 1c) *O-focus unrealized*
 31 *Léngì à jìi kàpp-à mòrdó*
 32 Léngì 3_{AGR} PROG plant-NOM millet
 33 'Lengì is planting MILLET.'
 34

35 As focus on nonsubjects is not syntactically realized in Bole, the difference in
 36 focus interpretation cannot be captured in terms of different syntactic positions.
 37 Rather, the relevant factor seems to be whether or not focus is grammatically
 38 realized by means of a noncanonical structure. If it is not, we get the interpreta-
 39 tion as information focus. If it is, the focus constituent receives a stronger,
 40 pragmatically more marked interpretation as contrastive focus.

41 Summing up, the explicit realization of focus in Hausa and Bole is optional
 42 only in so far as it is not required by the grammatical systems of these languages.

1 Rather, the grammatical marking of focus in these languages typically indicates
 2 the pragmatic function of contrastive focus. By contrast, a focus that is not
 3 grammatically realized will receive a weaker discourse-semantic interpretation
 4 as information focus. The present account crucially differs from existing ac-
 5 counts in that the interpretation of information foci is not linked to a particular
 6 syntactic focus position at the left edge of the VP (Belletti 2002, Aboh 2007),
 7 but to the fact that the focus status of the constituent is not marked by any spe-
 8 cial grammatical means.

9 Notice, finally, that there is at least one West Chadic language that exhibits
 10 two different formal devices for the realization of focus and for the expression
 11 of discourse markedness: In Gùrùntùm, focus constituents obligatorily carry
 12 the focus marker *a*, but, in addition, focused nonsubjects can also occur in a
 13 cleft-like relative construction, such as in (41), in which case they introduce an
 14 extra amount of contrast or emphasis (Hartmann and Zimmermann 2009):²⁸

- 15 (41) Q: *Á kǎã màì tí náa wáli?*
 16 FM what REL 3SG catch farm
 17 ‘What did he catch at the farm?’
 18 A: *Á fúl màì tí náa wáli*
 19 FM COW REL 3SG catch farm
 20 ‘It was a COW that he caught at the farm.’
 21

22 The obligatory presence of the focus marker *a* in the contrastive cleft construc-
 23 tion in (39A) brings out nicely the unified semantic nature of information and
 24 contrastive foci as relating to a set of focus alternatives (see also Delin and
 25 Oberlander 1995): Information foci pick an alternative from a set evoked by a
 26 (possibly implicit) question (Beaver and Clark 2008), whereas contrastive foci
 27 pick an alternative and signal that it is unexpected in some way (see Section 1.3).
 28 The clefting-strategy in (39A) is reminiscent of focus fronting or focus clefting
 29 in English or German. In these languages, the focus status of the fronted/
 30 clefted constituent is indicated by the nuclear pitch accent, whereas the con-
 31 trastive interpretation is induced by the noncanonical syntactic realization.
 32

33 4. Grammatical underdetermination of focus and contextual resolution

34 This section discusses the emergence of focus ambiguities in West Chadic. It is
 35 shown that the IS-category *focus* is heavily underdetermined by the grammatical
 36 systems in the languages under discussion, even more so than in intonation
 37 languages. From a theoretical perspective, it thus provides strong evidence in
 38 favor of pragmatic theories of focus on which focus must be contextually
 39 resolved; see, for instance, Rooth (1992, 1996), Büring (2006, 2007), Féry
 40 (2008), among others. There are various reasons for the observed underdeter-
 41 mination of focus. It may either be due to the optional absence of focus mark-
 42

1 ing discussed in Section 3.1, or it may result from general structural constraints
2 on focus marking in certain syntactic environments that were discussed in Sec-
3 tion 3.2. Both cases are briefly taken up again in Section 4.1. Even more inter-
4 estingly, focus may be underdetermined even in the presence of explicit focus
5 marking. In such cases, we deal with genuine focus ambiguities that arise from
6 structural constraints on focus marking, and which are in need of contextual
7 resolution. These form the topic of Section 4.2. Section 4.3 presents a particu-
8 larly interesting instance of focus ambiguity in Tangale and Gùrùntùm, which
9 is not attested in European intonation languages, and which receives no expla-
10 nation on standard accounts of focus projection (Selkirk 1984, 1995), which
11 appear to be custom-tailored for such languages. The ambiguity in question
12 concerns the identical realization of narrow verb and narrow object focus.
13 These are both marked on the object DP, casting doubt on the assumption that
14 syntax mediates between the information-structural focus domain, on the one
15 hand, and its grammatical realization on a particular constituent, on the other,
16 for instance by means of projection rules. Rather, the observable grammatical
17 patterns observed are better viewed as a compromise between an information-
18 structural constraint requiring foci to be prominent and general structural con-
19 straints on the placement of grammatical markers of prominence.

20
21 4.1. *Underdetermination of focus in the absence of explicit marking*
22

23 As discussed at length in Section 3, focus on nonsubjects need not be gram-
24 matically realized in Hausa and Bole, and it is never realized in Tangale imper-
25 fective sentences for general structural reasons. It follows directly that such
26 unmarked clauses are ambiguous between various (nonsubject) focus readings.
27 The linear surface strings in Hausa (23a) and (24), for instance, can be inter-
28 preted with focus on the object DP, on the VP, on the verb, or even on the entire
29 clause. In addition to these readings, the surface string in (23b) allows for an
30 additional reading with focus on the locative adjunct.²⁹ Parallel facts hold for
31 the Bole sentences in (26) to (28), and for the imperfective Tangale sentences
32 in (30) and (31) above. In all these cases, the burden of focus resolution lies
33 exclusively on the pragmatic component.

34
35 4.2. *Underdetermination of focus in the presence of explicit marking*
36

37 Another source of focus ambiguities in West Chadic are general structural con-
38 straints on the grammatical mechanisms employed in the realization of focus,
39 such as, for instance, on A'-movement in Hausa, and on the placement of pro-
40 sodic boundaries (Tangale) and morphological markers (Bole, Gùrùntùm).

41 In Hausa, focus is realized syntactically in form of A'-movement (Section
42 2.1), and focus movement is subject to general syntactic restrictions, such

1 as island constraints (Tuller 1986) and the *structure preservation principle*
 2 (Emonds 1976). The latter requires that only full XPs be moved to the focus
 3 position, and consequently nonphrasal constituents, such as the transitive verb
 4 in (42), cannot move to the focus position on their own. Instead, the nominal-
 5 ized verb must pied-pipe its immediately dominating maximal projection; see
 6 Hartmann and Zimmermann (2007a) for more details on focus fronting in
 7 Hausa, and Roberts (1998) on focus pied-piping in Hungarian:

- 8
 9 (42) Q: *Mèenéenèè yá yí dà wàsìikàa?*
 10 what 3SG.PERF.REL do with letter
 11 ‘What did he do with the letter?’
 12 A: [*Kàràatù-n wàsìikàa*]₁ *née yá yí t₁.*
 13 reading-of letter PRT 3SG.PERF.REL do
 14 ‘He READ the letter.’

15 In Tangale, phonological phrase boundaries cannot be inserted inside complex
 16 DPs, such as associative N₁-of-N₂ constructions, as these form a close syntac-
 17 tic unit; see Section 3.2. It follows that focus on such complex DPs and on their
 18 N₂-part are marked alike by means of a prosodic boundary preceding the com-
 19 plex DP (Kenstowicz 1985, Hartmann and Zimmermann 2007b). This is illus-
 20 trated in (43), where the prosodic boundary precedes the complex DP, even
 21 though only the question word *noŋ* ‘who’ is focused. The prosodic boundary is
 22 indicated, again, by the blocking of VE on the verb *múdúdgó*:

- 23
 24 (43) (*múdúid-gó*) \varnothing [*láv(*o) nóŋ*]
 25 die-PERF child who
 26 ‘Whose child died?’
 27 (Kenstowicz 1985: 87, ex. 22c)

28 While the question in (43) is unambiguous because of the *wh*-expression, cor-
 29 responding answers of the form ‘X’s child died’ will also feature the prosodic
 30 boundary before the complex DP. For this reason, they can be ambiguously
 31 interpreted as answers to the question ‘Who died?’, with focus on the complex
 32 DP, or to the question ‘Whose child died?’, with focus on N₂. Entirely parallel
 33 facts are observed for Güruntum in (43) and Bole in (44). In both languages,
 34 the morphological markers *yé* and *a* cannot be inserted inside complex N-of-
 35 N-constructions, as illustrated schematically in (44):³⁰

- 36
 37 (44) * [_{DP} N₁ *yé/a* N₂]
 38

39 Because of (44), *yé* and *a* will have to precede the complex DP, irrespective of
 40 the focus structure of the clause. As a result, the syntactic structures in (45A)
 41 and (46A) can serve as answers to either Q1 (focus on complex DP) or Q2
 42 (focus on N₂):

- 1 (45) Gùrùntùm
 2 Q1: *Á kǎǎ màì tí bà pí méerè?*
 3 FM what REL 3SG PROG do theft
 4 ‘What is he stealing?’
 5 Q2: *Á [dòoré-i kwá] màì tí bà pí méerè?*
 6 FM goat-DEF who REL 3SG PROG do theft
 7 ‘Whose goat is he stealing?’
 8 A: *Á [dòoré-i rèná] (màì tí bà pí méerè)*
 9 FM goat-DEF king (REL 3SG PROG do theft)
 10 ‘He is stealing [the king’s GOAT]_F. / He is stealing THE KING’S
 11 goat.’
 12 (46) Q1: *Léngì bòkk-ák (yé) lè?*
 13 Léngì burn-PERF.F PRT what
 14 ‘What did Lengi burn?’
 15 Q2: *Léngì bòkk-ák (yé) káuyèe (*yé) lò?*
 16 Léngì burn-PERF.F PRT village PRT who
 17 ‘Whose village did Lengi burn?’
 18 A: *Bòkk-ák (yé) [káuyèe (*yé) Bámói]*
 19 burn-PERF.F PRT village PRT Bamoi
 20 ‘She burnt [Bamoi’s VILLAGE]_F. / She burnt BAMOI’S village.’

21
 22 Such focus ambiguities are not found in intonation languages with free pitch
 23 accent placement, such as German or English, but they are reminiscent of DP-
 24 ambiguities observed in intonation languages with more restricted accent
 25 placement, such as, for instance, Italian (Krahmer and Swerts 2004).

26
 27
 28 4.3. *A special case: V_{FOC} = O_{FOC}*
 29

30 The most intriguing kind of focus ambiguity, both from a crosslinguistic and
 31 from a theoretical perspective, shows up in Tangale and Gùrùntùm, where nar-
 32 row focus on the verb, on the object DP, and likewise on the VP, are realized in
 33 identical fashion. In all three cases, the prosodic or morphological focus marker
 34 precedes the object DP, and not the verb; cf. Zimmermann (2006b), Hartmann
 35 and Zimmermann (2007b), and Hartmann and Zimmermann (2009). Conse-
 36 quently, the sentences in (47ab) are focus ambiguous and can serve as answers
 37 to *wh*-questions about the object, the VP, and the verb, respectively:
 38

- 39 (47) a. Tangale
 40 *Làk wái-gó)φ lándà*
 41 Laku sell-PERF dress
 42 ‘Laku sold A DRESS. / Laku SOLD a dress. / Laku [sold A DRESS]_F.’

b. Gürüntùm

Ti bà ròmb á g^wèi
 3SG PROG gather FM seeds

‘He is gathering THE SEEDS / GATHERING the seeds/ [gathering THE SEEDS]_F’

The patterns of focus realization in (45ab) are remarkable for two reasons: First, narrow focus on the verb is realized on the object DP, a pattern totally unknown from intonation languages, where the focus accent must be placed within the focus domain. Second, VP-focus is realized by means of a VP-internal prosodic boundary. Both phenomena are not predicted by standard accounts of focus ambiguity, such as Selkirk’s (1995) *Basic Focus Rule*, or by current theories of focus prominence; see, for instance, Selkirk (2004) and Büring (2010).

That we are indeed dealing with focus ambiguity in Tangale is confirmed by Hartmann and Zimmermann (2007b), who show that the prosodic realization of (45a) is identical under all three focus conditions. The same appears to hold for Gürüntùm (45b), as shown in figures 7 to 9 for focus on object DP, V, and VP respectively.³¹

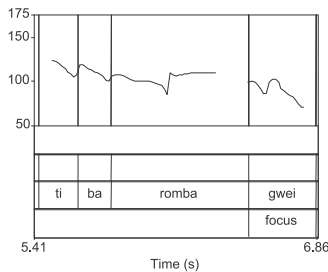


Figure 7. OBJ-Focus: ‘He’s gathering the SEEDS.’

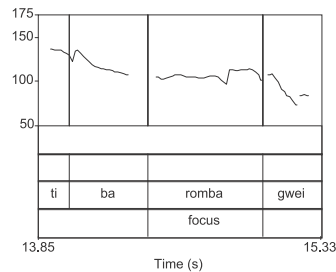


Figure 8. V-Focus: ‘He’s gathering the SEEDS.’

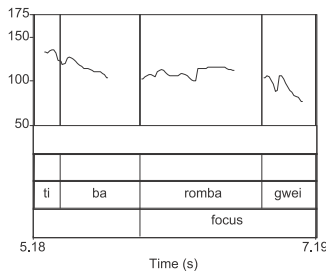


Figure 9. VP-Focus: ‘He’s [gathering the SEEDS]_F.’

1 As for why the structural realization of focus on object DP, V, and VP in
2 (45ab) should be identical, Zimmermann (2006b) and Hartmann and Zimmer-
3 mann (2007b) argue that the focus ambiguity follows from a categorial restric-
4 tion on the realization of focus. It has been observed that many Chadic languages,
5 including Hausa, display a certain bias for focus realization on nominal con-
6 stituents (Hartmann and Zimmermann 2007b). Extending this observation to
7 Tangale and Gùrùntùm, Zimmermann (2006b) assumes the constraint in (48)
8 to be active in both languages:³²

9 (48) FocNP: No focus realization on [–nominal] constituents
10

11 Now assume that narrow focus on the verb or the VP needs to be realized in
12 Tangale and Gùrùntùm, since focus prominence must be grammatically ex-
13 pressed in these languages, same as in intonation languages.³³ At the same
14 time, it cannot be realized on the verb itself because of (48). Given this con-
15 flict, focus will be realized on the structurally closest constituent complying
16 with (48), i.e., on the direct object DP, if one is present.³⁴ The actual placement
17 of the focus-marking elements in (47a) and (47b) thus constitutes a compro-
18 mise between the IS-requirement to make the focus constituent grammatically
19 prominent, on the one hand, and a general categorial restriction on the place-
20 ment of the focus marking elements, on the other.

21 22 23 4.4. *Summary* 24

25 In the West Chadic languages under discussion, focus is heavily underdetermined
26 and hence in even more need of contextual resolution than in European intona-
27 tion languages. The observed underdetermination is in part due to the absence
28 of focus realization, as is the case with information foci on nonsubjects in
29 Hausa and Bole. In such cases, there are no grammatical clues for focus resolu-
30 tion at all. This option is not available for intonation languages of the English
31 or German type, which must realize focus by means of a nuclear pitch accent
32 on the focus constituent. In addition, there are instances of focus ambiguity
33 where focus is grammatically realized, but not in the expected position, but on
34 an adjacent or structurally dominating element. Here, we find certain resem-
35 blances between West Chadic and intonation languages. The focus ambiguity
36 with complex DPs (4.2) resembles the focus ambiguity found with complex
37 DPs in intonation languages of the Romance type, where the nuclear pitch is
38 always realized on the same element, irrespective of the focus structure of the
39 DP. The observed focus ambiguity between VP and object DP in Tangale and
40 Gùrùntùm is also familiar from many other languages, including Germanic and
41 Romance, where it is usually explained in terms of focus projection from the
42 grammatically marked object DP to the VP. What has not been attested in other

1 languages so far, though, is the focus ambiguity between narrow verb focus
 2 and focus on the object DP in Tangale and Gürüntùm. The grammatical realiza-
 3 tion of narrow verb focus on the following object DP is in obvious violation
 4 of the interface condition that grammatical focus marking be manifest on the
 5 focus constituent itself and appears to be special to West Chadic. It was sug-
 6 gested that this remarkable pattern, which is not predicted by Selkirk's projec-
 7 tion rules, results from the interaction of an IS-constraint requiring grammatical
 8 focus marking *on or as close as possible* to the focus constituent, on the one
 9 hand, and a general structural constraint blocking the insertion of inherently
 10 adnominal focus markers on verbal categories, on the other. From a crossling-
 11 uistic perspective, it will be interesting to see whether other languages impose
 12 comparable categorial restrictions on their respective prosodic, morphological,
 13 or syntactic focus markers.

14

15

16 5. Theoretical implications and conclusion

17

18 The discussion of focus and the realization of focus in West Chadic have deliv-
 19 ered the following results.

20 First, we observed wide crosslinguistic variation in the grammatical expres-
 21 sion of focus, even across closely related languages. West Chadic languages
 22 realize focus by a variety of means, making use of syntactic, prosodic, and
 23 morphological strategies, or combinations of these. It follows that the gram-
 24 matical realization of focus in West Chadic does not qualify as a characteristic
 25 property of the language group as a whole.

26 Second, there are two pragmatic types of focus, *information focus* and *con-*
 27 *trastive focus*, which do not differ in their underlying semantics, but which
 28 differ in terms of their grammatical realization. The assumption of a shared
 29 underlying semantics of information focus and contrastive focus as involving
 30 alternatives is supported by Gürüntùm, which marks both focus types in the
 31 same way, namely by inserting a morphological focus marker. The pragmatic
 32 difference between information focus and contrastive focus is witnessed by the
 33 fact that the languages under discussion make a categorial distinction when it
 34 comes to the realization of both focus types on *nonsubjects*. Information focus
 35 on nonsubjects is typically not explicitly marked in the grammar, but will
 36 be contextually resolved instead. By contrast, the special discourse-semantic
 37 function of contrastive focus requires explicit grammatical marking, in line
 38 with the *Contrastive Focus Hypothesis*. It is worthwhile stressing again that
 39 the notion of contrast used here differs in important ways from the one that is
 40 typically found in the literature: Contrastive focus on a constituent does not so
 41 much signal the exclusion of alternative semantic values for this constituent,
 42 but rather marks the meaning or the focus status of the constituent as unexpected

1 for the hearer, and hence as potentially controversial. It was also shown that
2 there is not so much a correlation between a designated syntactic position and
3 a marked contrastive focus interpretation per se, but more generally between
4 a marked, i.e., noncanonical, syntactic, prosodic, or morphological realization,
5 and a marked interpretation of focus as contrastive. This makes the special
6 discourse-semantic properties of *ex situ* foci, which have met with a lot of
7 attention in the syntactic literature, come out as a special subcase of the more
8 general pattern.

9 Third, three of the four languages discussed exhibit an interesting subject/
10 nonsubject asymmetry when it comes to focus realization. Unlike focused non-
11 subjects, focused subjects must be grammatically marked as such, whether or
12 not they occur in answers to *wh*-questions or as contrastive foci. According to
13 the picture developed here, the special status of subjects with regard to focus
14 realization follows from the fact that the West Chadic SVO-languages encode
15 the topic-comment distinction in their grammatical systems, where the subject
16 in preverbal position functions as the default topic of the utterance. It follows
17 that focused subjects, which do not serve this default function, require extra
18 marking in order to facilitate discourse integration and information update.
19 Focused subjects in West Chadic are thus generally contrastive in the sense that
20 their discourse-semantic function as focus is taken to be unexpected by the
21 hearer. Since focused subjects are contrastive by definition in West Chadic,
22 the Contrastive Focus Hypothesis correctly predicts them to be mandatorily
23 marked as such, which is borne out by the facts. Finally, notice that the special
24 status of focused subjects is not restricted to West Chadic, but has been ob-
25 served for other West African languages (Fiedler et al. 2010), for Northern
26 Sotho (Zerbian 2006, 2007), and also for Romance languages like (Quebecois)
27 French, where focus on subjects typically induces clefting, irrespective of
28 focus type; see Lambrecht (2001) and Skopeteas and Fanselow (2009) on
29 European French and Quebecois French, respectively. This suggests that the
30 special behavior of focused subjects is a widespread phenomenon in natural
31 languages, and future crosslinguistic studies of focus should hence pay par-
32 ticular attention to the existence of subject/nonsubject asymmetries.

33 Fourth, the frequent absence of explicit focus realization in the West Chadic
34 languages discussed shows that focus is heavily underdetermined by the
35 grammatical systems of these languages. In light of this, West Chadic lan-
36 guages provide strong empirical support for a pragmatic view of focus as an
37 information-structural category, which *may* be grammatically marked under
38 certain circumstances, but which is in dire need of contextual resolution. The
39 underdetermination of focus can come about in different ways. First, informa-
40 tion focus need not be grammatically marked on nonsubject constituents that
41 form part of the comment. Apparently, the focus potential of such constituents
42 is sufficiently licensed by their positioning inside the (vP-) comment part of the

1 clause. Second, there are general structural constraints on the grammatical op-
 2 erations required for focus marking, namely syntactic A'-movement in Hausa,
 3 the insertion of morphological markers in Bole and Gürüntüm, or the insertion
 4 of prosodic boundaries in Tangale. To be concrete, A'-movement can only tar-
 5 get maximal projections, and morphological markers cannot be inserted inside
 6 complex DPs. Finally, morphological and prosodic focus markers are often
 7 subject to categorial restrictions, as is the case in Tangale and Gürüntüm, which
 8 do not allow for explicit focus marking on verbal categories. As a result of this,
 9 narrow verb focus must be expressed on the following object DP, giving rise to
 10 a focus ambiguity that is not attested in intonation languages, and which is not
 11 predicted to exist on standard accounts of focus and focus realization. More
 12 generally, the observed focus ambiguity between V_F and O_F argues for an anal-
 13 ysis of focus ambiguity as resulting from the interaction of conflicting con-
 14 straints; see also Büring (2001) and Büring and Gutierrez-Bravo (2001) for
 15 proposals along the same lines. This weakens the theoretical status of Selkirk's
 16 (1984, 1995) *focus projection rules* as the central means of mediating between
 17 the focus domain and its grammatical realization in natural languages, in gen-
 18 eral, but also in intonation languages such as German and English, for which
 19 the empirical adequacy of these rules has been independently questioned by
 20 Schwarzschild (1999) and Büring (2006).

21 It is hoped that the foregoing observations on focusing in West Chadic will
 22 have an impact on the crosslinguistic study of focus and focus realization, as
 23 well as on the theoretical analysis of these phenomena.

24
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27
 28
 29 **Notes**

- 30
 31
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- 1 1. All-new clauses in this sense may still manifest a *topic-comment* structure, and are thus not
2 to be confused withthetic statements, which are used to present situations or scenes as inte-
3 grated wholes; see Sasse (1987).
4 2. Of course, more practical considerations such as the availability of native speakers of the
5 respective languages played a role as well.
6 3. The approach to contrastive focus advocated here is related to Lambrecht's (1994: 290)
7 discourse-semantic characterization of *contrastiveness* in terms of context-based inferences:
8 "contrastiveness [...] arises from particular inferences, which we draw on the basis of
9 given conversational contexts."
10 4. Often, the use of a marked structure with contrastive focus comes with additional semantic
11 effects, such as exhaustiveness implicatures, corresponding to the semantic effect of *only*, or
12 relative likelihood, corresponding to the semantic effect of *even*, respectively. Crucially,
13 these semantic notions are not directly encoded in the contrastive focus structure, but come
14 about as generalized conversational implicatures: They are generated on the side of the hearer
15 in response to the use of a noncanonical form on the side of the speaker.
16 5. The central interpretive function of a sentence containing a contrastive topic and a focus, as
17 discussed in Büring (1997), consists in providing information concerning the *pairing* of a list
18 of already established (\approx old) discourse referents, invoked by the contrastive topic, and some
19 (new) properties, which are invoked by the focus constituent, contrastive or not. This ac-
20 counts for why nonspecific indefinites and quantifiers, which by definition introduce new or
21 no discourse referents, never qualify as topics, contrastive or not.
22 6. The following abbreviations are used in the glosses: AGR = agreement marker, COP = copula,
23 DEF = definite, F = feminine, FM = focus marker, FUT = future, IPF = imperfective, LOC =
24 locative, M = masculine, NOM = nominalizer, PERF = perfective, PERF.REL = relative perfective,
25 PL = plural, PROG = progressive, PROG.REL = relative progressive, PRT = particle, REL = relative
26 marker, SG = singular, VPF = ventive perfect.
27 7. Other prosodic processes that are blocked before ϕ -boundaries, and which can therefore be
28 taken as diagnostics for them, are *right-line delinking*, *p-lowering* from H to L, and *final*
29 *decontouring* (Kidda 1993). The process of final decontouring (FD) simplifies falling HL-
30 contour tones to simple H tones, except before prosodic boundaries: HL X) ϕ \rightarrow HHX) ϕ . The
31 nonapplication of FD in pre-boundary position is illustrated in (9), where the HL-contour
32 tone is not reduced to a simple H tone before the) ϕ -boundary preceding the focus constituent.
33 8. In addition, the presence of ϕ -boundaries is frequently marked by the absence of High Tone
34 Spreading (or Low Tone Raising); see Schuh and Gimba (2005) for a detailed discussion.
35 9. As pointed out by Gimba (2005), the background marker *yé* can apply at various syntactic
36 levels. If it applies at the DP-level, it marks the DP-denotation as definite or aforementioned.
37 10. Unlike in (15bA), where the sentence-final *yé* could also be analyzed as a marker of definite-
38 ness on the preceding NP *kori* 'farm' (see Note 9), the background marking nature of *yé* is
39 quite clear in (16A), since the temporal adverb *nzòno* 'tomorrow' does not take a definite
40 determiner in other environments, such as, for instance, in the all-new sentence in (i):
41 (i) *Léngi kàpp-ák mórdò nzòno*
42 Léngi plant-PERF.F. millet yesterday
43 'Lengi planted millet yesterday.'
44 11. Interestingly, the subject of the added clauses, *tiju*, need not be focus inverted although it
45 appears to function as the associate of the additive particle *takjin*. This is consistent with
46 findings for other Chadic languages, such as Bura (Hartmann and Zimmermann 2008) and
47 Ngamo (Grubic and Zimmermann, to appear), where additive particles cannot associate with
48 focused constituents either. See Grubic and Zimmermann (to appear) for a theoretical ac-
49 count of these patterns according to which additive particles associate only freely with focus

- 1 in the sense of Beaver and Clark (2008). As a result, the apparent association of additive
 2 particles with subjects can be either analyzed as an instance of free association with senten-
 3 tial focus and a given VP, or else as association with a given VP in a topic-focus configuration
 4 à la Büring (1997).
- 5 12. As pointed out by an anonymous reviewer, postposing of focused subjects is restricted geo-
 6 graphically to a strip of languages along the eastern edge of West Chadic which, moreover,
 7 do not comprise a genetic subgroup. Bade, Ngizim, and Duwai, for instance, form a subgroup
 8 with North Bauchi languages, which do *not* postpose focused subjects. Likewise, Kanakuru,
 9 Bole, and Tangale form a subgroup with Kirfi, Gera, and other languages to the West, which
 10 also do not do this.
- 11 13. Interestingly, this morphological marker cannot occur with focused nonsubjects in Duwai,
 12 Ngizim and Bade, unlike in Bole, where its presence is optional and indicates contrastive
 13 focus; see Section 3.
- 14 14. A reason for the *ex situ* occurrence of nonsubject information foci in answers to *wh*-questions
 15 could be that there are additional well-formedness constraints on discourse, such as, e.g., a
 16 structural parallelism constraint on questions and answers: Since *wh*-expressions in Hausa
 17 are generally realized *ex situ* (Newman 2000, Jaggar 2001, 2006), structural parallelism
 18 would license the optional *ex situ* realization of plain information foci in answers as well.
- 19 15. Leben et al. (1989) identify three such processes: *Low raising* raises the L-tone in an HLH-
 20 sequence and is blocked by prosodic phrase boundaries. *High raising* raises the second
 21 H-tone in an HHL-sequence and is also blocked by prosodic boundaries. *High Base Value*
 22 *Resetting*, in contrast, only applies at prosodic boundaries and resets the pitch of the first H
 23 tone in a prosodic phrase independently of the pitch of the preceding H tone.
- 24 16. The tight link between IS-prominence and prosodic prominence has been formally imple-
 25 mented by means of constraints like *FOCUSPROMINENCE* (Büring 2001, 2010, Selkirk 2004), ac-
 26 cording to which focus is maximally prominent, or Schwarzschild's (1999) *FOC*, according to
 27 which a focus-marked phrase contains an accent. For an early reference see Jackendoff (1972),
 28 according to whom the strongest stress in the sentence has fall within the constituent marked F.
- 29 17. A uniform grammatical licensing mechanism of marked and unmarked foci might, for instance,
 30 involve a notion of *relative* or *positional* prominence, similar to what is found in some Bantu
 31 languages (Kanerva 1990, Kula 2008), and according to which nonsubject constituents in
 32 SVO-languages are licensed by default in their base-generated position towards the right
 33 edge of the clause. For Hausa and Bole, such a uniform focus rule could take the form in (i):
- 34 (i) A focused constituent α , or (if α is a syntactic head) the XP immediately dominating α ,
 35 must be right-aligned with the edge of some prosodic phrase boundary ϕ .

36 Assuming, first, that left-dislocated material is mapped onto a ϕ -phrase of its own, second,
 37 that the first right ϕ -boundary must come after the verb, and third, that V and O must never
 38 be separated by a ϕ -boundary, the major facts concerning the realization of focus in Hausa
 39 and Bole fall out directly: Nonsubjects are licensed *in situ* (as they can be followed by
 40 a ϕ -boundary; left-dislocated foci in Hausa are licensed because they are followed by a
 41 ϕ -boundary; focused subjects in Hausa must vacuously move to the left and focus subjects in
 42 Bole must invert for subjects cannot be followed by a ϕ -boundary in their default position
 immediately preceding the verb.

While this approach in terms of prosodic alignment is attractive, it is not entirely free of
 problems. To begin with, it is not clear whether ϕ can be consistently identified with the
 intermediate level of *phonological phrases*, or rather with the higher level of *intonation*
phrases. Likewise, it is not clear whether *in situ* foci are always right aligned with a
 ϕ -boundary at the relevant level when followed by additional material. Finally, a syntax-
 prosody correspondence rule, such as (i), needs to be grounded in a comprehensive prosodic

1 analysis of Hausa and Bole sentences, which is lacking so far; apart from Leben et al. (1989),
 2 see also Miller and Tench (1980, 1982) and Inkelas et al. (1990) on Hausa prosody, and
 3 Schuh and Gimba (2005) and Schuh et al. (2010) on prosodic aspects of Bole. A thorough
 4 discussion of uniform focus licensing in Hausa and Bole would thus go well beyond the
 scope of this article and is hence deferred to future research.

- 5 18. Concerning the possibility of (optional) prosodic focus marking in these language, Russell
 6 Schuh (p.c.) comes to the conclusion — based on recordings — that there is no prosodic
 7 marking of focus at least in Ngizim, and almost certainly not in Bade and Duwai either. As
 8 pointed out by Russell Schuh (p.c.), though, Bole and Ngizim provide some (weak) indirect
 9 evidence for the presence of narrow information focus on nonsubjects: Whenever a non-sub-
 10 ject constituent is narrowly focused, it is impossible to have auxiliary focus marking in form
 11 of a morphological totality marker on the verb, even with those verbs that regularly take the
 totality marker in all-new clauses.
- 12 19. Crucially, all the other corpus instances of nominalized verbs before *wh*-objects in progres-
 13 sive clauses exhibit vowel elision, too. Apart from two other instances of object *wh*-questions
 14 with the verb *yaaz(i)* ‘doing’, there are two further instances with the verb *uz(ei)* ‘crying for’,
 15 showing that vowel elision in (29) is not triggered by an idiosyncratic property of the dever-
 16 bal noun *yaazi*. Conversely, vowel elision is never attested with perfective verbs preceding
 a questioned constituent in the corpus, in full parallel with the observations from the main
 text.
- 17 20. This claim is at odds with observations in Kidida (1993: 127), according to which VE in
 18 imperfective clauses is blocked before focused (questioned) objects, same as in the perfect-
 19 ive. However, since the elicited data in (31) are backed up by the corpus data in (29), I will
 20 assume that focus on nonsubjects is not realized in the imperfective aspect, at least in some
 21 dialects of Tangale, delegating the issue to further research.
- 22 21. This pattern is widespread in West Chadic. See Schuh (1982) on parallel facts in Duwai,
 Ngizim, and Bade.
- 23 22. The reason for keeping the syntactic structure in (36a) apart from the information-structural
 24 configuration in (36b) is that the canonical preverbal subject position can also be occupied
 25 by nonreferring expressions, such as the non-specific indefinite DPs in (iab) from Tangale,
 26 which do not qualify as sentence topics:

- 27 (i) a. Mu tayu-g Binta.
 28 person greet-PERF Binta
 29 ‘Someone greeted Binta.’
 30 b. Mu tayu-g Binta-m.
 31 person greet-PERF Binta-NEG
 32 ‘Nobody greeted Binta.’

33 The grammaticality of nontopical expressions in the preverbal subject position shows that
 34 the information-structural category of topic is not directly coded in the syntactic structure of
 35 West Chadic. Because of this, the default mapping procedure from preverbal subject to topic
 36 referred to in the main text is applicable only to a (significant) subset of preverbal subject
 37 expressions, namely to referential subject expressions, such as proper names, definite des-
 38 criptions, and kind terms, all of which denote into D_e , the type of referential entities; cf. also
 39 Skopeteas and Verhoeven (2009) for similar findings on Yucatec Maya (Mesoamerican).
 40 Alternatively, one might also consider the possibility, based on the observation that nonspe-
 41 cific indefinite subjects in preverbal position must be interpreted in the scope of negation, cf.
 42 (ib), that nonreferring subjects must reconstruct at LF, such that the remaining referential
 preverbal subjects can be consistently interpreted as topics at LF. Either way, as argued above,
 the filling of the preverbal subject position with (nonfocused) subjects seems conditioned by

1 grammatical factors, such as agreement or the presence of EPP-features in Spec,TP, and not
2 by IS-factors.

3 23. Also see Frazier (1999) for psycholinguistic evidence concerning the status of subjects as
4 default topics.

5 24. For instance, the noncanonical realization of the object in sentence-initial position in the
6 Tangale OVS-sentence (34A) indicates its unexpected topic status, since objects — same as
7 other nonsubjects — typically form part of the comment. Likewise, the obligatory presence
8 of the VP-final morphological markers with (inverted) focused subjects in Bole, Duwai,
9 Ngizim, and Bade in (12) and (18) to (20) above seems to be required for marking the unex-
10 pected information-structural status of the VP, which typically constitutes new information,
11 as backgrounded (or topical). The semantic analysis of these markers as background or topic
12 markers of the event denoted by the VP squares well with their diachronic origin as definite
13 determiners (Schuh 2005).

14 More generally, the fact that the West Chadic languages under discussion employ different
15 formal means for indicating unexpected subject foci (inversion), unexpected nonsubject
16 topics (left dislocation), and unexpected background/topical VPs (morphological marking),
17 respectively, shows that there are no all-purpose markers of contrast in these languages,
18 where contrast is understood as relating to *any* kind of unexpected IS-partitioning. Leaving
19 open the possibility that other languages may exhibit a general marking of contrast, inde-
20 pendent of focus or topic (see, e.g., Vallduvi and Vilkuna (1998) on Finnish, and Neeleman
21 and Titov (2009) on Russian), I am only concerned with the formal marking of contrastive
22 (= unexpected) focus constituents and focus denotations in West Chadic.

23 25. In technical terms, Aboh (2007) assumes a competition between an EPP-feature and a formal
24 focus feature in the case of focused subjects. Assuming that the EPP-feature is checked in the
25 canonical preverbal subject position in the languages under discussion, the different behavior
26 of focused [-EPP] subjects and nonfocused [+EPP] preverbal subjects follows directly. More-
27 over, the fact that the preverbal subject position can be occupied by nontopics, see Note 22,
28 suggests that the presence of an EPP-feature does not necessarily imply topicality, pace Rizzi
29 and Shlonsky (2007), but that this implication only holds for the specific case of referring
30 subject expressions.

31 26. This look-up procedure would inevitably fail with all instances of nonactivated new informa-
32 tion subject foci, which do not denote into the set of salient (activated) entities under debate
33 at the current discourse stage, from which the sentence topic must be selected.

34 27. Notice that the present proposal leaves open the possibility for corrective foci to be realized
35 *in situ*. This is possible whenever a corrective focus is pragmatically unmarked in the sense
36 that a correction is expected. Such cases do indeed exist in the corpus, as shown by the fol-
37 lowing bargaining exchange discussed in Zimmermann (2008).

- 38 (i) A: You will pay 20 Naira.
39 B: *A'a, zā-n biyaa shā biyar nēe*
40 no FUT-1SG pay fifteen PRT
41 'No, I will pay FIFTEEN.'

42 Since corrections of the price are the norm in bargaining situations, they can be taken to be
43 expected, hence pragmatically unmarked, and hence not in need of grammatical marking.
44 The existence of apparent counterexamples thus turns out to provide additional support for
45 the analysis proposed.

46 Applying the same logic to other discourse contexts, one would expect corrective foci
47 in negative answers to biased negative *Yes/No*-questions, as in (iia), to be (preferably)
48 unmarked, whereas they should be marked in negative answers to positive *Yes/No*-questions
49 with additional focus marking, as in (iib).

- 1 (ii) a. Q: Didn't Mary invite JOHN?
 2 A: No, she invited BILL.
 3 b. Q: Did Mary invite JOHN?
 4 A: No, she invited BILL.

5 Hopefully, future research will show whether these predictions are indeed borne out.

- 6 28. The subject/nonsubject asymmetry observable with this focus-marking strategy does not
 7 constitute a violation of the FMI in (38), given that the implication relation is relativized to
 8 grammatical categories, and assuming that the clefting strategy is illicit for subject foci for
 9 general structural reasons, same as in other Chadic languages; cf., e.g., Hartmann and Zim-
 10 mermann (2010) for a thorough discussion of parallel facts in Bura (Central Chadic).
 11 29. Zimmermann (2006a) shows that these different focus readings actually exist, as they play a
 12 crucial role in the association of foci with adverbial quantifiers.
 13 30. It is possible that the absence of DP-internal *yé*-markers in Bole is due to prosodic factors.
 14 Recall that *yé* is prosodically restricted to occur at the right edge of phonological phrases.
 15 Now, if Bole resembled Tangale in that phonological phrase boundaries cannot be inserted
 16 inside DPs, the ban on DP-internal *yé* would follow directly.
 17 31. The following pitch tracks show the F0-contours of single recordings by a single speaker and
 18 are shown for illustrative purposes only. We will have to leave it open whether the F0-breaks
 19 before the objects in Figs. 7 and 9 and the slightly different shape of the F0-contour in Figs.
 20 7 and 9 vs. Fig. 8 are significant and perceptually salient.
 21 32. In Hartmann and Zimmermann (2009), the relevant constraint is recast as (i) in order to
 22 account for the fact that [-nominal] PPs can be focus marked as well.
 23 (i) *FocV: No focus marking on verbal categories.
 24 33. Unless the realization of focus is blocked by independent grammatical factors, as is the case
 25 in Tangale imperfective sentences; see Section 3.2.
 26 34. The structural dependency of the morphological focus marker *a* on a nominal constituent in
 27 Gùrùntùm is evidenced by the fact that it cannot occur when the object complement is left
 28 implicit, as shown in (ia) and (ib); see Hartmann and Zimmermann (2009) for additional
 29 discussion.

- 30 (i) Gùrùntùm
 31 Q: What is he doing to the car?
 32 a. A: Tí bà krí /# kr-á
 33 3SG PROG repair repair-FOC
 34 'He is repairing it.'
 35 b. A: Tí bà kr-á dúsó-i
 36 3SG PROG repair-FOC car-DEF
 37 'He is repairing the car.'

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