

Pronominal F-markers in Basaá*

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1. Introduction

We argue that F(ocus)-markers—often treated as syntactic diacritics or features marking the locus of alternative denotations—can be spelled out as pronouns. The evidence comes from Basaá (Bantu, A43) cleft-like constructions, in which certain types of movement to the left periphery are obligatorily accompanied by what we call a “left-peripheral pronoun” (LP). We first present evidence that LPs occur if and only if the fronted constituent is interpreted contrastively. Following Rooth’s (1985) proposal that F-markers activate contrasting denotations, we then capture the generalization by analyzing the LP as the spell-out of an F-marker. The technical implementation follows the spirit of Kratzer 1991, in which F-markers are a special type of variable. In our analysis these variables are literally spelled out as pronouns. LPs are thus closely related to Beck’s (2006) *wh*-words in that they contribute only to the focus semantic value, creating a non-trivial set of alternatives that can be accessed by focus-sensitive operators.

At a more general level, this paper supports the idea that F-markers are essentially variables. While Kratzer (1991) and Wold (1996) provided semantic evidence, we hope to provide morphological evidence for this position.

2. Background: Focus-marking and pronouns in Basaá

Basaá¹ has a default SVO word order, two main lexical tones (high ‘V́’, low ‘V’), two contour tones (high-low ‘V̂’, low-high ‘Ṽ’), and 19 noun classes (Bassong 2010). The

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¹Basaá is an Equatorial Bantu language (A43) spoken in the Littoral and Center regions of Cameroon. Existing (mostly descriptive) work on Basaá includes Kody 1990; Hyman et al. 2012; and Bassong 2010.

Basaá verbal complex has the (abbreviated) shape [subject marker - tense - verbal root]. The subject marker prefix encodes class agreement with the subject, and the tense prefix marks past (distant, recent, or immediate), future (immediate or distant), or present.²

- (1) a. malêṭ **a-** **bí-** **tí** báúdí bikaat
 1.teacher 1.SM- PST2- give 2.students 8.books
 ‘The teacher gave the books to the students (~yesterday to two weeks ago).’
 b. báúdí **bá-** **gá-** **tí** málêṭ bikaat
 2.students 2.SM- FUT2- give 1.teacher 8.books
 ‘The students will give the books to the teacher (in the non-immediate future).’
- (2) a. síngá **i-** **n-** **jé** mákòndò
 9.cat 9.SM- PST1- eat 6.plantains
 ‘The cat ate plantains (just now).’
 b. makòndò **má-** **n-** **jé -bá** ni síngá
 6.plantains 6.SM- PST1- eat -PASS by 9.cat
 ‘Plantains were eaten by the cat.’

Each noun class has a unique pronominal form. For many noun classes, subject markers share phonological traits with full DPs of the same class (see, e.g. (4)).

- (3) a. Hiol a- bí- téhé { málêṭ / **nyé** }
 1.H. 1.SM- PST2- see 1.teacher / 1.him/her
 ‘Hiol saw the teacher / him/her.’
 b. Hiol a- bí- téhé { bálêṭ / **ḡó** }
 1.H. 1.SM- PST2- see 2.teachers / 2.them
 ‘Hiol saw the teachers / them.’
- (4) a. { hikálá / **hjó** / \emptyset } hí- bí- kògòó míntómbá
 19.fly / 19.it / *pro* 19.SM- PST2- bite 4.sheep
 ‘A fly bit the sheep.’
 b. { dikálá / **tjó** / \emptyset } dí- bí- kògòó míntómbá
 13.flies / 13.they / *pro* 13.SM- PST2- bite 4.sheep
 ‘Flies bit the sheep.’

Focus can be marked on a DP by what we call an “-*n*-cleft,” illustrated in (5) (see also Bassong 2010; Hamlaoui & Makasso 2013). Similar to focus constructions in many languages, -*n*-clefts involve a constituent displaced to a left-peripheral position, and additional

Bassong (2010) discusses some of the patterns that we consider in this paper, though he is concerned mostly with their syntactic analyses.

²We follow Bassong’s (2010) transcription conventions, which mixes IPA with English spelling conventions: proper names are capitalized; ⟨j⟩=[tʃ]; ⟨ny⟩=[ɲ]; ⟨y⟩=[j]. The following glosses are used: FUT2 = near future; GEN = genitive; INF = infinitive; LOC = locative; numeral *n* = noun class *n*; OBL = oblique; PASS = passive; PRS = present tense; PST1 = immediate past; PST2 = recent past; SM = subject marker.

focus-related morphology. In Basaá, however, the morphology consists of what appears to be a pronominal element—for class 1, *nyé* (cf. (3-a))—and the suffix *-n*.³

- (5) Q: *njéé Kondé a- bí- ɓɔma?*
 1.who 1.K. 1.SM- PST2- meet
 ‘Who did Konde meet?’
 A: **Lísúk nyé -n** [*Kondé a- bí- ɓɔma*]
 1.L. 1.him -N 1.K. 1.SM- PST2- meet
 ‘It was Lisuk who Konde met.’ **(object focus -n-cleft)**
- (6) Q: *njéé a- bí- ɓɔmá Lísúk?*
 1.who 1.SM- PST2- meet 1.L.
 ‘Who met Lisuk?’
 A: **Kondé nyé -n** [*a- bí- ɓɔmá Lísúk*]
 1.K. 1.him -N 1.SM- PST2- meet 1.L.
 ‘It was Konde who met Lisuk.’ **(subject focus -n-cleft)**

The class of the extracted DP must match the class of the pronoun attached to *-n*.⁴

- (7) *ɲgwó {*nyé / *gwé / yɔ} -n* [*Paul a- bí- sómɓ*]
 9.dog 1.him / 8.them / 9.it -N 1.P. 1.SM P2- buy
 ‘It was a dog that Paul bought.’ **(class agreement in -n-clefts)**

Both the complex *nyé-n* and the focused constituent must appear at the left edge of the sentence, shown for object *-n*-clefting in (8).

- (8) a. **Kondé a- bí- ɓɔmá Lísúk nyé -n*
 1.K. 1.SM- PST2- meet 1.L. 1.him -N
 b. **nyé -n* [*Kondé a- bí- ɓɔmá Lísúk*]
 1.him -N 1.K. 1.SM- PST2- meet 1.L.
 Intended: ‘It was Lisuk who Konde met.’ **(-n-clefts are left-peripheral)**

In a question-answer paradigm, *-n*-clefting imposes an exhaustive interpretation on the focus ((9)).⁵ The answer in (9) implies (understood neutrally w.r.t. assertion/presupposition/implicature status) that the background (here, having been seen by the parents) holds of no individual other than the one denoted by the fronted DP (here, *Kondé*).

- (9) *Who did the parents see?*
Kondé nyé -n ɓa- n- téhé
 1.K. 1.him -N 2.SM- PST1- see
 ‘It was Konde they saw.’

³In a question-answer paradigm like (5)-(6), focus need not be syntactically marked (except subject focus for some speakers; see also Fiedler et al. 2009); i.e. the unmarked sentence *Kondé a-bí-ɓɔma Lísúk* ‘Konde met Lisuk’ is a possible answer to (5). We have no evidence of intonational focus marking on in situ foci.

⁴We will only discuss DP-fronting in this paper. Verb-fronting is a morphosyntactically more complex phenomenon involving nominalization and doubling of the verb; see Bassong (2010, 2012) for details.

⁵Bassong (2012) notes that subject *-n*-clefts are also compatible with a clausal focus interpretation; see Collins & Essizewa 2007 for similar focus-syntax mismatches.

- #... bá- n- téhé yak Hiol
 2.SM- PST1- see also 1.H.
 ‘... They also saw Hiol.’ **(-n-clefts have exhaustive implication)**

This pattern is observed for English *it*-clefts as well, but not for intonational focus, suggesting that *-n*-clefts and *it*-clefts have a similar semantics (underlining marks nuclear stress).

- (10) *Who did the parents see?*
 a. They saw Konde. . . They also saw Hiol.
 b. #It was Konde who they saw. . . They also saw Hiol.

3. A family of cleft-like constructions in Basaá

Basaá has a number of left-peripheral constructions that share morphosyntactic properties with *-n*-clefts, three of which we introduce here. We label them “*-k*-clefts,” “C(contrastive) T(opic)-fronting,” and “T(opic)-fronting.”

- (11) a. Hiol **nyé -n** balêt bá- bí- náŋâ
 1.H. 1.him -N 2.teachers 2.SM- PST2- invite
 ‘It was Hiol that the teachers invited.’ **(-n-clefting: LP-n)**
- b. Hiol **nyé -k**, balêt bá- bí- náŋá **nyé**
 1.H. 1.him -K 2.teachers 2.SM- PST2- invite 1.him
 ‘The teachers invited Hiol, too.’ **(-k-clefting: LP-k, RP)**
- c. Hiol **nyé**, balêt bá- bí- náŋá **nyé**
 1.H. 1.him 2.teachers 2.SM- PST2- invite 1.him
 ‘Hiol, the teachers invited.’ **(CT-fronting: LP, RP)**
- d. Hiol, balêt bá- bí- náŋá **nyé**
 1.H. 2.teachers 2.SM- PST2- invite 1.him
 ‘As for Hiol, the teachers invited him.’ **(T-fronting: RP)**

-k-clefts involve a LP with the suffix *-k*, which means roughly *also*. *-k*-clefts differ from *-n*-clefts in that a resumptive pronoun (RP) occurs in the base position of the fronted element, which, like the LP, agrees in class with the fronted DP. An additional difference from *-n*-clefting is the presence of an intonational break after *-k* (indicated by a comma). (12) has the implication that the parents saw somebody other than Hiol; hence (12-a), which satisfies this implication, is a possible context for (12), whereas (12-b) is not; i.e. (12) is a felicitous continuation of (12-a) but not (12-b).

- (12) Hiol **nyé-k**, ba-n-téhé **nyé** a. ✓ *The parents saw Konde...*
 1.H. 1.him-K 2.SM-P1-see 1.him b. ✗ *The parents didn’t see Konde...*
 ‘They saw Hiol, too.’ **(additive implication of -k-clefts)**

T(opic)-Fronting is structurally similar to *-k*-clefting in that it involves an intonational break after the fronted item and a RP, but it does not involve a LP. This construction can be used when the fronted constituent is discourse-familiar and has a topical status, but not as an answer to constituent questions.

- (13) Hiol, bá- bí- náŋâ nyé a. ✓ *What about Hiol?*
 1.H. 2.SM- PST2- invite 1.him b. ✗ *Who did they invite?*
 ‘As for Hiol, they invited him.’ (T-fronting sim. to topicalization)

The last construction of our paradigm is **C(ontrastive)-T(opic)-Fronting**, which involves a LP without a suffix, an intonational break, and a RP. It can be used in a context like (14), where the fronted constituent has a contrastive and topical status at the same time. In (14), both the fronted topic and what is predicated of it is contrasted; in such a context, a contrastive-topic-accent as described e.g. by Büring (2003) would be used in English.

- (14) *The students had bananas, rice, and books. They kept the bananas and rice, but...*
 bikaat gwó, baúdú bá- n- tí gwó malêt
 8.books 8.them 2.students 2.SM- PST1- give 8.them 1.teacher
 ‘As for the books, the students have given them to the teacher.’
 (CT-fronting compatible with contrastive topic context)

A summary of the presented paradigm is provided in Table 1. That a connection between the presence of a RP and a topical interpretation is observed is not unusual across languages (see e.g. Rizzi 1997 for Italian), and we have nothing new to add to this issue. In the remainder of the paper, we will focus on the connection between the presence of a left-peripheral pronoun and contrastivity, arguing that it lends support to the view that alternative-generating F-markers should be analyzed as indices/variables, as proposed by Kratzer (1991). Combined with the standard analysis of (referential) pronouns as indices, it should come as no surprise that in some languages a pronoun should occur specifically in constructions that involve contrastivity, i.e. reference to alternatives, as we indeed observe in this Basaá paradigm.

Table 1: Summary of the paradigm

	<i>-n</i> -cleft	<i>-k</i> -cleft	T-fronting	CT-fronting	Meaning effect
LP	✓	✓	✗	✓	CONTRAST
<i>-n/-k</i>	✓	✓	✗	✗	EXTRA IMPLICATION
RP	✗	✓	✓	✓	TOPICHOOD

4. Analysis

4.1 The theory of focus and “F-markers” in formal semantics

Rooth (1985, 1992) proposed that the syntactic “F-marker” diacritic, realized by nuclear stress in English, generates alternative denotations in the semantic representation. These alternatives can affect the implicatures of a sentence, and can affect truth conditions when in the scope of a focus-sensitive operator like *only* or *even*. Rooth’s framework is “two-dimensional” in that any structure containing a focused (F-marked) constituent receives two semantic values. The ordinary semantic value (given by $[[\cdot]]_o$) corresponds to the stan-

dard denotation, and the focus semantic value (given by $[[\cdot]]_f$) corresponds to the set of denotations obtained by replacing the denotation of the focused constituent by denotations of the same semantic type, ((15-b)) (underline marks nuclear stress; F is the syntactic focus-diacritics).

(15) John likes her. (Rooth 1985, 1992)

- a. $[[\text{John}_F \text{ likes her}_3]]_o^g = [[\text{John likes her}_3]]^g = \text{likes}'(\text{john}', g(3))$
 b. $[[\text{John}_F \text{ likes her}_3]]_f^g = \{\text{like}'(x, g(3)) \mid x \in D_e\}$

Kratzer (1991) argues that F-markers are a kind of variable attached to intonationally focused constituents—she calls them “distinguished” (or “designated”) variables and proposes that they are interpreted by “distinguished variable assignment functions.” The domain of distinguished assignments is disjoint from the domain of ordinary assignments, so that distinguished assignments only interpret focus indices, while ordinary assignments only interpret ordinary referential indices. The set of an expression’s focus alternatives is then derived by interpreting it relative to every distinguished assignment and collecting the values, largely equivalent to Rooth’s procedure; cf. (15-b), (16-b) (we use Wold’s (1996) notation).

(16) John likes her. (in the spirit of Kratzer 1991)

- a. $[[\text{John}_{F2} \text{ likes her}_3]]_o^g = [[\text{John likes her}_3]]^g = \text{likes}'(\text{john}', g(3))$
 b. $[[\text{John}_{F2} \text{ likes her}_3]]_f^g = \{[[\text{John}_{F2} \text{ likes her}_3]]^{g,h} \mid h \text{ is a dist. assignment}\}$
 $= \{\text{like}'(h(2), g(3)) \mid h \text{ is a dist. assignment}\} = \{\text{like}'(x, g(3)) \mid x \in D_e\}$

Kratzer’s motivation for treating F-markers as variables comes from cases like (17), whose most salient (if not only) interpretation is (17-a). Rooth’s system incorrectly predicts the nonexistent reading (17-b) as (17)’s sole interpretation.

(17) I only went to Tanglewood because you did [$_{VP}$ ~~go to Tanglewood~~].

- a. ‘I went to T.w. because you went to T.w. but there’s no other place that I went to (say Block Island) because you went to that place (i.e., to Block Island).’
 \iff If “I went to x because you went to x ” is true, then $x = \text{Tanglewood}$.
 b. ‘I went to T.w. because you went to T.w. but there’s no other place I went to (say B. Island) because you went to any other place (say to Elk Lake Lodge).’
 \iff If “I went to x because you went to y ” is true, then $x = y = \text{Tanglewood}$.

The crucial argument is that (17-a) can only be derived if there is no proposition in the focus semantic value of (17) in which the alternative denotation of *Tanglewood* is different in the antecedent and in the VP-ellipsis site. In other words, the alternative denotations of the two occurrences of *Tanglewood* always co-vary. This can be straightforwardly derived if the two foci are coindexed, which in turn can easily be achieved if foci involve (at some level of representation) indices/variables, as reflected in (17-a), (17-b).

In what follows, we propose an interpretation of the paradigm in (11) that constitutes morphological evidence that F-markers are variables. In particular, we argue that F-markers in Basaá can be spelled out as pronouns—expressions widely assumed to denote variables.

4.2 Analysis of Basaá fronting constructions

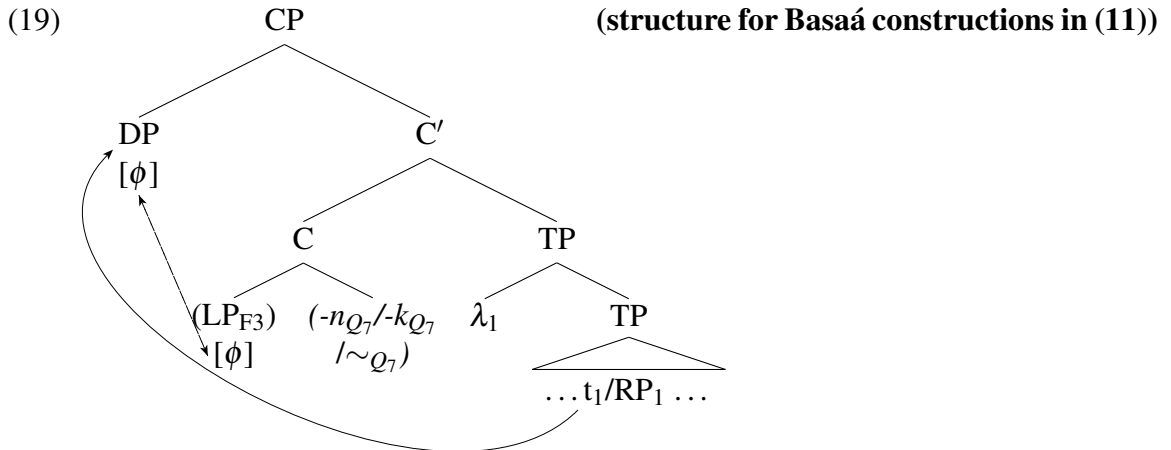
Here we present a formalization of our analysis of the Basaá fronting paradigm in (11). We propose that the left-peripheral pronoun present in *-n*-clefts, *-k*-clefts, and CT-fronting semantically contributes an indexed F-marker, and has no ordinary semantic value.⁶

- (18) a. $[[LP_{F3}]_o^g$ is not defined
 b. $[[LP_{F3}]_f^g = \{[[LP_{F3}]_f^{g,h} \mid h \text{ is a distinguished assignment}\}$
 $= \{h(3) \mid h \text{ is a distinguished assignment}\} = D_e$

The LP generates a non-trivial set of alternatives that is accessible to higher focus-sensitive operators. Recall that *-n*-clefts and *-k*-clefts have exhaustive and additive interpretations, respectively (see (9), (12)). We take this to suggest that it is the morphemes *-n* and *-k* that contribute these meaning components. In other words: the LP builds the focus alternatives, and the operators *-n* and *-k* use them to generate exhaustive and additive implications. Before presenting example derivations, we explain the necessary technical details.

Syntactically, we follow Bassong (2010) in assuming that the LP-suffix complex occupies a left-peripheral head position, and that the focused constituent has moved to its specifier.⁷ We generically label the head “C” to remain theory-neutral (cf. Bassong, who considers them to spell-out Rizziian 1997 Foc and Top heads), and concentrate instead on its semantic contribution.

The tree below provides the basic structural skeleton (LF) for the constructions in (11). Movement to the left periphery leaves behind a trace that is coindexed with a λ -abstractor inserted below the C head (as in quantifier raising), to whose specifier the DP moves. The fronted DP undergoes spec-head agreement with the LP (if present), the consequence of which is the appropriate class feature spelled out on the LP (\sim , Q explained below).



⁶Thus, the LP is closely related to wh-expressions as conceived of in Beck (2006). The only difference is that the alternative denotations contributed by the LP are not interpreted by a Q(uestion)-operator but rather by other types of focus-sensitive operators.

⁷Nothing crucial hinges on the latter assumption. With a minor modification, our analysis can be made compatible with a base-generation analysis, as in Hamlaoui & Makasso (2013).

We assume three focus-sensitive operators, which have the form of suffixes on the LP: *-n*, *-k*, and a category-specific⁸ variant of Rooth’s \sim (realized here as $-\emptyset$ in CT-fronting). The meanings of *-n* and *-k* are built upon the meaning of \sim . All three introduce a free variable (Q_7) which is mapped (by an ordinary assignment) to a set of propositions (which models a contextually salient question). This set is presupposed to be a subset of the focus alternatives;⁹ the presupposition is lexically introduced by \sim , following Rooth (1992:86/93).

$$(20) \quad \begin{aligned} \text{a.} \quad & \llbracket \text{LP}_{F3} \sim_{Q_7} \rrbracket_o^g \\ & = \lambda P. \lambda x : g(7) \subseteq \{P(\llbracket \text{LP}_{F3} \rrbracket^{g,h}) \mid h \text{ is a distinguished assignment}\}.P(x) \\ & = \lambda P. \lambda x : \underline{g(7) \subseteq \{P(h(3)) \mid h \text{ is a distinguished assignment}\}.P(x)} \\ & = \lambda P. \lambda x : \underline{g(7) \subseteq \{P(y) \mid y \in D_e\}.P(x)} \\ \text{b.} \quad & \llbracket \text{LP}_{F3} \sim_{Q_7} \rrbracket_f^g = \{\llbracket \text{LP}_{F3} \sim_{Q_7} \rrbracket_o^g\} \end{aligned}$$

In CT-fronting (e.g. (11-c)), we assume that the LP has an empty affix with the semantics of \sim , which reflects the “contrastive” status of CT-fronted DPs (illustrated in (14)). T-fronting, which lacks a LP, is predicted to have no contrastive nature. Below, we set aside the analysis of T- and CT-fronting, focusing instead on *-n*- and *-k*-clefts, which have more transparent semantic and information-structural properties.

***-n*-clefts:** The exhaustive implication of *-n* can be guaranteed by requiring that there be a unique proposition in the contextual set that is true ($\forall p$ says ‘*p* is true’). The idea is that the asserted proposition provides descriptive content to the proposition existentially introduced in the presupposition. In order to keep the semantics simple, we will assume (lacking any evidence for or against it) that this process is pragmatic in nature. The meaning of *-n* is built on top of \sim , as shown in (21) (“D.A.” for “distinguished assignment”):

$$(21) \quad \begin{aligned} \text{a.} \quad & \llbracket \text{LP}_{F3} -n_{Q_7} \rrbracket_o^g \\ & = \lambda P. \lambda x : g(7) \subseteq \{P(\llbracket \text{LP}_{F3} \rrbracket^{g,h}) \mid h \text{ is a D.A.}\} \wedge \exists! p. p \in g(7) \wedge \forall p. P(x) \\ & = \lambda P. \lambda x : \underline{g(7) \subseteq \{P(h(3)) \mid h \text{ is a D.A.}\} \wedge \exists! p. p \in g(7) \wedge \forall p. P(x)} \\ & = \lambda P. \lambda x : \underline{g(7) \subseteq \{P(y) \mid y \in D_e\} \wedge \exists! p. p \in g(7) \wedge \forall p. P(x)} \\ \text{b.} \quad & \llbracket \text{LP}_{F3} -n_{Q_7} \rrbracket_f^g = \{\llbracket \text{LP}_{F3} -n_{Q_7} \rrbracket_o^g\} \end{aligned}$$

The semantics of an *-n*-cleft such as (22-a) then has the LF in (22-b), the truth-conditions of which are computed in (23). The value of (22-a) is defined if there is a salient question ‘Who did Konde invite?’ (= $g(7)$) in the context and if exactly one answer to that question is true. If this presupposition is satisfied, the sentence is true iff Konde invited Hiol.

$$(22) \quad \begin{aligned} \text{a.} \quad & \text{Hiol } \mathbf{ny\acute{e}} \text{ -n Kond\acute{e} a- } \quad \text{b\acute{i}-} \quad \text{n\acute{a}j\acute{a}.} \\ & \text{1.H. 1.him -N 1.K. } \quad \text{1.SM- PST2- invite} \\ & \text{‘It was Hiol who Konde invited.’} \end{aligned}$$

⁸The operators are category-specific not only in that they are hosted by a C head but also in that they are only designed to deal with expressions of a particular semantic type—the focus is always of type *e*, its background $\langle e, t \rangle$, and the free variable Q , $\{\langle s, t \rangle\}$ (a shorthand for a set of $\langle s, t \rangle$ -type expressions).

⁹As is often done, we define the semantics of the focus-sensitive operators syncategorematically, i.e., rather than defining their own contribution, we define the contribution of their syntactic mother (Kratzer 1991, Rooth 1992, Beck 2006; among many others).

- (23) b. $[\text{CP Hiol} [\text{C}' [\text{C nyé}_{\text{F3}} \text{-n}_{\text{Q7}}] \lambda_1 [\text{TP Kondé a-bí-náŋâ t}_1]]]$
 a. $\llbracket \text{C}' \rrbracket_o^g = \mathbf{FA}((21\text{-a}))(\lambda x_1.\text{invited}'(\text{konde}', x_1))$
 $= \lambda x : g(7) \subseteq \{\text{invited}'(k', y') | y \in D_e\} \wedge \exists! p.p \in g(7) \wedge p.\text{invited}'(k', x')$
 b. $\llbracket \text{CP} \rrbracket_o^g = \llbracket \text{C}' \rrbracket_o^g(\text{hiol}')$
 $= g(7) \subseteq \{\text{invited}'(k', y') | y \in D_e\} \wedge \exists! p.p \in g(7) \wedge p.\text{invited}'(k', h')$
 c. **Presupposition:** Only one (relevant) proposition “Konde invited x ” is true.
Assertion: Konde invited Hiol.

At this point, nothing in the semantics guarantees that (22-a) has an exhaustive interpretation. However, the exhaustivity of (22-a) follows immediately from the pragmatic assumption that the proposition $\text{invited}'(k')(h')$ is in $g(7)$; this assumption is satisfied as long as the speaker is assumed to be following Grice’s maxim of relevance—the question under discussion here is $g(7)$ (‘Who did Konde invite?’), and since it is presupposed that there is only a single true answer to this question, and because the speaker is assumed to speak the truth (Grice’s maxim of quality), it follows that ‘Konde invited Hiol’ is true and that there is no other answer to ‘Who did Konde invite?’ that is true. In this way, strong exhaustivity is derived (see Horn 1981 for a similar analysis of exhaustivity in English *it*-clefts).

It is worth pointing out that this pragmatic reasoning together with the idea that focus-marking can be syntactically and semantically independent of the focus itself (i.e. the LP is a genuine linguistic unit, not just a diacritic) derives a strong exhaustive interpretation for the fronted constituent even without the focus-sensitive operator having compositional access to its semantic value.

-k-clefts: The additive implication of $-k$ can be captured in a similar way. In particular, $-k$ requires that there be at least one proposition in the contextual set that is in the common ground (at the time immediately preceding the utterance). Combined with an extra pragmatic step (below), additivity of $-k$ follows. We characterize the semantics of $-k$ in (24) (‘CG’ abbreviates ‘common ground’).

$$(24) \quad \llbracket \text{LP}_{\text{F3}} \text{-k}_{\text{Q7}} \rrbracket_o^g \\
= \lambda P.\lambda x : \frac{g(7) \subseteq \{P(h(3)) \mid h \text{ is a D.A.}\} \wedge \exists p.p \in g(7) \wedge p \in \text{CG}.P(x)}{g(7) \subseteq \{P(y) | y \in D_e\} \wedge \exists p.p \in g(7) \wedge p \in \text{CG}.P(x)}$$

We assume that a simple $-k$ -cleft such as (25-a) has the LF in (26). We set aside any semantic/information-structural differences between traces and RPs, assuming that RPs are also e -type expressions bound by a co-indexed abstractor introduced above the subject position.

- (25) a. Hiol nyé -k Kondé a- bí- náŋâ nyé.
 1.H. 1.him -K 1.K. 1.SM- PST2- invite 1.him
 ‘Konde invited Hiol, too.’
 b. $[\text{CP Hiol} [\text{C}' [\text{C nyé}_{\text{F3}} \text{-k}_{\text{Q7}}] \lambda_1 [\text{TP Kondé a-bí-náŋâ nyé}_1]]]$

The truth-conditions of (25) are derived in (26). (25) is defined iff there is a salient question ‘Who did Konde invite?’ and if at least one answer to that question is believed/known by the participants (in CG). In that case, the sentence is true iff Konde invited Hiol.

- (26) a. $\llbracket C' \rrbracket_o^g = \mathbf{FA}((24))(\lambda x_1.\text{invited}'(k', x_1))$
 $= \lambda x : g(7) \subseteq \{\text{invited}'(k', y) | y \in D_e\} \wedge \exists p.p \in g(7) \wedge p \in \text{CG}$
 $\text{invited}'(k', x)$
- b. $\llbracket CP \rrbracket_o^g = \llbracket C' \rrbracket_o^g(h')$
 $= g(7) \subseteq \{\text{invited}'(k', y) | y \in D_e\} \wedge \exists p.p \in g(7) \wedge p \in \text{CG}$
 $\text{invited}'(k', h')$
- c. **Presupposition:** Some proposition “Konde invited x ” is known to be true.
Assertion: Konde invited Hiol.

The additive meaning component of $-k$ -clefts (‘Konde invited Hiol, **too**’) is not present in the proposed semantics, yet like in the case of $-n$ -clefts, pragmatics seems to suffice. (26) guarantees that for some x , it is in the common ground (at the time of asserting (25-a)) that Konde invited x . If the speaker is attempting to be cooperative (hence informative), it follows that ‘Konde invited Hiol’ is not in the common ground at the time of asserting (25-a). From that it also follows that $x \neq$ Hiol, which amounts to the additive effect: in addition to x (whoever that is), Hiol was invited by Konde.

4.3 Predictions, related issues

We would like to mention two specific predictions of the present account: first, “focus drop” should be possible in Basaá; second, the fronted constituent (and not its subpart) should always correspond to the contrasted constituent. (27) shows that an $-n$ -cleft with no overtly realized focus can be used to answer a question; the obligatory LP is sufficient. The judgments in (28) show that when a complex DP is fronted (‘a bag of maize’), the whole DP, and not a subpart of it, must be semantically in focus.

- (27) Q: *Who gave you the bananas?*
A: jó -n lí- bí- tí mé makúbé
5.he -N 5.SM- PST2- give me 6.bananas
‘He (some salient individual) gave me the bananas.’
- (28) A: *Hiol bought a bag of rice and ten kilos of bananas...*
B: tɔ, mpék (ú) mbáha wó -n a- bí- sómb
no 3.bag (3.GEN) 7.maize 3.it -N 1.SM- PST2- buy
‘No, it was a bag of maize that he bought.’
(i) ‘Hiol didn’t buy anything (not even bananas).’
(ii) #‘Hiol bought bananas but he didn’t buy a bag of rice.’

The fact that “focus drop” in (27) is available is due to an interplay of two factors. First, thanks to the overtly realized agreement on LP, the ordinary semantic value of the fronted DP is (to some extent) recoverable from the LP (and so can be dropped). Second, contrast is not expressed by the fronted DP but rather by the LP. Hence, it is the LP that participates in the expression and satisfaction of the question-answer congruence imposed by $-n$. Unlike English, focusing in the Basaá left periphery (e.g. (28)) leaves no space for subpart-of-

focus ambiguity (cf. the ambiguity in the translation of (28)). Our analysis captures this by mapping the complement of C to a semantic argument of the focus-sensitive operator.

Finally, we present an interesting and unexplained syntactic property of *-n*-clefts: the particles *béé* ‘not’ and *ndígí* ‘only,’ which are normally restricted to the immediately post-verbal position ((29)), can appear in the left-periphery of *-n*-cleft sentences ((30)).

- (29) a. (*ndígí) Hiol (*ndígí) a- bí- téhé **ndígí** Tɔnyé (*ndígí)
 1.H. 1.SM- P2- see only 1.T.
 ‘Hiol only saw Tonye.’ (**ndígí must be post-verbal in SVO**)
- b. (*béé) Hiol (*béé) a- bí- téhé **béé** Tɔnyé (*béé)
 1.H. 1.SM- P2- see NEG 1.T.
 ‘Hiol didn’t see Tonye.’ (**béé must be post-verbal in SVO**)
- (30) a. (**ndígí**) Hiol (**ndígí**) nyé -n [Tɔnyé a- bí- téhé]
 only 1.H. only 1- N 1.T. 1.SM- P2- see
 ‘It was only Hiol who Tonye saw.’ (**ndígí pre-/post-focus in -n-cleft**)
- b. (*béé) Tɔnyé **béé** nyé -n [a- bí- téhé Hiol]
 NEG 1.T. NEG 1.him -N 1.SM- P2- see 1.H.
 ‘It was not Tonye who saw Hiol.’ (**béé post-focus in -n-cleft**)

Cross-linguistically, exclusive particles (e.g. *only*) often require a focused constituent in their scope, and negation is also known to interact with focus-background structure. However, note that on our analysis *-n* “consumes” the focus alternatives generated by the LP, from which it follows that *ndígí* cannot access them when in a left-peripheral position. Additionally, (29-a) does not appear to contain an overtly F-marked element (see fn.3). This suggests that *ndígí* in Basaá may not make reference to focus alternatives at all. The existence of a non-focus-sensitive exclusive particle could have interesting consequences for the theory of association with focus. How *béé* and *ndígí* associate (or fail to associate) with syntactically focused (*-n*-clefted) versus syntactically unmarked foci is an interesting question for future investigation.

5. Summary and outlook

In this paper we have argued that Focus-markers in Basaá can take the form of pronominal elements. This conclusion supports the idea that F-markers are a kind of variable, a position introduced by Kratzer (1991). Many interesting questions remain unanswered, such as the following: how is F-marking achieved in Basaá for in situ foci that—upon initial investigation—appear to lack overt marking, prosodic or otherwise? Is the exhaustive implication in *-n*-clefts semantic or pragmatic? Why can *ndígí* ‘only’ and *béé* ‘not’ appear in the left-periphery of *-n*-clefts when they are otherwise banned from all but the post verbal position? Does this syntactic generalization have anything to do with the presence of alternatives introduced by the left-peripheral pronoun?

References

- Bassong, Paul Roger. 2010. *The structure of the left periphery in Basa'a*. University of Yaounde 1 MA thesis.
- Bassong, Paul Roger. 2012. Understanding focus marking in Basa'a. Manuscript, University of Yaounde 1 / University of Potsdam, SFB632.
- Beck, Sigrid. 2006. Intervention effects follow from focus interpretation. *Natural Language Semantics* 14. 1–56.
- Büring, Daniel. 2003. On D-trees, beans, and B-accent. *Linguistics and Philosophy* 26. 511–545.
- Collins, Chris & Komlan E. Essizewa. 2007. The syntax of verb focus in Kabiye. In *Selected proceedings of the 37th annual conference on African linguistics*, 191–203.
- Fiedler, Ines, K. Hartmann, B. Reineke, A. Schwarz & M. Zimmermann. 2009. Subject focus in West African languages., 234–257.
- Hamlaoui, Fatima & Emmanuel-Moselly Makasso. 2013. On focus marking and the unavailability of inversion structures in the Bantu language Bâsâa (A43). *Ms.* .
- Horn, Laurence R. 1981. Exhaustiveness and the semantics of clefts. In Victoria A. Burke & James Pustejovsky (eds.), *Proceedings of NELS 11*, 125–142.
- Hyman, Larry, Peter Jenks & Emmanuel Makasso. 2012. Adjectives as nominal heads in Basaá (<http://ling.auf.net/lingbuzz/001552>) .
- Kody, Zachée Denis Bitjaa. 1990. *Le système verbal du basaa*: U. Yaounde dissertation.
- Kratzer, Angelika. 1991. The representation of focus. In Arnim von Stechow & Dieter Wunderlich (eds.), *Semantics: An international handbook of contemporary research*, 825–834. Berlin: Walter de Gruyter.
- Rizzi, Luigi. 1997. The fine structure of the left periphery. In Liliane Haegeman (ed.), *Elements of grammar: A handbook of generative syntax*, 281–337. Dordrecht: Kluwer.
- Rooth, Mats. 1985. *Association with focus*. Amherst: University of Massachusetts, Amherst dissertation.
- Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* 1. 75–116.
- Wold, Dag E. 1996. Long distance selective binding: The case of focus. In Teresa Galloway & Justin Spence (eds.), *Proceedings of SALT 6*, 311–328.

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