



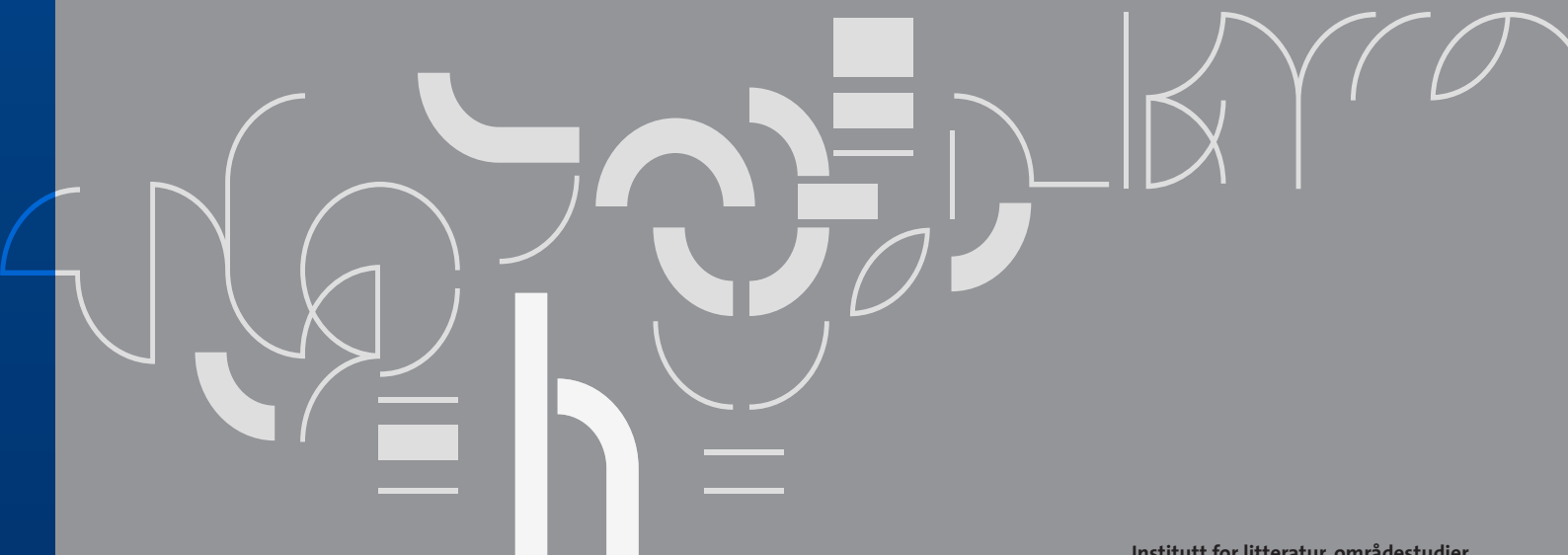
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Abstract

This article discusses the syntactic and semantic behaviour of *alternative-sensitive particles* in Bura (Central-Chadic, Afro-Asiatic), a tone language spoken by about 250.000 speakers in Northeastern Nigeria. The observed findings help to evaluate a number of claims on the syntactic and semantic nature of alternative-sensitive particles, which have been made largely on the basis of European languages.

*This research was carried out as part of the projects *Focus realization, focus interpretation and focus use from a cross-linguistic perspective* (Zimmermann) and *Information Structure in the Chadic Languages* (Hartmann) within the research group *SFB 632 Information Structure*, funded by the German Science Foundation (DFG), whose financial support is gratefully acknowledged. We would further like to thank our Bura consultant, Christopher Yusufu Mtaku, as well as Peggy Jacob for cooperation in the data elicitation.

1 Alternative-sensitive particles in European languages

We define *alternative-sensitive particles* (*AS-particles*) as functional elements whose interpretation depends on the alternatives introduced by foci or (contrastive) topics. The cross-linguistic inventory of alternative-sensitive elements includes the exclusive particles *only* (Engl.), *nur* (Germ.) (1a), the additive particles *also/too/either*, *auch* (1b) and the scalar particles *even*, *sogar* (1c) (König 1991). *Only* universally quantifies over alternatives, *also* and *even* existentially quantify over alternatives. In addition, *even* presupposes a scalar ordering of the alternatives (Karttunen & Peters 1979).

- (1) a. Peter ate *only* guacamole.
For all x, if Peter ate x, x is guacamole
- b. Peter ate *also* guacamole.
assertion: Peter ate guacamole
presupposition: Peter ate something else in addition
- c. Peter ate *even* guacamole.
Assertion: Peter ate guacamole
presupposition 1: Peter ate something else in addition
presupposition 2: The fact that Peter ate guacamole is relatively unlikely compared to his eating of alternative dishes.

AS-particles associate with the focus or the (contrastive) topic (Krifka 1999) of the sentence. The focus-sensitive particles are constrained by the following structural restrictions: First, focus-sensitive elements must c-command the focus in English and German (Jacobs 1983, Bayer 1990, Büring & Hartmann 2001, Reis 2005):

- (2) a. Peter showed *only* PICTURES_F to John.
b. *PETER_F showed only pictures to John.
intended: Peter is the only one who showed pictures to John

Second, the focus-sensitive elements in English (3a) (except for *too* and *either*) and German (3b) typically precede the focus:

- (3) a. ?*Peter showed PICTURES only to John.
b. *Peter zeigte Hans BILDER nur.

There are two theories concerning the adjunction site of the focus-sensitive particles *only* and *nur*. Rooth (1985), Bayer (1990), and Reis (2005) assume that focus-sensitive elements are semantically flexible and can adjoin to nominal arguments (DPs) and (extended) verbal projections (VP, CP) alike. Jacobs (1983) and Büring & Hartmann (2001), in contrast, argue that focus-sensitive elements never adjoin to arguments (CP,

DP), but only to non-arguments: extended VPs, APs, root and adjunct CPs.¹ Third, the focus-particle must be placed as close as possible to the focus constituent (Büring & Hartmann 2001: 237). Typically, focus-particle and focus constituent are adjacent.

- (4) a. Gestern hat Rufus *nur* dem MÄDCHEN_F Blumen geschenkt.
 yesterday has Rufus only the girl flowers given
 ‘The only person that Rufus gave flowers to was the girl.’
 b. *Gestern hat *nur* **Rufus** dem MÄDCHEN_F Blumen geschenkt.

Fourth, English *only* must associate with a focus constituent that is formally marked, and hence identifiable, as focus constituent even in second occurrence focus contexts (SOF). In the final clause in (5), association with focus is evidenced by a slight but measurable prosodic prominence on the SOF *Bobby* (e.g. Beaver et al. 2007).

- (5) You know what? You only introduced Mona to BOBBY_F yesterday.
 You also only introduced ASHLEY_F to BOBBY_{SOF} yesterday.

Fifth, focus sensitive particles associate into syntactic islands, such as relative clauses (Drubig 1994, Krifka 2006). The varying interpretation of (6ab) depends on the different placement of the focus within the relative clause.

- (6) a. John only liked [the man that introduced BILL_F to Sue]_{FP}.
 b. John only liked [the man that introduced Bill to SUE_F]_{FP}.

To summarize, focus-sensitive elements such as *only* are *focus-functional*: they make direct reference to the focus-background structure of a clause in their lexical specification and are subject to *formal licensing conditions* (Beaver & Clark 2003).

Section 2 gives some grammatical information on Bura and discusses the inventory and the syntactic distribution of the AS-particles in this language. Section 3 presents a syntactic and semantic analysis of the exclusive particle *daci* (‘only’). Section 4 analyses particle combinations in Bura and section 5 some differences between them.

¹Languages seem to exhibit cross-linguistic variation concerning particle placement. While English is relatively flexible with respect to particle placement, particles in German (v. Stechow 1991) and Tangale (Chadic, Hartmann & Zimmermann 2007) always adjoin to the same category, i.e. VP (and extended projections) in German, and DP in Tangale, respectively.

2 Alternative-sensitive particles in Bura

2.1 Syntactic structure of Bura

The basic word order of Bura is SVO. Bura has no overt case or tense morphology, but shows aspectual marking, cf. (7). It is worth pointing out that the functional projections DP and NegP in (8a), and CP with the final question particle Q in (8b) are right-headed structures. Adjectival modifiers also occur to the right (8c).

- (7) Kubili Ø / akwa / ata / ana tsi mtika.
 K. PERF / PROG / FUT / HAB slaughter chicken
 ‘Kubili slaughtered/ is slaughtering/ will slaughter/ slaughters a chicken.’
- (8) a. Kubili [adi tsi [mtika **ni**]]wa
 K. PRT slaughter chicken DEF NEG
 ‘Kubili didn’t slaughter the chicken.’
- b. [Wa an likita ni] **ri**? c. taku (na) wala
 who PRT doctor DEF Q horse LINK big
 ‘Who is the doctor?’ ‘a big horse’

2.2 Focus marking

Bura shows a subject/non-subject asymmetry with respect to focus marking: Focused subjects must always be focus-marked by the focus particle *an* (in T), cf. (9). Focused non-subjects can occur unmarked in their base position (10-A1). Alternatively they can occur in sentence initial position in a syntactic cleft (10-A2), cf. Hartmann, Jacob & Zimmermann (2008).

- (9) Q: Wa **an** tira ri?
 who PRT leave Q
 ‘Who left?’
- A: **Ladi** *(an) tira.
 L. PRT leave
 ‘LADI left.’
- (10) Q: **Mi** an ti Magira akwa ta ni ri? / Magira akwa ta **mi** ri?
 what PRT REL M. PROG prepare DEF Q
 ‘What is Magira preparing?’
- A1: Magira akwa ta **diva mhyi**.
 M. PROG prepare mush sorghum
 ‘Magira is preparing SORGHUM MUSH.’
- A2: **Diva mhyi** an ti tsa akwa ta.
 ‘It is SORGHUM MUSH that she is preparing.’

Such subject/non-subject asymmetries in focus marking are wide-spread among the West African languages. Presumably, the obligatory marking of subjects owes to the fact that canonical (i.e. unmarked) subjects will receive a default interpretation as topics, unless they are marked for focus (Fiedler et al. 2007).

2.3 Inventory of alternative-sensitive particles

Bura exhibits three kinds of alternative-sensitive particles: the exclusive particles *daci*, *shini* ‘only’ (11ab), the additive particles *ma*, *tsuwa* ‘also/too’ (11cd), and the scalar particle *wala* ‘even’ (11e). In the examples, the particles all associate with the subject.

- (11) a. *Mtaku daci* an liha Biu. b. *Ashina shini* an ti tsa masa tsir.
 M. only PRT go Biu today alone PRT REL 3SG buy beans
 ‘Only MTAKU went to Biu.’ ‘Only TODAY she bought beans.’
- c. *Ladi ma* thlikawhada ni.
 L. too plant peanut DEF
 ‘LADI, too, plants peanuts.’
- d. (ka) *Ladi tsuwa* tsa lukwa kwasuku.
 and L. also 3SG went market
 (Magira went to the market ...) ‘and LADI, too, went to the market.’
- e. *Wala Kubili ma* tsa si.
 even K. too 3SG come
 ‘Even KUBILI appeared.’

The co-occurrence of *wala* with additive *ma* in (11e) suggests that the only meaning component of *wala* is scalarity, unlike English *even* and German *sogar*, which combine additivity and scalarity in their meaning (König 1991). In what follows, we will mainly concentrate on the particles *daci* ‘only’ and *ma/tsuwa* ‘also, too’.

2.4 Syntactic distribution of alternative-sensitive particles

This section presents three generalizations about the syntactic distribution of AS-particles in Bura. First, with the exception of *wala* ‘even’, AS-particles follow the constituent they associate with. This is similar to English *too*, but unlike other focus particles in German and English (Büring & Hartmann 2001). (12a)/(13a) illustrate association with a subject, (12b)/(13b)/(14) show association with an object.

- (12) a. *Mtaku daci* an liha Biu. b. Tsa masta *kwara daci*.
 M. only PRT go Biu 3SG buy donkey only
 ‘Only MTAKU went to Biu.’ ‘She bought only A DONKEY.’

- (13) a. *Ladi ma thlikawhada ni.* b. *Tsa ana thlika puwa ma.*
 L. too plant peanut DEF 3SG HAB plant cotton too
 ‘LADI, too, plants peanuts.’ ‘He is planting COTTON, too.’
- (14) *Magira masta tsir tsuwa naha.*
 M. buy bean also yesterday
 ‘(M. bought meat, mangoes, and ...) M. also bought BEANS yesterday.’

Second, while the particles *daci* ‘only’ and *ma* ‘also/too’ stand adjacent to the constituent they associate with in (11) to (14), they may also occur at a distance. In (15), the sentence-final particles associate with the subject in its canonical position.

- (15) a. *Mtaku an liha Biu daci.* b. *Ladi thlika whada ma.*
 M. FM go Biu only L. plant peanut too
 ‘Only MTAKU went to Biu.’ ‘LADI, too, plants peanuts.’

Note that the exclusive particle *shini* ‘alone’ cannot associate at a distance. It must adjoin to DP.

- (16) *Mwala ni masta yarfwa (shini) aka bzir ni (*shini).*
 woman DEF buy oranges only for child DEF only
 ‘The woman bought only ORANGES for her child.’

Finally, it can be shown that *daci* really associates with a focus constituent. If the focus marker *an* in (15a) is dropped, as in (17), association at a distance is no longer possible. Instead, final *daci* must associate with the constituent immediately to its left:

- (17) *Mtaku liha Biu daci.*
 M. go Biu only
 ‘Mtaku went only to BIU.’ NOT: ‘Only Mtaku went to Biu.’

In short, association of exclusive *daci* ‘only’ with the subject requires focus-marking by *an*, both under adjacency (12a) and at a distance (15a). This shows that *daci* is focus-sensitive. Section 5 will show that the association of additive *ma* ‘also/too’ with subjects is different in that it does not allow for focus marking on the subject, cf. also (11cd), (13a), and (15b).

3 The Analysis of *daci* ‘only’

3.1 Assumptions

As argued in the preceding section, *daci* is focus-functional in the sense of Beaver & Clark (2003), i.e. its focus associate must be clearly identifiable. Focus identification can be achieved in two ways. First, the focus associate can be focus-marked by the particle *an*, which is obligatory with focused subjects, as shown once more in (18ab):

- (18) a. *Mtaku daci* *(an) liha Biu. b. *Mtaku* *(an) liha Biu *daci*.
 M. only PRT go B. M. PRT go B. only
 ‘Only MTAKU went to Biu.’ ‘Only MTAKU went to Biu.’

Second, focused non-subjects, which do not require formal focus marking (section 2.2), are typically adjacent to *daci*, cf. (19).

- (19) a. Magira *si daci*. b. Magira *si naha daci*.
 M. came only M. came yesterday only
 ‘Magira only CAME.’ ‘Magira came only YESTERDAY.’
 c. Magira *si naha ahar Kano daci*.
 M. came yesterday from Kano only
 ‘Magira came only FROM KANO yesterday.’

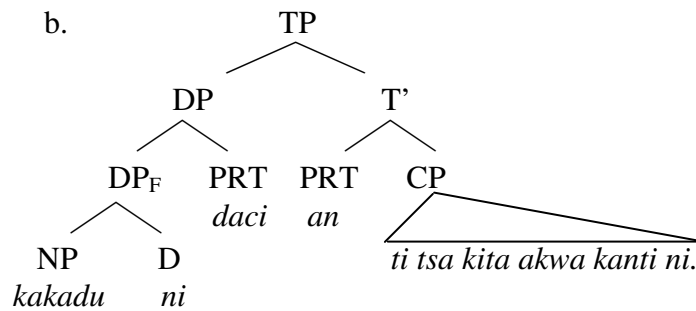
As for linear order, we assume that the particle *daci* follows the focus constituent because the sentential domain (TP, CP) and the DP-domain are left-branching in Bura, cf. section 2.1.

Finally, observe that the semantic type of *daci* must be flexible (Rooth 1985) since it combines with DPs (18a), sentences (18b), and possibly even with V/VP, cf. (19a). The combination of *daci* with DP and TP is analysed in 3.2 and 3.3, respectively.

3.2 Association with DP

In (20ab), the focus-sensitive particle *daci* right-adjoins to the DP it associates with.

- (20) a. [_{DP} [_{DP} *Kakadu ni*] *daci*] *an ti tsa kita akwa kanti ni*.
 book DEF only PRT REL 3SG take at shop DEF
 ‘It is only THE BOOK that he took from the shop.’



We assume that adnominal *daci* on DP is a quantifier with the meaning in (21). $Daci_{DP}$ is a binary functor that takes the meaning of a focused DP and a backgrounded predicate as its two arguments, cf. (22a). The semantic derivation of (20) is shown in (22b-e).

$$(21) \quad \llbracket daci_{DP} \rrbracket = \lambda x. \lambda Q. \forall z \in \llbracket x \rrbracket^f : Q(z) \rightarrow z = x$$

$$(22) \quad \text{a. } \llbracket daci \rrbracket (\llbracket kakadu \ ni \rrbracket) (\llbracket ti \ tsa \ kita \ akwa \ kanti \ ni \rrbracket)$$

$$\text{b. } \Leftrightarrow [\lambda x. \lambda Q. \forall z \in \llbracket x \rrbracket^f : Q(z) \rightarrow z = x](\iota x. \text{book}'(x))(\lambda x. \text{he took } x \text{ from the shop})$$

$$\text{c. } \Leftrightarrow [\lambda Q. \forall z \in \llbracket \iota x. \text{book}'(x) \rrbracket^f : Q(z) \rightarrow z = \iota x. \text{book}'(x)](\lambda x. \text{he took } x \text{ from the shop})$$

$$\text{d. } \Leftrightarrow \forall z \in \llbracket \iota x. \text{book}'(x) \rrbracket^f : \text{he took } z \text{ from the shop} \rightarrow z = \iota x. \text{book}'(x)]$$

$$\text{e. } = 1 \text{ iff the unique thing that he took from the shop is the book}$$

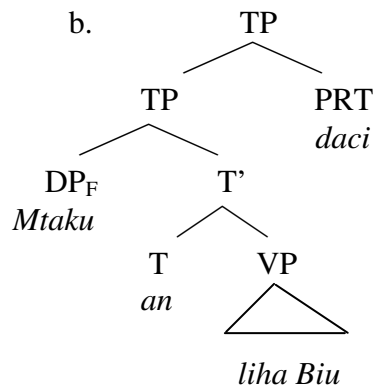
3.3 Association with TP

As pointed out in section 2.4, the focus-sensitive particle *daci* can also associate with a distant subject focus from the clause-final position. In this case we assume the particle to be right-adjoined to the root TP, as shown in (23ab) (=15a).

$$(23) \quad \text{a. } [_{TP} [_{TP} \text{Mtaku} \quad \text{an} \quad \text{liha} \quad \text{Biu}] \text{ daci}]$$

M. PRT go B. only

‘Only MTAKU went to Biu.’



Semantically, sentential $daci_{TP}$ associates with the set of alternative propositions that is induced by focus-marking on the subject via the mechanism of focus projection (Rooth 1985). $Daci_{TP}$ is an adverbial quantifier with the meaning in (24). The semantic derivation of (23) is shown in (25).

$$(24) \quad \llbracket daci_{TP} \rrbracket = \lambda w. \lambda q. \forall p \in \llbracket q \rrbracket^f : p(w) \rightarrow p = q$$

- (25) a. $\llbracket daci \rrbracket(w) (\llbracket Mtaku_F \text{ an liha Biu} \rrbracket)$
 b. $\Leftrightarrow [\lambda w. \lambda q. \forall p \in \llbracket q \rrbracket^f : p(w) \rightarrow p = q] (w) (\lambda w. \text{Mtaku}_F \text{ went to Biu in } w)$
 c. $\Leftrightarrow \forall p \in \llbracket \lambda w. \text{Mtaku}_F \text{ went to B. in } w \rrbracket^f : p(w) \rightarrow p = \lambda w. \text{Mtaku went to B. in } w$
 d. $\Leftrightarrow \forall p \in \{ \lambda w. x \text{ went to Biu in } w \mid x \in \{ \text{Mtaku, Kubili, Magira, Pindar, ...} \} \} : p(w) \rightarrow p = \lambda w. \text{Mtaku went to Biu in } w$
 e. = 1 iff the unique true proposition in w of the form ‘ x went to Biu’ is the proposition ‘Mtaku went to Biu’.

3.4 Additional evidence

The proposed analysis of focus association at a distance is supported by two independent arguments. First, the assumption of a high structural position for $daci_{TP}$ in (23) is confirmed by the behaviour of the negation marker wa . This element can also take scope over a focus-marked subject from sentence-final position, when the subject is preceded by adi , an element that marks the scope of negation (Zimmermann 2007):

- (26) [adi *Kubili* an [VP *simamya mtika ni*]] **wa**.
 PRT K. PRT eat chicken DEF NEG
 ‘It is not KUBILI that ate the chicken.’
 NOT: ‘It is KUBILI that did not eat the chicken.’

Second, the assumption of focus association at a distance that is semantically mediated through the projection of focus alternatives also accounts for the possibility of association with *daci* into focus islands (Drubig 1994, Krifka 2006). In (27), *daci* quantifies over things that the speaker wants, but the alternatives in the restriction depend on the location of focus inside the relative clause, as shown in (28).

- (27) *Context*: Various people gave something to Kubili, but ...
 Iya bara [DP [NP SU [CP ti Magira an naa aka Kubili]] ni] **daci**
 1SG want thing REL M. PRT give to K. DEF only
 ‘I want only the thing that MAGIRA gave to Kubili.’

- (28) $\forall z \in \{ \iota x. y \text{ gave } x \text{ to Kubili} \mid y \in \{ \text{Mtaku, Kubili, Magira, Pindar, ...} \} \}$:
 Speaker wants $z \rightarrow z = \iota x. \text{ Magira gave } x \text{ to Kubili}$
 = 1 iff
 the unique thing that the speaker wants is the thing that Magira gives to K.

3.5 The structure of association with non-subject focus

Having looked at the association of *daci* with focused subjects, we now proceed to the analysis of sentences such as (29) (=12b), where *daci* occurs adjacent to an object.

- (29) Tsamasta *kwara* **daci**.
 3SG buy donkey only
 ‘She bought only a DONKEY.’

In principle, there are two possibilities for the placement of *daci* in (29). The particle is either locally right-adjoined to DP, cf. (30a), or it adjoins again to TP, cf. (30b). Both possibilities are attested for association of *daci* with subjects, see above.

- (30) a. [TP Tsa masta [DP [DP *kwara*] **daci**]] \rightarrow local adjunction to DP
 b. [TP [TP Tsa masta *kwara*] **daci**] \rightarrow adjunction to TP

Notice that (30ab) have equivalent interpretations. (30’a) shows the meaning for the structure with adnominal *daci*, and (30’b) for the structure with adverbial *daci*.

- (30’) a. $\forall P \in \llbracket \lambda x. \text{donkey}'(x) \rrbracket^f : \exists z [P(z) \wedge \text{he bought } z] \rightarrow P = \lambda x. \text{donkey}'(x)$
 = 1 iff the unique relevant property such that he bought an individual with this property is the property of being a donkey

- b. $\forall p \in \{\lambda w. \exists x [P(x) \wedge \text{he bought } x \text{ in } w] \mid P \in \{\lambda x. \text{book}'(x), \lambda x. \text{donkey}'(x), \dots\}\}$:
 $p(w) \rightarrow p = \lambda w. \exists x [\text{donkey}'(x) \wedge \text{he bought } x \text{ in } w]$
 = 1 iff the unique true proposition in w of the form ‘There is an x such that $P(x)$ and he bought x ’ is the proposition ‘There is an x such that x is a donkey and he bought x ’

Even though (30ab) have the same interpretation, there are two arguments in favour of local adjunction of the particle to the non-subject focus constituent, as in (30a). One argument is conceptual in nature, and the other one empirical. The conceptual argument has to do with the fact that the semantic component must be supplied with additional information to the effect that the focus constituent is the one immediately preceding *daci* in the absence of any formal marking on a non-subject focus, cf. (31ab). If *daci* directly adjoins to the focus constituent, however, its association with *naha* in (31a), and with *ahar Kano* in (31b), falls out directly.

- (31) a. Magira si *naha* **daci**.
 M. came yesterday only
 ‘Magira came only YESTERDAY (on no other day)’
 b. Magira si *naha* *ahar Kano* **daci**.
 M. came yesterday from Kano only
 ‘M. came only from *kano* yesterday.’
 NOT: ‘Magira came only YESTERDAY from Kano.’

The empirical argument for the adnominal position of *daci* with non-subject foci has to do with the fact that the particle can also associate with such foci from non-final position, *but under adjacency*. This is shown in (32).

- (32) Mtaku masta *taku* **daci** akwa kwasuku.
 M. buy horse only at market
 ‘Mtaku only bought A HORSE at the market.’

Thus, the assumption of local adjunction of *daci* with non-subject foci as in (30a) appears to be both conceptually simpler and empirically more adequate.

4 Particle combinations

In English, various AS-particles can co-occur in the same clause, giving rise to the phenomenon of multiple association with focus (or contrastive topic) (cf. Krifka 1992).

- (33) a. Even₁/Also₁ JOHN_{F1} only₂ drank WATER_{F2}.
 b. John even₁ [only₂ [_{VP} drank WATER_{F2}]_{F1}]

The co-occurrence of several AS-particles in one clause is also attested in Bura. Moreover, if the particles associate with distinct constituents, the resulting readings depend on the relative structural position of the particles in a compositional way. This is illustrated in (34ab), where the different relative order of the particles *daci* and *ma* brings about a difference in the association patterns:

- (34) a. *Context 1:* Magira grows peanuts and rice, Kubili grows only peanuts, and...
 [*Ladi*₂ ana thlika [*whada*₁ **daci**₁]] **ma**₂.
 L. HAB plant peanut only too
 LADI, **too**, grows **only** PEANUTS.’
 ASS: Ladi grows only peanuts.
 PRES: Somebody else grows only peanuts, i.e. Kubili. *ma* >> *daci*
- b. *Context 2:* Magira and Kubili only grew sorghum and nothing else...
 [*Ladi*₁ an thlika *whada*₂ **ma**₂] **daci**₁.
 L. PRT plant peanut too only
 ‘It’s **only** LADI that grew PEANUTS **as well** (in addition to sorghum)’
 ASS: Only Ladi grew peanuts.
 PRES: Ladi grew s.th. else in addition, i.e. sorghum *daci* >> *ma*

Similar effects are observed with combinations of *daci* and the sentence-final negative marker *wa*. In (35), negation takes scope over the focus-sensitive particle, reflecting the relative structural position of the two elements.

- (35) Pindar adi kitsa yimi **daci wa**, ama tsa hara kithliryeri damwa.
 P. PRT fetch water only NEG but 3SG do things other
 ‘Pindar **didn’t only** fetch water, but she did other things (as well).’

A final interesting case of second occurrence focus is illustrated in (36). Here *daci* is right-adjoined to the clause and associates with the subject at a distance. What is surprising is that the additive particle *ma* appears to be right-adjoined to the subject, but seems to associate with a constituent *to the right*, i.e. with the object.²

- (36) *Context:* Magira, Kubili and Ladi grew sorghum. Ladi and Magira grew beans. Only Ladi grew cotton.

²We must leave it open what factors condition association to the right in (36). Possibly, the alternative configuration in (i) is blocked because the association paths of the two particles cross.

(i) [*Ladi*₁ an thlika *whada*₂ **daci**₁] **ma**₂

Interestingly, in the German equivalent to (35), the additive particle *auch* must be stressed and associates with the contrastive topic ERDNÜSSE ‘peanuts’, as in (ii):

(ii) German: /ERDNÜSSE hat AUCH\ nur Ladi_{SOF} gepflanzt.

*Ladi*_{1/SOF} **ma**₂ an thlika whada₂ **daci**₁.
 L. too PRT plant peanut only
 ‘Also only LADI grew PEANUTS.’
 ASS: Only Ladi grew peanuts.
 PRES: Only Ladi grew something else.

5 Structural differences between *daci* and *ma/tsuwa*

In this section we investigate structural differences between the additive particles *ma/tsuwa* and the exclusive particle *daci*, which suggest a different semantic status as topic-sensitive and focus-sensitive, respectively. Unlike the case with *daci*, a subject must not be marked by the focus particle *an*, if it functions as the associate of *ma* (and *tsuwa*). (37a) (= (11c)) shows this for association under adjacency, and (37b) (= (15b)) for association at a distance.

- (37) a. *Ladi* **ma** thlika whada ni. b. *Ladi* (*an) thlika whada **ma**.
 L. too plant peanut DEF L. PRT plant peanut too
 ‘LADI, too, grew peanuts.’ ‘LADI, too, grew peanuts.’

That *ma* cannot associate with a focus-marked subject is also supported by the following observation. It shows that *ma* cannot associate with a subject that is grammatically marked by *an*. Instead, it must associate with the adjacent object in (38):

- (38) *Ladi* an thlika whada **ma**.
 L. PRT plant peanut too
 ‘It is LADI that plants PEANUTS as well (in addition to other things).’

It follows from (37) and (38) that *ma* never associates with focus-marked subjects. Given that focus marking on subjects is obligatory in Bura, the subject associate of *ma* thus cannot be the focus of the utterance. Instead, we propose that the additive particles *ma* and *tsuwa* associate with a (contrastive) topic, as argued in Krifka (1999) for stressed additive *àuch* in German. Given that contrastive topics also induce alternatives (Büring 1997), we can treat *ma* as an AS-particle. The analysis is supported by the fact that *ma* can associate with canonical (unmarked) subjects, cf. (37ab), which make good topics cross-linguistically. Compare the association of *àuch/tòò* with unstressed *es*-subjects in German and English (Krifka 1999: ex.30a):

- (39) *Es* ist wahrscheinlich **àuch** runtergefallen.
 ‘It probably fell down, tòò.’

Furthermore, the two additive particles in Bura occur in environments that are typical of contrastive topics (Krifka 1999), for instance, in answers to multiple questions:

- (40) Q: Who bought what?
 A: *Kubili* (*an) masta mhyi, *Mtaku* (*an) masta kwara, ka ...
Magira **tsuwa** masta mhyi.
 M. also buy sorghum
 (K. bought sorghum, Mt. bought a donkey, and...) ‘MAGIRA also bought sorghum.’

Additive particles also appear in successive partial answers, thus licensing a violation of the *distinctiveness constraint* (cf. Krifka 1999). This is illustrated in (41) for English, and in (42) for Bura.

- (41) Q: What did Peter and Pia eat?
 A: Peter and Pia/ They ate pasta.
 A’: #Péter ate pàsta and Pía ate pàsta.
 A’’: Péter ate pàsta and Pía ate pàsta, too.
- (42) a. *Context*: Magira grew peanuts, and Kubili grew peanuts, and ...
 ka *Ladi* **ma** thlika whada ni.
 and L. too plant peanut DEF
 ‘and LADI, too, grew peanuts.’
 b. *Ladi* ana tsuha whada ka *(tsuwa) tsa ana thlika *puwa* **ma**.
 L. HAB farm peanut and also 3SG HAB plant cotton too
 ‘Ladi plants groundnuts and he plants COTTON as well.’

We thus conclude that the additive particles associate with a contrastive topic in Bura. A potential problem for this analysis comes from the fact that *ma* can also associate with clefted non-subjects. Recall from section 2.2 that *ex situ* non-subjects are always marked by the particle *an* (cf. Hartmann, Jacob & Zimmermann 2008).

- (43) a. [Ala *mji* wala-wala **ma**] **an** ti tsa bwata.
 for people old-old too PRT REL 3SG cook
 ‘It is for the elders, too, that she cooked it (not only cook for the child).’
 b. [Ala *mji* wala-wala] **an** ti tsa bwata **ma**.

However, it is well known from European languages that clefting does not necessarily indicate the focus status of the clefted constituent, but can also be used to highlight a (contrastive) topic (Delin 1989, Huber 2006). Extending this argument to Bura, the additive particle *ma* in (43ab) may still be taken to associate with a topic. Notice that this line of reasoning implies a reanalysis of the focus particle *an* as a marker of alternative-inducing elements. Given all this, then, the distribution and association behaviour of alternative-sensitive elements may well serve as a good diagnostic of the IS-properties of clefted constituents.

6 Conclusion

Despite the fact that Bura differs typologically from the Indo-Germanic languages of Europe, the behaviour of AS-particles is quite similar: They evaluate the meaning of a clause relative to a set of alternatives. Their association with focus and topic is subject to structural licensing conditions. They can combine with DPs and root clauses alike. And they interact with each other in a compositional way. Furthermore, like stressed *àuch* and *tòò*, additive particles in Bura appear to associate with contrastive topics, rather than with focus. All in all, the observed similarities make AS-particles good candidates for a functional class with universal traits.

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