

## Backward association of exclusive particles and scope freezing

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**Background.** Cross-linguistically, (adverbial) exclusive particles ‘only’, unlike other focus particles like ‘even’, only associate with overt constituents in their c-command domains (e.g., English *only*<sub>adv</sub> or Vietnamese *chi*; Jackendoff 1972, Tancredi 1990, Beaver and Clark 2008, Erlewine 2014, 2017, 2018 *i.a.*). In (1), *only* **cannot** associate “backward” with the object moved out of its scope, nor the trace.

(1) a. Alex only bought LAMB<sub>F</sub>.

b. #LAMB<sub>F</sub>, Alex only bought \_\_.

While German *nur* is claimed to be an exception (see V2 cases in Erlewine 2014, Bayer 2018, Hirsch & Wagner 2019), this case is potentially confounded by the apparent ambiguity of *nur* between adverbial and adfocal uses (*cf.* Jacobs 1986, Buring & Hartmann 2001, Reis 2005, Barbiers 2010, Bayer 2020).

**Goals.** In this study, we present novel data from Yorùbá (Benue-Congo) and Kusaal (Mabia, formerly Gur) in which adverbial and adfocal exclusive particles are *distinct in form*. We show that adverbial ‘only’ in both languages systematically allow **backward association** with fronted focus (henceforth **BAwF**). We connect the exceptional pattern to the morphosyntactically marked focus which triggers obligatory movement, and propose a **scope-freezing** account (*à la* Bayer 2018) where the movement “preserves” the scope of exclusive operators. Consequently, the variations in BAwF fall under a broader typology of focus marking devices (intonational vs. morphosyntactic). The data are from two of the authors who speak Yorùbá natively and from elicitation sessions with Kusaal speakers.

**#1: Backward association.** In *in-situ* cases, Yorùbá preverbal *kàn* ‘only’ may associate with the object but not the subject, the latter being outside its c-command domain (=2). The associate may be followed by adfocal *nìkan*. The same patterns apply to Kusaal adverbial *kùdim* and adfocal *ma’a* (=3).

(2) John<sub>(\*F)</sub> *kàn* še [German]<sub>F</sub> (*nìkan*).

(3) Adam<sub>(\*F)</sub> *kùdim* di nè [mui]<sub>F</sub> (*ma’a*).

John only do German PRT.only

Adam only eat FOC rice PRT.only

‘John only took GERMAN.’ [Yorùbá]

‘Adam ate only RICE.’ [Kusaal]

In *ex-situ* cases, the object undergoes focus movement, as marked by *ni* in Yorùbá and *ka* in Kusaal in (4)-(5). Strikingly, *kàn* and *kùdim* now associate “backward” with the moved object that is higher. Again, the adfocal particles are optional and BAwF remains possible without them. Their optionality is licensed by the presence of an adverbial *only*.

(4) [German]<sub>F</sub> (*nìkan*) ni John *kàn* še \_\_.

(5) [mui]<sub>F</sub> (*ma’a*) ka Adam *kùdim* di \_\_.

German PRT.only FOC John only do

rice PRT.only FOC Adam only eat

‘It is only GERMAN that John took.’ [Yorùbá]

‘It was only Rice that Adam eat.’ [Kusaal]

It is worth noting that the BAwF above **cannot** be reduced to the exhaustivity induced by the cleft-like focus movement. In (6a), negating the clause with *kàn* amounts to *negation of exclusiveness*, as opposed to (6b) without *kàn* where only the *prejacent proposition is negated* with exhaustivity projected.

(6) a. *kì-í* še [German]<sub>F</sub> ni John *kàn* še \_\_.

b. *kì-í* še [German]<sub>F</sub> ni John še \_\_.

NEG do German FOC John only do

NEG do German FOC John do

‘It is not only German that John took.’

‘It is not German that John took.’ [Yorùbá]

(John took German and other languages.)

(J. only took one course which is not German.)

**#2: Obligatory focus movement.** Unlike English which primarily marks focus with intonation, Yorùbá and Kusaal realize *identificational focus* morphosyntactically in the *ex-situ* left periphery position (Bisang & Sonaiya 2000, *cf.* Kiss 1998). In (7), *ex-situ* focus is obligatory in Yorùbá and Kusaal but optional in English. *In-situ* focus in Yorùbá and Kusaal could only be used for new information.

(7) *Context: John eats yam and beans, right?*

a. Rara, [iṣu]<sub>F</sub> ni John jẹ \_\_.

b. #Rara, John jẹ [iṣu]<sub>F</sub> (\*ni). [Yorùbá]

no yam FOC John eat

no John eat yam FOC

- c. Aawo, [busa]<sub>F</sub> ka John di \_\_.  
no yam FOC John eat
- d. #Aawo, John di nε [busa]<sub>F</sub>. [Kusaal]  
no John eat FOC yam
- e. No, it is YAM<sub>F</sub> that John eats.
- f. No, John eats YAM<sub>F</sub>.

**Proposal: scope freezing.** We propose a scope freezing analysis for BAwF in Yorùbá and Kusaal (à la Bayer 2018, 2020). **First**, we assume that adfocal particles form a constituent FP with the associate, and that adverbial particles are propositional exclusive operators (which may also be covert Op) above vP, projecting ExclP in (8a). **Second**, FP moves to Spec,ExclP for Spec-Head agreement in (8b). We propose that it is at this point that the exclusive particle's scope is frozen. **Third**, the [F] on XP forces further movement to Spec,FocP as in (8c), pied-piping the whole FP.

- (8) a. [TP ... [ExclP Op/kàn/kùdim<sub>[iExcl]</sub> [vP ... [FP [XP]<sub>F</sub> nìkan/ma'a<sub>[uExcl]</sub> ]]]]  
b. [TP ... [ExclP [FP [XP]<sub>F</sub> nìkan/ma'a<sub>[uExcl]</sub> ]]<sub>i</sub> Op/kàn/kùdim<sub>[iExcl]</sub> [vP ... t<sub>i</sub>]]]  
c. [FocP [FP [[XP]<sub>F</sub> nìkan/ma'a<sub>[uExcl]</sub> ]]<sub>i</sub> [TP ... [ExclP t<sub>i</sub> [Op/kàn/kùdim<sub>[iExcl]</sub> [vP ... t<sub>i</sub>]]]]]

With Criterial Freezing, *a phrase meeting a criterion* is frozen in place (Bayer 2018, 2020; cf. Rizzi 2006). In our case, we have both *a phrase* (i.e., the adfocal-particle) which meets the criterion in Spec,ExclP, and *another phrase* (i.e., the focus associate) which must meet another criterion high in the clause in Spec,FocP. This is why while the scope of exclusives is frozen, the focus associate may still further move to the higher criterial site and pied-pipe the adfocal particles along (cf. Bayer 2018).

**Further support.** The proposal has two derisible empirical predictions. **First**, the exclusive scope relative to **other operators** may also be frozen. In (9a), the in-situ focus with adfocal particles may either scope under or over the modal 'may' (cf. Taglicht 1984). Interestingly, *the narrow scope is retained* even after the focus movement in (9b) (same in Yorùbá, examples omitted). We suggest a null Op<sub>Excl</sub> below 'may' (◇>only) in (9bi), and this narrow scope is frozen before focus movement.

- (9) a. Adam tun'é di nε [Mui]<sub>F</sub> ma'a.  
Adam may eat FOC rice PRT.only
- b. [Mui]<sub>F</sub> ma'a ka Adam tun'é di \_\_. [Kusaal]  
rice PRT.only FOC Adam may eat
- (a-b): i. 'It is okay for Adam to only eat rice (i.e., other food allowed).' (◇>only)  
(a-b): ii. 'Adam is only allowed to eat rice (i.e., no other food allowed).' (only>◇)

This contrasts with Vietnamese, a *non*-BAwF language (Erlewine 2017), where object fronting *always disambiguate* the scope as in (10) (Sun 2020, ex.24-25). The non-preservation of narrow scope 'only' in (10b) correlates neatly with its inavailability of BAwF, as predicted by the proposed account.

- (10) a. Nam có thể **mỗì** [thịt bò]<sub>F</sub> mới ăn \_\_. b. Nam **mỗì** [thịt bò]<sub>F</sub> mới có thể ăn \_\_. [Viet.]  
Nam may PRT.only beef just eat Nam PRT.only beef just may eat  
'Nam is allowed to only eat BEEF.' (◇>only) 'Nam is only allowed to eat BEEF.' (only>◇)

**Second**, the proposal also predicts that **not all** movement may preserve scope and allow BAwF. Movement that is *"optional"* (in the sense that it is not always triggered in an appropriate context with focus) does not allow BAwF, such as relativization. In (11), *kàn* embedded in the relative clause cannot associate backward with the head noun. It strengthens the current account that ties BAwF to obligatory focus pied-piping.

- (11) Context: John read some English and French books.  
Mo rì iwé e gèésì [tí John **kan** [ka]<sub>F</sub> \_\_]. [Yorùbá]  
1SG see book POSS English REL John **only** read  
'I saw the English books that John only READ.'

NOT: 'I saw x such that x is English books and John only read ENGLISH BOOKS.'

**Conclusions.** In conclusion, we have provided evidence for BAwF in Yorùbá and Kusaal to show that the cross-linguistic generalization of the lack of BAwF is *not* true. We tie the availability of BAwF to the obligatory nature of focus movement in the two languages, which captures scope freezing with other operators and the lack of it with relativization. More generally, we offer a novel perspective where languages that mark focus *intonationally* (thus allowing *in-situ* focus) do not allow BAwF, whereas

languages that mark focus *morphosyntactically* (and with *obligatory* focus movement) do, which is further supported by Kasem where BAwF is possible (Aremu 2024).

**Selected Ref.** Bayer, J. (2018) Criterial freezing in the syntax of particles. In *Freezing*. Erlewine, M. Y. (2014) Movement out of focus. MIT Diss. (see also the hyperlinks in citation)