A parametric view on exclusive focus particles

Background. *D-quantification* and *A-quantification* are two basic apparatuses of natural language meaning. Exclusive focus particles like *only* in (1) seems to allow for both: adfocal *only* for D- and adverbial *only* for A-quantification. There are, however, recent attempts to reduce D-quantification to A-quantification (Kratzer 2005; Szabolcsi 2017, 2024), which has become the prominent view on exclusive particles (Quek and Hirsch 2017; Bassi et al. 2022; Sun 2021; Branan and Erlewine 2023, *i.a.*)—instead of a D-quantifier, $only_{\text{adfoc}}$ is claimed to be a concord particle signaling an exclusive (propositional) operator, either null (OP_{EXCL}) or realized as $only_{\text{adv}}$.

(1) a. John gave **only$_{\text{adfoc}}$** MARY a book. b. John **only$_{\text{adv}}$** gave MARY a book.

Goal. This study argues that such a view is too strong and *cannot* be universal. I argue that both D- and A-quantification strategies are available for exclusives, but the choice is ***parameterized*** in individual languages, and shapes the empirical landscape of *variations* in exclusive doubling. Through a cross-linguistic survey, I demonstrate that exclusive semantics may encoded on (i) adverbial particles (as A-quantifiers); (ii) adfocal particles (as D-quantifiers); (iii) both adverbial and adfocal particles; or (iv) neither of them (but on a null operator).

Exclusive doubling in Vietnamese and Yoruba. In Vietnamese [VN], adverbial *chỉ* and adfocal *mỗi* can doubled with a single-'only' reading in (2) (Hole 2017; Erlewine 2017; Yip 2023). While (2) appears to be a form-meaning mismatch, it is only apparent if we treat *chỉ* as semantically exclusive but not *mỗi* (Quek and Hirsch 2017, QH17). Yoruba [YO] similarly allows for exclusive doubling of adverbial *kàn* and adfocal *nìkan* (Yip and Adedeji 2024, YA24), as in (3). YA24, on the other hand, propose *nìkan* to be semantically exclusive but not *kàn*.

(2) Nam **chỉ** tặng hoa cho **mỗi** [cô ấy]$_{\text{F}}$. [VN]
Nam only give flower to only her
'Nam only gave flowers to *her*.'

(3) Ayọ̀ **kàn** fún [Adé]$_{\text{F}}$ **nìkan** ní ìwé [YO]
Ayo only give Mary only SEC book
'Ayo only gave *Ade* a book.'

Differential semantic import. I argue that in Vietnamese, it is **adverbial *chỉ*** that carries exclusive semantics; whereas in Yoruba it is **adfocal *nìkan***. VN data come from my fieldwork (21 spkrs.) and YO data are from YA24.

❶ Backward association. Adverbial 'only' must c-command its focus associate and cannot associate "backward" with a moved focus (Jackendoff 1972; Tancredi 1990; Beaver and Clark 2008; Erlewine 2014). While Vietnamese adverbial *chỉ* fails to associate backward with the fronted object focus in (4), Yoruba adverbial *kàn* allows for backward association in (5). The pattern remains the same in exclusive doubling with adfocal *mỗi*/*nìkan*.

(4) * Hôm qua (**mỗi**) [thịt bò]$_{\text{F}}$ Nam (mới) **chỉ** ăn _. [VN]
yesterday only beef Nam just only eat
Int.:'Nam only ate *beef* yesterday.'

(5) [German]$_{\text{F}}$ (**nìkan**) ni Akín **kàn** ṣe _. [YO]
German only FOC Akin only do
'It is only *German* that Akin took.'

❷ Multiple association. Consider cases with multiple foci. In Vietnamese, when *mỗi* is moved out with the focus, *chỉ* may establish another association with elements within its scope, yielding a multiple/stacked 'only' reading in (6). The multi-'only' reading is however not possible in Yoruba with just one *kàn* and *nìkan* in (7a), but it requires two *nìkan* in (7b). Put differently, *kàn*'s focus association seems to be dependent on *nìkan*.

(6) **Mỗi** [Minh]$_{\text{F}}$ (là) Nam **chỉ** tặng [hoa hồng]$_{\text{F}}$ (thôi). (only-IO > only-DO) [VN]
only Minh COP Nam only give rose SFP.only
'Minh is the only one who Nam only gave *rose* to.' (Nam gave rose and lavender to other people.)

(7) [John]$_{\text{F1}}$ **nìkan** ni ó **{a. kàn}** máa-ń ka [àwọn ìwé Gẹ̀ẹ́sì]$_{\text{F2}}$ **{b. nìkan}**.
John only FOC 3SG only HAB-PROG read PL book English only
a. 'John is the only person who reads English books.' (#others read both En. and Fr.-books) (Subj. focus)
b. 'Only John only reads English books.' (others read both En. and Fr.-books) (multi-'only') [YO]

❸ Scopal interaction with negation. In Vietnamese, scope of 'only' with negation is determined by the position of *chỉ*, as in (8). Yet, in Yoruba, the scope with negation is not determined by the relative position of *kàn*. In (9), the negation takes wide scope over 'only' when preceding the ex-situ focus, and narrow scope under following the focus, where *nìkan* may or may not pronounced. In both cases, the negation is higher than *kàn*.

(8) a. Nam **chỉ** không học **mỗi** [tiếng Pháp]$_{\text{F}}$.
Nam only not learn PRT.only French
'Nam only does not learn French .' (only>¬)

b. Nam không **chỉ** ăn **mỗi** [tiếng Pháp]$_{\text{F}}$. [VN]
Nam not only learn PRT.only French
'Nam does not only learn French.' (¬>only)

(9) a. kì-í ṣe [German]$_F$ (**nìkan**) ni John **kàn** ṣe _. b. [German]$_F$ (**nìkan**) ni John kò **kàn** ṣe _. [YO]
NEG do German only FOC John only do German only FOC John NEG only do
'It is not only German that John takes.' (¬>only) 'It is only German that John didn't take.' (only>¬)

❹ **Wide scope under ellipsis.** Adverbial *only* cannot associate into ellipsis site unless itself is also elided (Beaver and Clark 2008). Bassi et al. (2022) suggest that null OP$_{EXCL}$ behaves alike, and that *only*$_{adfoc}$'s wide scope reading in (10a) come from OP$_{EXCL}$, hence wide scope is unavailable under ellipsis in (10b). (D-)quantifiers, in contrast, perverse the wide scope under ellipsis (Sag 1976; Fox 2000; Bassi et al. 2022), as in (11).

(10) a. Jill may bring **only**$_{adfoc}$ WINE. (◇>only, only>◇) b. ... Bill may, too. (◇>only, *only>◇)
c. ^{OK}[Bill [may ~~<EXCL [bring only WINE]>~~]]] d. *[Bill [EXCL [may ~~<bring only WINE>~~]]]

(11) a. A boy is standing on **every** building. (every>a) b. A girl is, too. (every>a) (Bassi et al. 2022:816,818,820)

Turning to Vietnamese, while *mỗi* may have wide scope above a modal like 'may', it is not available under ellipsis in (12), indicating the presence of OP$_{EXCL}$. In Yoruba, in contrast, both wide and narrow scope of 'only' are *retained* when *nìkan* and the focus are elided, as in (13), which patterns with D-quantifiers (*cf.* (11)).

(12) a. Nam có thể mang **mỗi** [rượu vang]$_F$.
Nam may bring only wine
i. 'It's allowed that Nam only brings wine.' (may>only)
ii. 'Nam may only bring wine.' (only>may)
b. ... Lan cũng có thể.
Lan also may
ONLY: '... It is also allowed that Lan only brings wine.' (may>only,*only>may) [VN]

(13) a. Olùkọ́ náà gba John láàyè [láti ṣe German$_F$ **nìkan**]. b. ... Olùkọ́ gba Mary náà láàyè.
teacher the permit John give.chance to do German only teacher permit Mary as.well give.chance
i. 'The teacher allows John to only take German.' (permit>only) i. 'The teacher also allows M. to only take Ger.'
ii. 'The teacher only allows John to take German.' (only>permit) ii. 'The teacher also only allows M. to take Ger.'

Parametric variations in exclusive doubling. I propose that whether a language adopts D- or A-quantification for exclusives is parameterized. Adverbial *chỉ* in Vietnamese is an exclusive A-quantifier (one-place propositional operator) as in (14), whereas adfocal *nìkan* in Yoruba is a two-place D-quantifier as in (15).

(14) $[\![chỉ]\!](ALT) = \lambda p \lambda w : p(w).\forall q[(q \in ALT \wedge q(w)) \rightarrow p \subseteq q]$ (A-quantification, after Rooth 1992, QH17)

(15) $[\![nìkan]\!] = \lambda x.\lambda P.\forall y[P(y) \rightarrow y = x]$ (D-quantification, after Rooth 1985)

Under this view, ❶-❹ fall out. *Chỉ* is an exclusive operator that establishes its own association, which requires c-commanding the focus , and controls the scope with negation. *Kàn* is not a true operator and does not associate with focus, thus free from the backward association restriction and also cannot determine scope. Instead, *nìkan* is a D-quantifier responsible for focus association (its sister) and scope, and its wide scope survives ellipsis.

Towards a four-way typology. Extending the parameterization, we expect some languages to have both types particles semantically exclusive, and some other to have neither of them exclusive, giving a four-way typology:

(16) a. *Type I: doubling, adverbial particle=OP$_{EXCL}$*
$\boxed{\textbf{OP}_{\textbf{EXCL}}}$ [$_{VP}$ ... Prt-XP$_F$] (Vietnamese)
b. *Type II: doubling, adfocal particle=Qu$_{EXCL}$*
Prt [$_{VP}$ ... $\boxed{\textbf{Qu}_{\textbf{EXCL}}}$-XP$_F$] (Yoruba)
c. *Type III: doubling, OP$_{EXCL}$=null*
$\boxed{\textbf{OP}_{\textbf{EXCL}}\text{-}\varnothing}$ ... Prt [$_{VP}$ ... Prt-XP$_F$] (Kasem)
d. *Type IV: no doubling, having both OP$_{EXCL}$ & Qu$_{EXCL}$*
$\boxed{\textbf{OP}_{\textbf{EXCL}}}$ [$_{VP}$ ... $\boxed{\textbf{Qu}_{\textbf{EXCL}}}$-XP$_F$] (Mandarin)

I suggest that Kasem manifests Type III (*pace* Aremu 2024). In (17), adverbial *weeni* allows backward association. On the other hand, multiple adfocal *yerane* does not give rise to a multi-'only' reading: (18) has a single-'only' reading associating a ordered pair <Adam,rice>, the only pair that satisfies the eating relation.

(17) [Chworo]$_F$ (**yerane**) mo Adam **weeni** o goa _. (18) [Adam]$_F$ **yerane** mo di [mumuna]$_F$ **yerane**. [KS]
fowl only FOC Adam only 3SG kill.COMPL Adam only FOC eat rice FOC
Lit. 'A fowl, Adam only slaughtered. (and nothing else)' 'No one ate anything, except that Adam ate rice.'

Finally, I suggest that Mandarin exemplifies Type IV, where both particles are exclusive (*pace* Sun 2021). Hence, no doubling is possible (=19), and scope is determined by adverbial *zhi* (=20) *and* adfocal *zhiyou* (see Sun 2021:333).

(19) *Ta **zhi**/**zhishi** **zhiyou** [niurou]$_F$ cai chi. (20) Zhangsan **{a. zhi}** keyi **{b. zhi}** chi [niurou]$_F$.
3SG only/only.be only beef just eat Zhangsan only may only eat beef
Int.: 'S/he only/just eats beef.' 'Zhangsan may eats only beef.' (a. only>◇; b. ◇>only)

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