Exclusive focus in Akan and type flexibility

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TripleA 12
Tokyo University of Foreign Studies

September 10-12, 2025

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Introduction

- English *only*: adverbial and adfocal uses, manifested as different syntactic positions.[1] (Horn 1969; Taglicht 1984; Rooth 1985, *i.a.*)
  - The truth conditions in the two sentences in (1) are the same.

(1) a. John **only$_{\text{Adv}}$** saw MARY. (Adverbial *only*)

b. John saw **only$_{\text{Adfoc}}$** MARY. (Adfocal *only*)

- Different views on the semantic type of *only*
  - Consensus: adverbial *only* is an exclusive operator (A-quantifier)
  - Debate: the status of adfocal *only*—D-quantifier or concord particle?

1. There is also an adjectival use (e.g., *the only child*), which will be set aside today.

Different views on the semantic type(s) of exclusives

1. The type-ambiguity view

(Horn 1969; Rooth 1985, 1992; Coppock and Beaver 2014; cf. Renans 2017)

- Adfocal: a D-quantifier (<e,<et,t>>)
- Adverbial: VP operator / sentential propositional operator (<st,t>)
- See Coppock and Beaver (2014) for a fine-grained view (property, quantifier, relation, and propositional modifiers) and type-shifting operations

2. The uniform operator view

(Lee 2005; Quek and Hirsch 2017; Bassi, Hirsch, and Trinh 2022; Hirsch 2022; Sun 2021; Branan and Erlewine 2023; Yip 2023; Aremu 2024; cf. Bayer 1996, *i.a.*)

- The operator-particle approach: reduces the adfocal uses to the adverbial uses
- Adverbial *only*: the only entry, propositional/A-quantifier
- Adfocal *only*: truth-conditionally void elements without exclusive semantics
  ➜ exclusion is by a null operator OP_{EXCL}

(2) $[_{TP}$ Subj $[\mathbf{OP_{excl}}\ [_{VP}$ V $[\mathbf{Adfoc_{excl}}$ $DP_F]]]]$

Akan exclusive particles

- Akan (Kwa) only has **adfocal** exclusive particles: *nkoaa* 'only' and *pɛ* 'only'.
  - There is no adverbial exclusive particle in the language.

(3) a. [John]$_F$ **nkoaa** na ɛ-hu-u Mary.
John only FOC 3SG-see-PST Mary
'Only John saw Mary.'

b. [John]$_F$ **pɛ** na ɛ-hu-u Mary.
John only FOC 3SG-see-PST Mary
'Only John saw Mary.'

- The two particles may stack on a single focus associate: **exclusive doubling**.

(4) [John]$_F$ **nkoaa** **pɛ** na ɛ-hu-u Mary.
John only only FOC 3SG-see-PST Mary
'Only John saw Mary.'

Research goals

- Understudied: no previous systematic study to the best of our knowledge (except Renans 2017 on Ga, a different Kwa language)
- Typologically informative to the debate

(5) Research questions

a. Do the two adfocal particles *nkoaa* and *pɛ* differ in their semantic properties?

b. Do languages like Akan have a D-quantifier 'only', or always have a null operator with two semantically vacuous adfocal particles?

c. How to resolve the compositionality problem raised by the exclusive doubling?

Research goals (cont.)

① First, we show that *nkoaa* exhibits **cross-categorical** association, unlike *pɛ*

➜ We propose a **type-flexible** analysis for *nkoaa*, supporting view ❶

② Second, we further demonstrate that both particles exhibit **scopal ambiguity** which remains unaffected by ellipsis

➜ As evidence **against** a null operator analysis, *contra.* view ❷

③ Third, we propose that only *nkoaa* carries exclusive semantics, and *pɛ* is not exclusive but a scalar particle dependent on it

➜ Resolving the compositionality problem raised by exclusive doubling (A scalar focus approach to doubling, Yip 2024; cf. Hole 2015, 2017)

➜ Maintaining the insight from the operator-particle approach that there is a dependency between doubled particles

Roadmap & Note on data collection

- Road map

§2: Basic properties
§3: Cross-categorical association
§4: Scopal behavior
§5: A type-flexible analysis on *nkoaa*
§6: Accounting for exclusive doubling
§7: Conclusion
§8: Appendices

- Data
  - Judgment by the second author (CA), who speaks the Asante Twi dialect of Akan natively
  - Further confirmed by three other native speakers

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Exclusive particles in Akan

- Three basic properties:

① **Adfocal**, instead of adverbial

② **At-issue exclusivity**, instead of not-at-issue exhaustivity

③ **Doubling** possible ➜ Compositionality problems

① Adfocal properties: #1 Placement

- Both *nkoaa* and *pɛ* can associate with in-situ focus.
- They attach to the **right** of the focus associate, i.e., they are adfocal.

(6) In-situ focus

a. John ɛ-hu-u [Mary]$_F$ {**nkoaa**/ **pɛ**}. (Object focus)
John 3SG-see-PST Mary only only
'John saw only Mary.'

b. [John]$_F$ {**nkoaa**/ **pɛ**} ɛ-hu-u Mary. (Subject focus)
John only only 3SG-see-PST Mary
'Only John saw Mary.'

① Adfocal properties: #2 Pied-piping

- When the focus undergoes movement as marked by *na*, *nkoaa* and *pɛ* also **pied-pipe** along.

(7) Ex-situ focus: *na*-focus movement

a. [Mary]$_F$ {**nkoaa**/ **pɛ**} na John ɛ-hu-u no. (Object focus)
Mary only only FOC John 3SG-see-PST 3SG
'It is only Mary that John saw.'

b. [John]$_F$ {**nkoaa**/ **pɛ**} na ɛ-hu-u Mary. (Subject focus)
John only only FOC 3SG-see-PST Mary
'Only John saw Mary.'

- *Na* is a cleft focus marker and is usually analyzed to carry exhaustive meaning. (Boadi 1974; Grubic, Renans, and Duah 2019, but see Titov 2019)
- Such exhaustivity, however, is **not-at-issue**, which contrasts with the **at-issue** exclusivity signaled by *nkoaa* and *pɛ*. (to be discussed)

① Adfocal properties: #3 Failure of AwF at a distance

- Both *nkoaa* and *pɛ* **fail** to associate with focus at a distance

(8) Failure to associate at a distance

a. John ma-a [Mary]$_F$ nwoma {**nkoaa**/ **pɛ**}.
John give-PST Mary book only only
Int.: *IO focus, 'John gave only Mary a book.'
ONLY: DO focus, 'John gave Mary only a book.'

b. John ma-a [Mary]$_F$ {**nkoaa**/ **pɛ**} nwoma.
John give-PST Mary only only book
IO focus: 'John gave only Mary a book.'

- Adverbial *only* in English may associate at a distance, but not adfocal *only*.

(9) a. John **only$_{Adv}$** gave a book to [Mary]$_F$.

b. # John gave **only$_{Adfoc}$** a book to [Mary]$_F$.
Int.: *'The only person John gave a book to is Mary'
ONLY: 'The only thing John gave to Mary is a book.'

② At-issue exclusivity

- Sentences containing *nkoaa* and *pɛ* convey **at-issue exclusivity**.
- Cannot continue with additive focus

(10) a. Mary kan-n [nwoma yi]$_F$ **nkoaa**. #ɔ kan-n [nwoma wei]$_F$ **nso**.
Mary read-PST book this only 3SG read-PST book that also.
'Mary read only this book. #She also read that book.'

b. Mary kan-n [nwoma yi]$_F$ **p**ɛ. #ɔ kan-n [nwoma wei]$_F$ **nso**.
Mary read-PST book this only 3SG read-PST book that also.
'Mary read only this book. #She also read that book.'

② At-issue exclusivity: negation

- The exclusivity can be **negated**, unlike the prejacent which projects up.
  - As evidenced by the now felicitous continuation with additive focus.

(11) Negating the exclusivity

Mary a-n-kan [nwoma yi]$_F$ {**nkoaa**/ **pɛ**}. ɔ kan-n [nwoma wei]$_F$ **nso**.
Mary PFV-NEG-read book this only only 3SG read-PST book that also.
'Mary did not read only this book. She also read that book.'

- In contrast to *na*:
  - Not-at-issue exhaustivity: cannot be negated
  - Asserted prejacent: can be negated

(12) ɛ-n-yɛ [nwoma yi]$_F$ **na** Mary kan-n. #ɔ kan-n [nwoma
3SG-NEG-COP book this FOC Mary read-PST 3SG read-PST book

wei]$_F$ **nso**.
that also.

'It is not this book that Mary read. #She also read that book.'

② At-issue exclusivity: question

- The exclusivity can also be **questioned**.
  - As evidenced by the felicitous answer with additive focus.

(13) Questioning the exclusivity

Q. Mary kan-n [nwoma yi]$_F$ {**nkoaa**/ **p**ɛ} anaa?
Mary read-PST book this only only Q
'Did Mary read only this book?'

A. Daabi. ɔ kan-n [nwoma wei]$_F$ nso.
no 3SG read-PST book that also
'No. She also read that book.'

② At-issue exclusivity: question (cont.)

- Unlike the exhaustivity contributed by *na*, which cannot be questioned.
- Note that the question particle *anaa* is syntactically higher than the focus (see Ahenkorah 2025 for a comprehensive study on *anaa*)

(14) Q. [Nwoma yi]$_F$ na Mary kan-n yɛ anaa?
book this FOC Mary read-PST YƐ Q
'Is it this book that Mary read?'

A. Daabi. #ɔ kan-n [nwoma wei]$_F$ nso.
no 3SG read-PST book that also
'No. #She also read that book.' (vs. ^{OK}She did not read this book.)

② At-issue exclusivity: conditional antecedent *(skipped)*

- The exclusivity also does not project up out of a conditional sentence.
  - In contrast to the prejacent, which is presupposed, as tested by the inference.

(15) Exclusivity in a conditional antecedent

a. Sɛ Mary kan-n nwoma yi {**nkoaa**/ **p**ɛ} a, tikya no bɔ
if Mary read-PST book this only only Q teacher DET chest
bɛ fo].
FUT grow
'If Mary only read this book, the teacher will be mad.'

b. Enti, ɔ kan-n nwoma yi.
therefore 3SG read-PST book this
'Therefore, she read this book.'

c. # Enti, ɔ kan-n [nwoma yi]$_F$ {**nkoaa**/ **p**ɛ}.
therefore 3SG read-PST book this only only
#'Therefore, she read only this book.'

③ Exclusive doubling

- As mentioned, *nkoaa* and *pɛ* can be stacked on the same focus associate
- An ordering constraint on in-situ focus: ***nkoaa*** $<$ ***pɛ***

(16) Exclusive doubling: in-situ object focus

John	ɛ-hu-u	[Mary]$_F$	{**nkoaa**	**pɛ**/	***pɛ**	**nkoaa**}.
John	3SG-see-PST	Mary	only	only	only	only

'John saw only Mary.'

- The ordering constraint is relaxed with ex-situ focus (for reasons unknown to us).
  - No meaning difference between the two word orders.

(17) Exclusive doubling: ex-situ object focus

[Mary]$_F$	{**nkoaa**	**pɛ**/	**pɛ**	**nkoaa**}	na	John	ɛ-hu-u	no.
Mary	only	only	only	only	FOC	John	3SG-see-PST	3SG

'It is only Mary that John saw.'

③ Exclusive doubling (cont.)

- We've seen: each of *nkoaa* and *pɛ* yields at-issue exclusivity on their own.
- But they can also be doubled, with the **same truth conditions** as if only one particle is used. ➜ Can similarly be negated and questioned

(18) Exclusivity in doubling can be negated and questioned

a. Mary a-n-kan [nwoma yi]$_F$ **nkoaa pɛ**. ɔ kan-n [nwoma wei]$_F$ **nso**.
Mary PFV-NEG-read book this only only 3SG read-PST book that also.
'Mary did not read only this book. She also read that book.'

bi. Q: Mary kan-n [nwoma yi]$_F$ **nkoaa pɛ** anaa?
Mary read-PST book this only only Q
Q: 'Did Mary read only this book?'

bii. A: Daabi. ɔ kan-n [nwoma wei]$_F$ nso.
no 3SG read-PST book that also
A: 'No. She also read that book.'

➜ **Compositionality** problem: both appear to be exclusive, but only one should be the exclusive

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Cross-categorical association with focus (AwF)

- The two particles differ in the categories of the focus that they associate with
- We've seen DP association before; the difference lies in non-DP categories
  ➜ VP & CP, setting NP (adjectival uses) aside

Association with VP

- Only *nkoaa* can associate with a **VP focus** in (19a).
  - *pɛ* in (19b) can only be understood as associating with the object.

(19) Association with VP

The teacher asks: What did Mary do yesterday? Did Mary read books? You say: No,

a. Mary [tu-u nwom]$_F$ **nkoaa**.
Mary sing-PST song only
'Mary only sang songs (and did not read books).'

b. #Mary [tu-u nwom]$_F$ **pɛ**.
Mary sing-PST song only
ONLY: 'Mary sang only *songs*.' (DP object focus)

- Yet, strikingly, *pɛ* may *exceptionally* target a VP in **doubling**:

(20) Mary [tu-u nwom]$_F$ **nkoaa** **pɛ**.
Mary sing-PST song only only
'Mary only sang songs (and did not read books).'

Association with VP (cont.)

- The patterns remain the same with ex-situ focus.

(21) *The teacher asks: What did Mary do yesterday? Did Mary read books? You say: No,*

a. [nwom tu-ʊ]$_F$ **nkoaa** na Mary tu yɛ.
song sing-NMZL only FOC Mary sing Yɛ
'It was only singing songs that Mary did.'

b. ?[nwom tu-ʊ]$_F$ **p**ɛ na Mary tu yɛ.
song sing-NMZL only FOC Mary sing Yɛ
Int.: 'It was only singing songs that Mary did.'
Strongly preferred: 'It was singing only *songs* that Mary did.' (DP obj. focus)

c. [nwom tu-ʊ]$_F$ **nkoaa p**ɛ na Mary tu yɛ.
song sing-NMZL only only FOC Mary sing Yɛ
'It was only singing songs that Mary did.'

Association with CP

- **CP focus** association displays the same patterns
- Fine with *nkoaa* but not *pɛ*:

(22) Association with CP

Both John and Mary did bad things. You are all discussing whether the teacher knows. You say: The teacher does not know that Mary smoked cigarette,

a. Takyini no nim [sɛ John wiaa phone]$_F$ **nkoaa**.
teacher DET know COMP John stole phone only
'The teacher only knows John stole a phone.'

b. # Takyini no nim [sɛ John wiaa phone]$_F$ **pɛ**.
teacher DET know COMP John stole phone only
ONLY: 'The teacher knows John only stole *a phone*.' (embedded DP-obj. focus)

- Yet, again, **doubling** is possible:

(23) Takyini no nim [sɛ John wiaa phone]$_F$ **nkoaa** **pɛ**.
teacher DET know COMP John stole phone only only
'The teacher only knows John stole a phone.'

Association with CP (cont.)

- The patterns are the same with ex-situ focus.

(24) *Both John and Mary did bad things. You are all discussing whether the teacher knows. You say: The teacher does not know that Mary smoked cigarette,*

a. [sɛ John wiaa phone]$_F$ no **nkoaa** na takyini no nim.
COMP John stole phone CD only FOC teacher DET know
'It is only "John stole a phone" that the teacher knows.'

b. # [sɛ John wiaa phone]$_F$ no **pɛ** na takyini no nim.
COMP John stole phone CD only FOC teacher DET know
Int.: 'It is only "John stole a phone" that the teacher knows.'
ONLY: 'It is "John stole only *the phone*" that the teacher knows.'
(embedded DP-obj. focus)

c. [sɛ John wiaa phone]$_F$ no **nkoaa pɛ** na takyini no nim.
COMP John stole phone CD only only FOC teacher DET know
'It is only "John stole a phone" that the teacher knows.'

Interim summary

① Differences in cross-categorical association: *nkoaa* is **flexible**, *pɛ* is **not**

(25) Focus association possibilities

a. Singleton *nkoaa*: DP, **VP**, **CP**

b. Singleton *pɛ*: DP

c. Doubling *nkoaa pɛ*: DP, **VP**, **CP**

② Despite the difference, doubling relaxes the restrictions!

➜ *nkoaa* determines the AwF possibilities; *pɛ* is **dependent** on it

- Reminiscent of cross-categorical uses of determiner *no* 'the' in Akan
  - *no* attaches to nominals and clauses (as a clausal determiner) (Owusu 2022, 2025)

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Scopal behavior

① Both *nkoaa* and *pɛ* display scopal ambiguities with other operators, like English adfocal *only*

- Negation
- Modals
- Attitude verbs (see Appendix B)

② However, unlike English adfocal *only*, the wide scope is preserved after ellipsis in Akan
➜ Will be crucial for the (non-)existence of null operators

Scope with negation

- Both *nkoaa* and *pɛ* display scopal ambiguity with respect to negation.
- **Inverse scope over negation** is possible.
- The patterns hold for *nkoaa*, *pɛ*, and doubling of them.

(26) Ex-situ focus, wide scope (only>NEG)
[Context: There are only three books.]

a. Mary **n**-kan nwoma yi **nkoaa**. (ɔ kan-n nwoma mienu wei nkoaa).
Mary NEG-read book this only 3SG read-PST book two that only

b. Mary **n**-kan nwoma yi **pɛ**. (ɔ kan-n nwoma mienu wei nkoaa).
Mary NEG-read book this only 3SG read-PST book two that only

c. Mary **n**-kan nwoma yi **nkoaa pɛ**. (ɔ kan-n nwoma mienu wei nkoaa).
Mary NEG-read book this only only 3SG read-PST book two that only

(a-c): 'Mary only does not read this book. (She only read the other two.)'

Scope with negation (cont.)

- We have seen **surface/narrow scope under negation** (§2). Another example:

(27) Narrow scope (NEG>only)

a. Mary **n**-kan *NY Times* **nkoaa**. (ɔ kan-n newspapers foforo nso.)
Mary NEG-read *NY Times* only 3SG read-PST newspapers other also

b. Mary **n**-kan *NY Times* **p**ɛ. (ɔ kan-n newspapers foforo nso.)
Mary NEG-read *NY Times* only 3SG read-PST newspapers other also

c. Mary **n**-kan *NY Times* **nkoaa p**ɛ. (ɔ kan-n newspapers foforo nso.)
Mary NEG-read *NY Times* only only 3SG read-PST newspapers other also
(a-c): 'Mary does not only read *New York Times*. (She also read other newspapers.)'

Scope with negation (cont.)

- With *na*-focus movement, narrow scope is still possible
  ➜ indicating **reconstruction**

(28) Narrow scope (NEG>only)

NY Times	{**nkoaa**/	**pɛ**/	**nkoaa**	**pɛ**}	na	Mary	**n**-kan.	(O	kan-n
NY Times	only	only	only	only	FOC	Mary	NEG-read	3SG	read-PST
newspapers	foforo	nso.)							
newspapers	other	also							

'Mary does not only read *NY Times*. (She also read other newspapers.)'

- Unlike English, which enforces wide scope *only* after clefting

(29) It is only$_{\text{Adfoc}}$ *New York Times* that Mary does not read. (only>NEG)

Scope with modals

- With the presence of **modals**, scopal ambiguity is also observed.

(30) Scopal ambiguity with modals

John **be-tumi** de nsa fufuo {a. **nkoaa**/ b. **pɛ**/ c. **nkoaa pɛ**} a-ba.
John can use wine white only only only only PFV-come
'John can bring only palm wine.'

(31) a. Wide scope (only>◇): (30a): OK, (30b): OK, (30c): OK

Today is palm wine day. John can only bring palm wine and cannot bring other types of alcohols. (✘ beer/whisky...)

... Enti, ɔ ɛ-n-tumi n-fa nsa foforo biara ɛm-ba.
therefore, 3SG 3SG-NEG-can NEG-take wine other rest NEG-come
'(...) Therefore, he cannot bring other wines.'

b. Narrow scope (◇>only): (30a): OK, (30b): #, (30c): ?

Today is John's graduation day. Everyone else needs to bring two types of alcohols to celebrate, but John is exempted: he can bring whatever he wants. (✔ nothing, ✔ just palm wine, ✔ beer & whisky ...)

... Nanso ɔ be-tumi de nsa foforo a-ba (nso).
but 3SG can use wine other PFV-come also
'(...) But he can also bring other wines.'

Scope with modals (cont.) *(skipped)*

- Note that we obtain the same scopal patterns after *na*-focus movement

(32) Scopal ambiguity with modals

nsa fufuo {a. **nkoaa**/ b. **pɛ**/ c. **nkoaa pɛ**} na John **be-tumi** de
wine white only only only only FOC John can use
a-ba.
PFV-come
'John can bring only wine.'

(33) a. Wide scope (only>◇): (32a): OK, (32b): OK, (32c): OK

... Enti, ɔ ɛ-n-tumi n-fa nsa foforo biara ɛm-ba.
therefore, 3SG 3SG-NEG-can NEG-take wine other rest NEG-come
'(...) Therefore, he cannot bring other wines.'

b. Narrow scope (◇>only): (32a): OK, (32b): #, (32c): ?

... Nanso ɔ be-tumi de nsa foforo a-ba (nso).
but 3SG can use wine other PFV-come also
'(...) But he can also bring other wines.'

Wide scope under ellipsis

- Interestingly, the two languages differ in **whether the wide scope is preserved after ellipsis**.
- This is the case in Akan when the focus is elided with the adfocal particles
  - Including object ellipsis and 'do so' replacement
  - Same patterns for singleton *nkoaa*, singleton *pɛ*, and doubling.

(34) Wide scope is preserved with ellipsis ("Palm wine day" scenario)

a. John **be-tumi** de nsa fufuo {**nkoaa**/ **pɛ**/ **nkoaa pɛ**} a-ba.
John can use wine white only only only only PFV-come
'John can only bring palm wine. (but not beer, etc.)' (only>NEG)

b. ... Mary nso be-tumi {de Δ a-ba/ a-yɛ saa}.
Mary also can use PFV-come PFV-do that
'Mary also can only bring palm wine.' (...So, Mary cannot bring beer, etc.)
(only>NEG)

Wide scope under ellipsis (cont.)

- While English also has scopal ambiguity for adfocal *only* ($\neq$ adverbial *only*) ...

(35) a. John may bring **only$_{\text{Adfoc}}$** WINE$_F$. (only>◇ ,◇>only)

cf. John is **only$_{\text{Adv}}$** allowed to bring WINE$_F$. (only>◇, *◇>only)

cf. John is allowed to **only$_{\text{Adv}}$** bring WINE$_F$. (*only>◇, ◇>only)

- ... adfocal *only* loses its wide scope after ellipsis! (Bassi, Hirsch, and Trinh 2022)

(36) a. (John may bring **only$_{\text{Adfoc}}$** WINE.) Bill may, too. (◇>only, *only>◇)

b. ...# Therefore, Bill cannot bring beer.

c. ...Of course Bill can also bring beer if he likes.

Wide scope under ellipsis (cont.)

- Bassi, Hirsch, and Trinh (2022) argue that adfocal *only* is not a quantifier and merely signals the presence of a null operator, equivalent to adverbial *only*.
- Adverbial *only* is subject to a constraint of associating with an overt focus, which cannot be elided unless $only_{Adv}$ itself is elided together.
  (Beaver and Clark 2008:§7; Bassi, Hirsch, and Trinh 2022; cf. Tancredi 1990 Principle of Lexical Association).

(37) Focus association of *only* fails in VP ellipsis

A: I **only** know he brought WHITE$_F$ wine. What about you?

a. B1: I **only** know he brought WHITE$_F$ wine, too.

b. *B2: I **only** know he did ~~bring WHITE$_F$ wine~~, too.

cf. B3: I do ~~**only** know he brought white$_F$ wine~~, too.

cf. B4: I know he did ~~bring white wine~~, too.

(Bassi, Hirsch, and Trinh 2022:817)

Wide scope under ellipsis (cont.)

- The absence of wide scope reading is captured by a uniform operator approach to *only* (view ❷)
  - A null exclusive operator licenses the use of adfocal *only*, the latter being semantically void (at least on the asserted level)
  - When the focus is elided, OP_{EXCL}'s constraint (e.g., the PLA) is violated, rendering wide scope reading not available.

(38) a. $^{\text{OK}}$[Bill [may ~~<OP_{EXCL} [bring only WINE]>~~]]]

b. *[Bill [**OP_{excl}** [may ~~<bring only WINE>~~]]]

(adpated from Bassi, Hirsch, and Trinh 2022:816,818)

- In contrast, the wide scope reading by QR is preserved after ellipsis:

(39) a. A boy is standing on **every** building. (...) (every>a)

b. A girl is, too. (every>a) (Bassi, Hirsch, and Trinh 2022:820)

Interim summary

① Both English and Akan adfocal particles exhibit scopal ambiguity with other operators (e.g., modals)

② Wide scope readings are preserved after ellipsis only in Akan, but not in English

➜ The **survival** of wide scope in Akan suggests that there is **no null propositional operator** to associate with the elided focus across modals

- The wide scope should be attributed to QR.
- The exclusivity should come from the particles as D-quantifiers.
  ➜ challenging view ❷ (in Akan).
- Vs. English where adfocal *only* is not a D-quantifier.

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The proposal in a nutshell

① Type flexibility

- *Nkoaa* is type-flexible (➜ cross-categorical association)
- Supporting the type ambiguity view ❶
- No null sentential exclusive operator (in Akan) (➜ wide scope survives ellipsis)

② A "distributed meaning" scalar focus approach (Yip 2024)

- Only *nkoaa* carries exclusive semantics; *pɛ* carries not-at-issue scalarity
- *pɛ* is dependent on an exclusive (and type-flexible itself), which is
  ➜ either *nkoaa* (➜ cross-categorical association in doubling)
  ➜ or a type-inflexible D-quantifier EXCL (➜ DP-only association)

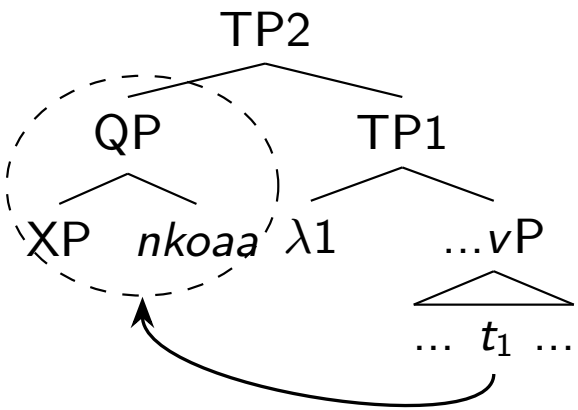
A type-flexible analysis

- ***Nkoaa*** carries the exclusive semantics
- **Type-flexible**: allowing for its cross-categorical uses

(40) $[\![nkoaa]\!] = \lambda\gamma_{\tau}\lambda\mathbb{P}_{\langle\tau,t\rangle}.\forall\delta_{\tau}[\mathbb{P}(\delta) \rightarrow \gamma = \delta]$; where τ = *e*, $\langle e,t\rangle$, $\langle s,t\rangle$, or $\langle et,t\rangle$

- QP with *nkoaa* undergoes **Quantifier-Raising (QR)** to a propositional level
- Leaving a variable of *nkoaa*'s prejacent's type abstracted
  (see Lechner 1999, 2017; Hirsch and Schwarz 2023; Poole and Keine 2024 for higher-type abstraction/traces)

(41) LF: (type of variable abstracted = XP's type)



Deriving DP association

(42) Association with DP

John ɛ-hu-u [Mary]$_F$ **nkoaa**.
John 3SG-see-PST Mary only
'John saw only Mary.'

(43) Composition (tense ignored)

a. $[\![t]\!]=x$ (cf. $[\![\text{DP1}]\!]=m$)

b. $[\![\text{VP}]\!]=\lambda z_e.see(z,x)$

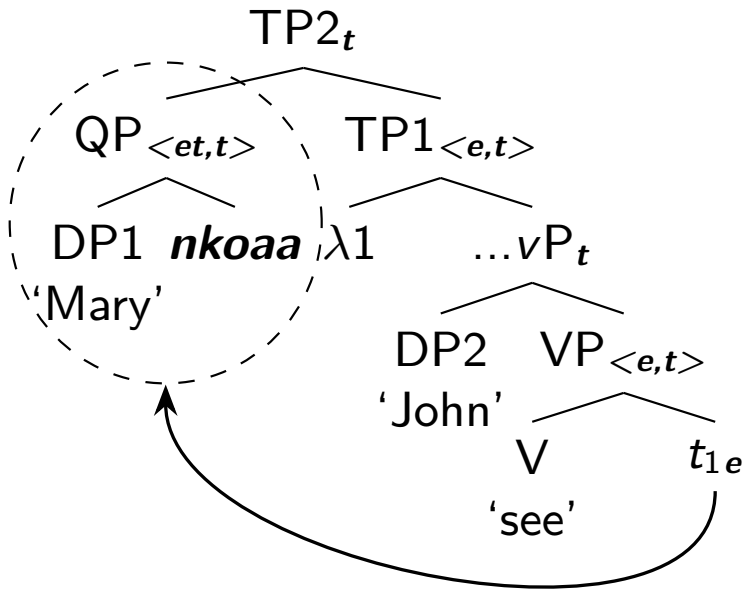
c. $[\![v\text{P}]\!]=see(j,x)$

d. $[\![\text{TP1}]\!]=\lambda x_e.see(j,x)$

e. $[\![\text{QP}]\!]=\lambda P_{\langle e,t\rangle}.\forall y_e[P(y)\rightarrow m=y]$

f. $[\![\text{TP2}]\!]=\forall y_e[see(j,y)\rightarrow m=y]$

(44)



Deriving VP association

(45) Association with VP

Mary [tu-u nwom]$_F$ **nkoaa**.
Mary sing-PST song only
'Mary only sang songs (and did not read books).'

(46) Composition (tense ignored)

a. $[\![t]\!]=\lambda y_e.P(y)$
(cf. $[\![\text{VP}]\!]=\lambda y_e.sing(y)$)

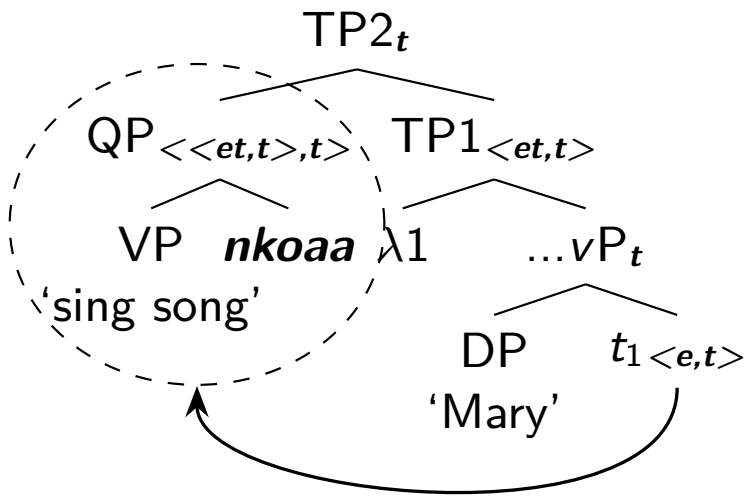
b. $[\![v\text{P}]\!]=P(m)$

c. $[\![\text{TP1}]\!]=\lambda P_{\langle e,t\rangle}.P(m)$

d. $[\![\text{QP}]\!]=\lambda \mathscr{P}_{\langle et,t\rangle}.\forall Q_{\langle e,t\rangle}$
$[\mathscr{P}(Q) \rightarrow \lambda x_e.sing(x) = Q]$

e. $[\![\text{TP2}]\!]=$
$\forall Q_{\langle e,t\rangle}[Q(m) \rightarrow \lambda x_e.sing(x) = Q]$

(47)



Deriving CP association

(48) Association with CP

Bill nim [sɛ John wiaa phone]$_F$ **nkoaa**.
Bill DET know COMP John stole phone
'Bill only knows John stole a phone.' (but doesn't know Mary smoked cigarette)

(49) Composition (tense ignored)

a. $[\![t]\!]=p$ (cf. $[\![\text{CP}]\!]=\hat{}\,John.steal.phone$)

b. $[\![\text{VP}]\!]=\lambda z_e.know(z, p)$

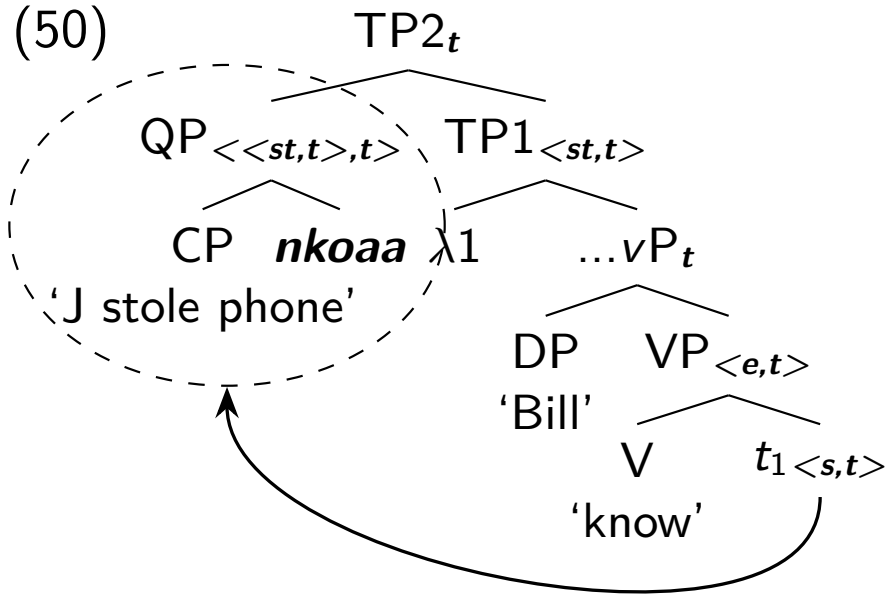
c. $[\![v\text{P}]\!]=know(b, p)$

d. $[\![\text{TP1}]\!]=\lambda p_{\langle s,t\rangle}.know(b, p)$

e. $[\![\text{QP}]\!]=\lambda \mathscr{Q}_{\langle\langle s,t\rangle,t\rangle}.\forall q_{\langle s,t\rangle}[\mathscr{Q}(q) \rightarrow \hat{}\,John.steal.phone = q]$

f. $[\![\text{TP2}]\!]=\forall q_{\langle s,t\rangle}[know(b, q) \rightarrow \hat{}\,John.steal.phone = q]$

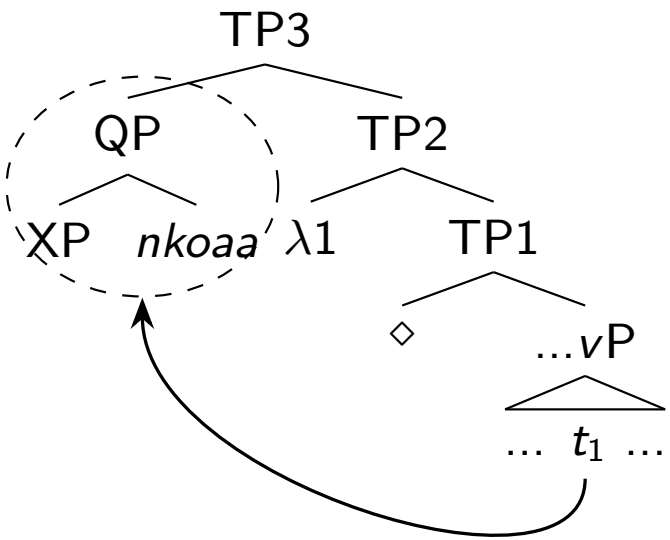
(50)



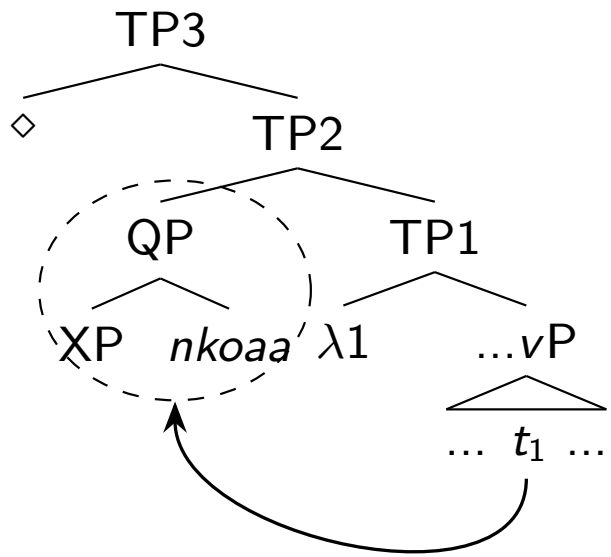
Deriving scopal behavior

- The scopal ambiguity in is derived by the height of QR

(51) Wide scope 'only'



(52) Narrow scope 'only'



➜ Also explains the survival of wide scope under ellipsis: QR happens in the LF and does not interact with ellipsis in the PF

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Accounting for doubling

- Turning to *pɛ*, we suggest that it is, at least on the **at-issue** level, a truth-conditionally vacuous particle.

(53) $[\![\text{pɛ}]\!] = \lambda\mathbb{P}_{\langle\tau,t\rangle}.\mathbb{P}_{\langle\tau,t\rangle}$; where $\tau = e$, $\langle e,t\rangle$, $\langle s,t\rangle$, or $\langle et,t\rangle$

- It syntactically agrees with (i) *nkoaa*, or (ii) a null D-quantifier EXCL, responsible for exclusivity when only *pɛ* appears.

(54) a. Singleton *pɛ* cases: $[[_{\text{QP}}\ \text{DP}_{\text{F}}\ \underline{\text{EXCL}]\ p\varepsilon}]$

b. Doubling cases: $[[_{\text{QP}}\ \text{XP}_{\text{F}}\ \underline{nkoaa]\ p\varepsilon}]$

Deriving the contrast in AwF

- We also assume that EXCL is **type-inflexible**: it is always $\langle e, \langle et, t\rangle\rangle$
  (cf. Rooth 1985; Coppock and Beaver 2014; Renans 2017)

(55) $[\![\text{EXCL}]\!] = \lambda x.\lambda P.\forall y[P(y) \rightarrow y = x]$ (preliminary)

- VP/CP association: type crashes with EXCL but not with *nkoaa*

(56) a. Singleton *pɛ*: # $[[_{\text{QP}}\ \text{VP}_{\langle e,t\rangle}/\text{CP}_{\langle s,t\rangle}\ \text{EXCL}_{\langle e,\langle et,t\rangle\rangle}]\ p\varepsilon_{\langle\langle\tau,t\rangle,\langle\tau,t\rangle\rangle}]$
$\rightsquigarrow$ undefined

b. Doubling: $[[_{\text{QP}}\ \text{VP}_{\langle e,t\rangle}/\text{CP}_{\langle s,t\rangle}\ \textit{nkoaa}_{\langle\tau,\langle\tau,t\rangle\rangle}]\ p\varepsilon_{\langle\langle\tau,t\rangle,\langle\tau,t\rangle\rangle}]$

- An alternative *syntactic* analysis: EXCL sub-categorizes for DP (or: with [*u*D])

  ← Problem: Ex-situ focus adds a DP to the moved VP/CP, but EXCL+pɛ still cannot associate with VP/CP

  E.g., Nominalizer V(owel)[-ATR] for ex-situ VP focus
  Clausal determiner *no* for ex-situ CP focus

Resolving the Compositionality Problem

- Since *pɛ* is not exclusive, doubling does not create Compositionality problems
- Nevertheless, we do ***not*** analyze *pɛ* as a vacuous concord particle, **unlike** the operator-particle approach (e.g., Quek and Hirsch 2017; Bassi, Hirsch, and Trinh 2022; Branan and Erlewine 2023, *i.a.*)
- Instead, we propose that *pɛ* does have focus-sensitive contribution, but on the **not-at-issue level**
  - At-issue (truth-conditionally): *pɛ* is a partial identity function
  - Not-at-issue: *pɛ* orders the prejacent to be lower than some alternatives on a contextual scale
- The meaning of scalar exclusive focus is "distributed" in doubling (cf. Yip 2024 for Cantonese and Yip and Adedeji 2024 for Yoruba)

(57) Doubling: $[[_{QP}\ XP_F\ nkoaa_{[\textbf{Exclusivity}]}]\ p\varepsilon_{[\textbf{Scalarity}]}]$

Scalarity on *pɛ*

- There is scalar contribution by *pɛ*, which is not found on *nkoaa*.
- *Pɛ* is thus not semantically vacuous (at least on the not-at-issue level).
- Rank order readings:

(58) [Context: John likes bluffing on how smart he is and everyone hates him. This test, he just got the second, instead of the first, and everyone laughs at him.]

a. John di-i second **pɛ**.
John eat-PST second only
'John just ranked the second.'

b. # John di-i second **nkoaa**.
John eat-PST second only
Int.: 'John just ranked the second.'

Scalarity on *pɛ* (cont.)

(59) [Context: There was only one test yesterday.]

a. Mary a-n-di second **pɛ** ɛnora. ɔ di-i first!
Mary PFV-NEG-eat second only yesterday 3SG eat-PST first
'Mary didn't just get the second—she got the first!'

b. # Mary a-n-di second **nkoaa** ɛnora. ɔ di-i first!
Mary PFV-NEG-eat second only yesterday 3SG eat-PST first
Int.: 'Mary didn't just get the second—she got the first!'
ONLY: 'Mary did not only get the second for this test, she also got the first for that test.' (multiple tests)

A comparison with Renans (2017)

- Two adfocal particles in **Ga** (also a Kwa language): *tóó* and *pɛ́*
- Renans (2017) argues that both are exclusive, with different semantic types
  - *tóó*: **NP modifier** $\langle\langle e, p\rangle, \langle e, p\rangle\rangle$ (with group operator $\uparrow$)
  - *pɛ́*: **Quantifying determiner** $\langle e, \langle\langle e, p\rangle, p\rangle\rangle$
  - Note that she still requires EXCL (=covert *pɛ́*) in some cases
- She draws evidence from two differences:
  - The atomicity puzzle:
    ➜ A (singular) indefinite article can only combine with SG count nouns;
    ➜ With *tóó* (not *pɛ́*), PL/mass nouns are exceptionally licensed:
    $\text{NP}_{\text{PL/mass}}$-INDEF*(-*tóó*)
  - The exhaustivity puzzle:
    ➜ NP_{SG}-INDEF-*tóó* only excludes other NP but not other Num;
    ➜ NP_{SG}-INDEF-*pɛ́* only excludes other Num but not other NP

← As far as we're aware of, these contrasts do not hold in Akan

No atomicity puzzle in Akan

(60) a. John hu-u a-takyi-foɔ ɛnora.
John see-PST PL-teacher-PL yesterday
'John saw (some) teachers.'

b. *John hu-u a-takyi-foɔ baako ɛnora.
John see-PST PL-teacher-PL one yesterday
'John saw a/one teachers.'

c. *John hu-u a-takyi-foɔ baako {**nkoaa**/ **pɛ**/ **nkoaa** **pɛ**} only only only only
John see-PST PL-teacher-PL one
ɛnora.
yesterday
Int.: 'John saw a/one teachers only.'

No exhaustivity puzzle in Akan

(61) [Context: Mother said earlier today: "Mary, I am going to work now. Here are 3 yams and 6 bananas. You can eat them while I'm at work." Now, Mary's mother has just come back home from work. She asks: "Hello, Mary. What did you eat?" Mary says:]

a. Me di-i yam baako **nkoaa**.
1SG eat-PST yam one only
'I ate only one yam.' → only one, but not two

b. Me di-i yam baako **pɛ**.
1SG eat-PST yam one only
'I ate only one yam.' → only one, but not two

c. Me di-i yam baako **nkoaa pɛ**.
1SG eat-PST yam one only only
'I ate only one yam.' → only one, but not two

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Conclusion

(62) Answers to research questions

a. *Do the two adfocal particles nkoaa and pɛ differ in their semantic properties?*
← Yes, they differ in **cross-categorical** association with focus: only possible with *nkoaa* (doubling included)

b. *Do languages like Akan have a D-quantifier 'only', or always have a null operator with two semantically vacuous adfocal particles?*
← Akan has a **type-flexible** exclusive *nkoaa* and a null D-quantifier EXCL, but not a null propositional OP_{EXCL}
➜ Supports **Type Ambiguity View ❶** over Uniform Operator View ❷

c. *How to resolve the compositionality problem raised by the exclusive doubling?*
← *nkoaa* carries at-issue exclusivity; *pɛ* carries not-at-issue scalarity
➜ A manifestation of a **scalar focus** structure (Yip 2024)

Open questions

- **Adjectival** uses of 'only'? (*nkoaa* but not *pɛ*)
- More evidence for the **lack of exclusive semantics of pɛ**? (cf. Appendix C)
- Cross-linguistic/parametric **variations** in exclusives? (Renans 2017; Oshima 2023; Yip and Adedeji 2024; Yip 2025; cf. Coppock and Beaver 2014)
- Is **type flexibility** a general mechanism (e.g., via type shifting), a language-specific property, or a lexical (word-specific) property? (cf. cross-categorical *no* 'the' in Akan, Owusu 2022, 2025)
- ...

Acknowledgments

Thank you for listening!

For discussions, we thank Veneeta Dayal and Mitcho Erlewine.
We are also grateful to the anonymous reviewers of TripleA 12.

For Akan judgment and comments, we thank:
Nana Pewode Obeng, Joyce Nuamah, and Faustina Boamah.

All the errors are our own responsibilities.

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Appendix A: Split scope readings

(63) a. sɛ wo pɛ sɛ wo graduate a, ...
COMP 2SG want COMP 2SG graduate Q
'If you want to graduate ...'

b. Split scope (only>need>3 / *only>3>need)
ɛ-se-sɛ wo fa classes miensa {**nkoaa**/ **pɛ**/ **nkoaa pɛ**}.
3SG-require-COMP 2SG take classes three only only only only
'(...) You only need to take three course.' (any three)

c. Non-split scope (*only>need>3 / only>3>need)
ɛ-se-sɛ wo fa classes miensa bi {**nkoaa**/ **pɛ**/ **nkoaa**
3SG-require-COMP 2SG take classes three some only only only
pɛ}.
only
'(...) There are only three certain courses you need to take.' (namely, A, B, and C)

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Appendix B: Long-distance QR

(64) Scopal ambiguity with attitude verbs

a. ɔ-tikya-ni no nim [sɛ John fa-a French {**nkoaa**/ **pɛ**/
SG-teacher-SG DET know COMP John take-PST French only only

nkoaa **pɛ**}]. ...
only only

'The teacher knows that John took only French. ...'

(65) a. Wide scope: only > know

Nanso ɔ-tikya-ni no n-nim [sɛ John fa-a German nso].
but SG-teacher-SG DET NEG-know COMP John take-PST German also

'(...) But the teacher doesn't know that John also took German.'

b. Narrow scope: know > only

Enti, ɔ-tikya-ni no nim [sɛ John a-n-fa German].
therefore SG-teacher-SG DET know COMP John PFV-NEG-take German

'(...) Therefore, the teacher knows that John didn't take German.'

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Appendix C: Multiple foci

(66) Subject-Object

[Context: In this class, no one reads any books. Only John reads something. And, John only reads English books. So, ...]

a. #John **nkoaa** na ɔkenkan English nhoma **nkoaa**.
John only FOC read English book only
Multi-only: 'John is the only person who only reads English books.' (other people read both)

b. #John **pɛ** na ɔkenkan English nhoma **pɛ**.
John only FOC read English book only
Multi-only: 'John is the only person who only reads English books.' (other people read both)

c. John **nkoaa** na ɔkenkan English nhoma **pɛ**.
John only FOC read English book only
Multi-only: 'John is the only person who only reads English books.' (other people read both)
Concord: 'Only John read something, and John only reads English books.'

d. #John **pɛ** na ɔkenkan English nhoma **nkoaa**.
John only FOC read English book only
Multi-only: 'John is the only person who only reads English books.' (other people read both)

Appendix C: Multiple foci (cont.)

(67) Indirect object-Direct object
[Context: John only gave something to *Mary*, and John only gave *rose* to Mary.]

a. #Mary **nkoaa** na John de rose **nkoaa** ma-a no.
Mary only FOC John use rose only give-PST 3SG
Multi-only: 'Mary is the only person who receives only rose from John.'

b. #Mary **pɛ** na John de rose **pɛ** ma-a no.
Mary only FOC John use rose only give-PST 3SG
Multi-only: 'Mary is the only person who receives only rose from John.'

c. #Mary **nkoaa** na John de rose **pɛ** ma-a no.
Mary only FOC John use rose only give-PST 3SG
Multi-only: 'Mary is the only person who receives only rose from John.'

d. Mary **pɛ** na John de rose **nkoaa** ma-a no.
Mary only FOC John use rose only give-PST 3SG
Multi-only: 'Mary is the only person who receives only rose from John.'
Concord: 'John only gave something to *Mary*, and John only gave *rose* to Mary.'

e. John de rose **nkoaa** ma-a Mary **pɛ**.
John use rose only give-PST Mary only
?Multi-only: 'Mary is the only person who receives only rose from John.'
Concord: 'John only gave something to *Mary*, and John only gave *rose* to Mary.'