Agreeing with "only" in Cantonese*

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1 Introduction

Doubling of exclusive particles (also called 'only' concord), literally 'John **only** bought **only** lamb', is extensively found in natural languages:

- (1) A non-exhaustive list of languages with exclusive particle doubling
 - a. Dutch (Barbiers 2014)
 - b. German (Hole 2015; J. Bayer 2020)
 - c. Hindi (Bajaj 2016)
 - d. Korean (Y. Lee 2005)
 - e. Mandarin Chinese (Hole 2017; Sun 2021)
 - f. Vietnamese (Hole 2013, 2017; Erlewine 2017)
- → poses a challenge for **compositionality** since both particles associate with the same focus, but apparently only one particle is interpreted as the exclusive operator.

Similar phenomena have been attested for other quantifiers, the most notable one being **negative concord** (Labov 1972; Zanuttini 1991; Zeijlstra 2004), among others including **modal concord** (Geurts and Huitink 2006; Zeijlstra 2007), **distributive concord** (Oh 2006; Cable 2014; Rushiti 2019), **wh-concord** (Kratzer 2005; Kinjo and Oseki 2016), **existential concord** (Kratzer and Shimoyama 2002; Kratzer 2005), and **universal concord** (Yip 2022, cf. Dong 2009; C.-y. E. Tsai 2015).

The prevailing approach for "only" doubling is the **operator-particle analysis** (Y. Lee 2004, 2005; Quek and Hirsch 2017; Sun 2021, *i.a.*): One particle as a (i) semantically vacuous concord marker that (ii) establishes a syntactic dependency with an exclusive operator (may be null or realized as the other particle).

(2)
$$[_{TP} \text{ Subj } [\mathbf{Operator\text{-}ONLY_{[io_{NLY}()]}}]_{\nu P} \text{ V } [\mathbf{Particle\text{-}only_{[uo_{NLY}(+)]}}]_{DP} \text{ Focused element]]]]]}$$

Syntactic dependency: *Agree* (Quek and Hirsch 2017) and/or (*C*)overt movement (S. Bayer 1996; Y. Lee 2005; Barbiers 2014; Erlewine and Kotek 2018; Sun 2021)

A gap in argumentation

However, the operator-particle approach is a *syntactic* solution to an interface problem motivated largely by *semantic* considerations.

There is **inadequate recruitment of syntactic evidence**, in particular for Agree. Most of the arguments are based on compositionality and scopal arguments (split scope readings, unexpected

^{1.} See also Law (2004) and P. P.-l. Lee (2019), who alluded to a multiple-'only' analysis in Cantonese, and Hole (2017), who proposed a scalar analysis on adfocus particles in Vietnamese and Mandarin (but see Sun 2021 for counter-arguments).

scope in VP ellipsis) (e.g. Y. Lee 2005; Quek and Hirsch 2017), with notable exception like islands in Erlewine and Kotek (2018) for covert movement for focus association.

An empirical gap

Moreover, little attention has been paid to exclusive **sentence-final particles (SFPs)** apart from adfocus particles, such as *zaa3* in Cantonese. It can be doubled with adverbial *zinghai* 'only':

(3) Doubling of exclusive particles in Cantonese

阿明淨係買咗羊肉畀阿芬咋

Aaming **zinghai** maai-zo joengjuk_F bei Aafan **zaa3** (Cantonese)

Ming only buy-perf lamb to Fan sfp.only

'Ming only bought Fan *lamb* (but not beef or pork).'

Also found in Mandarin Chinese (e.g. Erlewine 2011) and Vietnamese (e.g. Hole 2013):

(4) 張三只買了牛肉而已

Zhangsan **zhi** mai-le niurou_F **eryi** (Mandarin)

Zhangsan only buy-perf beef sfp.only

'Zhangsan only bought beef.'

(5) Nam **chỉ** ăn [thịt bò]_F **thôi**

(Vietnamese)

Nam only eat beef sfp.only

'Nam only eats beef.'

(6) Overview of the talk

- a. The empirical focus is on an understudied case of doubling with 'only' **SFPs** in Cantonese.
- b. I propose that *zaa3* establishes a **syntactic Agree relation** with *zinghai*, rather than covert movement dependency.
- c. I offer direct syntactic arguments from *minimality* and *locality* effects for the Agree account
 - → Ultimately strengthens the operator-particle approach, both **theoretically** (syntactic support) and **empirically** (covering both adfocus particles and SFPs)
- d. I also discuss how the approach extends to Mandarin and Vietnamese 'only' SFPs

Road map

§3: Minimality & locality §6: Concluding remarks

§4: Proposal

2 "Only" doubling in Cantonese

2.1 The core paradigm

Cantonese SFP *zaa3* 'sfP.only' can co-occur with adverbial *zinghai* 'only' (Law 2004; P. P.-l. Lee 2019), yet yielding exactly the *same truth conditions*.

(7) Doubling of exclusive particles in Cantonese

- a. Aaming **zinghai** maai-zo joengjuk_F bei Aafan. (Adverbial particle)

 Ming only buy-perf lamb to Fan

 'Ming only bought Fan *lamb* (but not beef or pork).'
- b. Aaming maai-zo joengjuk_F bei Aafan **zaa3** (Sentence-final particle, SFP)

 Ming buy-perf lamb to Fan sfp.only

 'Ming only bought Fan *lamb* (but not beef or pork).'
- c. Aaming **zinghai** maai-zo joengjuk_F bei Aafan **zaa3** (Doubling)

 Ming only buy-perf lamb to Fan sfp.only

 'Ming only bought Fan *lamb* (but not beef or pork).'

There is an exclusive operator in each sentence, including the singleton *zaa3* cases - the exclusiveness is at-issue and can be directly dissented by (8), questioned, or negated.

(8) Can directly challenge the exclusiveness in (7a-c)

B: M-hai. (Aaming zung maai-zo zyujuk bei Aafan.) no Ming also buy-perf pork to Fan 'No. (Ming also bought Fan pork.)'

The paradigm immediately gives rise to an apparent **form-meaning mismatch**, posing problems for compositionality:

- Doubling: *zinghai* and *zaa3* cannot both be exclusive operators
 - → The truth conditions of doubling cases remain the same (vs. a multiple-'only' reading)
- Obligatoriness: Both *zinghai* and *zaa3* should be exclusive operators
 - → The singleton cases *always* convey exclusiveness
 - → Put differently, both *zinghai* and *zaa3 require* the presence of 'only' (which may be null)

2.2 $Zaa3 \neq$ exclusive operator

There is *semantic* evidence that *zaa3* is not an exclusive operator. It lacks the ability to associate with a focus independently of *zinghai*. In other words, *zaa3* is always "parasitic" on *zinghai* in doubling cases.

Case #1: focus outside zinghai's scope

(9) Focus association with a focus outside zinghai's scope

When *zinghai* follows the subject, the subject focus is not c-commanded by it and is outside of its scope. *Zaa3* cannot assoicate with the subject focus:

- (10) Zaa3 fails to associate with a different focus outside zinghai's scope
 - a. Q: Who only reads Chinese books?
 - b. A: Aaming_F **zinghai** taai zungmansyu_F **zaa3** (, Aafan dou hai.)

 Ming only read Chinese.book sfp.only Fan also be

 'Ming only read Chinese books. (Fan as well.)'

 BUT NOT: 'only Ming only read Chinese books.'

To convey the intended reading, fronting with adfocus *dak* is required:

(11) **Dak** [Aaming]_F **zinghai** maai-zo [joengjuk]_F.

only Ming only buy-pfv lamb

'Only Ming bought only lamb.'

i.e. 'Ming the only person who only bought lamb (and other people bought pork/beef in addition to lamb)'

Case #2: multiple foci within zinghai's scope

(12) Focus association with another focus in zinghai's scope

Consider the multiple-focus case in (13), where both objects are stressed and focused. *Zaa3* cannot associates just with the direct object, with *zinghai* associating with another one.

- (13) Multiple-focus on the direct object and the indirect object: only can be uttered in (14c)
 - a. Aaming **zinghai** sung-gwo **JOENGJUK**_F bei AAFAN_F **zaa**.

Ming only give-exp lamb dat Fan sfp.only

'Fan is the only one who Ming gave lamb to; lamb is the only thing that Ming gave to Fan.'

≠ 'Ming bought *only* lamb for *only* Fan.' (in English)

 \neq 'Fan is the only person who Ming gave only lamb, i.e. Ming also gave lamb along with something else (e.g. pork) for someone else (e.g. Lok)'

b. A: $(\neg \phi_{F,p} \wedge \neg \phi_{F,b}) \wedge \neg (\phi_{L,l} \wedge \neg \phi_{T,l})$

The assertion can only be true in (14c), but not (14a) and (14b). Zaa3 does not associate with the direct object separately and yield a multiple-'only' reading. Rather, zinghai assoicates with both foci, resulting a reading where <Fan,lamb> is the only pair that satisfies the relation 'Ming gave x to y'.

- (14) a. Ming bought lamb, pork & beef for Fan; but he bought nothing for Lok & Ting. \rightsquigarrow (13) = F
 - b. Ming bought lamb for Fan; lamb, pork & beef for Lok & Ting. \rightsquigarrow (13) = F
 - c. Ming bought lamb for Fan; pork & beef for Lok & Ting. \rightsquigarrow (13) = T

To convey the genuine 'multiple only' reading, fronting with adfocus dak is again required:

(15) $\mathbf{Dak_1}$ [Aafan_i]_{F1} Aaming $\mathbf{zinghai_2}$ maai-gwo [joengjuk]_{F2} bei keoi_i.

only Fan Ming only buy-exp lamb dat 3sg

'Fan is the only person who Ming bought only lamb for.' = T in (14b)

(i.e. Ming bought lamb for Fan; lamb, pork & beef for Lok & Ting.)

We now have seen empirical evidence from *semantics* supporting that *zaa3* is not an exclusive operator. This resolves the problem of DOUBLING. However, the problem of OBLIGATORINESS remains: why do singleton *zaa3* cases also convey an 'only' reading?

- (16) Possible hypotheses (compatible with each other)
 - a. *Semantic* solution: *Zaa3*'s meaning requires a (c)overt exclusive operator under its scope

 ← not discussed today, see my LFRG handout
 - b. *Syntactic* solution: *Zaa3* establishes a **syntactic dependency** with a (c)overt 'only', which denotes an exclusive operator ← **Let's examine this possibility!**

```
[CP zaa ... [_{T/\nu P} zinghai ... [ ... focused elements]]]
```

→ Agree? Covert movement?

3 Diagnosing syntactic dependencies

Syntactic operations are subject to two structural constraints:

- (i) Minimality: no elements of the same type with Probe & Goal may intervene between them
- (ii) Locality: a certain domain is opaque to syntactic operations from the outside.
 - Agree: Clauses (specifically phases)
 - Movement: Islands

3.1 Minimality effects

I adopt Rizzi (2001, 2004)'s feature-based Relativized Minimality (RM) to formulate minimality. For Rizzi, quantificational elements like focus operators 'only', negation, quantificational adverbs (i.e. A-quantifiers like 'often') and *wh*-operators carry the superfeature [Qu].

(17) Feature-based Relativized Minimality (RM) (Rizzi 2001, 2004)

The set of [Qu] interveners for quantificational dependency in Cantonese (also Mandarin Chinese). They are independently motivated by their minimality effects on two syntactic dependencies, A-not-A questions and *why*-questions (Wu 1997; Law 2001; Soh 2005; Tsai and Yang 2015).

- (18) Elements with [Qu]-features in Chinese (Cantonese and Mandarin)
 - a. Focus operators, e.g. 'only' (Soh 2005)
 - b. Negation (Soh 2005)
 - c. Modals, e.g. 'must' (Tsai and Yang 2015)
 - d. Quantifiers, e.g. 'no one' (Wu 1997; Law 2001)
 - e. Adverbs of quantification, e.g. 'often' (Law 2001; Soh 2005)

#1: Negation

The aspectual negation, *mou* 'didn't', triggers minimality effects in doubling when taking wide scope over *zinghai*. For (19b) to be grammatical, *zaa3* must not be present.

- (19) Minimality effects of negation in doubling
 - a. Scenario: Fan said Ming didn't buy beef for tonight's dinner. You know that Ming bought beef and pork but not lamb, so you say: 'no, ...'
 - ... Aaming **zinghai** mou maai [joengjuk]_F (**zaa3**). (only $> \neg$)

 Ming only Neg.pfv buy lamb sfp.only

'Ming only did not buy lamb.' (but not beef - Ming did buy beef)

b. Scenario: Fan said Ming only bought lamb for tonight's dinner. You know that Ming did buy beef as well, so you say: 'no, ...'

... Aaming mou zinghai maai [joengjuk]_F (*zaa3).
$$(\neg > only)$$

Ming Neg.pfv only buy lamb sfp.only

'Ming did not only buy lamb.' (he bought beef as well)

As schematized in (20), mou is an intervener between zinghai and zaa3, disrupting their dependency.

Note that the same effects are found in singleton *zaa3* cases, indicating the presence of the covert exclusive operator (labeled as EXCL) with which *zaa3* establishes a syntactic dependency.

(21) Minimality effects of negation in singleton zaa3 cases

a. ... Aaming mou maai [joengjuk]_F **zaa3**. (only
$$> \neg$$
, * $\neg >$ only)

Ming Neg.Pfv buy lamb sfp.only

ONLY: 'Ming only did not buy lamb.' (but not beef - Ming did buy beef)

BUT NOT: 'Ming did not only buy lamb.' (he bought beef as well)

The sentential negation m-hai '(lit.) not-be' is syntactically higher than zaa3 and does not trigger minimality effects.

- (22) Lack of minimality effects with sentential negation
 - a. Scenario: same as (19b)

... Aaming m-hai zinghai maai [joengjuk]_F (zaa3).
$$(\neg > \text{only})$$

Ming Neg-cop only buy lamb sfp.only

'It is not the case that Ming only bought lamb.' (he bought beef as well)

#2: Modals

Deontic modals, when taking wide scope over *zinghai*, also triggers minimality effects in doubling. The effects go away without *zaa3*.

(23) Minimality effects of deontic modals in doubling

- a. Aaming {i. **zinghai**} hoji {ii. ***zinghai**} sik [sou]_F (**zaa3**). (only>\$\phi_{Deo}\$, *\$\$\$\$\phi_{Deo}\$\$>only)

 Ming only may only eat veggie sfp.only
 - i. 'Ming can eat only vegetable.' (Ming cannot eat meat.)
 - ii. 'It's okay for Ming to eat only vegetable.' (Ming may also eat meat.)
- b. In (i): [CP zaa ... [TP zinghai ... [Modal Deo [QU:MOD] ...
- c. In (ii): *[CP zaa ... [TP ... Modal^{Deo}[QU:MOD] ... [zinghai

The minimality effects, again, are found in singleton *zaa3* cases, suggesting that *zaa3* establish a dependency with some covert 'only' EXCL.

(24) Minimality effects of deontic modals in singleton *zaa3* cases

Aaming hoji maai [joengjuk]_F **zaa3**. (only $> \diamond_{Deo}$, * \diamond_{Deo} > only)

Ming may buy lamb sfp.only

ONLY: 'Ming may buy *lamb* only.' (Ming cannot buy pork and beef.)

BUT NOT: 'It's okay for Ming to buy *lamb* only.' (Ming may also buy pork and beef.)

Epistemic modals, however, allow *zaa3* to be doubled with the narrow-scope *zinghai*. This can be explained if epistemic modals are higher than deontic modals (W.-T. D. Tsai 2015). It occupies a position higher than *zaa3* and does not serve as an intervener.

(25) Lack of minimality effects with epistemic modals

a. Aaming {i. zinghai} honang {ii. zinghai} zungji [Aafan]_F zaa3.

Ming only be.possible only like Fan sfp.only

- i. Higher *zinghai*: 'It is only possible that Ming likes *Fan*.'
- ii. Lower *zinghai*: 'It is possible that Ming likes Fan only.' (only $> \diamondsuit_{Epi}, \diamondsuit_{Epi} > only)$
- b. In (i): $[CP zaa ... [zinghai ... [Modal^{Epi}_{QU:Mod} ... [TP ...$
- c. In (ii): $[CP] \frac{\text{Modal}^{Epi}_{[QU:MOD]}}{\text{Modal}^{Epi}_{[QU:MOD]}} \dots [zaa \dots [TP] zinghai \dots]$

#3: Quantifiers

Quantifiers, such as negative quantifiers, trigger the same minimality effects in both doubling and singleton *zaa3* cases.

- (26) Minimality effects of negative quantifier subjects in doubling
 - a. Scenario: You and Fan are debating whether they should submit only one abstract to a conference if the host allows two submissions. Fan thinks that they should submit only one, and you say:

```
[ Moujan [ zinghai gaau jat<sub>F</sub> bin zaakjiu ]] (*zaa3).

No.one only submit one CL abstract sfp.only
```

'No one submits one abstract.' (We always submit two when it is allowed.)

```
b. *[CP zaa ... [TP 'no one'[QU:NEG] ... [ zinghai ....
```

- (27) Minimality effects of negative quantifier subjects in singleton zaa3 cases
 - *[Moujan [gaau jat_F bin zaakjiu]] zaa3.

 No.one only submit one CL abstract

Int: 'No one submits one abstract.' (We always submit two when it is allowed.)

Other quantifiers, such as *housiu* 'few', also induce minimality effects to *zaa3*.

(28) [Housiu jan [zinghai sik faan_F m-sik sung]] (*zaa3) .

very.few person only eat rice not-eat dish sfp.only

'Very few people only eat (plain) rice without dish.'

#4: Quantificational adverbs

Quantificational adverbs also pattern with the above qunaitficational elements and trigger minimality effects to *zaa3*.

- (29) Minimality effects of quantificational adverbs in doubling
 - a. Scenario: You and Fan are discussing Ming being a picky eater. Fan wonders whether Ming does not eat tomato. You say:

```
[Aaming sengjat dou [ zinghai sik-zing hunglobak_{\rm F}]] (*zaa3). Ming always DOU only eat-leave carrot sfp.only 'Ming always only left carrot uneaten.' (But not tomato.)
```

```
b. *[_{CP} zaa ... [_{TP} ...  'always'_{[Qu:\forall]} ... [ zinghai ....
```

(30) Minimality effects of quantificational adverbs in singleton zaa3 cases

*[Aaming sengjat dou [sik-zing hunglobak_F]] zaa3.

Ming always dou eat-leave carrot sfp.only

Int.: 'Ming always only left carrot uneaten.' (But not tomato.)

Intervening elements	With [Qu]-feature?	Minimality effects?	Examples
Focus operators	N/A	N/A	N/A
Negation	YES	✓	(19)
Modals	YES	✓	(23)
Quantifiers	YES	✓	(26)
Q-adv	YES	✓	(29)

Table 1: Minimality effects in "only" doubling in Cantonese

3.2 Locality effects

We can also examine whether the dependency *zaa3* and *zinghai* will be blocked by some opaque domain. For Agree, the domain is a phase. For movement, the domain is a syntactic island, as standardly assumed (e.g. Ross 1967).

(31) Phase Impenetrability Condition (PIC) (Chomsky 2000)

[ZP ... Z [XP X ... [HP α [H YP]]]];

where Z and H are phase heads, and YP is visible to operations in HP but not ZP.

Phases

Zaa3 cannot be doubled with the embedded zinghai across a control clause boundary under 'force'. No such restriction is found for attitude verb like 'know', which takes a finite clause. The scopal interpretations are the same in singleton zaa3 cases.

(32) Asymmetry between control clauses and finite clauses in locality effects

a. Go lousi (zinghai) bik Aaming (*zinghai) duk [faatman]_F zaa3.

CL teacher only force Ming only take French sfp.only

Only: 'The teacher only forces Ming to take French.' (but does not care about German.)

But not: 'The teacher forces Ming to only take French.' (no German.)

(only > force, *force > only)

b. Go lousi (zinghai) zidou Aaming (zinghai) duk-zo [faatman]_F zaa.

CL teacher only know Ming only take-PERF French sfp.only

Higher zinghai: 'The teacher only knows that Ming took French.'

Lower zinghai: 'The teacher knows that Ming only took French.'

(only > know, know > only)

Let us assume with Huang (2022) that verbs like 'force' take a smaller clasue (e.g. TP) and verbs like 'know' take a bigger clause (e.g. CP). Hence, only 'know' can embed *zaa3*, but not 'force'.

- → '<u>force</u>': *zinghai* is embedded in the complement of a lower v*P phase, which is not accessible to (martix) *zaa* in a higher CP phase. Agree is not possible due to the PIC, and thus the ban on doubling.
- → 'know': both *zaa* and *zinghai* may be embedded in 'know'. They are in the same phase, and thus the Agree relation can hold. Doubling is then allowed with relevant scope readings.
- (33) PIC violations derive the scope restriction
 - a. *[CP zaa ... | v*P ... 'force' [TP zinghai/EXCL |

 b. ... | v*P ... 'know' | CP zaa[uQu:EXCL] ... | zinghai/EXCL ...

We can create a configuration to prevent *zaa3* being embedded. Adding a matrix adverbial *mounoi* enforces *zaa3* to be in the matrix clause. *Zaa3* cannot be doubled with the narrow-scope *zinghai*.

(34) Ngo (zinghai) $[_{\nu^*P}]$ zidou $[_{CP}]$ keoi (*zinghai) sik sou_F] mounoi zaa3

1sG only know 3sG only eat veggie short.time SFP.only

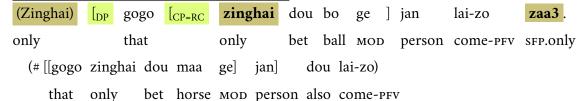
ONLY: 'I only learnt [that s/he eats veggie] recently. (I already knew if s/he eats other food)'

BUT NOT: *'I learnt [that he only eats veggie] recently.' (only > know, *know > only)

Islands

Moving on to islands, doubling is disallowed across an island with phasal boundaries, such as complex DP islands. *Zaa3* cannot be doubled with *zinghai* or a null EXCL *outside the island*, but not the island internal *zinghai*, as evidenced by the reading below.

(35) Doubling banned across complex DP islands



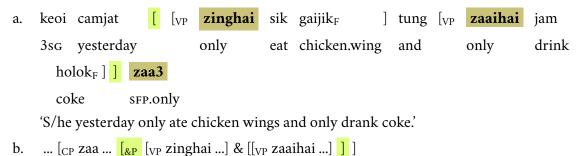
ONLY: 'Only the guy who only does *soccer* betting came. (#The guy who only does *horse racing* betting also came.)'

BUT NOT: 'The guy who only does soccer betting came.'

This is however not informative of the nature of the dependency: the ban could be due to either PIC violation or island violation.

Nevertheless, the coordinated VP in (36) allows zaa3 to be doubled with the 'only' adverbs within the VPs. To rule out ATB movement, two different 'only' adverbs are used: zinghai and zaaihai. We can then conclude the dependency between zaa3 and zinghai/zaaihai is not island sensitive.

(36) Doubling allowed across coordinated VP



Domains	Phase	Island	Doubling	Examples
v*P	YES	NO	×	(32)
СР	YES	NO	×	(34)
Complex DP island	YES	YES	×	(35)
Coordinated VP edge	NO	YES	V	(36)

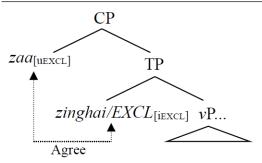
Table 2: Locality effects in "only" doubling in Cantonese

4 Proposal

4.1 "Only" doubling as agreement

Extending the operator-particle analysis (e.g. Quek and Hirsch 2017; Erlewine 2020; Sun 2021) to doubling with SFPs, I propose that *zaa* carries an uninterpretable [*u*EXCL] feature and must **Agree** with an exclusive operator carrying the interpretable counterpart [*i*EXCL], realized as *zinghai* or remain unpronounced as EXCL (cf. ONLY in Quek and Hirsch 2017; EXH in Chierchia 2006).

(37) The Agree relation between *zaa* and exclusive operators²



A morphological support

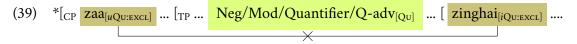
Notice that the [EXCL] features have a *morphological correlate*: the onset z- is shared by exclusive morphemes in Cantonese:

- (38) a. Exclusive SFPs: *zaa3*, *ze1* and their variants (Sybesma 2007)
 - b. Exclusive adverbs 'only': zing6, zaai1 and $zi2^3$

Syntactic arguments from minimality and locality

The proposal receives solid support from both syntactic minimality and locality effects.

<u>Minimality</u>: The Agree relation with [EXCL], a quantificational feature, is subject to intervention by the elements in the same type [Qu].



^{2.} For the CP position of zaa, see Tang:2015; Law:2021; Law (2004) (contra. Erlewine:2017a for Mandarin eryi).

^{3.} Except the verb/verbal suffix dak 1 whose origin is 'acquire', cf. Tang:2003

<u>Locality</u>: The Agree relation is also subject to PIC and cannot apply across *phases*, but crucially may apply across an *non-phasal island* boundary. This sets Agree apart from (c)overt movement.

(40)
$$*[_{CP} \quad zaa_{[uQU:EXCL]} \quad ... \quad [_{CP/v*P=phase} \quad ... \quad [\quad zinghai_{[iQU:EXCL]} \quad$$

4.2 On the syntax-semantics interface

The syntactic Agree relation allows us to resolve the compositionality problem by accounting for Obligatoriness:

(41) Explaining obligatory exclusiveness in singleton zaa cases

Zaa must agree with a null EXCL to check the [uexcl] feature, which is the source of exclusiveness.

It also explains Doubling:

(42) Explaining doubling cases

The [uexcl] on zaa3 is uninterpretable and will be deleted after Agree. Hence, zaa3 will not be mapped onto an exclusive operator, and only zinghai is the operator in doubling.

The Agree approach does *not* stipulate *zaa3* to be semantically vacuous. Such stipulation is conceptually implausible: unlike adfocus particles, which generally attach to and mark focused elements in surface syntax (but see Branan & Erlewine 2023 for mismatches), SFP *zaa3* seems to play no role in exclusive focus if it were semantically inert.

I argue instead that SFP *zaa3* has focus-sensitive semantic contribution. Specifically, it relates the focus alternative set (quantified by 'only') to the discourse: it requires the excluded alternatives to be contextually salient such that participants are aware of them.

(43) Contextual information: (non-)salience

a. [Scenario: You are a cashier in a meat market in the US. You just served a customer, and your colleague seems to be curious about what they bought. You say:]

Go haak (**zinghai**) maai-zo joengjuk_F (**#zaa3**) CL customer only buy-perf lamb sfp.only 'The customer only bought lamb.'

b. [Scenario: Same with (a), except that beef is newly arrived and is really good today.]

Go haak (**zinghai**) maai-zo joengjuk_F (**zaa3**) (#keoi zung maai-maai zyujuk) cL customer only buy-perf lamb sfp.only 3sG also buy-Also pork 'The customer only bought lamb.' (#S/he also bought pork.)



For a compositional account, please see my LFRG handout.

Thus, the syntactic account thus has an extra merit in ensuring the scopal relation to be that *zinghai* is always in *zaa3*'s scope so as to "feed" its semantics which looks for excluded alternatives.

(44) Feeding the semantics of zaa

To achieve (downward) Agree, the Probe *zaa* c-commands the Goal *zinghai*, and takes (i) the alternative set passed up by *zinghai*, (ii) the proposition returned by *zinghai*, which excludes and thus is inconsistent with the alternatives.

In this way, the syntactic structure is mapped neatly onto semantic interpretation.

5 Extension to Mandarin and Vietnamese

The same Agree account may extend to the 'only' SFPs in Mandarin and Vietnamese.

(45) Mandarin eryi as agreement

$$[_{\text{CP}} \ \textit{eryi}_{[\mathit{uQU}:\texttt{EXCL}]} \ ... \ [_{\texttt{TP/}\nu\text{P}} \ ... \ [\ \textit{zhi/}\texttt{EXCL}_{[\mathit{iQU}:\texttt{EXCL}]} \$$

(46) Vietnamese thôi as agreement

$$[_{\text{CP}} \; th \hat{o}i_{[u\text{Qu:excl}]} \ldots [_{\text{TP}/\nu\text{P}} \ldots [\; chi/\text{excl}_{[i\text{Qu:excl}]} \ldots$$

No independent focus association

First, like zaa3, eryi and thôi cannot have focus association independent of the 'only' adverbs.

- (47) 'Only' SFPs cannot associate with subject focus outside the scope of adverbial 'only'
 - a. [Who only reads Chinese books?]

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Zhangsan<sub>F</sub> zhi du zhongwenshu<sub>F</sub> eryi. (Lisi ye shi.)
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Zhangsan only read Chinese.book sfp.only Lisi also be

'ZHANGSAN only reads Chinese books. (Lisi as well.)'

NOT: 'Only Zhangsan only reads Chinese books.'

(Mandarin)

b. NAM_F chỉ ăn thịt bò_F thôi.

Nam only eat beef sfp.only

'NAM only eats BEEF (but not pork or lamb).'

NOT: 'Only Nam only eats beef.'

(Vietnamese)

Minimality and locality effects

Second, *eryi* and *thôi* also exhibit similar minimality and locality effects, supporting an Agree Approach.

(48) The scope restriction (due to locality) in Mandarin

Laoshi {a. zhi} [$_{v*P}$ bi Zhangsan [{b. *zhi} du Dewen_F]] eryi teacher only force Zhangsan only take German sfp.only ONLY: 'The teacher only forces him to take German. (and doesn't care about French)' BUT NOT: 'The teacher forces him to only take German. (and no French)'

(49) The scope restriction (due to minimality) in Vietnamese

Nam {a. chi} không {b. *chi} ăn [thịt bò]_F thôi

Nam only not only eat beef sfp.only

ONLY: 'Nam only does not eat beef. (no beef)'

BUT NOT: 'Nam not only eats beef. (beef and other meat)'

6 Concluding remarks

- (50) Take home messages
 - a. "Only" doubling is **agreement**, at least for SFPs
 - → Strengthen the operator-particle approach, both **theoretically** (syntactic support) and **empirically** (covering both adfocus particles and SFPs)
 - b. We need *syntactic* arguments to justify a *syntactic* proposal, even though the proposal might have received (indirect) support from its semantic consequences
 - c. How about adfocus particles like *mõi* in Vietnamese? ...Stay tuned for WCCFL-41!

References

- Bajaj, Vandana. 2016. "Scaling up Exclusive -hii." Ph.D. dissertation, Rutgers, The State University of New Jersey.
- Barbiers, Sjef. 2014. "Syntactic doubling and deletion as a source of variation." In *Linguistic Variation in the Minimalist Framework*, edited by M. C. Picallo, 197–223. OUP.
- Bayer, Josef. 2020. "Why doubling discourse particles?" In *Linguistic Variation: Structure and Interpretation*, edited by Ludovico Franco and Paolo Lorusso, 47–72. Berlin: Mouton de Gruyter.
- Bayer, Samuel. 1996. "The Coordination of Unlike Categories." Language 72 (3): 579-616.
- Cable, Seth. 2014. "Distributive numerals and distance distributivity in Tlingit (and beyond)." Language 90 (3): 562–606.
- Chierchia, Gennaro. 2006. "Broaden your Views: Implicatures of Domain Widening and the "Logicality" of Language." Linguistic Inquiry 37 (4): 535–590.
- Chomsky, Noam. 2000. "Minimalist inquiries: the framework." In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, edited by Roger Martin, David Michaels, and Juan Uriagereka, 89–156. Cambridge, MA: MIT Press.
- Dong, Hongyuan. 2009. "Issues in the semantics of Mandarin questions." Ph.D. dissertation, Cornell University.
- Erlewine, Michael Yoshitaka. 2011. "Sentence-final only and the interpretation of focus in Mandarin Chinese." In *The Proceedings of the 22nd North American Conference of Chinese Linguistics (NACCL 22) and the 18th Annual Meeting of the International Association of Chinese Linguistics (IACL 18)*, edited by Lauren Eby Clemens and Louis Liu, 18–35. Columbus, Ohio: The Ohio State University.
- ——. 2017. "Vietnamese focus particles and derivation by phase." *Journal of East Asian Linguistics* 26 (4): 325–349.
- ——. 2020. Mandarin shì clefts and the syntax of discourse congruence, October, Ms., National University of Singapore.
- Erlewine, Michael Yoshitaka, and Hadas Kotek. 2018. "Focus association by movement: Evidence from Tanglewood." Linguistic Inquiry 49 (3): 441–463.
- Geurts, Bart, and Janneke Huitink. 2006. "Modal concord." In *Concord phenomena and the syntax semantics interface*, edited by Paul Dekker and Hedde Zeijlstra, 15–20. Malaga: ESSLLI.
- Hole, Daniel. 2013. "Focus particles and related entities in Vietnamese." In *Linguistics of Vietnamese: An International Survey*, 265–303. Berlin/Boston: de Gruyter.
- ——. 2015. "A distributed syntax for evaluative 'only' sentences." Zeitschrift für Sprachwissenschaft 34 (1): 43–77.
- ———. 2017. "A crosslinguistic syntax of scalar and non-scalar focus particle sentences: the view from Vietnamese and Chinese." *Journal of East Asian Linguistics* 26 (4): 389–409.
- Huang, C.-T. James. 2022. "Finiteness opacity and Chinese clausal architecture." In *New Explorations in Chinese Theoretical Syntax: Studies in honor of Yen-Hui Audrey Li*, edited by Andrew Simpson, 17–77. Amsterdam: John Benjamins.
- Kinjo, Kunio, and Yohei Oseki. 2016. "Wh-Concord in Okinawan=Syntactic Movement+Morphological Merger." University of Pennsylvania Working Papers in Linguistics 22 (1): 177–186.
- Kratzer, Angelika. 2005. "Indefinites and the Operators they depend on: From Japanese to Salish." In *Reference and quantification: The Partee effect,* edited by Gregory N Carlson and Francis Jeffrey Pelletier, 113–142. Stanford, CA: CSLI Publications.
- Kratzer, Angelika, and Junko Shimoyama. 2002. "Indeterminate pronouns: The view from Japanese." In *Proceedings of the Tokyo conference on psycholinguistics*, edited by Yukio Otsu, 3:1–25. Tokyo: Hituzi Syobo.
- Labov, William. 1972. "Negative attraction and negative concord in English grammar." Language 48 (4): 773-818.
- Law, Ann. 2001. "A-not-A questions in Cantonese." UCL Working Paper in Linguistics 13:295-318.
- ——. 2004. "Sentence-final focus particles in Cantonese." PhD diss., University College London.
- Lee, Peppina Po-lun. 2019. Focus Manifestation in Mandarin Chinese and Cantonese: A Comparative Perspective. London & New York: Routledge.

Lee, Youngjoo. 2004. "The syntax and semantics of focus particles." Ph.D. dissertation, Massachusetts Institute of Technology.

- ——. 2005. "Exhaustivity as agreement: The case of Korean man 'only." Natural Language Semantics 13 (2): 169–200.
- Oh, Sei-Rang. 2006. "Plurality markers across languages." Ph.D. dissertation, University of Connecticut.
- Quek, Yihui, and Aron Hirsch. 2017. "Severing focus form and meaning in Standard and Colloquial Singapore English." In *Proceedings of NELS 47*, edited by Andrew Lamont and Katerina Tetzloff.
- Rizzi, Luigi. 2001. "Relativized Minimality Effects." In *The handbook of contemporary syntactic theory*, edited by Mark Baltin and Chris Collins, 89–110. Malden, MA: Blackwell.
- ———. 2004. "Locality and Left Periphery." In *Structures and Beyond: The Cartography of Syntactic Structures*, edited by Adriana Belletti, 3:223–251. Oxford: Oxford University Press.
- Ross, John. 1967. "Constraints on variables in syntax." Ph.D. dissertation, Massachusetts Institute of Technology.
- Rushiti, Bujar. 2019. "Share-marking in Albanian: The distributive marker *nga*." Ph.D. dissertation, Paris Diderot University.
- Soh, Hooi Ling. 2005. "Wh-in-Situ in Mandarin Chinese." Linguistic Inquiry 36 (1): 143–155.
- Sun, Yenan. 2021. "A bipartite analysis of *zhiyou* 'only' in Mandarin Chinese." *Journal of East Asian Linguistics* 30:319–355.
- Sybesma, Rint. 2007. "Whether we tense-agree overtly or not." *Linguistic Inquiry* 38 (3): 580–587.
- Tsai, Cheng-yu Edwin. 2015. "Toward a Theory of Mandarin Quantification." Ph.D. dissertation, Harvard University.
- Tsai, Wei-Tien Dylan. 2015. "On the Topography of Chinese Modals." In *Beyond Functional Sequence*, edited by Ur Shlonsky, 275–294. New York: Oxford University Press.
- Tsai, Wei-tien Dylan, and Ching-yu Helen Yang. 2015. "Inner vs. outer A-not-A questions." Paper presented on International Workshop on Cartography of Syntax, Beijing Language / Culture University, December 6-7, 2015.
- Wu, Jianxin. 1997. "A model-theoretic approach to A-not-A questions." University of Pennsylvania Working Papers in Linguistics 4 (2): 273–289.
- Yip, Ka-Fai. 2022. "Universal Concord as Syntactic Agreement." *University of Pennsylvania Working Papers in Linguistics* 28 (1): 221–232.
- Zanuttini, Rafaella. 1991. "Syntactic Properties of Sentential Negation: A Comparative Study of Romance Languages." PhD diss., University of Pennsylvania.
- Zeijlstra, Hedde. 2004. "Sentential negation and Negative Concord." Ph.D. dissertation, University of Amsterdam.
- ———. 2007. "Modal Concord." In *Proceedings of SALT XVII*, edited by T. Friedman and M. Gibson, 317–332. Ithaca, NY: Cornell University.