

# Focus adverbs at the *v*P and higher edges\*

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## The question

Operators such as *only*, *even*, and *also* are “**focus-sensitive**,” as their interpretation depends on the placement of focus elsewhere in the utterance.

- (1) Based on Beaver and Clark (2008):
  - a. David will **only** wear a bow tie when TEACHING.
  - b. David will **only** wear a BOW TIE when teaching.

Focus triggers the computation of **alternatives** which vary in the focused position and focus-sensitive operators quantify over these alternatives (Rooth, 1985, 1992).

☞ The semantics of focus requires that the focused constituent—the “**associate**”—be in the scope of the operator (Jackendoff, 1972; Tancredi, 1990; Aoun and Li, 1993; Erlewine, 2014).

- (2) \*DAVID will **only** wear a bow tie when teaching.  
Intended: ‘Only [David]<sub>F</sub> will wear a bow tie when teaching.’

I will refer to this as the **semantic requirement**.

Q: Are there other constraints on the position of focus adverbs?

## Today

The **semantic requirement is insufficient** to explain the distribution of focus adverbs in Mandarin Chinese and Vietnamese.

- I show that focus adverbs in Mandarin and Vietnamese must be **as low as possible** while satisfying the semantic requirement, **relative to a particular syntactic domain**.
- I model the “as low as possible” behavior using **Optimality Theory**.
  - The full pattern motivates **optimizing phase by phase** (Heck and Müller, 2001; Fanselow and Ćavar, 2001).
- I relate this to the distribution of focus in **Romance, Bantu, and Chadic**.

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## 1 Mandarin Chinese

In Mandarin, I will look at two focus-sensitive operators: *zhǐ* 只 and *shì* 是.

- (3) *zhǐ* 只:
  - semantics of *only* (Tsai, 2004); glossed here as ONLY
  - In some positions—notably sentence-initially—appears as *zhǐyǒu* 只有.
    - I argue *zhǐ* and *zhǐyǒu* are allomorphs. (See Appendix A.)
- (4) *shì* 是:
  - “focus marker” (Teng, 1979, a.o.): indicates narrow/contrastive focus, often translated as a cleft—see Erlewine (2015b) for its semantics;
  - glossed here as SHI;
  - homophonous/homographous with the copular verb

### 1.1 *Zhǐ* and *shì* are focus adverbs

- (5) **Two types of focus operators in English:**
  - a. David **only** drinks [red wine]<sub>F</sub>. *adverb*
  - b. David drinks **only** [red wine]<sub>F</sub>. *constituent-marking*

☞ I argue that *zhǐ* and *shì* are always **adverbs**, not constituent-marking.

- (6) ***Zhǐ* and *shì* cannot be postverbal:**  
Zhāngsān ‘zhǐ/shì [vP hē \*zhǐ/shì [hóngjiǔ]<sub>F</sub>].  
Zhangsan ONLY/SHI drinks \*ONLY/SHI wine  
‘Zhangsan *only* drinks [wine]<sub>F</sub>.’
- (7) ***Zhǐ* and *shì* cannot be inside PPs:**  
Zhāngsān ‘zhǐ/shì [PP duì \*zhǐ/shì [Lǐsì]<sub>F</sub>] rēng-le qiú.  
Zhangsan ONLY/SHI to \*ONLY/SHI Lisi throw-PERF ball  
‘Zhangsan (*only*) threw a ball at [Lisi]<sub>F</sub>.’

Adverb *only* can associate with multiple foci, but constituent-marking *only* cannot:

- (8) a. ‘I **only** saw [the children]<sub>F</sub> ask [the adults]<sub>F</sub> to be quiet.
- b. \*I saw **only** [the children]<sub>F</sub> ask [the adults]<sub>F</sub> to be quiet.
- c. \***Only** [the children]<sub>F</sub> asked [the adults]<sub>F</sub> to be quiet.

Mandarin *zhǐ* and *shì* can associate with multiple foci:

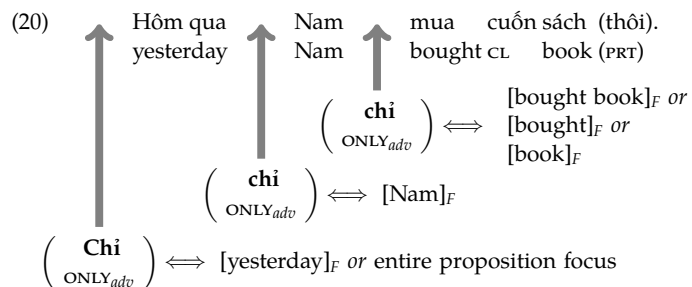
- (9) **Multiple focus with *shì* (Cheng, 2008):**  
Shì [érzi]<sub>F</sub> jiào [dàrén]<sub>F</sub> bié chǎo, bú shì [dàrén]<sub>F</sub> jiào [érzi]<sub>F</sub> bié chǎo.  
SHI son ask adult not noisy NEG SHI adult ask son not noisy  
‘The son asked the adult not to make noise, not the other way around.’



This is what is predicted by Hole's (2013) analysis of *chỉ* as an adverb and *mỗi* as constituent-marking: the adverb is necessarily linearly outside of the constituent-marking *only*.

## 2.2 The position of *chỉ*

Here I use sentences with a temporal adjunct. (Note that the unmarked, base order is different than in Mandarin.)



*Chỉ* can associate long-distance, into a lower clause, but when it does, it must be in immediately preverbal position:

- (21) (\**Chỉ*) Tôi *chỉ* nói [<sub>CP</sub> là Nam thích [Ngân]<sub>F</sub>] (thôi).  
ONLY<sub>adv</sub> I ONLY<sub>adv</sub> say that Nam like Ngan (PRT)  
'I *only* said Nam likes [Ngân]<sub>F</sub>.'
- (22) Tôi nói [<sub>CP</sub> là (\**chỉ*) Nam *chỉ* thích [Ngân]<sub>F</sub>] (thôi).  
I say that ONLY<sub>adv</sub> Nam ONLY<sub>adv</sub> like Ngan (PRT)  
'I said Nam *only* likes [Ngân]<sub>F</sub>.'

☞ Vietnamese shows us a case where we can clearly distinguish between adverb and constituent-marking *only*s, and we see that ONLY<sub>adv</sub> follows the generalization in (16), repeated:

- (23) **Generalization:** (=16)  
Focus adverbs must be in the lowest position possible while taking their associate in their scope, relative to a particular phase.

## 3 A purely semantic hypothesis

We might imagine that *shì/zhǐ/chỉ* must be as low as possible (within a particular domain) *unless it being in a higher position introduces a truth-conditional difference*. Similar semantically-sensitive constraints have been proposed previously:

- (24) **Scope Economy** (Fox, 2000, p. 3):

Scope-shifting operations cannot be semantically vacuous.

☞ The "as low as possible" behavior is not semantically-sensitive in this way.

- (25) **Subject quantifier baseline:**

Měi-ge kèrén dōu zhǐ [<sub>vP</sub> hē [chá]<sub>F</sub>].  
Every-CL guest all ONLY drink tea

✓ 'Every guest is such that they only drink [tea]<sub>F</sub>.' every > only  
\* 'Tea is the only thing that every guest drinks.' \*only > every

What if *zhǐ* moves in front of the subject but keeps associating with "tea"?

- (26) **Zhǐ cannot be higher, even if it would lead to a different reading:**

\* *Zhǐ*(yǒu) měi-ge kèrén dōu hē [chá]<sub>F</sub>.  
ONLY every-CL guest all drink tea

Intended: 'Only [tea]<sub>F</sub> is such that<sub>i</sub> every guest drinks it<sub>i</sub>.'

This reading can of course be expressed, but it requires fronting the associate:

- (27) **Fronting can be used to force *zhǐ* to scope higher, above every:**

✓ *Zhǐyǒu* [chá]<sub>F</sub> měi-ge kèrén dōu hē \_\_\_\_.  
ONLY tea every guest all drink

'Only [tea]<sub>F</sub> is such that<sub>i</sub> every guest drinks it<sub>i</sub>.' only > every

The argument against this purely semantic hypothesis also applies to Vietnamese:

- (28) ***Chỉ* can't be higher, even if it changes the meaning:**

a. Ai cũng *chỉ* mua [cuốn sách]<sub>F</sub>.  
who also ONLY buy CL book

'Everyone *only* bought [the book]<sub>F</sub>.' ✓every > only, \*only > every

b. \**Chỉ* ai cũng mua [cuốn sách]<sub>F</sub>.  
ONLY<sub>adv</sub> who also buy CL book

Int: 'Only [the book]<sub>F</sub> is such that<sub>i</sub> everyone bought it<sub>i</sub>.' only > every

c. ✓*Chỉ* (mỗi) [cuốn sách]<sub>F</sub> ai cũng (mới) mua \_\_\_\_.  
ONLY<sub>adv</sub> (ONLY<sub>CM</sub>) CL book who also (PRT) buy

'Only [the book]<sub>F</sub> is such that<sub>i</sub> everyone bought it<sub>i</sub>.' only > every

☞ The "as low as possible" behavior cannot be the result of a semantically-sensitive condition à la Scope Economy (24).<sup>5</sup>

<sup>5</sup>Contra Jacobs (1983, 1986) on German. I believe the data that led Jacobs to discuss a semantically-sensitive condition can actually be captured under Büring and Hartmann (2001), by paying attention to where the Closeness constraint "resets."

## 4 Proposal

The requirement to take the associate in its scope in (16) follows from the semantics of focus (Rooth, 1985). **However, the requirement to be as low as possible, within a particular domain, is not explained by the semantics alone.**

- ☞ The “as low as possible” requirement is due to the **syntax** of adverb placement. Formally, generate focus adverbs at different heights and have these derivations **compete**. (See Erlewine 2015a for alternatives.)

This competition will be modeled using *Optimality Theory* (OT).

- (29) **Optimality Theory** (Prince and Smolensky, 1993):
- There is a set of *candidates*—possible outputs.
  - Each candidate is checked for violations of *constraints*.
  - Constraints are strictly ranked.**
    - Look at the highest constraint. If there is one candidate that satisfies it best, that is the *winner*.
    - If there’s a tie, look at the next constraint to break the tie...
  - The *winner* (indicated with ☞) is what is grammatical; others are ungrammatical.
- (30) **FocAdvLow**: For each focus adverb, the number of violations is the number of terminal nodes in its complement.<sup>6</sup>
- (31) **FocSCOPE**: The scope of the focus adverb must contain its intended associate. (I.e. the semantic requirement.)<sup>7</sup>

(32)	ONLY, Zhangsan at home eat [salad] <sub>F</sub>	FocSCOPE	FocAdvLow
	a. <b>ONLY</b> Zhangsan at home eat [salad] <sub>F</sub>		***!*
	b. Zhangsan <b>ONLY</b> at home eat [salad] <sub>F</sub>		***!*
☞	a. Zhangsan at home <b>ONLY</b> eat [salad] <sub>F</sub>		**

(33)	ONLY, [Zhangsan] <sub>F</sub> at home eat salad	FocSCOPE	FocAdvLow
☞	a. <b>ONLY</b> [Zhangsan] <sub>F</sub> at home eat salad		****
	b. [Zhangsan] <sub>F</sub> <b>ONLY</b> at home eat salad	*!	****
	c. [Zhangsan] <sub>F</sub> at home <b>ONLY</b> eat salad	*!	**

**Proposal: FocSCOPE ≫ FocAdvLow**

<sup>6</sup>The formulation here is somewhat arbitrary; all that is necessary is that relatively higher adverbs receive relatively higher violation counts. Here I will count only pronounced terminals. Radek Šimik (p.c.) notes that Hagstrom (1998, p. 185) entertains an Avoid Flexible Functional Application principle, which similarly encourages focus-sensitive operators to merge low.

<sup>7</sup>Formally, the “intended associate” can be checked by adopting the view that F-marked constituents bear a *focus index*  $F_i$  (Kratzer, 1991; Wold, 1996; Erlewine, 2014). If the complement of the focus adverb is a constant function across different assignments for the relevant focus-index, we yield a violation.

Now consider the case of focus in an embedded clause:

(34)	ONLY, Lisi say [Zhangsan drink [tea] <sub>F</sub> ]	FocSCOPE	FocAdvLow
	a. <b>ONLY</b> Lisi say [Zhangsan drink [tea] <sub>F</sub> ]		***!*
☉	b. Lisi <b>ONLY</b> say [Zhangsan drink [tea] <sub>F</sub> ]		***!*
	c. Lisi say [ <b>ONLY</b> Zhangsan drink [tea] <sub>F</sub> ]		***!
☞	d. Lisi say [Zhangsan <b>ONLY</b> drink [tea] <sub>F</sub> ]		**

We want (d) to compete with and rule out (c), but not compete with (b).

- ☞ **The solution is to optimize cyclically, at the phase level** (Heck and Müller, 2001; Fanselow and Āavar, 2001). Assume *vP* and *CP* are phases.

(35) **Introducing ONLY in the embedded CP phase:**

	ONLY, Zhangsan [ <sub>vP</sub> drink [tea] <sub>F</sub> ]	FocSCOPE	FocAdvLow
	a. <b>ONLY</b> Zhangsan [ <sub>vP</sub> drink [tea] <sub>F</sub> ]		***!
☞	b. Zhangsan <b>ONLY</b> [ <sub>vP</sub> drink [tea] <sub>F</sub> ]		**

⇒ ‘Lisi say Zhangsan **ONLY** drink [tea]<sub>F</sub>.’

(36) **Introducing ONLY in the matrix CP phase:**

	ONLY, Lisi [ <sub>vP</sub> say [ <sub>CP</sub> Zhangsan drink [tea] <sub>F</sub> ]]	FocSCOPE	FocAdvLow
	a. <b>ONLY</b> Lisi [ <sub>vP</sub> say [ <sub>CP</sub> Zhangsan drink [tea] <sub>F</sub> ]]		****!
☞	b. Lisi <b>ONLY</b> [ <sub>vP</sub> say [ <sub>CP</sub> Zhangsan drink [tea] <sub>F</sub> ]]		****

⇒ ‘Lisi **ONLY** say Zhangsan drink [tea]<sub>F</sub>.’

Crucially, optimization occurs phase-by-phase, not CP-by-CP, in order to derive the control embedding data:

(37) **Introducing ONLY after the lower vP:**

	ONLY, want [ <sub>vP</sub> eat [vegetables] <sub>F</sub> ]	FocSCOPE	FocAdvLow
	a. <b>ONLY</b> want [ <sub>vP</sub> eat [vegetables] <sub>F</sub> ]		***!
☞	b. want <b>ONLY</b> [ <sub>vP</sub> eat [vegetables] <sub>F</sub> ]		**

⇒ ‘Zhangsan want **ONLY** eat [vegetables]<sub>F</sub>.’

(38) **Introducing ONLY after the higher vP:**

	ONLY, Zhangsan [ <sub>vP</sub> want eat [vegetables] <sub>F</sub> ]	FocSCOPE	FocAdvLow
	a. <b>ONLY</b> Zhangsan [ <sub>vP</sub> want eat [vegetables] <sub>F</sub> ]		****!
☞	b. Zhangsan <b>ONLY</b> [ <sub>vP</sub> want eat [vegetables] <sub>F</sub> ]		***

⇒ ‘Zhangsan **ONLY** want eat [vegetables]<sub>F</sub>.’

- ☞ The fact that competition only occurs *within the phase* constitutes a **new argument for phase-based cyclic Spell-Out** (Chomsky, 2000, 2001).

## 5 Low focus languages

This constraint-based proposal leads to a natural question:

**Q:** Are there languages with **the reverse ranking of FocAdvLow  $\gg$  FocScope?**  
What would such a language look like?

FocAdvLow  $\gg$  FocScope means that focus-sensitive operators can only be at the *vP* edge, and not higher. But the semantics is still the same: the associate must be in the scope of the operator (Rooth, 1985, a.o.).

☞ FocAdvLow  $\gg$  FocScope entails **(bound) focus needs to be low, inside *vP***.

More concretely, we predict subject-object asymmetries in focus:

(39) **Subjects cannot be focused in their canonical position:**

\* [CP ... [subject]<sub>F</sub> ... FocAdv [*vP* ... ]]

(40) **Two possibilities for subject focus:**

a. Build another clause on top:

FocAdv [*vP* ... [CP ... [subject]<sub>F</sub> ... [*vP* ... ]]]

b. Exceptionally keep the subject low:

[CP ... FocAdv [*vP* [subject]<sub>F</sub> ... ]]

### 5.1 French (Romance)

French ONLY cannot be used with in-situ subjects:

(41) **French subject ONLY:** (Lambrecht, 2010)

a. \* [Lui]<sub>F</sub> seulement me comprend.  
He ONLY 1sg understands

b. \* Que [lui]<sub>F</sub> me comprend.  
ONLY he 1sg understands

c. Y a que [lui]<sub>F</sub> qui me comprend.  
LOC has QUE him who 1sg understands  
'Only [he]<sub>F</sub> understands me.'

More generally, focused constituents in French want to be postverbal:

(42) **Corrective subject focus:** (Lambrecht, 2010)

Context: "I heard your motorcycle broke down?"

a. \* Non, ma [voiture]<sub>F</sub> est en panne.  
No my car is broken

b. Non, c'est ma [voiture]<sub>F</sub> qui est en panne.  
No it's my car who is broken  
'My CAR broke down.'

Similar facts in other Romance languages (see e.g. Frascarelli, 1999, 2000; Costa, 2004a,b; Samek-Lodovici, 2005; and discussion in Féry, 2013).

☞ We can model such interactions with FocAdvLow  $\gg$  FocScope if we assume that constituent ONLY and corrective focus also involve an (unpronounced) focus adverb.<sup>8</sup>

(43) **Optimizing FocAdv in the same phase as the associate:**

FocAdv, my [car] <sub>F</sub> [ <i>vP</i> is broken]	FocAdvLow	FocScope
a. FocAdv my [car] <sub>F</sub> [ <i>vP</i> is broken]	***!*	
☞ b. my [car] <sub>F</sub> FocAdv [ <i>vP</i> is broken]	**	*

☞ This result, 'my [car]<sub>F</sub> [FocAdv [is broken]],' is uninterpretable as the focus associate is not in the scope of FocAdv!

Instead, another clause must be built on top, allowing FocAdv to be introduced at a higher *vP*.

### 5.2 Northern Sotho (Bantu)

In many Bantu languages, *wh*-words and the focus in corresponding answers must be a postverbal position.

Focused constituents with *fela* 'only' in Northern Sotho (Bantu) must be postverbal:

(44) **Northern Sotho focused internal arguments:** (Zerbian, 2006)

a. Mosadi otliša [bana]<sub>F</sub> fela.  
woman bring kids ONLY

'The woman *only* brings the [kids]<sub>F</sub>.'

b. Mosadi otliša bana [sekolo]<sub>F</sub>-ng fela.  
woman bring kids school-LOC ONLY

'The woman *only* brings the kids to [school]<sub>F</sub>.'

Subjects (typically preverbal) cannot be focused in-situ:

(45) **Northern Sotho focused subjects:** (Zerbian, 2006)

a. Build another clause on top:

Ké [mosadi]<sub>F</sub> fela atliša-ng bana.  
COP woman only bring-REL kids

'Only the [woman]<sub>F</sub> brings the kids.'

literally 'It's only the [woman]<sub>F</sub> that brings the kids.'

<sup>8</sup>The idea that free focus is actually associating with a higher, covert operator goes back to Jacobs (1984a,b). Rooth (1992) also models free focus as associating with his squiggle (~) operator.

- b. Exceptionally keep the subject low:

Gofihlile [monna]<sub>F</sub> **fela**.  
arrived man only

‘Only the [man]<sub>F</sub> arrived.’

### 5.3 Kikuyu (Bantu)

Kikuyu (Bantu; Kenya) is canonically SVO and has both in-situ and biclausal cleft questions:

- (46) **Kikuyu object *wh*-questions:** (Schwarz, 2003)

- a. Kamau *ɔ̀nirɛ oo*?  
Kamau see who  
‘Who did Kamau see?’  
b. N-*oo* Kamau *ɔ̀nirɛ*?  
cop-who Kamau see  
‘Who did Kamau see?’

Subject *wh*-words must use the cleft strategy:

- (47) **Kikuyu subject *wh*-questions:** (Schwarz, 2003)

- a. \**Oo* *aðomayera mw-ana i-βuku*?  
who read 1-child 5-book  
b. N-*oo* *aðomayera mw-ana i-βuku*?  
cop-who read 1-child 5-book  
‘Who read the book to the child?’

Rose et al. (2014): Same pattern in Moro (Kordofanian; Sudan).

### 5.4 Bantu Subject-Object reversal

In some Bantu languages, when the subject is focused, it is kept low, and the object is instead fronted and agrees with the verb.

- (48) **Kinyarwanda subject-object reversal:** (Morimoto, 2006)

- a. Umuhuúngu **a-rasoma** *igitabo*.  
1boy 1-read 7book  
‘The boy is reading the book.’  
b. *Igitabo ki-soma* [umuhuúngu]<sub>F</sub>.  
7book 7-read 1boy  
‘[The boy]<sub>F</sub> is reading the book.’

This keeps the focus low, but also satisfies EPP on T at the same time.

### 5.5 Ngamo (West Chadic)

Ngamo (West Chadic; Nigeria) is canonically SVO. Interestingly, *its ONLY word yak can “float” and associate with a postverbal constituent:*

- (49) **Ngamo ‘only’ *yak* can “float”:** (Grubic and Zimmermann, 2011)

(Yak) te (yak) esha si (yak) [nazono]<sub>F</sub> (yak’i).  
ONLY she ONLY call.PERF him ONLY yesterday ONLY

‘She *only* called him [yesterday]<sub>F</sub>.’

The linear position of *yak* does not reflect the operator’s scope.

- ☞ However, subjects must be postverbal to be the associate of *yak*:

- (50) **Ngamo focused subjects:** (Grubic and Zimmermann, 2011)

a. \*(Yak) [Shuwa]<sub>F</sub> (yak) *sàlko bàndò* (yàk’i).  
ONLY Shuwa ONLY build-PFV house ONLY  
Intended: ‘*Only* [Shuwa]<sub>F</sub> built a house.’

b. *Sàlko bàndò-i yak* [Kulè]<sub>F</sub>.  
build-PERF house-BM only Kule  
‘*Only* [Kule]<sub>F</sub> built a house.’

Tuller (1992); Fielder et al. (2010): Similar low focus requirements are observed in other Chadic languages, including Bole, Tangale, Bade, Ngizim, Duwai.

“Low focus” languages exist, as predicted by the ranking FocAdvLow ≫ FocScope.

## 6 Conclusion

- I argue that **Mandarin Chinese *zhǐ* and *shì*** are **adverbs**, and study their distribution together with **Vietnamese *chỉ***, which is also an adverb (Hole, 2013).

- ☞ Their distribution follows the following generalization:

Focus adverbs must be in **the lowest position possible** while **taking their associate in their scope, relative to a particular phase**.

- The uniform behavior of focus adverbs in Mandarin Chinese and Vietnamese (and German) can be modeled in OT with **FocScope ≫ FocAdvLow**.

- Optimization occurs **phase-by-phase**.
- This derives **the special status of the vP edge** as the position for focus adverbs that associate long-distance.

- I discussed “**low focus**” languages in Romance, Bantu, and Chadic, predicted by the ranking FocAdvLow ≫ FocScope.

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## Appendix A: *zhǐyǒu* vs *zhǐ*

As noted at the beginning of section 1, in certain positions, *only* is realized as *zhǐyǒu* 只有 instead of *zhǐ* 只. Note that *yǒu* 有 is the existential verb, raising the question of whether *zhǐyǒu* is made up of the adverb *zhǐ* and the verb *yǒu*. For example, one might think that a sentence-initial *zhǐyǒu* is a sentence-initial *yǒu*, embedding a (small) clause, modified by *zhǐ*, schematized in (51).

- (51) **A hypothesis: *zhǐyǒu* = *zhǐ* + main verb *yǒu***  
 Zhǐ [<sub>VP</sub> yǒu [<sub>clause</sub> S<sub>F</sub> ... ] ]

☞ Instead, I analyze *zhǐyǒu* as an allomorph of *zhǐ*,<sup>9</sup> with *zhǐyǒu* appearing when *zhǐ* cannot form a polysyllabic prosodic word with an adjacent head.

There are a few arguments for this position:

- The choice of *zhǐyǒu* vs *zhǐ* is often determined by whether the adjacent constituent includes a functional head or not. For example, when preceding a PP ‘at home,’ *zhǐ* is preferred; when preceding a time ‘yesterday,’ *zhǐyǒu* is preferred.

(52) ...{‘zhǐ, ??zhǐyǒu} zài jiālǐ...  
 ONLY at home

(53) ...{‘zhǐ, ‘zhǐyǒu} zúotiān...  
 ONLY yesterday

- In pre-subject position, *only* generally must be realized as *zhǐyǒu*. However, when the *only* is preceded by negation, it is realized as *bù-zhǐ* ‘NEG-ONLY,’ and the extra *yǒu* is not necessary and in fact impossible.

(54) {‘Zhǐ, ‘zhǐyǒu} [Zhāngsān]<sub>F</sub> lái-le.  
 ONLY Zhangsan COME-PERF  
 ‘Only [Zhangsan]<sub>F</sub> came.’

(55) {‘Bù-zhǐ, \*bù-zhǐyǒu} [Zhāngsān]<sub>F</sub> lái-le.  
 NEG-ONLY Zhangsan COME-PERF  
 ‘Not only [Zhangsan]<sub>F</sub> came.’

- I argued for the generalization that *only* in immediately preverbal position (at a vP edge) is able to associate long-distance, into embedded clauses. If *zhǐyǒu* were decomposed using a main verb *yǒu*, as schematized in (51), we predict *zhǐyǒu* to be able to associate long-distance with any constituent it c-commands, contrary to fact.

<sup>9</sup>Although, as noted by Lü (1980), there are also clear cases of *zhǐyǒu* that are an adverb *zhǐ* modifying the main verb *yǒu*. The discussion here is on cases of *zhǐyǒu* where *yǒu* is clearly not the main verb of the clause.

## Appendix B: The German Closeness debate

In some cases, it is hard to distinguish between an adverb or constituent-marking.

- (56) **Two hypotheses for German focus operators:** (Büring and Hartmann, 2001)

Ich habe **nur** [einen ROMAN]<sub>F</sub> gelesen.  
 I have ONLY a novel read

a. *Nur* as adverb:  
 Ich habe [<sub>VP</sub> **nur** [<sub>VP</sub> [<sub>DP</sub> einen Roman]<sub>F</sub> gelesen]]

b. *Nur* as constituent-marking:  
 Ich habe [<sub>VP</sub> [<sub>DP</sub> **nur** [<sub>DP</sub> einen Roman]<sub>F</sub>] gelesen]

Jacobs (1983, 1986); Büring and Hartmann (2001): German focus particles are always adverbs. The lack of constituent-marking focus operators explains the ungrammaticality of certain focus operator placement:

(57) \* [PP mit [ **nur** [<sub>DP</sub> Hans]<sub>F</sub> ]]  
 with ONLY Hans

(58) \* [<sub>DP</sub> der Bruder [ **nur** [<sub>DP</sub> des Grafen]<sub>F</sub> ]]  
 the brother ONLY the-GEN COUNT-GEN

In many (but not all) cases, focus operators must be *adjacent* to their associate:

(59) a. ‘Gestern hat Rufus **sogar** dem [mädchen]<sub>F</sub> Blumen geschenkt.  
 yesterday has Rufus EVEN the.DAT girl flowers given

b. \*Gestern hat **sogar** Rufus dem [mädchen]<sub>F</sub> Blumen geschenkt.  
 yesterday has EVEN Rufus the.DAT girl flowers given

- (60) **Closeness (informal):** (Büring and Hartmann 2001; following Jacobs 1983, 1986)  
 Focus particles are as close to the focus as possible.<sup>10</sup>

However, the Closeness constraint has been criticized as “spurious” and “more than doubtful” (Reis, 2005).<sup>11</sup>

☞ The behavior of Mandarin Chinese and Vietnamese presented here shows that Closeness-type behavior is attested in other, unrelated languages.

<sup>10</sup>In the formal version, the “closeness” only applies between different adjunction sites on the same extended (verbal) projection, making Büring and Hartmann (2001). Many of Reis’s (2005) criticisms are moot given B&H’s formal version.

<sup>11</sup>In addition to conceptual and minor distributional questions, a major question is the structure of German clauses with *nur* preceding a constituent in the prefield, which apparently violates V2. I will not discuss this here.