

## Wagner (2006): NPI licensing and *only*<sup>1</sup>

### 1 Review: two approaches to English VP-*only*

- (1) **Association with focus, in-situ (Rooth, 1985):**

$$\llbracket \widehat{\text{only}} \alpha_t \rrbracket = 1 \iff \forall \phi \in \llbracket \alpha \rrbracket^f (\phi \neq \llbracket \alpha \rrbracket^o \rightarrow \phi \text{ is false})$$

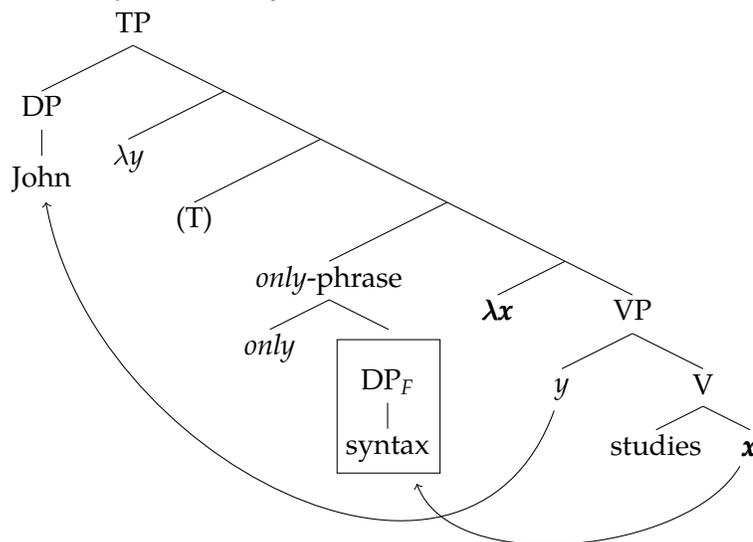
- (2) **Covert focus movement:**

*Only* is always a two-place operator:

$$\llbracket \widehat{\text{only}} \alpha_e \rrbracket = \lambda P_{\langle e,t \rangle} . \forall x \in \llbracket \alpha \rrbracket^f (x \neq \llbracket \alpha \rrbracket^o \rightarrow P(x) \text{ is false})$$

Adverb *only* covertly moves the F-marked constituent to become its *first argument*.

- (3) John *only* studies [syntax]<sub>F</sub>



*Only* can associate into syntactic islands, which may be problematic for the focus movement view (Anderson, 1972; Jackendoff, 1972; Rooth, 1985).

- ☞ A possible solution is *covert focus movement with pied-piping* (Drubig, 1994; Krifka, 2006, a.o.) which we discussed before (Day 20 handout).
  - We also discussed further evidence from intervention effects in focus pied-piping (Erlewine and Kotek, 2014) (Day 24 handout).

**Wagner (2006):** evidence from NPI licensing for covert focus movement with pied-piping

<sup>1</sup>This handout is a modified version of Michael’s 2005 SALT handout.

Wagner (2006) notation:

- The first argument of *only*/quantifier; Wagner (2006) calls this the **syntactic restrictor**. In the cases of interest, this corresponds to the pied-piping.
- *Focus*, inside the pied-piping.
- $\lceil$ The second argument of *only*/quantifier $\rceil$ , i.e. its nuclear scope.

## 2 Background: NPI licensing and Strawson Entailment

NPIs are licensed in *downward entailing* (DE) environments (Ladusaw, 1979).

- (4) a. \*Every linguistics student  $\lceil$ knows any famous linguist. $\rceil$   
b. Every student with any knowledge in linguistics  $\lceil$ knows Jim Mccawley $\rceil$ .

'Every' is DE in its first, but not in its second argument:

- (5) a. Every student  $\lceil$ knows Mccawley $\rceil$ .  
→ Every linguistics student  $\lceil$ knows Mccawley. $\rceil$   
b. Every student  $\lceil$ knows a famous linguist. $\rceil$   
↯ Every student  $\lceil$ knows Mccawley. $\rceil$

Conversely, the exclusive *only* licenses NPIs in its scope, but not in its restrictor:

- (6) a. Only John  $\lceil$ ate any kale $\rceil$ .  
b. \*Only any students  $\lceil$ ate kale $\rceil$ .

Unexpectedly, *only* does not seem to be DE in *either* argument:

- (7) a. Only John  $\lceil$ ate vegetables $\rceil$ . ↯  
Only John  $\lceil$ ate kale $\rceil$ .  
b. Only students  $\lceil$ ate kale $\rceil$ . ↯  
Only Linguistics students  $\lceil$ ate kale $\rceil$ .

von Stechow (1999): A *Strawson-entails* B if A entails B granted that the presuppositions of B are true:

- (8) a. Only John  $\lceil$ ate vegetables $\rceil$   
b. Presupposition: John ate kale  
c. → Only John  $\lceil$ ate kale $\rceil$ .

The second argument of *only* is *Strawson downward entailing* (SDE), but not its first:

- (9) a. Only students  $\lceil$  ate kale  $\rceil$   
b. Presupposition: Linguistics students ate kale  
c.  $\nrightarrow$  Only linguistics students  $\lceil$  ate kale  $\rceil$ .

*only* is Downward-Strawson-Entailing (DSE) in the second argument (its scope) but not in first argument (its restrictor). NPIs are licensed in DSE-Environments. [ ONLY + Restrictor ] is a DSE-operator.

### 3 NPIs and constituent *only*

$\rightarrow$  *only* does not license NPIs in its restrictor, *not even in the parts that are not the focus*:

- (10) a. \* Only any inhabitant of *Twin Earth*  $\lceil$  met Particle Man  $\rceil$ .  
b. \* Only an *author* of any comic  $\lceil$  met Particle Man  $\rceil$ .  
c. Only *Particle Man*  $\lceil$  met any inhabitant of *Twin Earth*  $\rceil$ .

The first argument of *only* is generally not Strawson-Downward-Entailing, as was discussed above. (Apparent counterexamples are discussed in the paper's section 2.3.)

### 4 NPIs and VP-*only*

VP-*only* can license NPI inside of VPs (von Stechow, 1999):

- (11) There only  $\lceil$  was any precipitation in *Medford*  $\rceil$ .

Therefore the restrictor of *only* cannot be the entire VP. The solution proposed here is that (11) involves focus movement. Consider also:

- (12) a. John only  $\lceil$  gave any kale to *his friends*  $\rceil$ .  
b. John only  $\lceil$  gave *kale* to any of his friends  $\rceil$ .

The way I implement this idea is that this movement provides the complement for *only*:

- (13) a. [ only *his friends* ] [  $\lambda x$ . John gave any kale to x ].  
b. [ only *kale* ] [  $\lambda x$ . John gave x to any of his friends ].

Downward-Strawson Entailment predicts correct Licensing:

- (14) a. John only  $\lceil$ gave vegetables to his friends $\rceil$ .  
 b. Presupposition: John gave kale to his friends.  
 c.  $\rightarrow$  John only  $\lceil$ gave kale to his friends $\rceil$ .

Bruening (2001) observes that in double object construction, the scope between the indirect and direct object is frozen (15a), as opposed to the dative construction, where both scopes are available (15b).

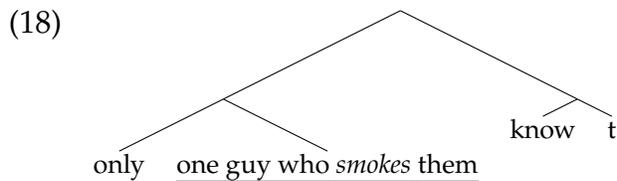
- (15) a. I gave a child each doll.  $a > each, *each > a$   
 b. I gave a doll to each child  $a > each, each > a$

Correct Prediction for NPI Licensing: **Double-Object-Restriction.**

- (16) a. She only  $\lceil$ gave her student any funding. $\rceil$   
 b. \*She only  $\lceil$ gave any student summer funding. $\rceil$

- (17) I don't know anyone who smokes bananas, I only know a guy who *grows* them.  
 (Anderson, 1972)

Drubig (1994): The entire island is pied piped.



Given the distribution of NPIs in the case of NP-only, the fact that VP-only licenses NPIs in the non-focal part of the VP is evidence for focus movement. The double-object Restriction is a first piece of evidence that regular constraints on movement apply.  
**Next two sections: evidence for pied-piping.**

## 4.1 The Head Restriction

When *only* associates with a head, the entire projection is restrictor of *only*, since *heads* cannot undergo  $\bar{A}$ -Head-Movement, and thus must pied-pipe at least their complement:

- (19) **Prediction I: The Head Restriction:**  
 Association with the head of a constituent not license NPIs in its complement.

Consider NPI licensing in cases of association with the verb:

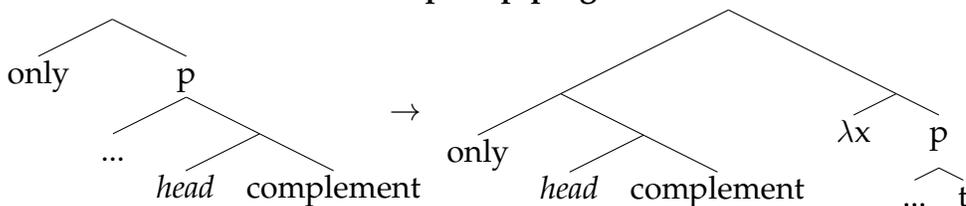
- (20) **Association with a verb:**  
 While John was willing to help cooking the vegetables, he was a bit particular about which chore he was going to be assigned.  
 a. \*John only cut any vegetables.  
 b. John didn't *cut* any vegetables.

This sentence should be grammatical if 'cut' was the focus of *only*, and 'any vegetables' is in the scope of *only*, that is, if the LF of the sentence in (20) looked as follows:

- (21) [ only *cut* ] [  $\lambda x$ . John *x* any vegetables ]

Applying the same logic as in the case of DP-*only*, the facts can be explained if we take *the entire VP* to be the restrictor of *only* in cases of association with the verb:

- (22) **Association with a head and pied-piping:**



- (23) [ only cut vegetables ] [  $\lambda x$ . John *x* ]

- (24) **Association with a preposition:**  
 There are several parks in this city, and one is allowed to drive through, but only at 10mph. I wonder whether John always went *through* the parks, or whether he sometimes went *around* any park.  
 a. \*John only drove through any park.  
 b. John didn't drive *around* any park.

(25) **Association with complementizer:**

Did she tell you at what time we will arrive?

- a. \*She didn't tell me when *anyone* will arrive. She only  $\lceil$  told me that anyone will arrive  $\rceil$ .
- b. She didn't tell me when *anyone* will arrive. In fact, she didn't (even) tell me *that* anyone will arrive.

(26) **Association with head noun with a relative clause:**

- a. \*She only  $\lceil$  went to talks that were given by any students  $\rceil$ .
- b. She didn't go to *talks* that were given by any students.

(27) **Association with head noun with a possessor:**

- a. \*Anna only  $\lceil$  knew anyone's parents  $\rceil$ , but she didn't know any of the other guests.
- b. Anna didn't know anyone's *parents*, but she knew all the other guests.

As predicted by the Movement theory of Focus-Association, association with a head does not license NPIs in its complement, since it is pied-piped and thus part of the restrictor of *only*.

## 4.2 The Island Restriction

Association into islands is allowed. This was taken to argue against the movement approach (e.g. Rooth, 1985). Drubig (1994) proposes that the entire island pied pipes.

(28) **Prediction II: Island Restriction**

Association with a constituent within an island cannot license an NPI in the same island.

(29) **NPI in relative clause island:**

- a. Yesterday during the dinner we talked about the restaurants we had been to, and who had recommended them to us. Mary was very negative about many places. I don't mind that she's very picky about restaurants, but I think she was just trying to flatter John.  
She never complained about a restaurant that *John* had recommended to anyone.
- b. Yesterday during the dinner we talked about the restaurants we had been to, and who had recommended them to us. Mary, as usual, seized the opportunity to annoy John.  
\*She only  $\lceil$  complained about a restaurant that *John* had recommended to anyone  $\rceil$ .

A second argument is based on 'because' clauses. First, as expected, NPIs are licensed elsewhere in the VP when associating with because-clauses.

(30) Mary only  $\ulcorner$ gave anything to anyone because Anna did $\urcorner$ .

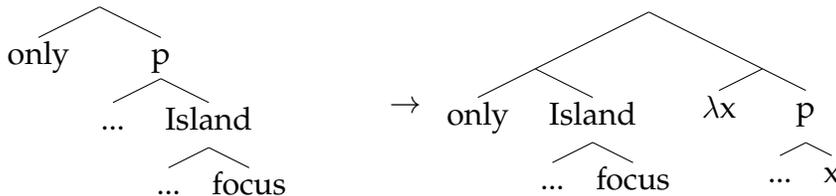
Because clauses constitute islands of extraction. The prediction is now that association into the because clause does not license NPIs in the non-focal part of the because clause:

(31) **NPI in *because* clause:**

\*Mary only  $\ulcorner$ gave a book to John because Bill gave any book to him $\urcorner$ .

The facts follow if the island pied-pipes, and becomes as a whole the restrictor of *only*:

(32) **Association into an island:**



Association into islands involves pied-piping. The observations are predicted by the theory defended here, but are unaccounted for in a pure in-situ theory of focus association.

## 5 Other focus-sensitive operators

Replacive negation licenses NPIs in its restrictor but not in its scope (the exact reverse of *only*):

- (33) a. Not any inhabitant of Earth but an inhabitant of *Twin Earth*  $\ulcorner$ met Particle Man $\urcorner$ .  
 b. Not an author of any comic but a reader of some comic  $\ulcorner$ met Particle Man $\urcorner$ .  
 c. \* Not Particle Man but *Universe Man*  $\ulcorner$ met any inhabitant of Twin Earth yesterday $\urcorner$ .

Replacive negation associates by movement:

- (34) a. \* Mary didn't  $\ulcorner$ give anything to anyone because Anna did, but because John did $\urcorner$ .  
 b. Mary didn't  $\ulcorner$ gave a book to John because anyone else did, but because she wanted to $\urcorner$ .

**Prediction:** association *into* an island should license an NPI in the same island, because it will be pied-piped and end up as the restrictor. This prediction is borne out:

- (35) Mary didn't  $\lceil$ give a book to John because *Bill* gave any book to him $\rceil$ , but because Anna did.

**Consider also:** Does every exclusive associate by movement?

- (36) 'Just' can license NPIs in principle but does not show movement evidence:  
a. Just because he was lucky did the attempt have any success.  
b. ?\*She just gave any funding to *her* students.

'Just' seems to differ from *only* in its behavior with respect to NPI licensing, and maybe with respect to whether or not it associates by movement.

**Question:** Does this teach us that focus movement always occurs?

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