

# THE INTERNAL STRUCTURE OF NPs HEADED BY FOCUS PARTICLES

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**Abstract:** This article investigates the internal structure of NPs headed by the restrictive particle *only* in English. The working assumption is that despite the high syntactic mobility of the particle, noun phrases headed by *only* exhibit a uniform structure and a fairly uniform syntactic behaviour. The paper investigates the merge configuration of the particle and its syntactic positions in the clause structure and it proves, in the frame of the copy theory of movement, that the structure of the *only*-phrase is unitary in all three configurations (*only*-NP, *only*-vP, LP *only*) the apparent differences being due to different spell-out options.

**Keywords:** focus particle, copy theory of movement, merge operation, phase periphery

## 1. Introduction

A puzzling fact about the syntactic behaviour of the focus particle *only* is that it can surface in three different configurations: the so-called “in situ” occurrence where it immediately precedes its associate, which does not appear to have undergone movement, the *only* vP, where it precedes the verb, its associate being contained within the vP, and the fronted occurrence, where *only* and its associate move together to a left periphery position. The aim of this paper is to give an accurate description of the syntactic behaviour of *only* accounting for the following aspects: i. its base configuration; the way it enters the derivation (external merge vs. adjunction); ii. the overt positions occupied by the particle, namely: *only* NP, *only* vP and left periphery *only*; iii. the difference between its syntactic configuration and its semantic interpretation (high syntactic mobility and the relatively stable semantics - relatively fixed scope). We adopt the copy model of the Minimalist Program under which movement of an element creates full-fledged copies of that element. The particular version of this model implemented is the one put forth by Bobaljik (2002), which allows for the choice in copy spell-out to be given to both PF or LF resulting in a four-option system of spelling out copies: PF and LF spell-out of the higher copy (overt-movement), PF spell-out of the higher copy and LF spell-out of the lower copy (reconstruction), LF spell-out of the higher copy and PF spell-out of the lower copy (covert movement), PF and LF spell-out of the higher copy (expletive constructions).

## 2. The merge configuration of *only*

The first step towards providing a syntactic analysis of the restrictive is to establish the merge configuration of *only*. The positions taken by various linguists vary with respect to the base configuration of *only*: for Kayne (1998) *only* is always merged with a VP, taking the *only*-VP configuration to mirror the base structure while the *only*-XP

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surface order is assumed to be derived by a series of movement steps; Drubig (1994, 2000) and Herburger (2000) take the base position of *only* to be *only*-XP, the pre-verbal position being derived through movement; a third position is taken by Buring and Hartman (2001) who assume that both *only*-XP and *only*-VP are base configurations of *only*, allowing for two merge configurations.

As already discussed above, Kayne's analysis has the advantage of providing a unitary merge position for *only* which would be compatible with a semantic interpretation as quantifier over events. However, in order to account for the a) example he resorts to a series of unmotivated movement steps, which runs counter to minimalism principles requiring movement to be licensed by feature valuation.

Another important reason to discard this analysis is that it does not explain why the *only* DP string passes constituency tests as evinced by the impossibility of extracting the focused constituent by wh-movement for example:

- (1) I met only LUKE at the party.  
\*Who did I meet only at the party?

On the account that *only Luke* is not a constituent it is not explained why it is impossible to front the focused constituent stranding *only*. As shown for clefting, the entire chunk *only Luke* must be moved.

- (2) It is only LUKE that I met at the party.

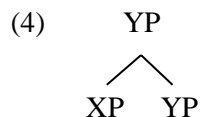
We will therefore adopt a position similar to Drubig, Herburger and Buring and Hartman, and interpret *only*-XP as the base configuration of *only*.

As already shown before, in its "in situ" position *only* can precede virtually any type of phrase, the only constraint being that the constituent to which it attaches must be a maximal projection. We will thus interpret *only* as a functional element, a cross-categorial operator (Rooth 1985, Konig 1991, Beaver 2003). We propose that the wide combinatorial properties of the particle are due to the fact that it is an a-categorial item. Notice that attaching *only* to a phrase doesn't appear to affect the categorial status of that phrase, which seems to indicate that *only* doesn't project its own label.

- (3) Finding the best answer to your problems depends [<sub>PP</sub> (only) on you].

In example (3), the verb *depend* selects for a prepositional phrase. The presence of *only* does not affect the grammaticality of the sentence and given the account that we have adopted, namely that *only* adjoins to the PP in such a structure, it follows that *only on you* must function as a prepositional phrase.

On account of the property above, it seems tempting to assume that *only* attaches to the XP that it precedes by means of adjunction. We take adjunction to be a more restricted type of Merge operation, as defined by Gallego (2010), where the order is clearly established.



Therefore adjunction will linearize the pair as [XP YP] allowing YP to project. Formally, the whole structure would behave as a YP, as “the category which receives adjunction retains all its properties... adjuncts do not modify the category/type of the syntactic object that is modified.” (Gallego 2010: 19). Given that *only* doesn’t appear to project its own label, this seems to indicate that it attaches to its associate by means of adjunction.

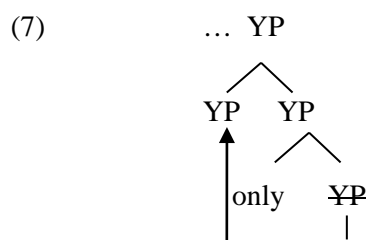
However, given the definition of adjunction adopted, this would imply that the pair <only, XP> is always linearized in this order. But examples like (5) run against this conclusion.

- (5) This matter concerns Maria only.  
 (6) This matter concerns only Maria.

In example (5) *only* follows its associate *Maria*. Sentences (5) and (6) are identical in terms of formal semantic properties such as truth conditions, presuppositions, implicatures, etc., which means that they have the same representation in the semantic component.

The stipulation above rules out right-adjunction. Therefore, in order to preserve an adjunction account, we would have to assume that the reverse order is created by movement. However, movement of the associate is ruled out by the ban on right-branch extraction from an adjunction site. Consequently, the possibility of the particle to follow its associate rules out adjunction.

We propose that the [only XP] constituent results from the application of regular external merge, the reverse order XP-*only* being created by re-merging the associate higher in the structure



The type of movement involved in *only* postposing seems to be very local, as no other XP may intervene.

- (8) a. John introduced Sue to BILL only.  
 b. \*John introduced SUE to Bill only.

The locality of this movement seems to run counter to our analysis, given that movement from a complement to a specifier position of the same phrase is anti-local, in the sense of Abels (2003) or Grohmann (2003). Anti-locality rules out very local derivations such as the one above on account that they are not motivated by feature valuation, given that any feature valuation between the two items could have taken place at Merge. We propose that this movement is indeed not motivated by syntactic features valuation, but by phonological reasons, namely stress-assignment prosodic rules, possibly the assignment of a LH\*L% stress pattern, associated with contrastive interpretation. Being driven by phonological rules, a conclusion supported by the lack of semantic differences between the two structures, as argued above, this movement takes place at PF. Further evidence for this proposal comes from the fact that this movement does not destroy the obligatory c-command relation that must be established overtly between the particle and its associate. We further stipulate that this type of local scrambling PF movement is not constrained by locality.

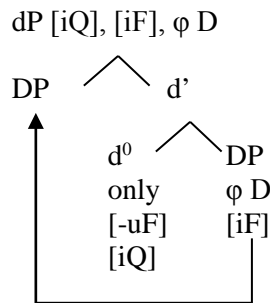
Having established the type of operation involved in creating the *only*-XP constituent, we will discuss the label of the created constituent. We have indicated above that the *only*-XP constituent needs to project an XP in order to satisfy the selection properties of items merging higher up in the structure. We have also hinted that *only* is a quantificational element, and therefore it will have to undergo movement to a higher structural position to take scope. Under the analysis that *only* does not project its label, the resulting *only*-XP constituent would not inherit its [Q] feature and the [Q] feature would be trapped inside the XP, unable to trigger movement to a position that will ensure its scope. Thus we are faced with a dilemma.

The solution to this problem would be to allow both the XP to project its category and the particle to project its label. We propose that this is in fact the case. The crucial claim of our analysis is that focus particles are functional items bearing no lexical category feature, but only two semantic features [Q] and [F], as proposed by Bayer and Grosu (2000). Upon merge they will copy the categorial feature of their complement by a sort of feature sharing mechanism and project as light heads of that label. At the same time, being merged as heads, they will also allow their [Q] feature to be inherited up the structure to the XP node. This will ensure both the category of the associate and the quantification feature of the restrictive, at the cost of proposing a special type of head. We believe that in fact focus particles are a special class of items, hence the label particle, whose syntactic behaviour could be likened to that of the negative particle.

Given the traditional view that in a way the head must act as a selector (e.g. prepositional verbs select for a PP) we further propose that in the case of such a-categorial items, the Merge operation must be constrained by feature valuation. We argue that Pesetski and Torrego (2006)'s Vehicle Requirement on Merge applies to these cases, generating a "probe-goal" relation between the particle and its complement, while we do not believe their theory to be applicable in general to all cases of merge. In the case of *only*, we propose that its unvalued [uF] feature will probe for a lexical item with a similar valued [iF]. We further propose that contrastively focused constituents carry an [iF] feature. Since this feature obviously cannot come from the lexical entry of such items, given that it is not the case that a lexical item is focused, we propose that it is assigned at Numeration, as also suggested by Aboh (2007) among others. We propose that this

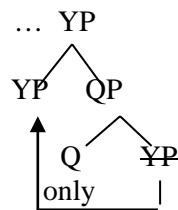
requirement ensures that the associate of restrictive particles is always focused, as a syntactic restriction and not just an instruction to PF. If the focus on the particle's associate were just a phonological feature, we would expect it to have no effect on semantics. We will see that this is clearly not the case. Thus we propose that focus association is a syntactic requirement with a reflex at both PF and LF, formulated as a [F] feature matching condition on merge. Given that the [F] feature of the associate is interpretable, it will not get deleted. Furthermore, it will percolate to the upper node and be able to value matching [uF] features located higher in the structure. For an associate of category DP, for example, the structure that we propose is the following:

(9)



Another solution that we could entertain, taking into account that *only* is a quantifier, would be to assume that it attaches to its associate as a head and in fact projects a QP phrase. Since selection properties require that at LF the *only*-XP is of category XP and not QP, reprojection, as defined by Hornstein and Uriagereka (2002) must apply. The resulting LF structure would be the following:

(10)



However, while this would solve the problem of the selector of YP, it would create the same problem for the quantifier mentioned above, only that that not in the syntactic component but at LF. That is, the resulting [only XP] constituent must in fact be a quantificational element at LF. Reprojection was in fact proposed by the two authors above to allow quantificational elements to reproject as QPs at LF in order to ensure their scope and interpretation. We therefore discard reprojection as a possible solution.

Summing up the analysis so far, restrictive particles are a-categorial functional elements, bearing a [iQ] and an unvalued [uF] feature, that are merged as heads. They select for a constituent bearing a matching [iF] to value their unvalued [uF] feature. In turn they will copy the category feature of their associate allowing it to project.

### 3. The positions of *only* in the clause structure

Starting from the analyses available in the literature, we will present our answer to the problems raised in the introduction: (i) accounting for the overt positions occupied by the particle namely: *only* DP, *only* VP and left-periphery *only*; (ii) accounting for the difference between its syntactic configurations and its semantic interpretation (high syntactic mobility and the relatively stable semantics - relatively fixed scope)

- (11) a. [CP I [VP met [DP **only** LUKE] at the party]].  
 b. [CP I [vP **only** met [DP LUKE] at the party]].  
 c. [CP [**Only** LUKE]<sub>i</sub> did [TP I [VP meet t<sub>i</sub> at the party]]].

In examples (11a-c), repeated above for convenience, we have illustrated the three different surface configurations of *only* that we must account for: the *only*-DP configuration, where it immediately precedes its associate, which does not appear to have undergone movement, as in (11a), the *only*-VP, where it precedes the verb, its associate being contained within the vP, as in (11b), and the left-periphery fronted occurrence, where *only* and its associate move together to a left periphery position, as in (11c). In the following sections we will propose an analysis for these positions in terms of uniform movement of the *only*-XP constituent triggered by Agree.

#### 3.1. “In situ” occurrences of *only*

Having established that the merge configuration of *only* is [only-XP], we must establish whether this surface order represents its base position, that is if particles immediately preceding their associate are to be analysed as “in situ”.

As stated before, in line with the syntactic-semantic accounts (Hartman and Buring 2001 and Herburger 2000) as well as semantic accounts (Rooth 1992, von Stechow 1991, Krifka 2006 a.o.) proposed in the literature, we analyse *only* as a quantifier. Consequently, in order for the derivation to provide the appropriate configuration for semantic interpretation, the quantifier must undergo movement to a scope bearing position. As we have adopted the position that *only* is an adverbial quantifier, it follows that it must move to a spec vP position from where it can take scope over the VP.

This movement must be either covert, via Q-raising (as proposed by Herburger) or QR (as proposed by Hartman and Buring), or an overt chain movement followed by reconstruction at PF. We adopt a copy theory of movement. Under this theory we would allow the semantic component to interpret the head of the chain while the phonological component would pronounce the lower copy.

- (12) John ~~only~~ introduced Sue to ~~only~~ BILL. (PF structure)  
 John *only* introduced Sue to *only* BILL. (LF structure)

Before deciding which of these types of movement applies, we should check whether the proposed derivation step takes place.

We will use intervention effects as a test for the position of *only*. As proposed by Partee (1991), *only* acts as a restrictor for negation. This has important consequences for the licensing of NPIs. That is, if *only* moves to a preverbal position we expect that NPIs inside the VP will become ungrammatical, following the Immediate Scope Constraint proposed in Linebarger (1987) which requires no operator to intervene between an NPI and negation.

- (13) John didn't bring any date at every New Year party.  
 i. Reading 1: There is no particular date that John brought at every New Year party.  
 Scopal Relations: NOT > NPI > every  
 ii. Reading 2: At every New Year party John brought no date.  
 Scopal Relations: every > NOT > NPI  
 iii. \*Unavailable reading 3: It is not the case that John brought a date at every New Year party.  
 Scopal Relations: NOT > every > NPI

As the example above shows, the sentence can be interpreted with the NPI *any* having scope over the universal and inducing a specific reading according to which John didn't bring the same date to every New Year party. Another possible interpretation is the one where the universal quantifier *every* moves higher than negation taking scope over it and the resulting interpretation is that John never brings a date to the New Year party. But the intermediate scope interpretation where John brings a date to some New Year parties, but not all of them, is not available because such a reading would require negation to have scope over the universal quantifier *every* first, meaning that the universal would intervene between negation and the NPI and therefore the licensing of *any* would be blocked.

Under the assumption that *only* is a quantifier, we expect it to block the licensing of NPIs in its pre-vP position since it intervenes between negation and the NPI.

- (14) a. James didn't talk to anybody about his plans. NOT > NPI  
 b. \*James didn't only talk to anybody [<sub>F</sub> about his PLANS]. NOT > only > NPI

The sentence above proves that when *only* surfaces interposed between negation and the NPI *anybody* the sentence becomes ungrammatical.

We can apply the same test to apparent in situ *only*-XP configurations. If these are really in situ, then scope relations should be read from the surface order and therefore, if the *only*-XP constituent follows the NPI it should not intervene in its licensing. If, on the other hand, *only* uniformly undergoes (c)overt movement to the vP periphery to satisfy its scope-bearing properties, we expect that intervention effects will appear even in cases where in the surface order *only* follows the NPI, that is cases where the *only*-XP constituent appears to be lower in the structure than the NPI. This prediction is borne out proving that in fact *only* is structurally higher than the NPI.

- (15) \*James didn't talk to anybody only [<sub>F</sub> about his PLANS].

Intonation seems to play a part in cases where *only* surfaces/ is pronounced in its XP-adjoined position. That is, prosodic prominence on *anybody* (uttered in reaction to a previous statement asserting that James actually talked to someone only about his plans) seems to improve the acceptability of the sentence.

- (16) James talked to Mary only [about his PLANS].  
 (17) ? James didn't talk to ANYBODY only [<sub>F</sub> about his plans].

In this case *his plans* will undergo deaccenting triggered by contrastive stress on *anybody*.

We assume that in such contexts the NPI *anybody* carries an [F] feature itself that is checked by movement to a position higher than the one occupied by the focus particle. Such examples are nevertheless restricted to echoic contexts where the properties of the restrictive have been satisfied in a previous context. We will return to example (14). Linebarger (1987) formulated the Immediate Scope Constraint as a principle operating at LF. But following Partee (1991), *only* is supposed to act as a restrictor on negation so the licensing of *anybody* should still be barred. We propose that it is not just *only*, but focus as well, that acts as a restrictor for the negative operator. This is borne out by the fact that even in the absence of *only* a contrastively focused constituent cannot intervene between negation and the NPI.

- (18) \*He didn't disclose his PLANS to anybody, (not his PREVIOUS ACTIONS).

In the case above about his plans represents old information, as proposed by Rooth (1992), Krifka (2006) among others, therefore it will not act as a restrictor.

This proposal has another important consequence. It suggests that, in the case where the NPI is banned, it is not just *only* that moves, but its associate as well, resulting in the following LF/PF structures

- (19) a. John only to BILL introduced Sue ~~only to BILL~~. LF  
 b. John ~~only to BILL~~ introduced Sue only to BILL. PF

We propose therefore that apparently *in situ* only-XP configurations always involve movement. The particle and its associate both undergo movement to the vP periphery, triggered by the need of the particle to value an [uQ] feature located in the vP periphery (its scope position). If a matching [uF] feature, which we assume to be always projected in one of the peripheries when a contrastively focused constituent enters the derivation, is also located in the vP periphery, then it will get valued at the same time as the [uQ] feature.

In conclusion, the only-XP configuration is not an *in situ* configuration but always displaced to a vP periphery. We propose that this movement takes place in the syntactic component. Under the copy theory of movement, the surface order is obtained through overt movement and PF deletion of the higher copy. Covert QR movement is not motivated in this case. We suggest tentatively that pronunciation of the lower copy may be favored by phonological criteria related to assignment of high pitch to the constituent



carrying the [F] feature. Since sentence-final is the default prosodically prominent position, for reasons of assignment of pitch accent it will be preferred by PF. A stronger reason for the impossibility of pronouncing the higher copy will be presented below.

### 3.2. The *only*-vP configuration

We will now return to the second configuration that we set out to explain in this section, namely the *only*-VP surface order where the quantifier appears in preverbal position stranding its associate. Two possible analyses can be considered. One where the quantifier undergoes movement, as proposed by Drubig (1994, 2000) and Herburger (2000), and the other one where the quantifier is alternatively merged (external merge) in that position, as proposed by Kayne (1998) and Buring and Hartman (2001).

We will adopt the former analysis put forward by Herburger, Drubig and others. As already proposed above, given its quantificational nature, *only* must move to a position in the functional domain of the sentence from where it can take scope, for the derivation to converge at the semantic level. Syntax must deliver an interpretable structure to the interfaces for the derivation to converge, meaning that it must not only assure that all unvalued features have been valued but it must also allow for correct scope readings of quantificational elements. As *only* is an adverbial quantifier (against von Stechow 1991), it follows that *only* must in fact always raise to a position from where it can take scope over the vP. Under recent advances of the minimalism program, the phase theory, the clause has two phasal domains, vP and CP, and these contain periphery positions which are quantificational. As proposed by Gallego (2009) among others, these positions are targeted by A-bar type of movements generally involved in quantifier raising, wh-movement and movement driven by interpretational reasons, such as focalization or topicalization. Ever since Chomsky (1977), it has been argued these operations share certain properties, though more recently it has been shown that they are not as similar as originally proposed by Chomsky. For focus, it has been argued that the type of movement concerned doesn't observe the same constraints as wh-movement or QR.

As far as the raising of *only* is concerned we have shown before that this movement always takes place, in situ occurrences involving pronunciation of a lower copy in a movement chain.

Fox (1999) analyses QR as a cyclic movement operation which creates a chain; preference for spelling out the head or the tail must be justified by computational reasons. In our case spell-out of the head would be motivated by clear scope marking, whereas spell-out of the tail would be justified, as claimed before, by clear phonological marking of its focused associate. Given that long distance association (in the case of VP-only) between the quantifier and its associate is solely marked by prosody, we expect that in cases where, for some reason, prosodic marking is not clear enough (for example the presence of another prosodically prominent constituent) preference for spell-out of the tail should be evident. One such case is questions, where the wh-word is prosodically the most prominent constituent, bearing pitch accent.

- (20) a. WHO talked only to [Fred]<sub>F</sub> yesterday?  
 b. \*WHO only talked to [Fred]<sub>F</sub> yesterday?

Further research is necessary to determine whether this prediction is born-out.

In the previous sections we suggested that, for semantic reasons, the associate of *only* must also move to the vP periphery. We would like to pursue further the effects of this movement. Following the lines of analysis suggested above, for the derivation to converge, the *only*-XP phrase must target the vP periphery position, which would allow it to have scope over *v*, the lowest scope-taking position. Following Gallego (2010) we take the English lexical verbs to occupy *v* resulting in the following configuration.

(21) [C [T [EA [v [V [only IA

Under this configuration the uFF in *v* are checked by the internal argument (IA) whereas the uFF in T are checked by the external argument (EA) which will undergo overt movement to a position in front of T to be able to value uFF in C and avoid the minimality effects created by T (the three of them are assumed to share a T:NOM feature under Gallego's theory).

If *only* attaches to the IA, and, as previously stated, it must occupy a periphery position in the vP phase for scope-taking effects, then if we take the EA to occupy the spec vP position, it follows that *only* should target an edge position in front of the EA, resulting in the following configuration:

(22) [C [T [only IA [EA [v [V

A possible problem with such an analysis could be that it seems to destroy a checking configuration for *v* since the IA is no longer under its c-command domain so it is not available as a Goal for the uFF of *v* and in turn making it unable to value its own [uCase] feature. This is not the case however given that  $\phi$  feature valuation must precede p feature valuation. Since movement of the *only*IA constituent targets a periphery position, this type of movement is an A-bar type of movement triggered by p feature valuation.

Given that feature checking does not prevent the movement of the IA, some other constraint must ban the structure above. That constraint is strict SVO word order. The DO does not move on its own, except for topicalization. Movement of the IA to the vP periphery would yield the ungrammatical word order in English SOV. This would correctly predict that for languages which allow the SOV word order, such as Romanian, movement of the associated phrase with the quantifier should not be a problem, as is in fact the case.

Consequently, we might assume, following Herburger (2000), that although *only* and the focused constituent form a constituent upon merge, they later dissociate, the adverb moving/being adjoined separately. Her arguments against movement of the focused constituent concern syntactic island violations. As shown below, quantifier raising is blocked in certain syntactic configurations

(23) A professor introduced every honour student to the president.

(24) A professor introduced [the person that every honour student admires most] to the president.

Sentence (23) gives rise to two different interpretations, corresponding to two different LF configurations: one where the same professor introduced every student to the president, resulting from the higher scope position of the existential quantifier; and the other one where every student is introduced to the president by a different professor, resulting from the movement of the universal quantifier to a higher position, outscoping the existential. The second interpretation involves QR movement of the universal quantifier. Example (24) however does not allow for the second reading. This lack of semantic ambiguity has been attributed to the impossibility of raising the universal quantifier out of the complex NP *the person that every honour student admires most*.

Focus association appears not to be subject to this constraint:

- (25) John only introduced [the man that JILL admires most] to Sue.

The interpretation is that it is only Jill that John introduced the man that she admires most to Sue, *only* associating with Jill despite the fact that the focused constituent is contained within an island. Herburger thus proposes that *only* does not associate syntactically with the focused phrase, no movement of the latter taking place.

An argument in favour of movement would be that it is very rare for quantifiers to move on their own stranding their restrictor, if for no other reason, then for the fact that in the semantic component it would not yield the desired tripartite configuration proposed by Heim and Kratzer (1998) among others, namely Quantifier [restriction] scope. But this is not a problem for our analysis, since, as we propose, *only* does not take its associate as its restrictor. *Only* is an adverbial quantifier whose restriction is the VP without the focused phrase.

As we have already seen before, a covert copy of the focused element must in fact appear in the vP periphery at LF to account for scope properties. We propose that SVO is a surface structure constraint. In fact covert operations such as QR give rise to SOV or OVS orders in the LF component. Therefore, it follows that *only V focused XP* surface orders are a phonological effect, a reversed type of quantifier stranding.

We believe that the proposal that the *only XP* constituent moves to spec vP as a constituent and the PF component pronounces the higher copy of *only* and the lower copy of the XP is motivated on empirical grounds by the intervention effects created by the focused constituent in post-verbal position. Such phenomena are rare, a similar account being proposed in the literature for sentences involving *beaucoup* in French (Baunaz 2011).

- (26) Its ont beaucoup lu des livres.  
 they have a lot read INDEF-PL books  
 ‘They have read a lot of books’

The quantifier *beaucoup* associates with the DP *des livres* but it can be pronounced in pre vP position while its associate is pronounced in post-verbal position.

Further evidence for *only*-XP constituent movement comes from scope inversion phenomena. As Herburger (2000) and von Stechow (1994) admit, *only* seems to inherit the

scopal properties of its associate and undergo movement motivated by scope-bearing properties of its associate.

- (27) All the students read only one book. All > one, one > all

This sentence allows for two interpretations: one where every student read one book, a different book for every student (the cardinal low scope reading), and one where the same book was read by every student (the specific wide scope reading). For the second interpretation to obtain *only* undergoes movement together with the existential quantifier to a position higher than that occupied by the subject. Notice that if *only* appears in pre-verbal position the second reading is blocked.

- (28) All the students only read one book. All > one

In this case the PF spell-out position of *only* is also its scope position, no further movement being assumed to take place in this case.

We have shown that the *only*-VP configuration is a PF effect created by spelling out different copies of the particle and its associate. In fact the *only*-XP and *only*-VP configurations have the same underlying structure and the same PF structure. We have proposed that this non-standard Spell-Out option is dictated by word-order restrictions in English which we tentatively suggest that affect linearization at PF.

### 3.3. Left periphery occurrences

The only position left to be accounted for is the left-periphery one. We follow Cardinaletti (2009) in assuming that a (contrastively) focused constituent is attracted by a contrastive operator in the left periphery and undergoes movement to that position. Cardinaletti proposes that this operator sits in the spec of Fin P (a low CP area projection, immediately above TP). Furthermore, in languages which allow T-to-C movement, the head of this projection may contain verbal features. Cardinaletti follows Rizzi and Shlonsky (2007) in assuming that the Fin head may optionally contain verbal features (“the verbal Fin”) in cases where the operator sitting in the spec Fin position has [wh-] or [Q] features as well. This triggers T-to-C movement of the auxiliary in questions or negative inversion for example.

- (29) a. Where did you go?  
b. Never have I seen such beautiful landscape.

Thus the proposed structure of the left periphery is the following:

- (30) [<sub>FinP</sub> OP Fin [<sub>TP</sub> Subj Aux [<sub>VP</sub>

For English, we propose a different clause structure where the quantificational features are actually located in C. Quantificational elements move to these positions for feature valuation. We propose that in case the operator does not contain the [wh-] or [Q]

features itself, inversion will not take place. This explains why focus movement per se does not trigger auxiliary inversion.

- (31) a. CHEESE you should buy  
b. \*CHEESE should you buy

The operator contains a [F] features that attract the focused constituents, which in turn may contain the [wh-] or [Q] features. These will mark the verbal features in C as strong attracting the auxiliary sitting in T. This prediction is borne out since the presence of *only*, which contains an [iQ] feature, will indeed trigger T-to-C movement of the auxiliary. This is a property that *only* shares with other quantificational operators such as negative quantifiers.

- (32) [Only BOOKS] did they buy.  
(33) Never have I seen such a boring movie.

Therefore, movement of the *only* XP is triggered by a [uF] feature of the focused XP while T-to-C movement of the auxiliary is the contribution of *only*.

Predictably, this phenomenon does not appear in embedded clauses where Spec Fin is not available for [F] feature checking.

- (34) \*They told us ONLY BOOKS that they bought.

In such cases the contrastively focused constituent must surface in its “in situ” position.

- (35) They told us that they bought ONLY BOOKS.

Evidence against covert left-periphery movement in this case comes from clauses containing negation. As seen before, when it appears structurally under negation focus restricts the domain of the negative operator. In main clauses, contrastively focused constituents can out-scope negation.

- (36) a. We didn't buy only BOOKS. Neg > only  
b. Only BOOKS didn't we buy. Only > Neg.

The two sentences differ in interpretation. The first sentence asserts that we bought books and that books were not the only thing that we bought. The second clause asserts that books were the only thing that we didn't buy. Their truth conditions are thus different. The second reading could also be obtained in post-verbal position with heavy stress on *books*.

- (37) We didn't buy [only BOOKS].

We assume that such cases involve in fact fronting of the particle and its associate and topicalization of the TP. We predict that the same effect should not be obtained in

embedded clauses, where the spec CP domain is not available for the *only*-XP constituent to move to it. This prediction is borne out.

- (38) They told us that they didn't buy only BOOKS. Neg > only \*only > Neg

Summing up the analysis, we propose that left periphery movement of the particle and its associate is triggered by the need to value an [uF] feature present in the periphery. Since *only* is a quantificational element, this movement triggers auxiliary inversion.

#### 4. Conclusions

The analysis of *only* argued for treats *only* as an a-categorial light head bearing a [iQ] and an [uF] feature that selects as its complement an item bearing a [iF] feature. The two elements will form a constituent upon merge and undergo further movement to check matching [uQ] and [uF] features located in the peripheries. We have proposed that apparently “in situ” focus is never structurally in situ. Restrictive particles must move to a position to value an unvalued [uQ] feature present in the vP periphery, movement which also ensures their appropriate scope at LF, given their semantics as adverbial quantifiers, which we adopted. To account for the puzzling surface distribution of *only* (it can surface both in a position where it immediately precedes its associate and in a pre-verbal position), we proposed, under the copy movement theory that we have adopted, that the two surface orders (which are semantically identical) result from a similar underlying structure:

- (39) a. [<sub>VP</sub> only ~~XP~~ VP ~~only~~ XP – PF spell-out  
 b. [<sub>VP</sub> only XP VP ~~only~~ ~~XP~~. – LF spell-out

We have supported this proposal with evidence from NPIs licensing, showing that focus particles block the licensing of NPIs irrespective of their surface positions, which suggests an underlying structure where the particle restricts the scope of negation. Focus particles in English thus exhibit non-canonical overt quantification (Baunaz 2011). In terms of economy, both spell out options are justified by the fact that PF spell-out of the lower copy of the particle is triggered by the need to identify the associate whereas PF spell-out of the higher copy is triggered by the need to mark scope. In spite of the apparent lack of movement of the associate, we argued that phonologically covert movement is motivated by the need to value an unvalued F feature present in the vP periphery. For the left periphery position, we proposed that movement is triggered by the need to value an [uF] feature located in the CP periphery. This movement is quantificational, triggering auxiliary inversion, on a par with other operators such as wh-elements or negative quantifiers.

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