Raising only

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Introduction

Abstract: In the long history of the study of only in the generative literature, it has been accepted since Anderson 1972 that when only occupies an adverbial position at the beginning of VP it must have been base generated there. My primary goal in this paper is to outline and defend an analysis of only as having achieved this position through transformational raising rather than base generation. A substantial consequence of this reanalysis is that it allows a coherent account of the specific freezing effects to be found in the syntax of only and of association with only, appealing to the Criterial Freezing proposal of Rizzi 2004, 2010. The analysis is extended to include an account of the core properties of only phrases in the affective inversion construction, following Rizzi 1991 and Drubig 1992.

1. a. John likes only BillF.
   b. John only likes BillF.
   c. Only BillF does John like.

   • discontinuous dependencies between only in (1a,b) and only Bill in (1a,c)
   • truth conditionally equivalent readings, suggesting they may all have a common source
   • the source is effectively (1a): only raising relates (1a,b); only phrase raising relates (1a,c)
   • possible motivation: only requires propositional scope, satisfied in (1b,c) but not (1a)
   • at least one of these two operations is also available at LF, for (1a)

2. The police only arrested the man who killed BobbyF Kennedy.

   • Anderson 1972: only cannot raise out of an island, so it must be merged in situ
   • Rooth 1985: the associate cannot raise at LF out of an island, so the interpretive procedure must establish the only-associate relation without movement too. This argument has been challenged by Drubig 1994, Krifka 2006, and Wagner 2006.
   • in Rooth’s analysis, [only XP] achieves scope in (1a) by QR, which accounts for the ambiguity of Taglicht sentences (3c/4c). (Rooth does not discuss cases like (1c).) I tentatively assume this analysis, though noting that the appeal to QR is suspect. QR is generally clause bound, but must not be if the b readings are to be derived from the c examples. I revise this assumption below.

Freezing Effects in Association with only

   • Taglicht (1984) sentences: e.g. (4c) can mean either that the instructors require that the only language we speak is Spanish (= (4a): we can speak no other language), or that the only requirement the instructors make is that we speak Spanish (= (4b): we can speak other languages so long as we also speak Spanish).

3. a. They advised us to only learn SpanishF.
   b. They only advised us to learn SpanishF.
   c. They advised us to learn only SpanishF.
4. a. The instructors require that we only speak Spanish$_F$.
b. The instructors only require that we speak Spanish$_F$.
c. The instructors require that we speak only Spanish$_F$.

Why is only’s scope frozen in (3/4 a,b) but not in (3/4c)?
- It is well known that only’s focus associate is frozen in regard to extraction out of the domain of only (e.g. Jackendoff 1972, Beaver & Clark 2008). In (5) for example, under no circumstances can who/John be interpreted as only’s associate.

5. a. *Who does Bill only like?
b. *John, Bill only likes.
c. *John was only liked by Bill.
d. *John is hard for Bill to only like.
e. *John is the person who Bill only likes.

Beaver & Clark 2008: 172 stipulate that focused phrases do not leave F-marked traces behind (and only must c-command its F-marked associate).
- Rizzi’s Criterial Freezing proposal provides a natural account of these observations if both only and its associate undergo raising, either covertly or overtly. The essence of Rizzi’s proposal is that a constituent goal that raises to a probe phrase expressing a scope-discourse property (Chomsky 2000) thereby satisfies a criterion (Rizzi 1996), and this criterial position terminates the chain created by movement of that constituent, effectively freezing it in the scope-discourse position (Rizzi 2006, Rizzi & Shlonsky 2007). In Criterial Freezing, the internally merged position marks the endpoint of a chain whose initial position is the externally merged position of the constituent, the position in which its c-/s-selectional properties are expressed. The criterial goal is frozen, though in principle further sub-extraction from it may be allowed (Rizzi 2007, 2010). The possibility for sub-extraction is irrelevant for only raising, but sub-extraction from only’s associate is indeed possible.

6. a. Who did you only take [pictures of t]$_F$?
b. Who did you take only [pictures of t]$_F$?
- only raising: [OPe [ .... [only [XP]…] \(\Rightarrow\) [OPe + only [ .... [t [XP]…]]
- Associate raising: [ OPe + only [ … XP$_F$ …]] \(\Rightarrow\) [XP$_F$ [OPe +only] [……tXP…]]

only Raising and Association
- Limiting only vs excluding only (Taglicht 1984, Bayer 1996): excluding (henceforth ‘exclusive’) only takes proposition-level scope domain (7b,c), while limiting only often takes a smaller, non-proposition-level (DP?) scope domain (7a).

7. a. You must build an only slightly larger model.
b. You must build only a slightly larger model.
c. You must only build a slightly larger model.

In particular, (7a) cannot exclude relevant propositional alternatives (cf. 8a), whereas (7b,c) can (cf. 8b, c).

8. a. You must build an only slightly larger mode. You can also build a much larger model.
b. You must build only a slightly larger model. #You can also build a much larger model.
c. You must only build a slightly larger model. #You can also build a much larger model.

Three further tests support this distinction. First, VP Ellipsis (9a,b) shows that exclusive only does not reconstruct from its scope position (Bayer 1996). Limiting only does not have a VP external scope position and must reconstruct (9c).

9. a. John only built a slightly larger model after I showed him how to (build a slightly larger model).
   b. John built only a slightly larger model after I showed him how to (build a slightly larger model).
   c. John built an only slightly larger model after I showed him how to (build an only slightly larger model.)

Second, Affective Inversion is triggered by exclusive only but not by limiting only (Taglicht 1984).

10. a. Only a slightly larger model did John build / * John built.
     b. An only slightly larger model John built / *did John build.

Third, limiting only, unlike exclusive only, does not display Taglicht-type ambiguities. That is, (11a) can have neither of the readings in (11b,c).

11. a. They were advised to build an only slightly larger model.
     b. They were advised to only build a slightly larger model.
     c. They were only advised to build a slightly larger model.

Henceforth, I deal solely with exclusive only. That DP internal only has scope restricted to DP suggests that only raising cannot apply to it (cf. (12)). Evidently, only cannot transit scope domains, and only raising is strictly bounded.

12. a. I met the only person with blond hair.
     b. I only met the person with blond hair.

     • With Bayer 1996, I take only to be a MFH (Minor Functional Head - Rothstein 1991). As a MFH, only must merge with a category that allows it to project without changing the categorial projection of its complement.

Departing from previous assumptions, I assume that only subcategorizes for either maximal lexical or fully extended lexical projections (DP/PP, CP, VP, NP, AP, etc.). The subcategorization restriction against merger with IP is a long recognized restriction on the distribution of only, generally unaccounted for but accommodated under this proposal. If the restriction is extended to vP, it will require that only merged with VP must raise to vP to achieve a scope interpretation. A welcome result of this latter consequence is that only cannot associate with a clause mate subject from the vP scope position, since it must be independently required that only c–command its associate from every position in its chain.

13. a. John introduced only Bill to Mary.
     b. John only [introduced BillF to MaryF].

     • Concretely, only is externally merged with its associate as in (1a). The scope position overtly occupied by only in (1b) is externally merged with vP as a silent (possibly
adverbial) operator equivalent of *only* that has an unvalued operator feature that attracts the MFH *only* to it by head raising. *Only* raises and re-merges with [Op e], satisfying the scope criterion under head adjunction (Laenzlinger 1998, Rizzi 2007, 2010). Because this is a criterial position, no further movement of *only* is possible, even at LF. Importantly, *only*’s chain has two positions, its initial Merge position and its surface scope position, as required by the Criterion analysis. This provides for the character of the Taglicht examples, in which once *only* occupies a vP edge scope position, it is frozen (3/4 a vs.c).

- How can (2) be analyzed under this proposal? Recall that raising of *only* is strictly bounded – it cannot transit potential scope domains freely. It is therefore not expected to be cross-clausal, and even if it were, it would not be expected to freely transit across islands (like those bracketed below) known to restrict LF raising. So (2) cannot have (14) as a source.

2. The police only arrested [the man who killed Bobby_{F} Kennedy].
14. The police arrested [the man who killed only Bobby_{F} Kennedy].

How does *only* achieve its scope position in (2)? In parallel with my proposal for (1a,b), I suggest that the source for (2) is actually (15).

15. The police [Op e] arrested only [the man who killed Bobby_{F} Kennedy]]

- Examples like (2) have also been used to argue against a covert raising analysis of *only*’s semantic focus. The failure of such an analysis leads Anderson 1972, Rooth 1985, Kratzer 1991 among others to seek an in situ account of the interpretation of examples like (2).

On the other hand, Drubig 1994 contests the necessity to abandon the LF analysis and resurrects it, on the basis of the proposal that it is the island containing the F-marked associate that raises covertly to *only*’s SPEC in cases like (2) rather than the associate itself. He gives several arguments in defence of this proposal, but one telling observation is that, when we consider the meaning of (2), the alternatives that *only* ranges over and for which it asserts an exhaustive selection are alternatives to men who the police arrested rather than alternatives to members of the Kennedy family. That is, it is indeed the island that *only* associates with in its identification of alternatives and not the “focus” itself. Krifka 2006, while adding further support to Drubig’s analysis that it is the island that LF raises, proposes to keep the in situ analysis as well, for interpreting the pivot on which the alternatives to different men arrested by the police are drawn (that is, the alternatives consist at least partly of men who have killed a member of the Kennedy family).

- There is no principled redundancy between *only*’s requirement to select an XP as complement and its requirement for a focus associate: the former is satisfied at first Merge, and the latter by a phrase in the spec of *only* at LF, a goal attracted by *only* from its scope position.

- Covert raising of the associate immediately accounts for two widely noted but underived properties of association with *only*: (i) the phrase that serves as the focus associate of *only* is always a maximal projection, and never a head for example (Bayer 1996, Wagner 2006); and (ii) *only* must c-command its associate in order to attract it (Tancredi 1990).
• Returning to the Taglicht examples, given that only can undergo local raising exclusively, then neither (4a) nor (4c) can be the source of (4b).

4.  a. The instructors require that we only speak Spanish_F.
   b. The instructors only require that we speak Spanish_F.
   c. The instructors require that we speak only Spanish_F.

What is the source of (4b)? Having made a distinction between only’s complement at first Merge and its focus associate (which occupies its spec at LF), we can propose that (4b) takes (16) as its source.

16. The instructors require [only [CP that we study Spanish_F]]

Only raises to the matrix clause internal scope position. Its focus associate Spanish is raised covertly from the embedded clause. Since no island is crossed, the focus associate itself raises at LF and is used to determine the alternatives domain that only ranges over (its semantic restrictor).

• Wagner 2006 argues that NPI any may only appear in only’s semantic restrictor, its focus associate, and not in its nuclear scope. (Throughout, I distinguish NPI any from non-NPI any by italicising the former.)

17.  a. Only John ate any kale.
    *Only any student ate kale.
   b. John only gave any kale to his_F friends.
    *John only gave any kale_F to his friends.
   c. John only gave kale_F to any of his friends.

He then uses the distribution of NPI any to diagnose the size of only’s restrictor, achieving results that are consistent with Drubig’s 1994 proposal that it is the focus phrase that only associates with and not simply the prosodic focus. Among other consequences, the data he presents show that (i) when V (or more generally the head of XP) is focused, only’s syntactic restrictor is the VP (XP) immediately containing V (X), and (ii) when only’s associate is contained in an island, it is the island that functions as the restrictor. In both cases, NPI any cannot appear within the phrase that serves as the restrictor (bracketed below), whether VP (18) or island (19).

18.  *John only [CUT_F any vegetables].
19.  *?She only complained about [a restaurant that JOHN_F had recommended to anyone].

Applying this diagnostic to the cases analysed thus far, we see that NPIs are distributed as Wagner’s proposal predicts. When NPIs appear within the complement of only, they are licit when the complement does not contain an island so that the semantic focus is free to LF raise to only’s specifier (20a,b), but when the complement does contain an island, then NPI any cannot appear within the island (20c).

20.  a. They only suggested that we give any kale to Bill_F.
    b. They only require that anyone study Spanish_F.
    c. *The police only arrested the friends of any man that tried to kill Bobby_F Kennedy.
As expected, if (20b) is modified to contain an island (21), the result is an unlicensed NPI, since it appears at LF within only’s restrictor/specifier and not its complement/scope.

21. *They only made [the request that anyone study \textsc{spanishf}].

In either case, we see that only’s associate may be smaller than only’s complement (20a,b), or larger than only’s “semantic” focus (20c, 21), as Wagner’s analysis predicts. In cases of multiple focus (22), where only associates with more than a single focus, only must be externally merged with the minimal XP (here, VP) that contains both focused elements.

22. a. She only introduced BILL$_F$ to anyone.
   b. She only introduced anyone to BILL$_F$.
   c. *She only introduced BILL to ANYONE.
   d. *She only introduced ANYONE to BILL.

\\textit{only} Phrase Raising

- Relating (1a,c).

1. a. John likes only Bill.
   c. Only Bill does John like.

Affective Inversion (AI). Among other triggers, AI is associated with phrases containing only, not, etc., but also degree modifiers so, too, enough, etc. (these latter strictly when they are associated with an extraposed (23-g) result clause, and not otherwise – see Williams 1974, Drubig 1992, a.o.).

23. a. Only Bill does John like. (= (1c)))
   b. No fruit will John eat.
   c. Rarely does John sing.
   d. So tall is John *(that he can reach the ceiling).
   e. Too tall is John *(to enter the cave).
   f. Tall enough is John *(that he can reach the ceiling).
   g. More often does John fail than you’d think.
      *More often than you’d think does John fail.

Certainly the degree cases are not “affective” in the required sense (they are not monotone decreasing, for instance (Drubig 1992)) and these instance of triggered inversion perhaps form a distinct construction. But then only phrases in such inversions show properties quite distinct from the negation conditioned equivalents. For instance, negation can be fairly deeply embedded in the AI trigger, a fact which has led to much theorizing about the nature of pied piping (see Drubig 1992 for extensive discussion and references). But not so for only, where some depth of embedding is allowed (24b), but is highly restricted (to scalar readings only so far as I can determine, cf. (24c, 25b)).

24. a. The secretary of NO professor were the students willing to approach.
   c. *The secretary of only ONE professor were the students willing to approach.

25. a. The mother of no bride will he dance with.
   c. Only the bride will he dance with the mother of.
26. a. The election of no candidate did anyone dispute.
b. *The election of only a woman did anyone dispute.

Note also that AI-
no is not possible with adjuncts ((27a) cannot have a reading like (28a)), in contrast to AI-
only.

27 a. With no woman in the house, John would be happy.
b. With only a woman in the house, John would be happy.

28 a. *With no woman in the house would John be happy.
b. Only with a woman in the house would John be happy.

So attempts to describe a unified criterial account of the inversion, as in Rizzi 1990, 1990a, 1991[1996], Drubig 1992, and others, are perhaps overly ambitious. In any case, I will restrict attention here to only-
conditioned affective inversion (henceforth AI-
only), and formulate a criterial account exclusively in these terms.

- My claim is that in (1c) only John overtly occupies a dedicated scope position for only.

In (1c) only c-
commands its associate, but it is the only phrase that c-
commands only’s syntactic scope. How is only’s scope requirement satisfied in this configuration? Again, I posit a silent operator equivalent of only, this one appearing in the sentential left periphery with a different feature structure than its vP peripheral counterpart. I label this head ONLY. ONLY bears unvalued D and operator features that are valued by a phrase that has been attracted to its specifier position, and an unvalued V feature that is valued by V raising to it. ONLY thus stands as proxy for the only phrase that values it and c-
commands only’s scope. This solution is supported by the following consideration. In general, only must overtly precede and c-
command a potential NPI (29).

29. a. *John gave only KALE\textsubscript{F} to any of his friends.
b. John only gave KALE\textsubscript{F} to any of his friends.

In contrast, in AI-
only, only appears to c-
command out of its phrase for purposes of licensing NPIs.

30. a. *John will give any kale only to Bill\textsubscript{F}.
b. John will only give any kale to Bill\textsubscript{F}.
c. Only to Bill\textsubscript{F} will John give any kale.

31. a. *Anyone will talk only to Bill\textsubscript{F}.
b. *Anyone will only talk to Bill\textsubscript{F}.
c. Only Bill\textsubscript{F} will anyone talk to.

How is such an analysis of AI-
only embedded in the expanded left periphery and criterial freezing framework? Rizzi & Shlonsky 2007 posit that subjects generally satisfy a Subject Criterion by overtly occupying a criterial position in the specifier position of an abstract Subj head that appears at the left edge of IP/TP. This position is preceded by a Mod head that hosts clause internal modifiers in its specifier position. Notice that only phrases occupy a position between Mod and Subj, as seen in (32).

32. Under those circumstances, only Bill would I consult.
I therefore posit that the order of heads in this portion of the left periphery is as below.

33. … Fin [Mod [ONLY[Subj [T ….

In (32) occupies Spec-Subj, only Bill occupies Spec-ONLY, and the PP occupies Spec-Mod. Modifying Rizzi & Shlonsky’s analysis slightly, I assume that in the Subj projection, the tensed verb raises from T to adjoin to Subj and the subject is merged in Spec-Subj, satisfying the Subject Criterion. The Subj-T complex then raises to the ONLY head to value its V/T feature and the only phrase values ONLY’s other features from Spec-ONLY. This gives the proper order of constituents in an example like (32).

- This analysis also correctly predicts that under Criterial Freezing the only phrase in AI-only is frozen in Spec-ONLY (29a), and that subextraction from this phrase should remain possible in the satisfaction of further criteria (34b).

34. a. *Only who (did Bill say) would he talk to?
b. Who did John say that only the pictures of would he destroy?
   Bill, only the parents of could I respect.

The subject itself is also frozen in Spec-Subj, and the usual escape from this position, as for example in Rizzi & Shlonsky 2007, is barred. Indeed, there can be no long subject extraction with or without the presence of an overt complementizer.

35. a. *Who only Bill would t talk to?
b. *Who did John say (that) only Bill would t talk to?

Conclusion

A raising analysis of preverbal only is indeed possible. In addition, this analysis leads to a natural account of two separate freezing effects in the syntax of association with focus: both only and its associate are frozen at a particular point in the formation of sentences which contain them. This, together with the Drubig/Krifka/Wagner proposal, can account for the core data at least as well as the in situ analysis, if not better. In particular, under the in situ account there is no role for syntactic constraints in the association between only and its semantic focus. Furthermore, the syntactic constraint encoded by Criterial Freezing provides a natural account of the otherwise puzzling freezing effects that arise in several instance of association with only, effects with no natural accommodation on the in situ analysis. The raising analysis provided here also allows deeper insight into the c-command requirement on the association relation, the need for only's associate to be a maximal projection, and perhaps also for lack of association of only with a clausemate subject. I have further proposed an analysis of the Affective Inversion construction, particularly as it applies with only.

References


Drubig, H. B. 1994. ‘Island constraints and the syntactic nature of focus and association with focus’.


