

Scope fixing and focus movement

Luka Crnić, The Hebrew University of Jerusalem

Three approaches to focus association

Some expressions conventionally associate with focus, e.g., *only*, *also*, and *even*. Different ways of modelling this association have been proposed:

(1) We only beat the Néts.

1. Association at a distance (no movement) (Rooth 1985, 1992)

(2) [only(C) [we beat the Nets-F]]

2. Association by movement to the specifier of *only* (Drubig 1994)

(3) [the Nets-F [only(C) [λx [we beat x]]]]

3. Association by movement to the complement of *only* (Chomsky 1976)

(4) [only(C) the Nets-F] [λx [we beat x]]

(See e.g. discussion in Lee 2005, Krifka 2006 and Wagner 2006 for various arguments for and against the movement theories of focus association.)

Taglicht's observation

Taglicht (1984) observed that the following sentences are unambiguous (Rooth 1985, von Stechow 1991, Herburger 2001, Nakanishi 2012, i.a.):

(5) I was advised to only learn Spanish.
[advise>only], #[only>advise]

(6) They knew that we only beat the Néts.
[know>only], #[only>know]

(7) The senator refused to only be on the agriculture committee.
[refuse>only], #[only>refuse]

Consequences for the approaches to focus association

✓ **1. Association at a distance**

✓ **2. Association by movement to the specifier of *only***

All else being equal, both approaches predict fixed scope of *only* (unless certain stipulations are made, e.g., that moving *only* leaves no trace).

✗ **3. Association by movement to the complement of *only***

By moving the focused element to the complement of *only* in (5-7), an object of $\langle\langle et \rangle t\rangle$ -type is formed that may in principle QR at LF.

(8) They knew that we only beat the Néts.

(9) a. [only(C) [we beat the Nets-F]] $\xrightarrow{\text{Move focus}}$
b. [only(C) the Nets-F] [λx [we beat x]] $\xrightarrow{\text{Merge matrix}}$
c. [they knew [[only(C) the Nets-F] [λx [we beat x]]]] $\xrightarrow{\text{Move only-DP}}$
d. [only(C) the Nets-F] [λz [they knew [z λx [we beat x]]]]

(10) $\llbracket \text{only}(C) \rrbracket (f, g, w)$ is defined only if $g(f, w) = 1$.
If defined, $\llbracket \text{only}(C) \rrbracket (f, g, w) = 1$ iff $\forall f' \in C [f \neq f' \Rightarrow g(f', w) = 0]$.

Antecedent-contained deletion as a diagnostic for movement

(11) **Parallelism condition on VP ellipsis**

An elided VP must be identical to an antecedent VP at LF.

At surface, ACD configurations do not appear to satisfy Parallelism:

(12) a. We are required to beat the team that our opponents did.
b. We are required to beat the team that our opponents were.

ACD data in (12) are explained by QR of the DP with ellipsis to a position external to the antecedent VP (e.g., Sag 1976, Larson and May 1990):

(13) a. We are required to beat the team that our opponents did.
b. [we are required [[the team λx our opponents $\langle \text{beat } x \rangle$]
 λy [PRO to beat y]]]

(14) a. We are required to beat the team that our opponents were.
b. [the team λx our opponents $\langle \text{be required PRO to beat } x \rangle$]
 λy [we are required PRO to beat y]

Antecedent contained deletion and movement of *only*

Only can associate with an element hosting ACD:

(15) a. To win the championship, we are required to only beat one team that our opponents are.
b. The dean demanded that we only be on the committees that I thought he would.

The preferred (and perhaps only) reading of the sentences in (15) corresponds to that of their counterparts in which *only* is in the matrix clause at surface structure (see Nakanishi 2012 on *even*):

(16) a. We are only required to beat one team that our opponents are.
b. The dean only demanded that we be on the committees that I thought he would.

Consequences for the approaches to focus association

✗ **1. Association at a distance**

✗ **2. Association by movement to the specifier of *only***

All else being equal, both approaches predict at most a low-scope reading of *only* (this requires an assumption of association with traces).

(17) [the committees
 λx [I thought he would $\langle \text{demand that only}(C) \text{ we be on } x \rangle$]
 λy [the dean demanded that only(C) we be on y]]

✓ **3. Association by movement to the complement of *only***

(18) [only(C) the committees
 λx [I thought he would $\langle \text{demand that we be on } x \rangle$]
 λy [the dean demanded that we be on y]]

Only may move at LF, which supports a (specific) movement approach to focus association. (As usual, this movement may be constrained.)

Further support for movement of *only*

Universal modal quantifiers

(19) a. To pass the exam, you have/need to only read the textbook.
b. To pass the exam, you must/need only read the textbook.

(20) a. [must [[only(C) the textbook-F] [λx [you read x]]]]
b. [only(C) the textbook-F] [λx [must [you read x]]]

Existential modal quantifiers

(21) You are allowed to only read my textbook in this course.

(22) a. [allowed [[only(C) my-F textbook] [λx [you read x]]]]
b. [only(C) my-F textbook] [λx [allowed [you read x]]]

Apparent cases of scope fixing with *only*

Certain modals and attitude predicates

(23) a. To pass the exam, you should only read the textbook.
b. To pass the exam, you're supposed to only read the textbook.
[should/supposed>only], #[only>should/supposed]

(24) a. John advised Mary to only be on the committees that Bill did.
b. John wants/intends to only be on the committees that Bill did.
[advise/want/intend>only], #[only>advise/want/intend]

These embedding predicates are neg-raising, so ambiguity collapses!

Nominal quantifiers

(25) a. Every student only read the textbook.
b. ?Someone is only married to Súa.
[every/some>only], #[only>every/some]

Parallel facts obtain with DegPs: if the scope of a quantificational DP contains the trace of a DegP, it also contains that DegP itself (Heim-Kennedy).

(26) To get tenure at MIT, you are required to publish less than 5 books.
[require>less than 5], [less than 5>require]

(27) a. Everyone was on more committees than Mary was.
b. Some professor was on more committees than Mary was.
[every/some>er], #[er>every/some]*

And obviation of the Heim-Kennedy generalization appear parallel as well:

(28) a. John demanded that every student has to only be on the committees that I thought he would.
b. John demanded that everyone has to be on more committees than Mary did.
[only/er>demand>every]*

Descriptive generalization: The movement of *only* appears to be subject to at least constraints akin to those on the movement of DegPs.