# Only Nothing New

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**Position Statement for "One Day 'Only'"**
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### Some Basic Observations

1. the semantics of "only" cannot be very complicated*
2. "only" with bare plurals amounts to $\supseteq$
3. "only" with conditionals amounts to $\leftarrow$
4. "only" with (singular) terms amounts to the exclusion of alternatives
5. basics can be accounted for along the lines of Rooth, Krifka, Hendriks**, with a dynamic / discourse representation theoretic conception of terms

*does anybody has any natural intuitions about the really involved examples?
**Rooth advocates a structured meanings approach (if compositional).

### Some Basic Definitions

1. $M, g, e \models \phi$: as in predicate logic with anaphora (Dekker 02)
   - $e$: sequences of witnesses for (surface) indefinites and pronouns
   - $\exists x(Bx \wedge \exists y(Gy \wedge Lxy)); T\mathrm{p}_1\mathrm{p}_2 \Leftrightarrow \exists x(Bx \wedge \exists y((Gy \wedge Lxy) \wedge Txy))$
2. $M, g, e \models_\alpha \phi$: contextually restricted quantification (Gawron 96, ABC 00)
   - $(\alpha\ = ?xCx); \neg\exists_1 xGx \Leftrightarrow \neg\exists y(Cy \wedge Gy)$
   - $(\alpha\ = ?uvwGuvw); \exists 3((x_1 = j) \wedge Bx_2 \wedge Sx_3) \Leftrightarrow$
     $\exists x((x = j) \wedge \exists y(By \wedge \exists z(Sz \wedge Gxyz)))$
3. $M, g, ce \models_\alpha ONLY_\phi \psi$
   PRE: $M, g, ce \models_\alpha \phi$ and $M, g, ce \models_\alpha \psi$
   ASS: $\forall c'$: if $M, g, c'e \models_\alpha \phi$ then $c' \sqsubseteq c$

### Some Basic Results

*1 Topic and focus sensitive quantification*

- $M, g, e \models_{?n\alpha} ONLY_{\exists n\gamma}\delta$ iff $M, g, e \models_{?n(\alpha\wedge\gamma)} ONLY_{\exists n\top}\delta$ iff $M, g, e \models ONLY_{\exists n(\alpha\wedge\gamma)}\delta$

They are closely related indeed.

*2 Association with singular terms*

(1) Only John comes. $\exists x((x = j) \wedge \forall y(Cy \leftrightarrow (x = y)))$
(2) Only a student protested. $\exists x(Sx \wedge \forall y(Py \leftrightarrow (x = y)))$
(3) Only the vice-president phoned. $\exists x(VPx \wedge \forall y(PHy \leftrightarrow (x = y)))$

Benefit of DS/DRT: terms are assumed to satisfy the presuppositions. E.g. example (2): some student is such that only *(s)he* protested.

*3 Association with plural terms*

(4) Only John and Harry come. $\exists X((X = \{j,h\}) \wedge \forall y(Cy \leftrightarrow Xy))$
(5) Only some vegetarians protested. $\exists X((\emptyset \neq X \subseteq V) \wedge \forall y(Py \leftrightarrow Xy))$
(6) Only five students gathered. $\exists X((X = 5S) \wedge G(X) \wedge \forall Y(G(Y) \rightarrow (Y \subseteq X)))$

Simply generalizing witnesses to the plural case.

*4 Association with disjunctions*

(7) Only John or Harry comes. $\Leftrightarrow$
Only John comes or only Harry comes.
(8) Only a linguist or a logician voted against. $\Leftrightarrow$
Only a linguist voted against or only a logician voted against.
(9) Only John or Harry or both come. $\Leftrightarrow$
Only John comes or only Harry comes or only both.

That's all pretty straightforward, but neat, right?

*5 Association with bare plurals*

(10) Only Dutchmen ask for a receipt. $DM \supseteq AfaR$

Along the lines of (5), but without a presupposed witness.

*6 Association with multiple terms*

(11) Penelope only met 42 heroes in 9 darkrooms.
$\exists x((x = p) \wedge \exists Y((Y = 42H) \wedge \exists Z((Z = 9DR) \wedge M(p, Y, Z)))) \wedge$
$\forall U \forall V(M(\mathrm{p}_1, U, V) \rightarrow (\langle U, V\rangle \sqsubseteq \langle \mathrm{p}_2, \mathrm{p}_3\rangle))$

Pretty straightforward again.

*7 Association with generalized quantifiers*

(12) Mary only met most students.

Doesn't make sense, really. What does make sense is:

(13) Mary met most students, and nobody else.

For a compositional analysis cf. Dekker, 2002, *Only Something Else*, manuscript.

*8 Association with antecedents*

- *only if* $[p]_F$ *then* $q \Leftrightarrow (\forall p'$ (*if* $p'$ *then* $q$): $p' \sqsubseteq p) \Leftrightarrow p \leftarrow q$

(14) You will qualify for the program only if you got your PhD. $QftPy \rightarrow PhDy$
(15) Only if a farmer OWNS a donkey does he beat it. $\forall f, d$: $Ofd \leftarrow Bfd$

- *only* $[q]_F$ *if* $p \Leftrightarrow (\forall q'$ ($q'$ *if* $p$): $q' \sqsubseteq q) \Leftrightarrow q \equiv \top$

## Some Basic Conclusions

1. it's all there in the literature
2. what does $\sqsubseteq$ really mean?
   - Mats?
   - Herman?
   - Richard?
   - Alastair?