

# The *only* class

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<http://kvf.me/css119-only>

# Introduction

My name is Kai von Fintel. I was born in Germany many years ago. I went to the USA for graduate school and stayed. I have lived more than half of my life in Massachusetts. By now, I am an American of German descent. I received my PhD from the University of Massachusetts at Amherst under the supervision of Angelika Kratzer. One of my other teachers there was Barbara Partee. I have taught at MIT since 1993. I once worked on exclusives and exceptives and am now getting interested in them again. Hence this class.

**Day One**



# Medieval work on syncategoremata

- studies of logical vocabulary
- remarkable obsession with exclusives and exceptives

# Ockham

*Istis igitur modis potest dictio exclusiva accipi improprie; et forte etiam aliis modis potest accipi improprie, sed quia non sunt ita usitati sicut isti, ideo ipsos studiosis relinquo.*

*A glorious picture indeed: monasteries crammed to the spires with specialists on only, labouring away on the fine points of the semantics of exclusive propositions. Those were the days!*

*Horn 1996*

## Some notes

- I'm not an expert in onlyology (anymore)
- While most examples will be from English, please think about and discuss other languages
- Readings on website (optional; maybe after the summer school?)
- My office hours: 1pm-2pm every class day



**A new beginning**

# The Fifth Regional Meeting of the Chicago Linguistic Society 1969

A PRESUPPOSITIONAL ANALYSIS OF ONLY AND EVEN

Laurence R. Horn  
UCLA

## Properties of *only*

- A form of generalized negation
- Asymmetric meaning
- Cross-categoriality
- Focus-sensitivity
- Scalar meaning

## **A basic example**

- (1) Only Muriel voted for Hubert.

## **The two sides of *only***

### **The prejacent**

Muriel voted for Hubert

### **Negating alternatives**

Nobody other than Muriel voted for Hubert

## Horn 1969

The two sides of *only* are asymmetric:

- the prejacent is presupposed
- the negation of the alternatives is asserted

## Horn's evidence for presupposition

- (2) a. It's not true that only Muriel voted for Hubert.  
b. Not only Muriel voted for Hubert.
  
- (3) a. Lyndon did too.  
b. Somebody else did as well, but I forget who.  
c. \*She didn't.

## Horn's evidence for presupposition

(4) Did only Muriel vote for Hubert?

(5) a. No, Lyndon did too.

b. No, somebody else did as well, but I forget who.

c. \*No, she didn't.



*We are left with the uneasy feeling in the pit of our stomach which is symptomatic of the ‘unhappiness’ produced by a violated presupposition.*

*Horn 1969, p.99*

# Aspects of presuppositions

## **Squeamishness**

uneasy feeling when not true

## **To be taken for granted**

signaled as to be taken for granted

## **“Projection”**

not affected by many embedding constructions

## Shanon's test

Shanon 1976: pragmatically presupposed meanings can be detected by a test

- (6) a. I met John's wife.
- b. One moment, I did not know that John was married at all.
- c. \*One moment, I did not know that you met her.

## ***Only*'s prejacent: not pragmatically presupposed**

Shanon 1976:

- (7) a. Did you meet anybody?  
b. I met only one woman.  
c. \*One moment, I did not know that you met one woman.

## **A still thriving subindustry**

- What is the proper analysis of the asymmetry in the meaning of exclusives?
- The prejacents are less “at issue” than the negative component but exactly what is going on?

## Back to Horn 1969

Horn didn't just spark one subindustry. He also noted three other features of *only*:

- cross-categoriality
- focus-sensitivity
- scalar readings

## Ambiguities

- (8) a. Muriel only voted for Hubert.
- b. Muriel voted  $\left\{ \begin{array}{l} \text{only for} \\ \text{for only} \end{array} \right\}$  Hubert.

# **Muriel only voted for Hubert**

Three readings:

- she voted for Hubert and nobody else
- she voted for Hubert and did nothing else for him
- she voted for Hubert and did nothing else



# Cross-categoriality

- *only* can combine with expressions other than names

## Focus-sensitivity

Horn: “the evident ambiguity disappears if stress is indicated”

- (9)
- a. Muriel only voted for [Hubert]<sub>F</sub>.
  - b. Muriel only [voted]<sub>F</sub> for Hubert.
  - c. Muriel only [voted for Hubert]<sub>F</sub>.

## Scalar readings

- (10) Muriel only voted for Hubert, she didn't campaign for him.

There is a sense in which the only of (24) involves the notion of expectation rather than the mere exclusion proposed by the above formulation. Assuming that there is some set  $E$  of scales of degree of strength such that each member  $E_i \in E$  is a two-place relation which partially orders a (semantic) class of predicates, we can rewrite (24) in the form

(25) Only ( $F$ ,  $Fx$ ,  $E_i \in E$ )

P: (i)  $Fx$

(ii)  $(\exists G)(G \not\equiv F \ \& \ E_i(G, F))$

A:  $\neg(\exists G)(G \not\equiv F \ \& \ E_i(G, F) \ \& \ Gx)$

(25) describes this only as a three-place predicate taking as arguments a predicate, a proposition containing that predicate, and a scale of degree. This predicate-scope only is furthermore purported to presuppose that the property  $F$  hold for some object  $x$ , and that there is another property  $G$  which is ranked "stronger" than  $F$  on the scale  $E_i$ ; it asserts that no such property  $G$  holds for  $x$ . The availability of such scales explains why both (22) and

**After Horn 1969**

## Contextual domain restriction

(11) Only Muriel voted for Hubert.

- In the 1968 US presidential election, 31,271,839 people voted for Hubert Humphrey.
- But (11) could still be asserted in a context where we are discussing the politics of Larry's friends.

## The pragmatic wind

*Remember that part of the ordinary meaning of any idiom of quantification consists of susceptibility to restrictions; and that restrictions come and go with the pragmatic wind” (Lewis 1986: 164)*

## Bad things that could have happened

An example due to Irene Heim:

- (12) The barbecue went fairly well. **It only rained.** It wasn't windy, there are enough beer, and there weren't any mosquitoes.



## Cross-categoriality

- (13)
- a. Only Muriel voted for Hubert.
  - b. It only rained.
  - c. Muriel only danced.
  - d. Muriel [only introduced] them to each other. (?)

How many different *only*'s?

## Two frameworks

**Theory 2** *only* in general is a two-place operator

**Theory P** *only* is at heart a propositional operator

## Theory 2: Cross-categorical two-place operator

$only_C (\alpha_\sigma) (\beta_{\langle\sigma,t\rangle})$

=  $\alpha$  is the only thing of its kind (in the contextually restricted domain  $C$ ) that truthfully combines with  $\beta$ .

$only_C (Muriel)_e \text{ (voted for Hubert)}_{\langle e, t \rangle}$

= Muriel is the only individual in  $C$  who voted for Hubert.

$only_C$  (it rained) $_{\langle s,t \rangle}$  (“true”) $_{\langle st,t \rangle}$

= that it rained is the only proposition in  $C$  that is true

$only_C (\text{danced})_{\langle e, t \rangle} (\lambda P. P(\text{Muriel}))_{\langle et, t \rangle}$

= dancing is the only property in  $C$  that is true of Muriel

and so on

# Theory P: Cross-categorical propositional operator

$only_C(p)$

= p is the only true proposition in C



But what about the cases where *only* doesn't seem to be propositional?

## Type-shifting (simplified)

- The base case is propositional  $only^t$
- For any type that “ends in  $t$ ”, say  $\langle \sigma, t \rangle$ , we can define a higher type  $only^\sigma = \lambda X_{\langle \sigma, t \rangle}. \lambda y_\sigma. only^t(X(y))$
- These higher  $only$ ’s assemble a proposition from their two arguments and say that it is the only true one (in  $C$ ).

(14) Muriel only danced.

=  $\text{only}_{\langle e, t \rangle} (\text{danced}_{\langle e, t \rangle}) (\text{Mary}_e)$

= The only true proposition in  $C$  is that Muriel danced.

(15) Only Muriel danced.

can't be analyzed as *only* taking an individual  
must be analyzed as *only* taking a quantifier (type  $\langle et, t \rangle$ )  
= The only true proposition in *C* is that Muriel danced.

## One salient difference between the theories

**Theory 2** the sister of *only* is fed as the argument to the remainder of the structure

**Theory P** the sister of type-shifted *only* is a function takes the remainder of the structure as its argument

## Theory 2

Cross-categorical *only* says that its sister is the only one among a relevant set  $C$  of things of that kind that gives a true proposition when combined with the remainder

## Theory P

Type-shifted *only* takes its two arguments and says that the proposition that they deliver when combined (the prejacent, in other words) is the only true one in *C*.

**Wait a minute!**



*Muriel only danced  $\neq$  Only Muriel danced!*

but both supposedly say that the only true proposition in C is that Muriel danced.

*Muriel only danced*  $\neq$  *Only Muriel danced!*

but both supposedly say that the only true proposition in C is that Muriel danced.

So ... the C's must be different.

C

*Muriel only<sub>C<sub>1</sub></sub> danced*

*Only<sub>C<sub>2</sub></sub> Muriel danced*

$C_1$ : propositions of the form “Muriel X-ed”

$C_2$ : propositions of the form “X danced”

We could build into the meaning of the higher type *only*'s that they construct  $C$  for themselves.

When we have the sentence “ $only_C (X) (y)$ ” then every proposition in  $C$  is of the form “ $X' y$ ” (where  $X'$  are alternatives to  $X$ ).

But Theory  $P$  is naturally paired with the assumption that an independent theory of focus will deliver the right  $C$ .

**Adding focus to the mix**

## ***only* and its “associate”**

(16) Muriel only voted for [Hubert]<sub>F</sub>

= Only Hubert is such that Muriel voted for him.

## Natural extensions of the two theories of *only*

**Theory 2** scope theory: the associate moves to *only*

**Theory P** in-situ theory: the association is mediated

# The scope theory

⇒ we will look at this next Monday!



## Association with focus

All the alternatives in  $C$  are of a form assembled as follows:

- take the sister of *only*
- compute all alternatives to it that differ from the sister just where there is focus in the sister
- combine these alternatives with the second argument of *only*

(17) Muriel only<sub>C</sub> voted for [Hubert]<sub>F</sub>

C: propositions of the form “Muriel voted for x”

(17) Muriel only<sub>C</sub> voted for [Hubert]<sub>F</sub>

C: propositions of the form “Muriel voted for x”

NB: the inaccuracy of ”propositions of the form ...”

## Where you could go next

- Read Rooth's work on alternative semantics and association-with-focus
- Read Beaver & Clark's book
- Read Coppock & Beaver

**Only as a determiner?**

**only students**

(18) Only students attended the show.

**only students**

(18) Only students attended the show.

How does this fit into our theories?

only students $\langle e, t \rangle$  attended $\langle e, t \rangle$



only students $\langle e,t \rangle$  attended $\langle e,t \rangle$

two predicates don't combine to give a proposition  
but both of our theories depend on that

## Two options

- *only* as a determiner ( $\langle et, \langle et, t \rangle \rangle$ )
- *only students* = *only* (some  $[students]_F$ )  
(operating on a quantifier)

## Determiner *only*

- would be non-conservative
- but mirror image of a conservative determiner ( $\forall$ )

## Next Tuesday

A closer look at *only students* under the second option

**Scalarity**

## Oh Arsenal

(19) A: How did Arsenal do last season?

B: They only finished in 5th place.

(20) A: Can your friend Jade help us? She works there right?

B: I doubt it. She's only a mailroom clerk.

NB: in both cases, it's given that if the prejaent is true, it's the only true proposition. A team can only finish in one place, an individual has one job (ish).



⇒ on Friday, we'll look at these so-called “scalar” uses of *only*

## An oddball?

- Jim McCawley (pc): “whatever *only* is categorized as, it’s an oddball, and its oddity has to be localized somewhere”
- Keenan & Paperno 2017 (p.944): all 18 languages in their sample have at least one lexical exponent of *only*

## **Beyond *only***

Coppock & Beaver 2014 survey the entire exclusive muddle.

Beyond *only*, there are at least:

*just, exclusively, merely, purely, solely, simply, sole, mere, pure, exclusive, alone*

# Adjectival exclusives

One interesting case that we won't have time for here:

- (21) a. the only Congolese NBA player  
b. a mere child

Serge Ibaka

## **Exclusives and Exceptives**

Only Muriel voted for Hubert.

No x other than Muriel voted for Hubert.

Nobody but Muriel voted for Hubert.

- (22) a. I only introduced [Vivianne]<sub>F</sub> to Carli.
- b. I did not introduce anybody but Vivianne to Carli.

⇒ Tomorrow & Thursday: exceptives

⇒ next Thursday & Friday: even more connections

**The rest of the course**



## **Day Two (Tue July 16)**

Exceptives (basics)

## **Day Three (Thu July 18)**

Clausal exceptives

## **Day Four (Fri July 19)**

More on scalarity and mirativity

## **Day Five (Mon July 22)**

*Only*, NPI licensing, and the syntax of focus

## **Day Six (Tue July 23)**

*Only*, bare plurals, and bare conditionals

## **Day Seven (Thu July 25)**

Sufficiency

## **Day Eight (Fri July 26)**

The *only* connectives