Can DP be a scope island?

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What sort of mechanism allows QPs embedded in DPs to take wide scope (viz. in so-called "inverse-linking" constructions)? Over what sorts of constituents can NL quantifiers take (syntactic) scope? Nodes other than those of "type t"?

Follow along at... http://tinyurl.com/esslli

Inverse linking (May 1977) & binding out of DP:
(1)   [$_{DP}$ Someone from every city$_i$] loves it$_i$. ($\forall > \exists$)
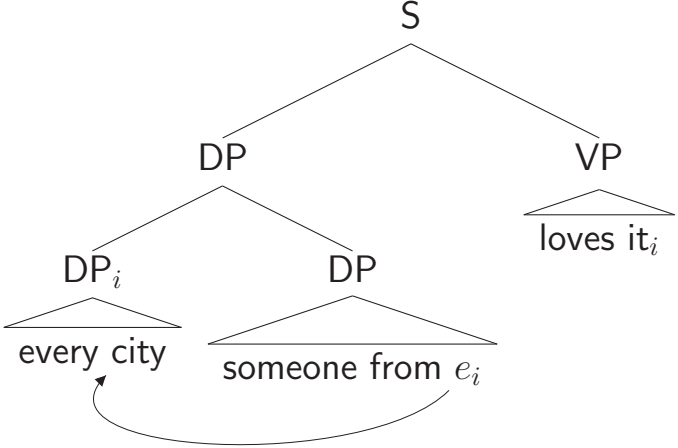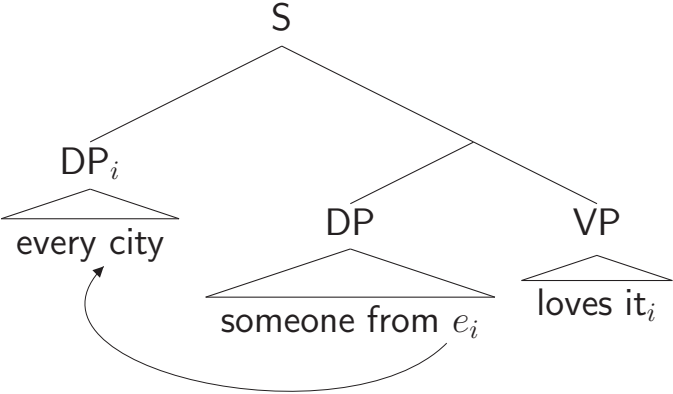(2)   [$_{DP}$ Every boy$_i$'s mother] loves him$_i$. ($\forall > {}'s$)

Some relevant properties:
- "Inside-out" scope: embedded QP takes scope over DP
- Embedded QP can "bind" downstairs pronoun
  N.B. *$\exists/{}'s > \forall_i > $ it$_i$/him$_i$

The issue:
- Where does the embedded quantifier phrase take scope?
- Assume Q(uantifier) R(aising). Does QR target DP or S?

Tree 1 (upper right):

S
- DP
  - DP_i: every city
  - DP: someone from e_i
- VP: loves it_i

Tree 2 (lower left):

S
- DP_i: every city
- DP: someone from e_i
- VP: loves it_i

Arguments for DP adjunction

Larson (1987): QPs external to a DP X must scope either below or above all scopal elements in X ("no interleaved scope"):

(3)   Several students ate a piece of every pie. (*$\forall >$ several $> \exists$)

De dicto QPs under intensional transitives (Rooth 1985; Larson 1987):

(4)   Max needs a lock of mane from every unicorn in an enchanted forest.
       (✓$\mathcal{O} > \forall > \exists, \exists$)

Extraction facts (weaker):

(5)   *Which city$_i$ does someone from e_i despise it$_i$? (May 1977)

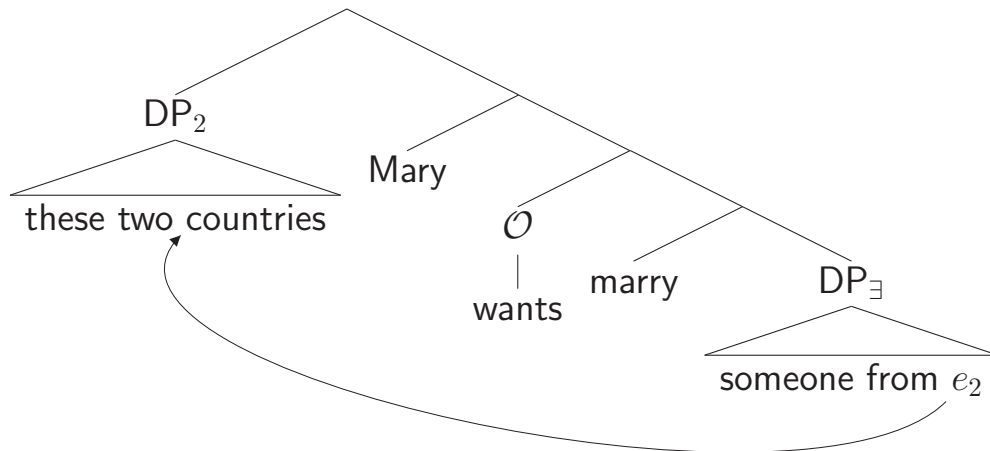$\rightsquigarrow$ DP an island for QR/movement; QR targets DP not S.
 • QR into DP is illicit $\Rightarrow$ Larson's generalization.
 • Needs some type-shifting but not much more than **AR**.
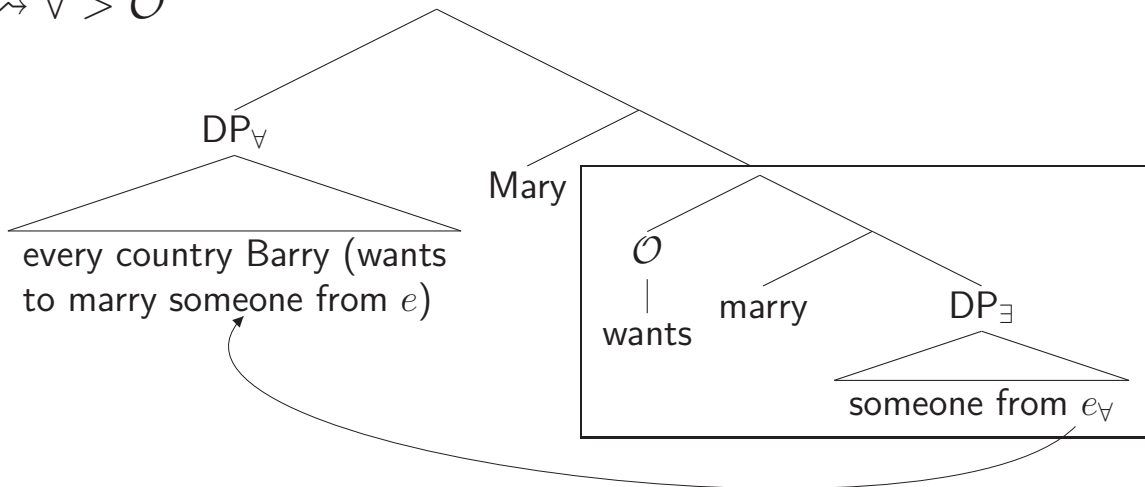
(6) Mary wants to marry someone from these two countries.

- Nonspecific desire ($\mathcal{O} > \exists$)
- Mary needn't want to marry twice ($2 > \mathcal{O}$)
- Is $2 > \mathcal{O}$ sufficient for not wanting to marry twice? No.
- Consistent with monogamous desire? Possibly.

(7)   Mary wants to marry someone from every country Barry does.

- Nonspecific desire ($\mathcal{O} > \exists$)
- Wide ACD resolution
  - Resolve antecedent-containment: QR past *wants* yields *wants to marry someone from* e_i.
  - *every*-DP obligatorily *de re* (cf. Sag 1976).
- $\rightsquigarrow \forall > \mathcal{O}$

DP$_\forall$

every country Barry (wants to marry someone from e)

Mary

$\mathcal{O}$
|
wants

marry

DP$_\exists$

someone from $e_\forall$

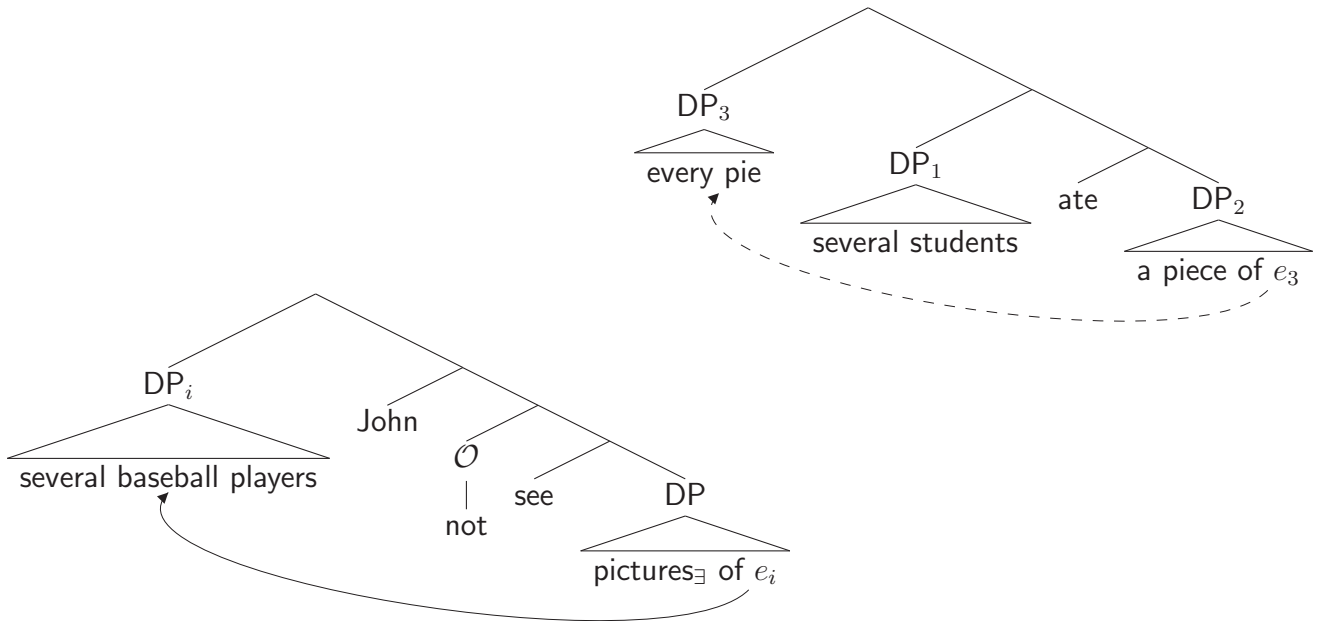(8) John didn't see pictures of several baseball players.

- Allows $several > \neg > \exists$
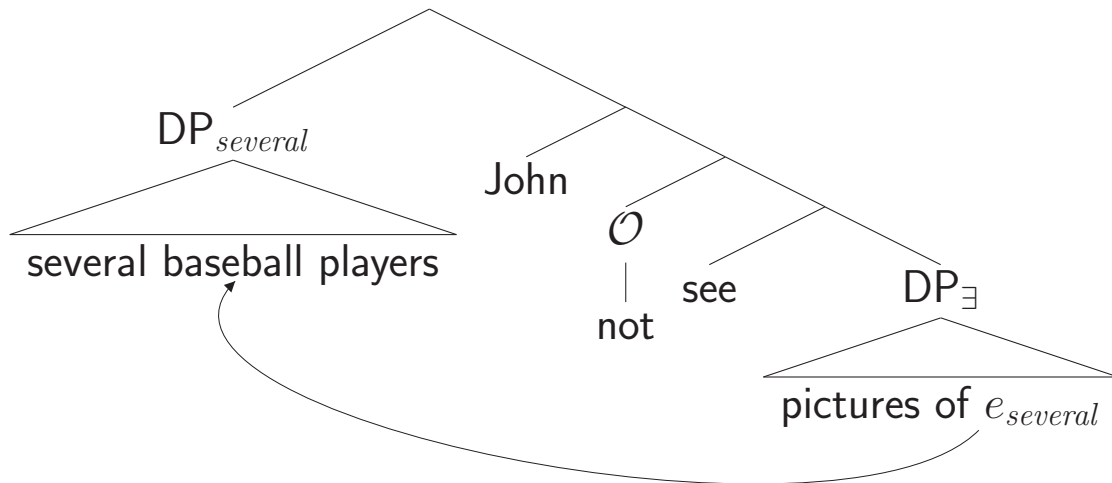
Sauerland rejects DP's scope island-hood, so we have:

- $QP_1 \; [_{QP_2} \, [QP_3]] \rightsquigarrow {}^*QP_3 > QP_1 > QP_2$ (Larson 1987)
- $\mathcal{O} \; [_{DP} \, [QP]] \rightsquigarrow QP > \mathcal{O} > DP$ (Sauerland 2005)

$\mathbf{Superiority}$ (cf. Bruening 2001):
- Scope orderings may be different from base-generated order iff...
    - Structure uninterpretable otherwise. or
    - Subject QP stays low at LF. Moves to [Spec,TP] only at PF.

DP-embedded QPs uninterpretable in situ; QR to nearest type-t node.

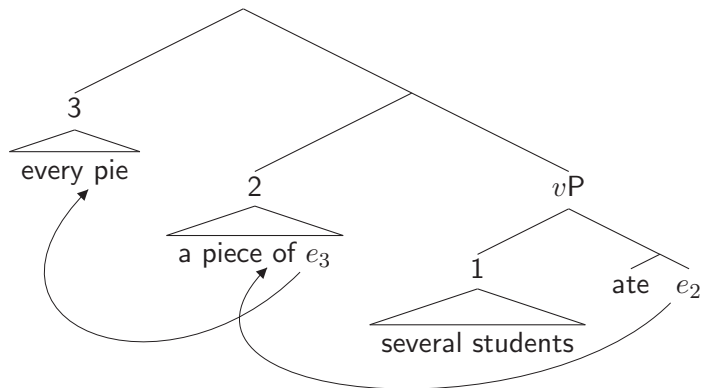If embedding DP itself uninterpretable, QRs before embedded QP.
- Works if $\mathbf{Shortest}$ is sensitive to dominance (cf. Charlow 2009).

(9) $[_{v\text{P}} [_1$ several students$] [_{\text{VP}}$ ate $[_2$ a piece of $[_3$ every pie$]]]]$

If 1 QRs, only inversion required for interpretation is b/w 2 and 3.
- (Nearest node of type t is above e_1 but below 1)
- $\rightsquigarrow 1 > 3 > 2$

If 1 stays in situ, 2 must QR over it, then 3 must QR over 2:

Issues

(10) John bought a picture of every player on the team.
      (Sauerland 2000's ex. 40a)

Sauerland suggests appearance of surface scope merely group interpretation of wide-scope *every*. But...

(11) No one from a major city likes country music. (cf. H&K)

(12) Max needs a lock of mane from every unicorn in an enchanted forest.

- Recall $\checkmark \mathcal{O} > \forall > \exists, \exists$
- DP-as-scope-island: landing site for $every$-QP below $need$.

Sauerland's account: intensional transitives take abstractly clausal complements (cf. Larson et al. 1997).

- Informally, the syntax of (12) $\approx Max\ needs\ PRO\ to\ have...$
- The infinitive clause offers a type-t landing site for the embedded QP below $need$.

(13) Two students want to eat a piece of every pie. (*$\forall > 2 > \exists$)

(14) Two boys gave every girl a flower. ($\forall > 2 > \exists$)
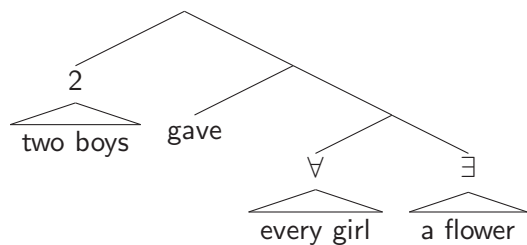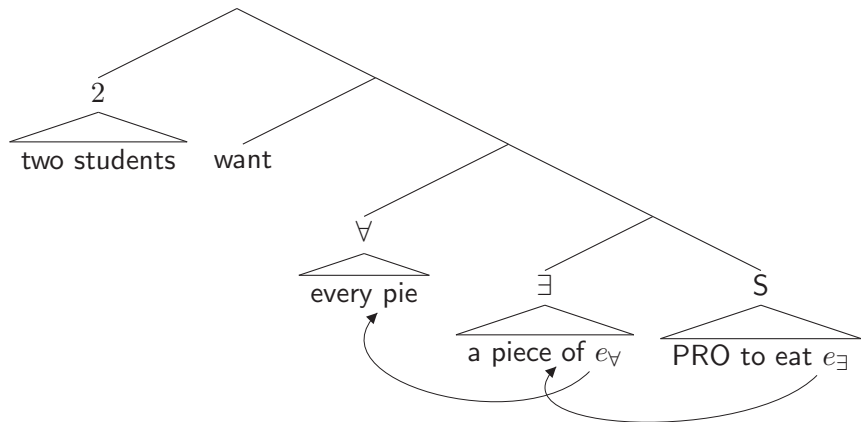
If 2-QP stays in situ (moves at PF), *every*-QP free to QR over it.

The problem, in sum:
- Inversely linked DPs in intensional contexts predicted to behave like double objects!
- Basically, the account *only works in the extensional case.*

Maybe "gratuitous" QR can't reorder subject, object QPs?

No:
(15) A (different) child wanted every toy. ($\forall > \exists$)
(16) Two boys wanted to give each girl a flower. ($\forall > 2 > \exists$)

- $\rightsquigarrow$ Must allow non-obligatory QR to reorder subject and object QPs.

(17) Frege refused to let any students search for proofs of [at least 597 theorems]

(18) Frege wanted a student to construct a proof of [every theorem Russell did]

Examples use intensional transitives ($search\ for/construct$).
  • Obligatory QR of bracketed QP places it below intensional transitive.
  • Below $student$-indefinites.

Sauerland incorrectly predicts ungrammatical with...
  • Nonspecific $student$-indefinites ($\mathcal{O} > \exists_{student}$). and
    – $De\ re$ construal of $at\ least\ 597\ theorems$ ("$597 > \mathcal{O}$") or
    – Wide ACD ($\forall > \mathcal{O}$).

(19) Mary wants to marry someone from these two countries.

Recall: consistent with Mary wanting to marry but once.

Other QPs don't give rise to felicitous readings:

(20) #Mary wants to marry someone from several countries.

(21) #Mary wants to marry someone from every Scandinavian country.

Something about demonstratives?
- In fact, traditionally thought to be scopeless (cf. Fodor & Sag 1982).

"Disjunctive" interpretations in absence of QR over $\mathcal{O}$...
- viz. gloss demonstrative $\mathcal{D}$ as $either\ of\ \mathcal{D}$

(22) a. When [I hear those two songs] I get chills down my spine.
          cf. #When I hear every van Morrison song I get chills down my spine.
      b. When [you give someone these viruses] you expect to see a spike as gene expression changes.

$\rightsquigarrow$ No QR over tensed clause boundary. But admit disjunctive readings.

(23) a. The paranoid wizard refuses to show anyone these two amulets.
      b. You may show anyone asking to see classified material these two memos.
      c. Ms. Goard declined to show a reporter those applications.
      d. At least some states consider it to be attempted murder to give someone these drugs.

$\rightsquigarrow$ No QR of DO over IO in double object constructions (cf. Larson 1990; Bruening 2001). But admit disjunctive readings.

2. Negation intervention?

(24) John didn't see pictures of several baseball players (at the auction).

Assume DP is a scope island. So to give *several* scope over *not*, QR entire bare plural over *not*:
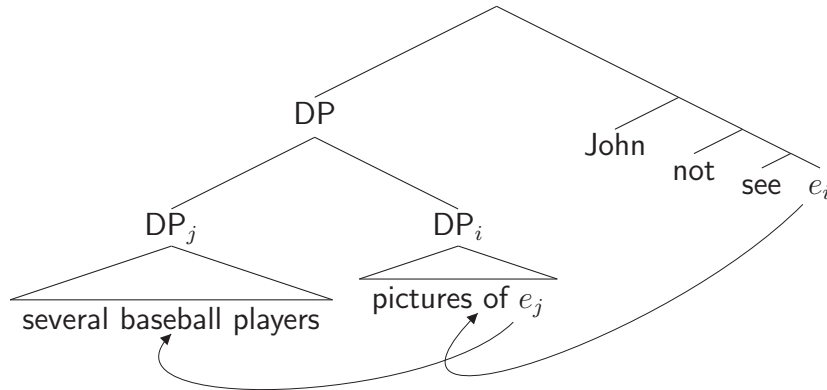
How is this tree interpreted? Depends on how we deal with bare plurals.

N.B. non-BP cases ungrammatical with intervening scope:

(25) John didn't read any books by more than six authors. (*$6 > \neg > \exists$)

Assume following Chierchia (1998) that bare plurals may denote kinds.

Kind-level argument + predicate of objects $\rightsquigarrow$ type-mismatch resolved by 'D(erived) K(ind) P(redication)':

(26)   For any P denoting a predicate of objects:
       $\mathrm{DKP}(P) = \lambda\kappa.[\exists x : x \leq \kappa][Py]$, where $x \leq \kappa$ iff y instantiates the kind κ.

Motivated?

(27) Pictures of several baseball players are rare. ($\checkmark$)

(28) John didn't see pictures of Clemente (at the auction). (*$\exists > \neg$)

Since trace e_i of bare plural is kind-level:

(29) $\mathbf{see} \overset{\mathrm{DKP}}{\longmapsto} \lambda\mathbf{e_i}\lambda y . [\exists x : x \leq \mathbf{e_i}][\mathbf{see}\, x\, y]$

Derives $several > \neg > \exists$, despite the prohibition on QR out of DP.

(30) Mary wants to marry someone from every country Barry does.

QR to resolve ACD gaps different (more powerful?) than QR which not required for interpretation.

von Fintel & Iatridou 2003: can cross tensed clause boundaries, place *every* over negation:

(31) John said Mary played every sonata we predicted he would.

(32) John said that Mary will not pass every student that we predicted he would.

QR of *every*-QPs over DE operators illicit. ACD makes OK:

(33) Mary denies kissing everyone. *$\forall > deny$

(34) Mary denies kissing everyone Barry does. $\forall > deny$

Double object constructions

(35) A bus full of Red Sox players pulls up. Mary and Barry both mistake them for the Yankees. Each of them wants to give the same presents to some player (or other?) on the bus.
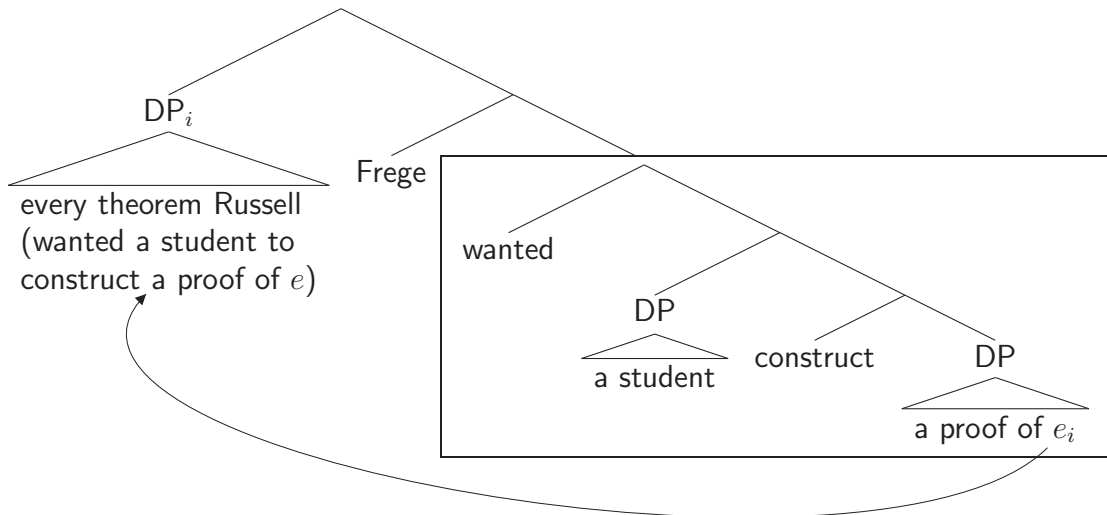Mary wants to give a Yankee everything Barry does. ($\forall > \mathcal{O} > \exists$)

(36) The paranoid wizard's wife refuses to show anyone the same two amulets her husband does. ($2 > refuse > \exists$)

Recall (18), repeated here:

(37) Frege wanted a student to construct a proof of [every theorem Russell did]

Previously: focused on how (18) problematic for Sauerland. But problematic for just about anybody:

ACD lets us construct arguments that Larson's generalization does not always hold (first time this has been done).

But of course we don't want to conclude that Larson's generalization doesn't *ever* hold. Only violable with ACD-QR.

Sauerland's ACD exs. not dispositive for DP-as-scope-island hypothesis.

Sauerland's mechanism only works for a very limited set of cases.
- Over-, under- generation
- Relies on abstract clausal syntax.

Demonstratives under modals (negation?) weird. Should control for this.
- "Disjunctive" readings don't imply $\mathcal{D} > \mathcal{O}$.

Kind-denoting bare plurals under negation also weird.
- $\neg > \exists$ doesn't show anything about where the plural is scoping.

ACD more powerful than "Scope-QR" (cf. von Fintel & Iatridou 2003).

Every construction of Sauerland's has a double-object construction rejoinder.

There's no evidence that DP is any less of a barrier to QR than IOs in double-object constructions or tensed clause boundaries.

$\rightsquigarrow$ QPs can take syntactic scope over DPs.

Thank you!

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