Resolving selectional puzzles with multidominant representations[1]

Gary Thoms, New York University

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1 Local selection and conflicting representations

The idea that selection is strictly local has a long history. Koopman, Sportiche and Stabler (2014) promote it to a core principle and build their textbook around it:

(1)   Locality of selection (LoS): if a head α selects β, β appears as a complement, subject [=specifier, GT], or adjunct of α. (p.244)

This is intended to rule out all sorts of crazy selectional patterns, and it's hard to understand how anything would work otherwise. But it's no secret that there are many outstanding problems for LoS, and those problems sometimes take our theory into dark places. In this talk I'll lay out some such problems and try to make the case for there being a real problem that lacks a satisfying solution.

The general character of the cases I'm going to discuss is as follows: an element X is apparently selected by another element Y, and yet X also seems to be selected by a distinct element Z, and Y and Z are not obviously in a selectional relation to each other. Assuming LoS, we thus have a case of what Müller (to appear) calls **conflicting representations**: one body of selectional facts dictates that X and Y are in a maximally local relation, while another body facts dictates that X and Z are in a maximally local relation. Surely X cannot be maximally local to two distinct elements?!?

Spoiler alert: multidominant representations allow us to give X more than one mother node, and thus it can be selected by more than one head.

2 Problems for LoS

2.1 Prepositions

We know that there is selection of prepositions, if there's selection of anything. Indeed we get c-selection of PPs, and L-selection of specific Ps.

(2)   a.   I looked at/in/under the box.
       b.   *I looked the box.

(3)   a.   I saw the box.
       b.   *I saw at/in/under/over the box.

(4)   a.   They're relying (on/*in/*at/*to) you.
       b.   They're confiding (in/*on/*at) you.

Nevertheless there are very many cases crosslinguistically of prepositions appearing in contexts where it seems they can't have been selected, or at least not in any conventional sense, and the typical analytical move is to say they are "inserted". Just how prevalent preposition selection is depends on aspects of one's outlook, but there are some recalcitrant cases that everyone needs to deal with.
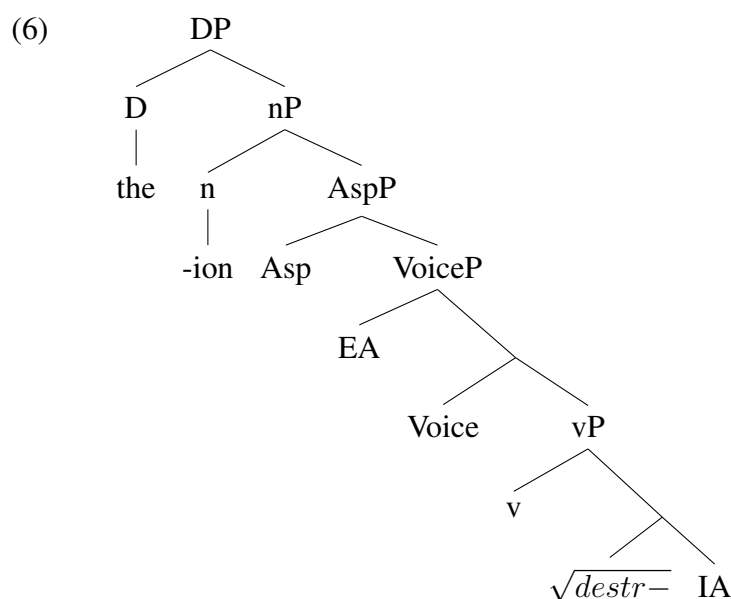
2.1.1 *Of*-insertion in nominalizations

It's an old idea that *of* "inserted" countercyclically in various contexts, including in nominalizations. Note that we can even get *of*-insertion into nominalizations of V-N idioms, which are the cases where selection is especially well-motivated.

(5) a. the destruction of Thrace
     b. the pulling of strings
     c. the loss of one's cool

The classic story is that *of* is inserted for Case reasons; some treat it as a genitive that is licensed by Agree with *n*.

If at least some nominalizations involve *n*-over-*v*P or *n*-over-AspP (see e.g. Borer 2012, also Alexiadou and Borer 2020 for various papers on the state-of-the-art), the interaction that triggers *of*-insertion is a *very* nonlocal one.

(6)

$$
\begin{array}{l}
\text{DP} \\
\quad \text{D} \qquad \text{nP} \\
\quad | \\
\quad \text{the} \quad \text{n} \qquad \text{AspP} \\
\qquad\qquad | \\
\qquad\quad \text{-ion} \quad \text{Asp} \qquad \text{VoiceP} \\
\qquad\qquad\qquad\qquad \text{EA} \\
\qquad\qquad\qquad\quad \text{Voice} \quad \text{vP} \\
\qquad\qquad\qquad\qquad\quad \text{v} \\
\qquad\qquad\qquad\qquad\quad \sqrt{destr-} \quad \text{IA}
\end{array}
$$

And it's still very countercyclic, and it involves treating *of* as some sort of case-marker, even though it can be stranded, like all other English Ps and unlike any other case affixes in Indo-European.

(7) Which city did you witness the Barbarians' destruction of?   (Harley and Noyer 1997, 11)

More concerning still is the fact that not only *of* is found in nominalizations; with some roots, the P can be different, partly idiosyncratic.

(8) a. Aliens attacked (*on) Glasgow
     b. the attack {on/?of/*at} Glasgow by aliens lasted three days

(9) a. They investigated (*?into) the UFO

b. the investigation {into/?of/*to} the UFO by Jo lasted three days

How could these be "inserted"? They can't be any sort of default, but rather they are semantically contentful and need to be compatible with the roots in question. Interestingly *of* seems marginally possible with these, which suggests that what's going on with these Ps is not L-selection but rather S-selection.

Merchant (2019) discussed how these cases require "joint selection" by the root and the categorizer. But how do we square this with LoS?

2.1.2   French *faire*-causatives

Also known as "dativization" of causees. Kayne (1975, 2004) shows that in French, the embedded external argument of a *faire*-causative appears as a DP when the embedded V is intransitive, as a PP when it is transitive.

(10)   Marie a   fait   manger (*à) Jean
        Marie has made eat-INF Jean
        "Marie made Jean eat"

(11)   Marie a   fait   manger la tarte *(à) Jean
        Marie has made eat-INF the pie   to   Jean
        "Marie made Jean eat the cake"

A common analysis of the *à* of *faire*-infinitives, and indeed its equivalent in other Romance causatives and in DOM structures, is that it is a dative case marker (the head of a KP) and not a preposition (e.g. Sheehan 2020). But Kayne had six arguments for the "dativized" arguments being PP-like:

1. dativized subjects behave like PPs (and not DPs) wrt subextraction from adjunct islands (cf. Cinque 1990 on other such asymmetries between PPs and DPs)

2. dativized subjects show the same word order properties as PPs (most natural when more peripheral in a VP than DPs)

3. dativized subjects bar subextraction of *en* or *combien*, like other PPs and unlike DPs

4. dativized subjects act like PPs wrt the optionality of clitic doubling (and unlike DP objects)

5. dativized subjects are like PPs in that they don't require a clitic when they are topicalized (unlike DP objects)

6. dativized subjects are like PPs and unlike DP objects in that they consistently reject quantifier float under relativization

Moreover the idea that a KP analysis of "dativized" subjects solves the problem is far from satisfying.
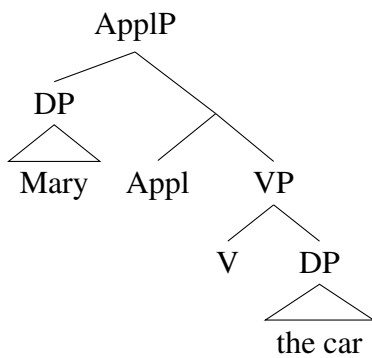
- KP_{dative} can't be selected in the external argument position, so K must either be ignored by selection (it's unclear how) or somehow be "inserted" post-cyclically

- There are many good arguments for dative arguments involving a PP-layer more generally (see e.g. Rezác 2008)
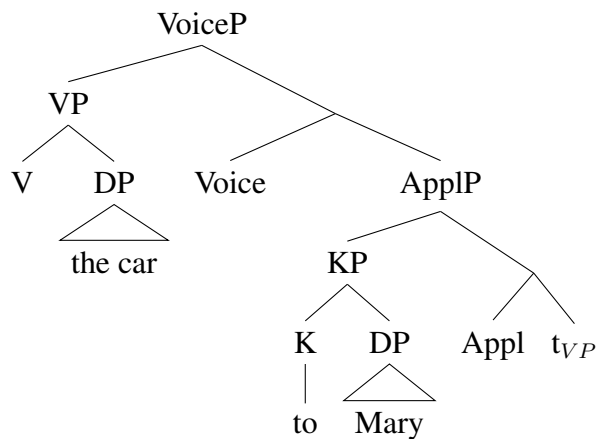
2.1.3 R-dative shift

There seems to be some sort of P-insertion in ditransitives, but how much depends on your outlook on the argument structure of the dative alternation.

For an outlook like that in Collins (2020), where the prepositional dative construction (PDC) is derived from the double object construction, we get something like *to*-insertion in all PDCs, i.e. *to* is not selected in the DOC, so it needs to find its way into the derived PDC. For Collins (2022), *to* is the head of a KP, which is either selectionally transparent (a problem for LoS) or it's always selected and there's some other rule for deleting the K/P in DOCs (not really a problem).
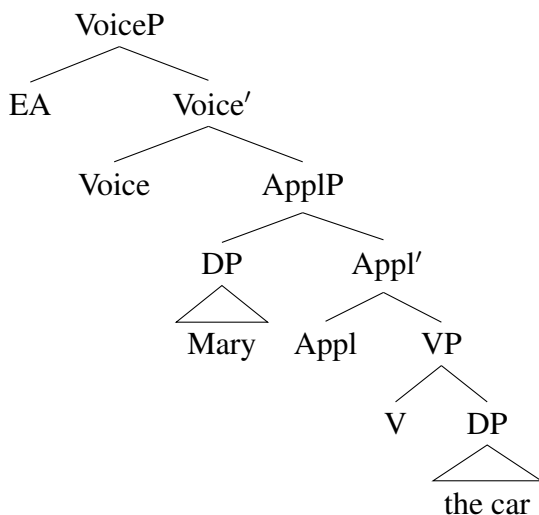
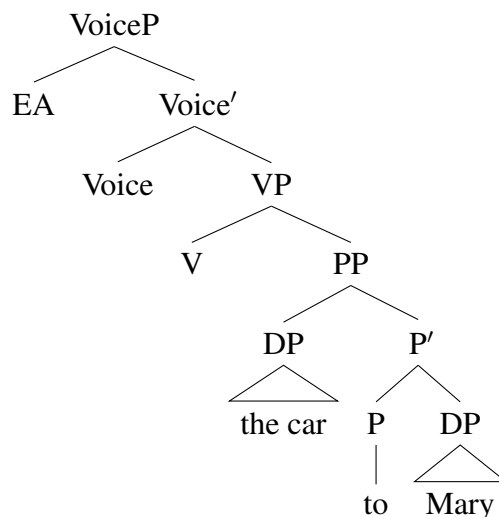(12)   (i) DOC   (ii) PDC

```
        ApplP                                              VoiceP
       /     \                                            /      \
     DP       \                                         VP        \
     /\        \                                       /   \        \
   Mary   Appl   VP                                   V    DP      Voice   ApplP
              /    \                                      /\              /      \
             V      DP                                 the car         KP        \
                    /\                                                /  \         \
                  the car                                           K    DP    Appl  t_{VP}
                                                                    |    /\
                                                                    to  Mary
```

Others analyse PDCs and DOCs as completely different argument structures: see Green (1974), Oehrle (1976), Marantz (1993), Pesetsky (1995), Pylkkänen (2008), Harley (2002), Harley and Jung (2015), Harley and Miyagawa (2017), Bruening (2001, 2010a,b, 2018). On those accounts, PDCs will generally involve selection of an PP with locative semantics, so there's no selectional puzzle. Bruening's version:

(13)   (i) DOC   (ii) PDC

```
        VoiceP                                             VoiceP
       /      \                                           /      \
     EA      Voice'                                     EA      Voice'
            /      \                                            /     \
         Voice    ApplP                                      Voice    VP
                 /     \                                             /    \
               DP      Appl'                                       V      PP
               /\      /    \                                            /    \
             Mary   Appl    VP                                         DP      P'
                           /    \                                      /\     /  \
                          V      DP                                  the car P   DP
                                 /\                                          |   /\
                               the car                                      to Mary
```

However Bruening (2010b); Bruening et al. (2018) argues that there is still a need for *to*-insertion to derive instances of so-called **R-dative shift**. His analysis concerns cases where a PDC frame is apparently used for cases where the DOC is normally required, e.g. idioms and non-alternating verbs (Oehrle 1976, Bresnan 2007; Bresnan and Nikitina 2009).
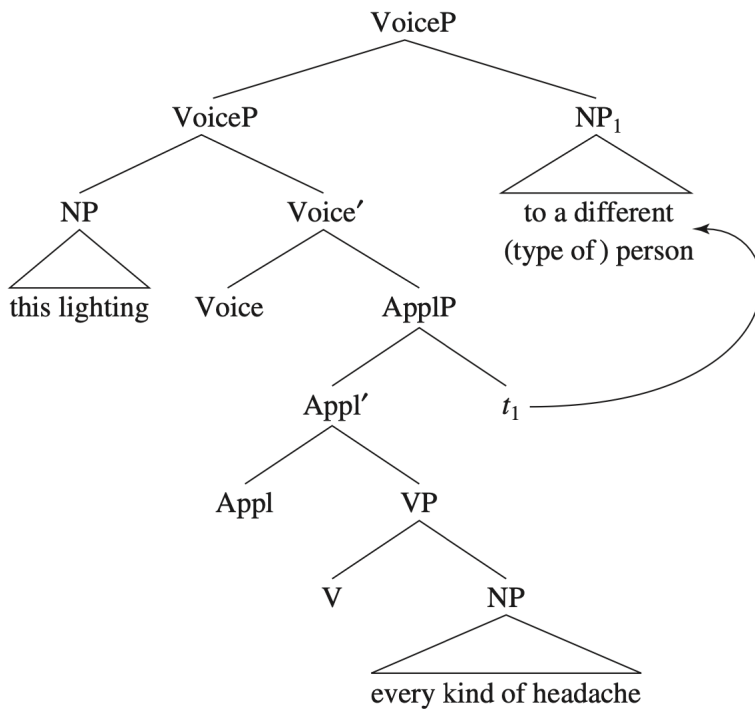
(14)   a.   He gave the creeps to {*me/every student he met}.
         b.   The lighting here gave a headache to {*me/everyone in the room}.
         c.   Who could deny something to {*Jo/someone so dedicated to the cause}?

Bruening argues these are "true" DOCs since they show restrictions also shown by DOCs (but not regular PDCs), e.g. IO>DO scope rigidity, (15).

(15)   The bosses denied every position to some applicant or other from within the bureau. $*\forall > \exists$

To account for this, Bruening proposes a bespoke rule, "R-dative shift", which involves the IO in the specifier of ApplP linearizing rightward and a preposition *to* being appended P to the IO object DP.

(16)

VoiceP
- VoiceP
  - NP: this lighting
  - Voice′
    - Voice
    - ApplP
      - Appl′
        - Appl
        - VP
          - V
          - NP: every kind of headache
      - t_1
- NP$_1$: to a different (type of) person

He adds a condition to restrict this to cases where there is heavy shift or wh-movement:

(17)   The Extraction Constraint on Rightward Specifiers
         The specifier of ApplP may be ordered to the right of its sister only if the NP that occupies it undergoes A′-extraction. (p.291)

And he also has this to say regarding *to*:

> "I should note, however, that the *to* that appears as a result of R-dative shift acts in numerous ways like a regular preposition: it can be stranded by wh-movement, but not by heavy shift, for instance." (Bruening 2010b, 291 fn.5)

This rule of R-dative shift is particularly suspicious as it is so bespoke and construction-specific. It is also most likely unlearnable, because examples of R-dative shift (which would seem to be the only evidence for this rule) are rare, and only really a feature of certain kinds of written registers. An initial search of a subcorpus of child-directed speech in CHILDES (12 North American corpora, 6 British ones) yielded not one single example that fits the bill. It is more attractive to derive this rule from the interaction of other, independently available principles or preferences.

2.1.4 Other cases

There are many other cases (or potential cases) which seem to involve prepositions or other such formants being appended to argument even though the are not selected in the argument's base position:

- *By*-phrases, on the assumption that they are true demoted arguments and not adjuncts (see Angelopoulos et al 2019, Collins to appear on the argumenthood of *by*-phrases in Greek and English)

- Differential object marking, in particular in cases where the DOM marker is more adpositional (e.g. Romanian *pe*, which is homophonous with the locational "on" P in the language)

- Perhaps raising-to-ergative constructions (Baker 2014; Deal 2019), in languages where ergative marking involves a preposition (cf. Mahajan 1994, Polinsky 2016)[2])

- Raising to the complement of P in Irish, which once more looks like a situation where P is "inserted" in a higher position

This is NOT trivial! We need a realistic syntax for this, not just handwaving.

2.2 Determiners

Ever since the DP-hypothesis emerged, it has been apparent that it does not fit well with well-motivated views of how selection works.

2.2.1 D is selectionally inert

Baltin (1989), Sportiche (2005): D seems to be **selectionally inert**, i.e. they are not selected, and seem to be invisible for selection of N by V. We see verbs l-selecting for Cs (*inquire whether/*that*) and Ps (*rely on/*in*), and at least some of those facts seem not to reduce to semantics. But we never see selection for D, e.g. verbs which select only nominals without possessors, or only indefinites.[3]

(18)   a.   John glorped (*his) books.
      b.   Samuel is streading {a/*the} book.   *nonexistent*

Sportiche (2005), Bruening (2010) (although see Larson 2020): many V-N idioms involve a selectional relationship between the V and N which is blind to D and other functional content. (Some disallow any variation of the functional material at all, e.g. *give X the creeps* vs. **give X too many creeps*).

(19)   a.   Jill pulled (several) strings to get me the job.
      b.   You need to kick the/these (filthy) habits.

Bruening et al. (2018) argue that the problem extends to the case of classifiers as well, reviewing data from Korean and Vietnamese: V-N idioms allow addition of numerals which in turn trigger use of a classifier, which would not be present (at least overtly) otherwise. Given the plentiful evidence for analysing classifiers as functional projections (Cheng and Sybesma 2005, Simpson 2005), this is a real issue.
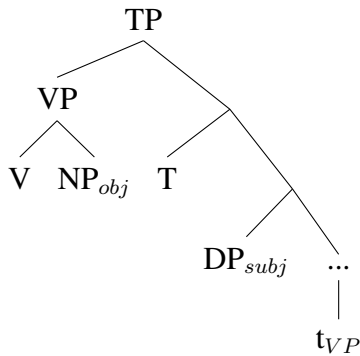
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[2]Nez Perce and Shipibo are claimed in these works to show clear evidence for raising to ergative, thus arguing against the inherent case view of ergative. However these are not syntactically ergative languages, and Polinsky argues that the PP-shell analysis is most appropriate for syntactically ergative languages in particular. Evidence for raising-to-ergative in a syntactically ergative language would make this point properly.

[3]Apparent counterexamples involving collective predicates and plurals are set aside effectively by Bruening (2009).
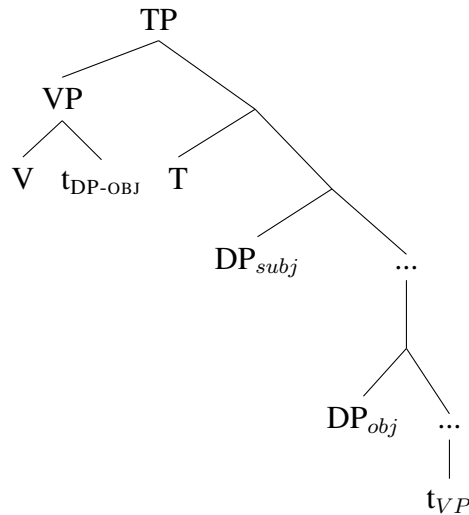
2.2.2 Suspicious disjunctive selection

Certain patterns of nominal licensing seem to require **disjunctive selection** of NP and DP. Massam (2001), van Urk (2020) analyse Austronesian object licensing and word order alternations as involving NPs being selected by V; when an argument is a DPs, it occurs higher.

(20)   Niuean: VOS, NP object   VSO, DP object

```
            TP                                    TP
          /    \                                /    \
        VP      \                             VP      \
       /  \      \                           /  \      \
      V  NP_obj   T                         V  t_DP-OBJ  T
                   \                                       \
                DP_subj  ...                            DP_subj  ...
                          |                                       \
                        t_VP                                   DP_obj  ...
                                                                        |
                                                                      t_VP
```

But why is the DP always the VP-external one? van Urk (2020) emphasizes that the Fijian pattern (which is not about VOS/VSO but is still diagnosably about VP-internal vs VP-externalness of the object) is not determined by semantic definiteness, as proper names (which are semantically definite but not marked by Ds) can stay VP-internal, and nonspecific indefinites can be VP-external.

(21)   Fijian: VP-internal pronouns/names and (incorporated) D-less indefinites VP-external full DPs

  a. e   a   [_VP kau-ta   **au/Jone**   mai] ko   Eroni.
      3SG PST   bring-TR.PR 1SG/JONE DIR ART.PR Eroni
      'Eroni brought me/Jone.'   (van Urk 2020, 314)

  b. e   a   [_VP kau   **ilokoloko** mai] ko   Eroni.
      3SG PST   bring pillow   DIR ART.PR Eroni
      'Eroni brought pillows.'   (van Urk 2020, 347)

(22)   Fijian: VP-external full DPs, including definites and indefinites

  a. e   a   [_VP kau-ta   – mai] **na   ilokoloko** ko   Eroni.
      3SG PST   bring-TR.PR   DIR ART.N pillow   ART.PR Eroni
      'Eroni brought the pillow.'   (van Urk 2020, 314)

  b. au vaqa-ra   tiko e   dua na   gone.
      1SG look.for-TR.N PROG 3SG one ART.N child
      'I am looking for a child' (specific/non-specific)   (van Urk 2020, 346)

van Urk concludes that what's important is the presence of overt functional elements, as the article *na*

Disjunctive selection is particularly undesirable when there is a crosslinguistically robust syntactic generalisation over when one gets "selection" for DP (when there's VP-evacuation) and when one gets "selection" for NP (when it stays in situ). The statement is suspicious: NP is selected when NP is in situ, but DP is selected but required to move (and seemingly not for semantic reasons).

2.2.3 Inserted determiners

In many languages, determiners show up with CPs when the CP occurs in subject position, but not in object position (Hartman 2012). In Russian, this takes the form of a demonstrative which is distinct from the standard complementizer.

(23) To/*∅   čto Daša ušla   izvestno vsem.
      that.N.SG that Dasha left.F.3SG known.N everyone.DAT
      'That Dasha left is known to everyone'   (Russian, Hartman 2012, 37)

(24) vsem   izvestno (??to)   čto Daš ušla
      everyone.DAT known.N that.N.SG that Dasha left.F.3SG
      'Everyone knows that Dasha left'   (Russian, Hartman 2012, 37)

Hartman (2012) notes that this D-marking of clauses correlates with more DP-like behaviour with respect to licensing of pronouns and emphatic reflexives. The same footprint is seen in languages like English which don't require overt Ds to mark subject clauses (a fact which may tell us that what's going on here is not morphological):

(25) a. That Mary won is important itself.
      b. It is important that Mary won (*itself).   (Hartman 2012, 42)

Hartman's proposal is a post-cyclic D-insertion rule, driven by a need to ensure TP gets a DP-specifier.

(26) A DP-shell may be inserted to allow a clausal argument to raise to Spec,TP. (Hartman 2012, 62)

Does this constitute evidence of selection for D? Maybe, but Spec,TP is a *derived* position, not a base-generation one, so if this is selection, it's not selection of the kind we normally talk about.

3 Proposal: layering on functional structure

3.1 Layering

Thoms (2019a,b), drawing on Johnson (2012, 2016), van Riemsdijk (2006 et seq): *n*Ps merge in selected argument positions, and DPs are formed by **external remerge**, aka **sideward merge** of *n*P with D; this creates a multirooted structure (de Vries 2009), and the derived DP is then remerged with main root, necessarily into a higher specifier. This was called "layering" because it was expedient to have a verb to describe these processes; there's no truly new proposal here.
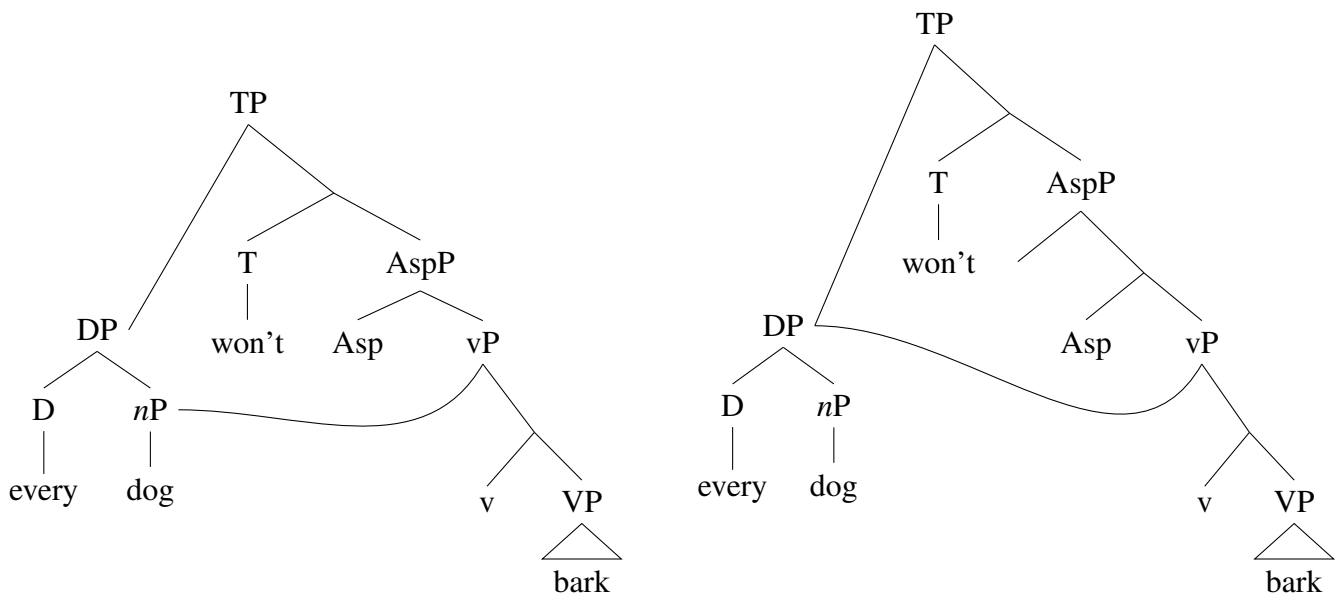
(27)

Step 1: merge *n*P into Spec,VP   Step 2: merge D and *n*P, separate subroot   Step 3: T merged, EA DP merged into Spec,TP
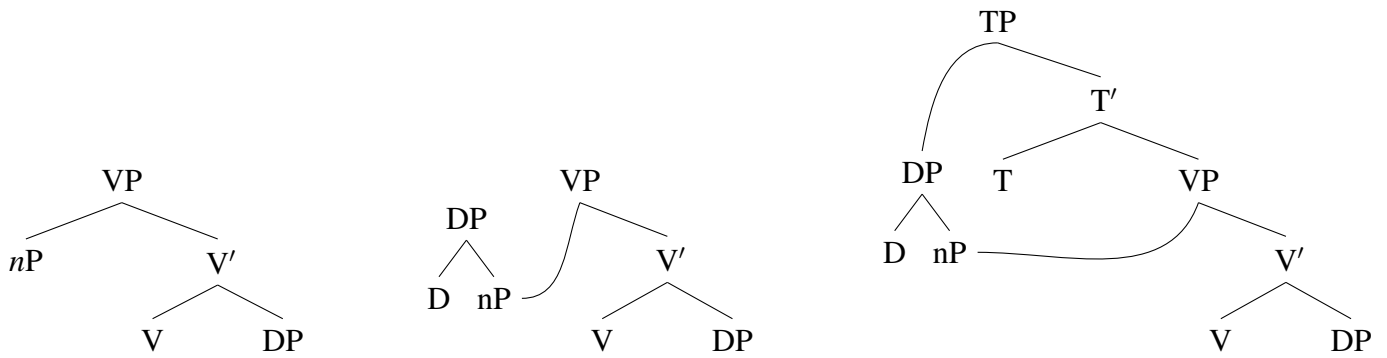
On this view, antireconstruction involves merging the D on after the *n*P is merged low, while reconstruction involves merging D a little earlier; in the structure below, prior to merging *n*P with its theta assigner.

(28)   Antireconstruction   Reconstruction

On this account, there is no need for an optional rule of reconstruction, just hierarchy: a D that is c-commanded by Neg scopes below it, even if it ends up having a higher position above negation. (One might use a version of the syntax-semantics for A-chains in Abels and Martí (2010), an extension of Sauerland (1998), to interpret these structures, but this is not my focus here.)

Some important aspects of this theory:

- It's not countercyclic! See de Vries (2009) for a detailed and comprehensive analysis of external remerge, including a fully developed linearisation algorithm and discussion of the definition of the Extension Condition

- These structures require multirooted structures, and such structures are pretty much an empirical necessity to build complex specifiers

- Layering constrained in familiar ways by (i) domains, and (ii) licensing projections for moving elements

In Thoms (2019a) I use this analysis to account for scope-agreement interactions, and in Thoms (2019b) I argue that this allows us to explain the apparent non-intervention of traces of movement for A-probes generally; neither story is readily available to the Ds-as-probes account.

Non-intervention by traces (AKA "punting" of interveners). A well-known case from Icelandic: a dative experiencer intervenes for long distance agreement with a low nominative, but when the experiencer is A-moved "out of the way", it no longer intervenes.

(29) *Það virðast   einhverri konu   myndirnar   vera ljótar.
      EXPL seem.3PL some   woman.DAT paintings.the.NOM be   ugly
      'It seems to some woman that the paintings are ugly.'   (Sigurðsson and Holmberg 2008; S&H)

      T probes and dative intervenes   [Það virðast+T [[einhverri konu] [myndirnar vera ljótar]]]
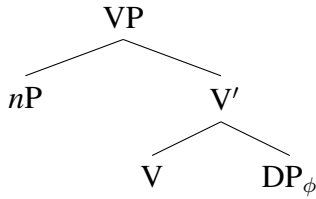
(30) Einhverri konu   virðast   t myndirnar   vera ljótar.
      some   woman.DAT seem.3PL paintings.the.NOM be   ugly
      'It seems to some woman that the paintings are ugly.'   (S&H)

      Step 1: punt dative experiencer   [[Einhverri konu] virðast+T [t [myndirnar vera ljótar]]]

      Step 2: T probes for DP unimpeded   [[Einhverri konu] virðast+T [t [myndirnar vera ljótar]]]

This requires an unusual view of the Copy Theory of Movement where the lower copy is somehow invisible to syntax, and it also requires a somewhat countercyclic ordering of movement and Agree.
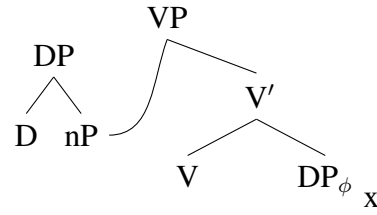
I argue that this problem is solved by saying that the trace is an nP which doesn't bear the full set of (ϕ-)features sought by the probe.[4]

_____

[4]I'm glossing over the nuance of the analysis, which is that the probe does interact with a minimal nP, thus finding third person-ness (=the absence of phi-features), which gives us an account of the Person Restriction which is similar in kind to Schütze (2003) and Coon and Keine (2020), but which improves on them in certain respects.
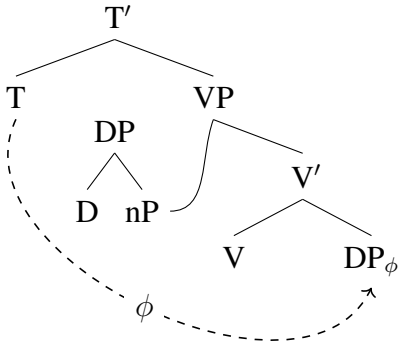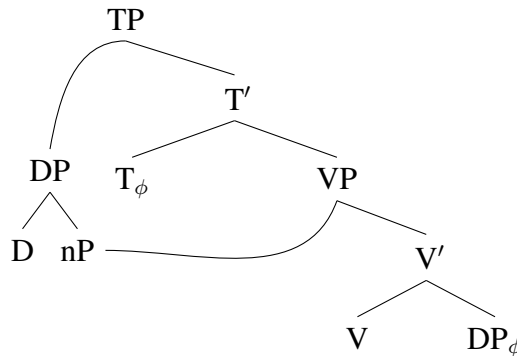
(31)   Step 1: merge *n*P into Spec,VP   Step 2: merge D with EA *n*P in separate subroot

```
        VP                                        VP
       /  \                               DP      /  \
     nP    V'                            /  \         V'
          /  \                          D   nP       /  \
         V   DP_φ                              \     V   DP_φ  x
```

Step 3: T merged and probes c-command   Step 4: EA DP merged into Spec,TP
domain for φ-features, finds them on IA.

```
           T'                                        TP
          /  \                                      /   \
         T    VP                                   /     T'
              DP                                  DP     /  \
             /  \    V'                          /  \   T_φ   VP
            D   nP  /  \                        D   nP        /  \
                   V   DP_φ                                  /    V'
              φ ............                                     /  \
                                                               V   DP_φ
```

In that work I argue that this also explains the fact that moved interveners/non-agreeing DPs don't recon-
struct: their determiners are layered on 'late', so they can't take low scope. This seems right for Icelandic:
"punted" dative experiencers don't scope below the raising predicate. I argue that it gives a principled ex-
planation to Nevins and Anand's (2003) PEPPER generalisation: non-agreeing subjects don't reconstruct.

3.2   Going full Sportiche: all Ds are layered on

In Thoms (2019a,b), which focussed on A-movement,[5] I provided arguments for the *possibility* of layering,
I left open the possibility that either a DP or *n*P could be in the thematic position. But here I'm going full
Sportiche and saying that DPs *can't* occur in thematic positions, as they're not selected there. This will
give us a solution to the Sportiche challenges, but without the same problems associated with the remnant
movement derivations

This requires a minor rethink of the analysis above, where *n*P is what's merged in Spec,vP in both deriva-
tions, but for reconstruction the D is layered on earlier, in a first step of movement to a position just above
*v*P, e.g. AspP. (I assume that by bottom-up composition, the lower position for DP will be interpreted and
the higher one will be ignored, much like with predicate movement.)

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[5]In Thoms and Heycock (2021) we argued that the layering approach allows us to understand antireconstruction in A′-
constructions. On that see also Colley (2020).

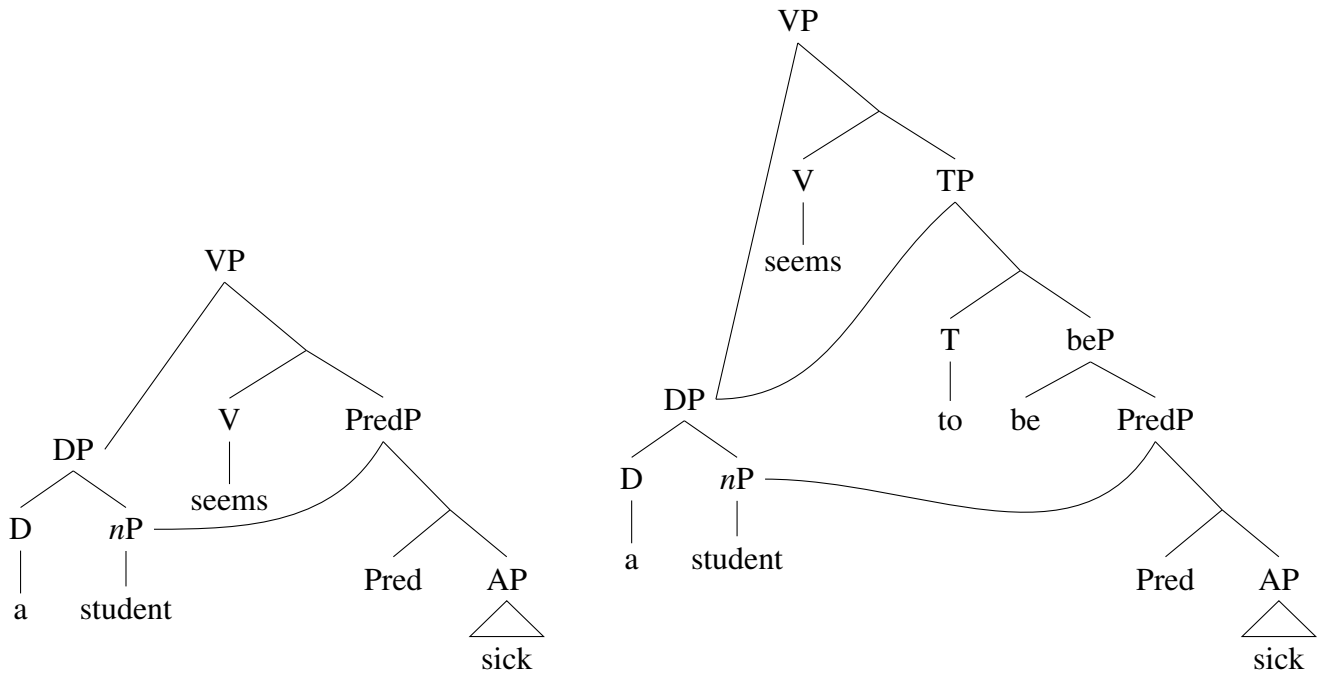(32)   Antireconstruction   Reconstruction
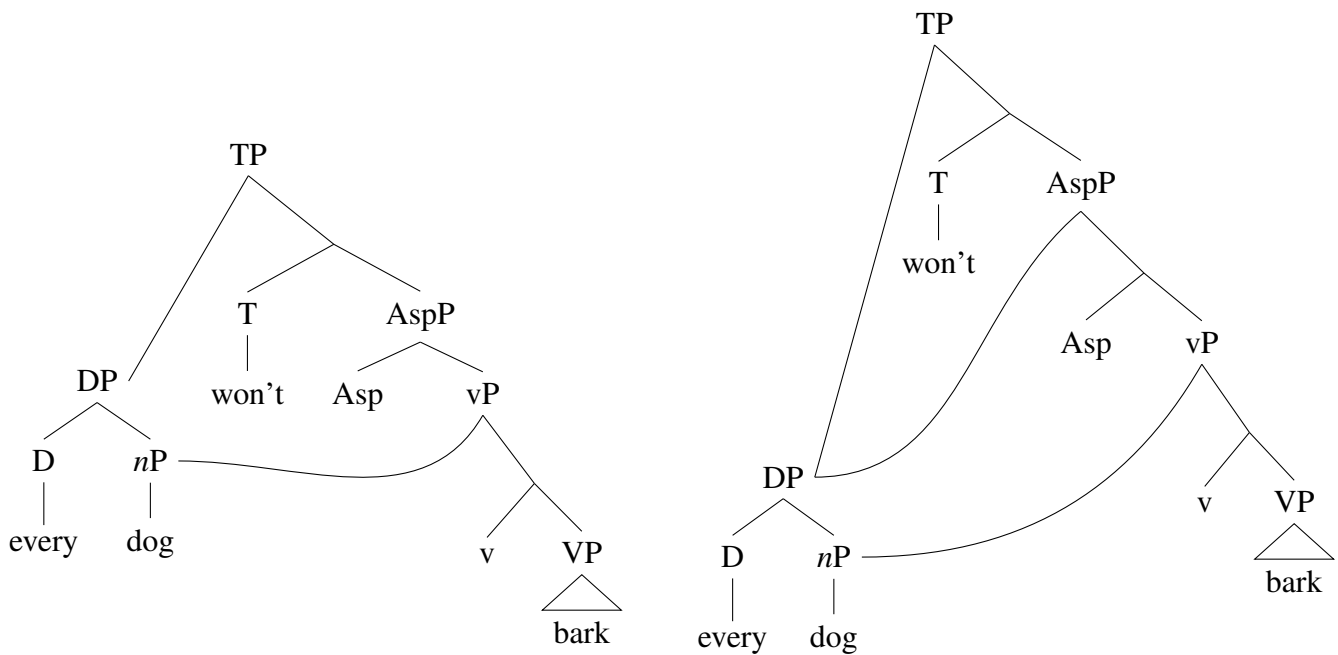
<u>Corollary</u> of this theory, much like in Sportiche (2005): **all nominals must move to become DP arguments** (cf. Kayne 2011). This doesn't require the radical remnant movements that Sportiche required, so it evades the problems identified and is more readily compatible with a theory that makes use of smuggling.

In ongoing work, I'm working out the claim that this the requirement that nominals must move to become DPs (and thus arguments) is what is behind **nominal licensing**, which goes beyond case and θ-assignment (Nie 2020). nPs can be merged in thematic positions, but to become DPs they need to sideward merge with D and remerge into a licensing position. More arguments will require more licensing positions as well as thematic positions. This requires a proliferation of derived positions for arguments, which is arguably motivated since there is reason to believe all arguments move at least a little. So all direct objects always move (Johnson, 1991), complements of P move within PP (Bošković, 2004), "unraised" subject do actually move (McCloskey, 1997), and applied arguments move (Georgala, 2012). Although the program that unfolds is quite expansive, it's effectively another way to think about why certain clausal domains aren't "big enough" to introduce a certain number of arguments, and why they resort to the addition of certain functional structure to negotiate the arguments involved.

<u>Bonus</u>: a new account of old antireconstruction puzzles. Small clauses are too small to contain a low A-position to do short A-movement to, so D won't scope under *seem*; adding *to be* adds an A-position, thus the low scope option.

(33)   a.   A student seems sick.   *seems> ∃
         b.   A student seems to be sick.   seems> ∃

(34)

VP

VP

DP

D
|
a

*n*P
|
student

V
|
seems

PredP

Pred   AP

sick

V
|
seems

TP

DP

D
|
a

*n*P
|
student

T
|
to

beP

be   PredP

Pred   AP

sick

Small clause predicates like *possible* differ from ones like *sick* wrt reconstruction (Moulton 2013). This is because they have abstract clausal complements from which the *n*P raises, with room for a low layering position.

(35)   A new solution seems necessary.   *seem*> ∃

Sportiche's evidence that Ds don't reconstruct to base position as one might expect (see also Heim 1997, Johnson and Tomioka 1998) can also be captured in this analysis.

4   Inserting unselected P via layering

The layering analysis extends readily to account for the "insertion" of Ps as conditioned by higher environments: unselected Ps are sideward merged with a given nominal which is not licensed in its base position, and then the PP must be merged in a licensing position which selects for such a PP in its specifier.

In outline, all the following cases involve (i) a low thematic position XP where the P is not selected, where what is merged is just *n*P; (ii) a higher YP position which selects a PP in its specifier (e.g. a nonthematic raising applicative); sideward merge of the nominal's functional material *and* a P, which serves to case license it as well. In most cases, there's an additional step of remnant movement to some Spec,ZP get the final position for the PP, but this need not be done by movement, nor does it happen in all cases (e.g. sometimes a PP appears leftward).

(36)
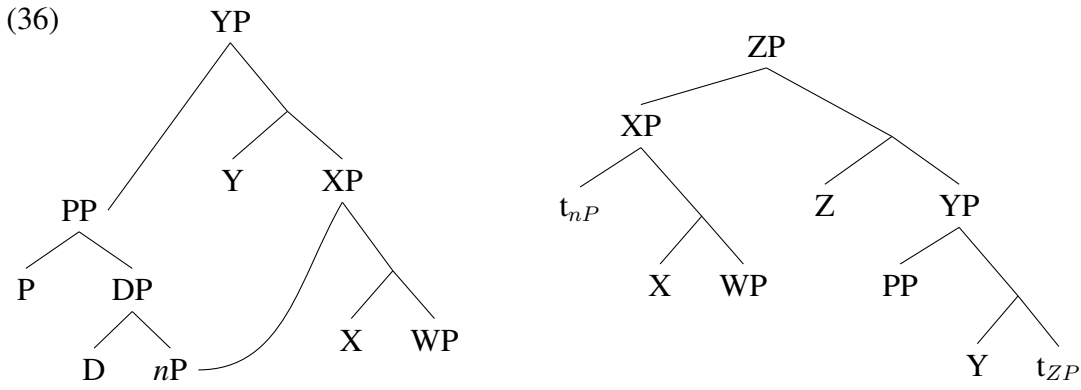
Simplest case is **nominalizations**: *n* selects a PP-specifier, minimally an *of*-PP, which is formed "on the side", (37). Rightwardness of PP derive by remnant movement of *n*'s complement, (38) (or some other means, e.g. rightward linearization of the specifier), most likely driven by whatever gives us the Head-Final Filter (Williams 1982). (Similar in many ways to Kayne (2005).)

(37)

(38)
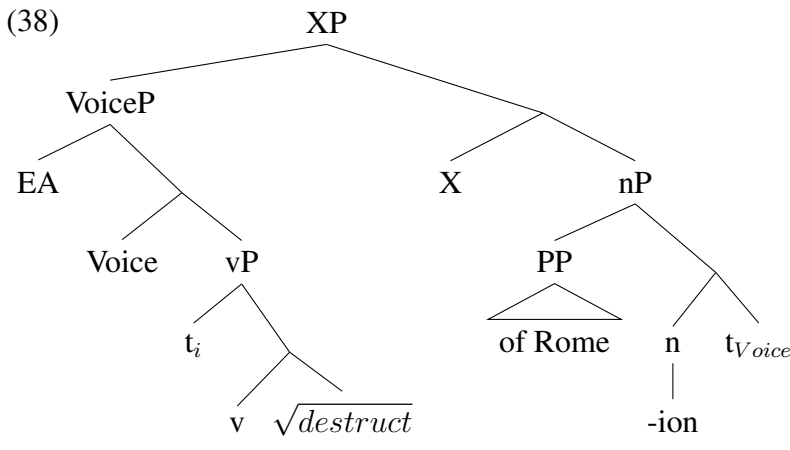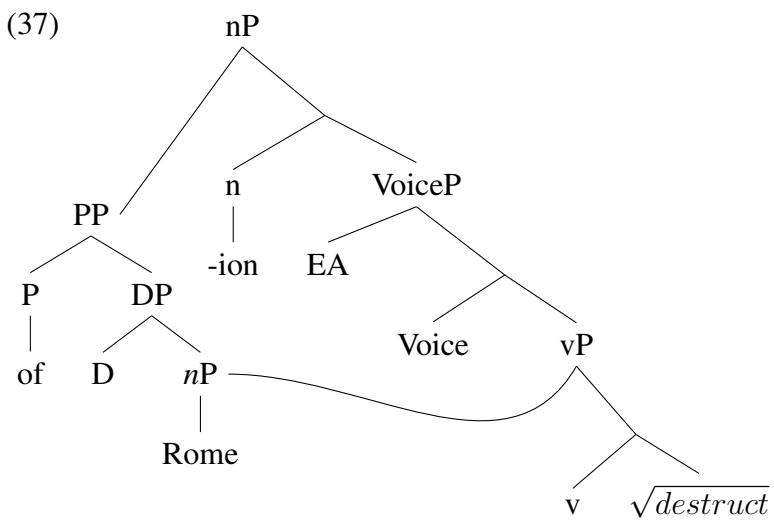
Features of this analysis:

- PP-'complements' are not structural complements, but they end up high and peripheral in their licensing position; this accords with Adger's (2013) PP-peripherality generalisation and also its reassessment in Belk and Neeleman (2017). Minimally we can show that the simplest analysis of PPs as sisters to N has limited value, as it fails to distinguish between various types of PPs wrt *one*-replacement:

 (39)   a.   the picture of Rob and the one of Joe

b. *the writer of novels and the one of short stories
c. *the student of physics and the one of chemistry
d. the argument with Harry and the one with Sue
e. *Comparisons with Messi are more flattering than ones with Ronaldo.

There's more of a syntax to PP-'complements' than meets the eye; saying "anything goes" (as Payne et al. 2013 do) won't fly, but it's a start to say that the PP is in a derived position, as that could give us a handle on these contrasts. Maybe different PPs occupy different derived positions, and maybe their base positions vary too. Lots to probe!

- Cases where semantically contentful P is "inserted" might be explained in terms of s-selection: Ps with right semantics may be merged with nominal on the side, so the P is not l-selected by the root, which is too far away in a CEN. Alternatively, we figure out a version of "joint selection", but at least we have local relations involved.

- Working in a second PP, e.g. an unsuppressed agent, will require whatever low verbal syntax is involved in licensing PP-external arguments, e.g. *by*-phrase and the PassiveP that requires

- The 'ergativity' of nominalization will follow from the limited availability of one Spec,*n*P position: either the complement or the EA can move there in principle (with language-particular restrictions)

Faire-causatives analysed similarly to Kayne (2004): causative complements are too small to contain licensing positions for both EA and IA, e.g. there's no AspP. Intransitives possible because EA can be licensed by moving to *v*P-external object-licensing position Spec,μ, (40)a; when there's an IA, it must move to Spec,μ, so the ditransitive syntax of embedding *faire* comes to rescue to license the EA. This takes the form of a **Raising Applicative**, above *faire*-*v*P (Georgala 2012, Nie 2019).
(40)

a.   b.
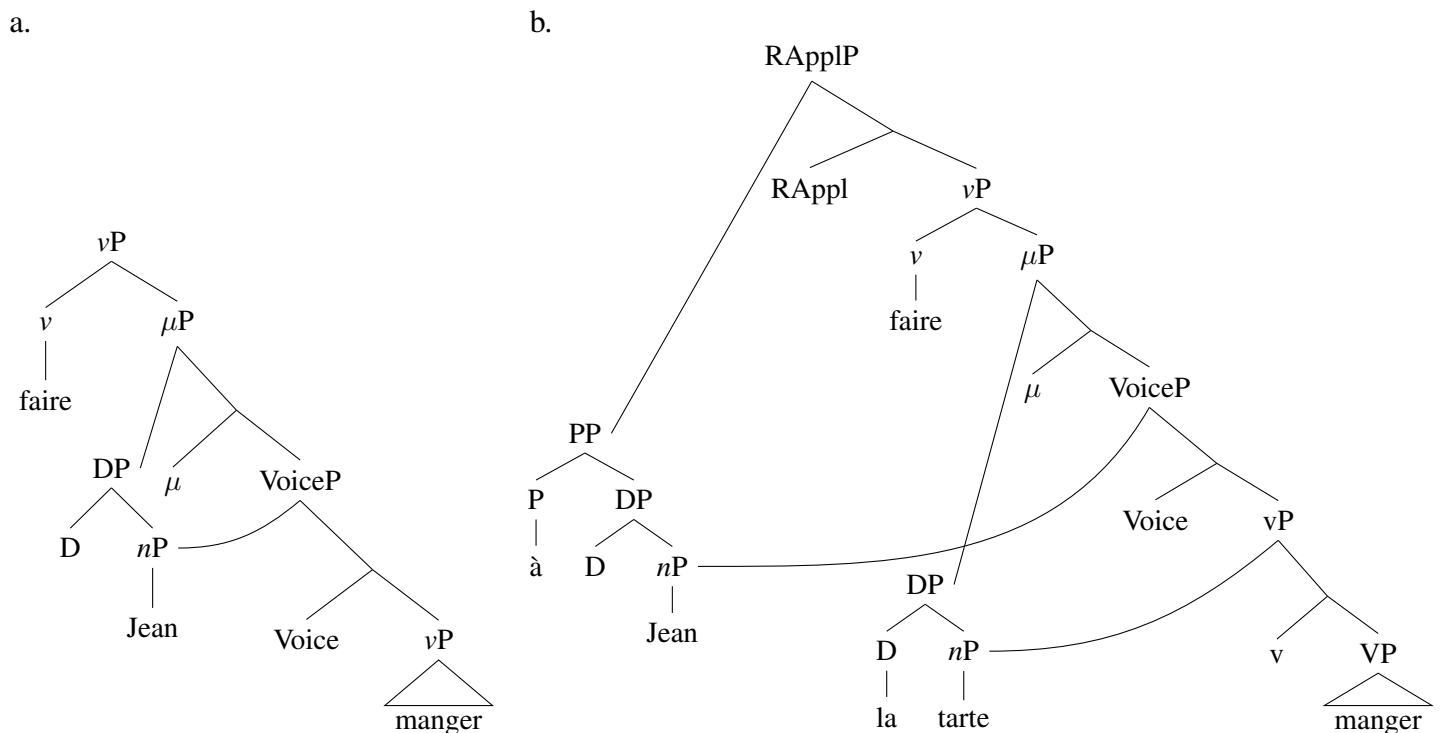
Features of this analysis:

- Analysed in terms of licensing rather than case (Rouveret & Vergnaud 1980), since it's not only an IA that triggers *à*-insertion, but also some PPs and even some APs (Rouveret & Vergnaud 1980, 133; Kayne 1975, 210), in particular cases which are somewhat idiomatic (*changer d'avis*, "change one's mind", *perdre de l'importance*, "lose importance"), and even some APs (*voir juste*, "see right"). We might make sense of this if these are themes at some level.

- Causee still ends up high enough to c-command into the embedded VP (after reconstruction of the moved predicate)

- (Non)-intervention by the causee wrt higher probes (cf. Sheehan 2020, Pineda and Sheehan 2023, Graveley 2022) needs to be considered when it comes to figuring out where the RaisingApplP goes wrt other probes (e.g. clitic probes)

R-dative shift: PDC derived from DOC, and PP of PDCs is derived by raising to Spec,RAppl. This is generally unavailable for a certain class of DOCs; for idiomatic cases like *give X the creeps*, this is because there's no need to license the DO (*the creeps* is not referential, so it need not be a DP; it could be an atomic *n*P), so the IO can be licensed in Spec,μ, and so RApplP in this extended projection fails to bear a feature to attract the IO and license a PP. But if the IO is A′-extracted, it can stop off at Spec,RAppl, so the PP structure is licensed; this is akin to licensing-via-A′-movement with *wager*-class verbs.

(41)
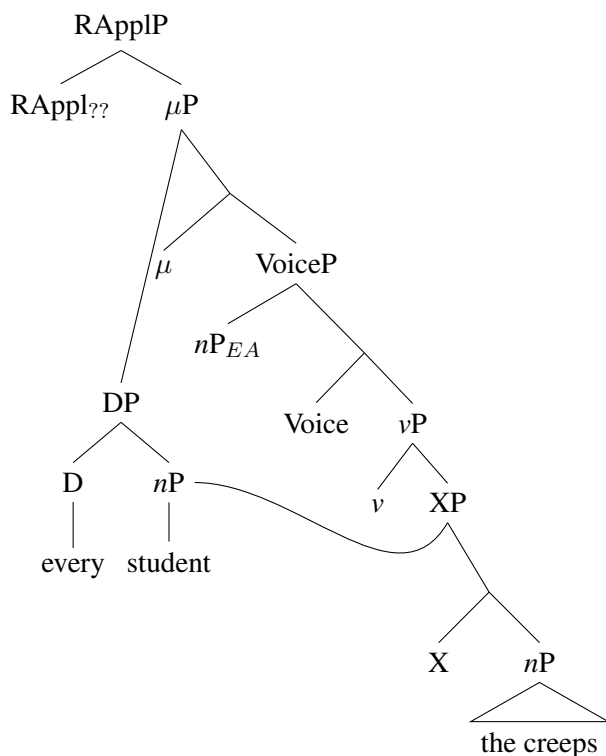
a.   b.
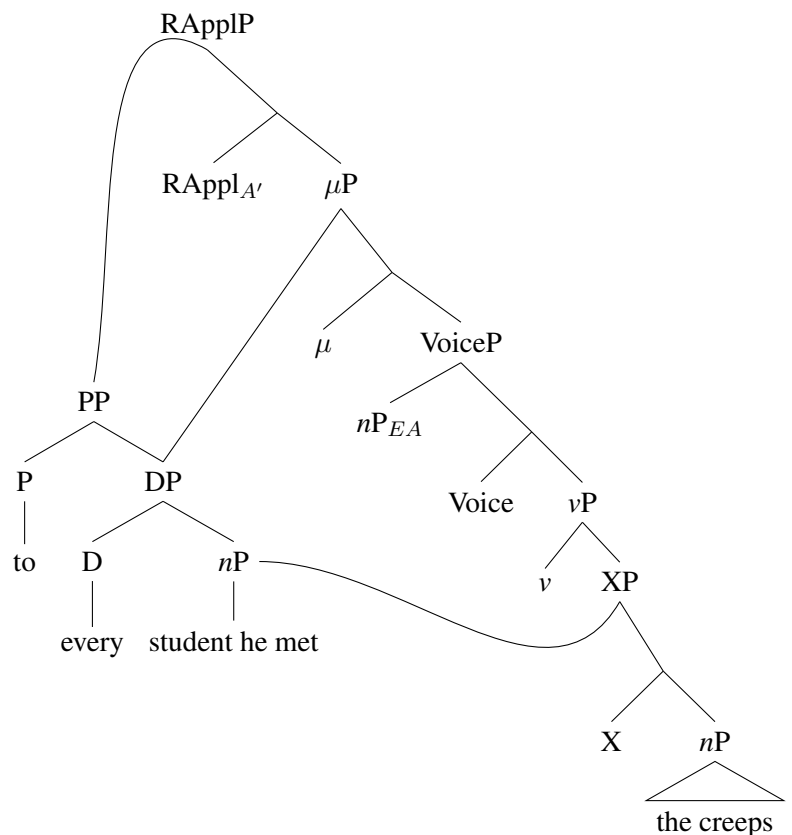
Speculation: the "smuggling" step of predicate movement in the derivation of all of these cases, where a predicate-sized constituent moves over a demoted argument thus making a lower argument accessible for higher probes, is not construction-specific but is in fact the step of XP-movement required to derive PP-finality, which is driven by... something else.

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Appendix I: previous accounts

Bruening (2009), Bruening et al (2018)

Bruening and colleagues' account of the selectional inertness of nominal functional material is to deny the DP-hypothesis, and indeed the idea that any functional material in nominals projects. I think this is entirely the wrong way to go; see e.g. Preminger (2020) for one very simple rebuttal.

Sportiche 2005 on unselected D

Sportiche (2005)'s proposal is a radical one: he argues that verbs do indeed select N, and that determiners must be merged on the clausal spine, taking verbal projections as complements. The N comes to form a constituent with the D by means of some combination of sideward movement and remnant movement (required to ensure the DP can move independently in subsequent derivational steps).

(42)

   (103) a. every cat slept
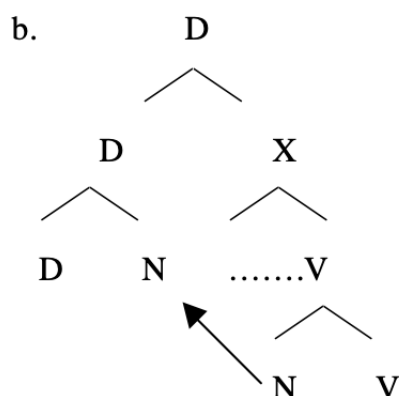
(Sportiche 2005, 51)

I'm not going to argue against Sportiche's account by simply complaining that it's too complex, as we don't know how complex syntax is a priori. But still, things get pretty hairy when there's multiple DPs:

(43)

D
├─ D   ... v
│ the   ├─ N   v
│   │ boy ├─ v   ...D
│   │   │ e   ├─ D   ...V
│   │   │   │ This ├─ N   V
│   │   │   │   │ door open

→

D
├─ D   ... v
│ the boy ├─ N   v
│   │ ↑boy ├─ v   ...D
│   │ ⊢boy │ open+e ├─ D   ...V
│   │   │ ↑   │ this door ├─ N   V
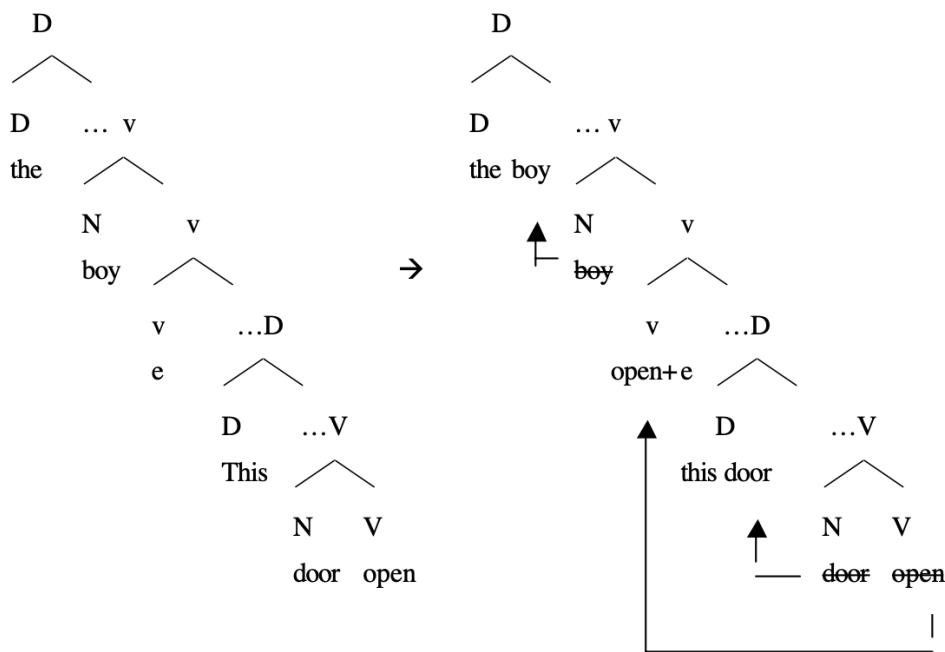│   │   │   │   ↑   │ ── door open
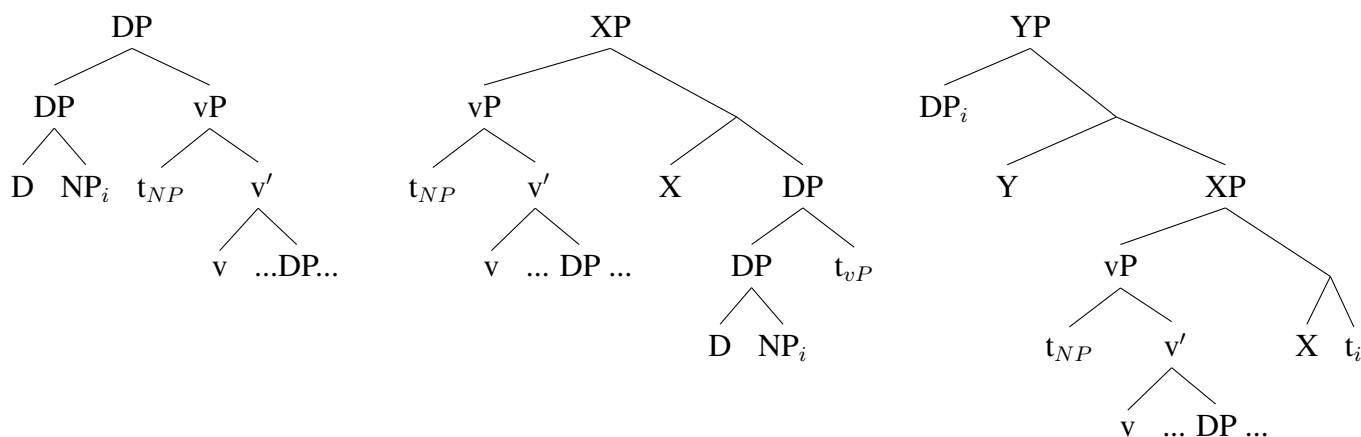
<div align="right">(Sportiche 2005, 54)</div>

It's not clear to me what's going on with the movement of the NP to the Ds... it looks like head movement, but that can't be right in general. That probably has a solution. But my main problem here is that it becomes hard to understand how to capture A-locality in this set-up, when we consider the remnant movement stages required.

Consider the steps when the subject constituent is created by remnant movement of *v*P, followed by movement of the subject constituent to a higher position (where it'll then be more prominent like subjects are):

(44)   Step 1: move NP to D   Step 2: move *v*P over DP   Step 3: move subject DP to higher Spec

Step 1:
DP
├─ DP   vP
│ ├─ D NP_i ├─ t_{NP} v′
│   │   ├─ v   ...DP...

Step 2:
XP
├─ vP   X   DP
│ ├─ t_{NP} v′   ├─ DP t_{vP}
│   ├─ v ... DP ...   │ ├─ D NP_i

Step 3:
YP
├─ DP_i XP
│ ├─ Y   ├─ vP   X t_i
│   │ ├─ t_{NP} v′
│   │   ├─ v ... DP ...

How does this work? Surely whatever Y it is that would attract the subject DP would find the object DP in Spec,XP first. Indeed one needs to assume that's how things work out in smuggling derivations (Collins 2005; see also the papers in Belletti and Collins 2020), where the specifier of X is searched full-depth before the complement of X (see Branan and Erlewine to appear for recent discussion of the technicalities of smuggling). Sportiche's derivations are hard to reconcile with smuggling, and indeed with any version of A-locality I can think of.

I am going to propose what I think is a much simpler version of Sportiche's analysis later on, hopefully capturing the same core insights.

Kayne (2004) on prepositions as probes

Kayne proposes an analysis of *'a*-insertion in *faire*-infinitives where the inserted P is a "probe" which finds the embedded subject and attracts it, with the PP-constituent being formed derivationally with some steps of remnant movement (and head movement in a PP-shell structure).

(45)   (i) *à* merged   (ii) attracts DP_{EA} (iii) *à* head moves to P
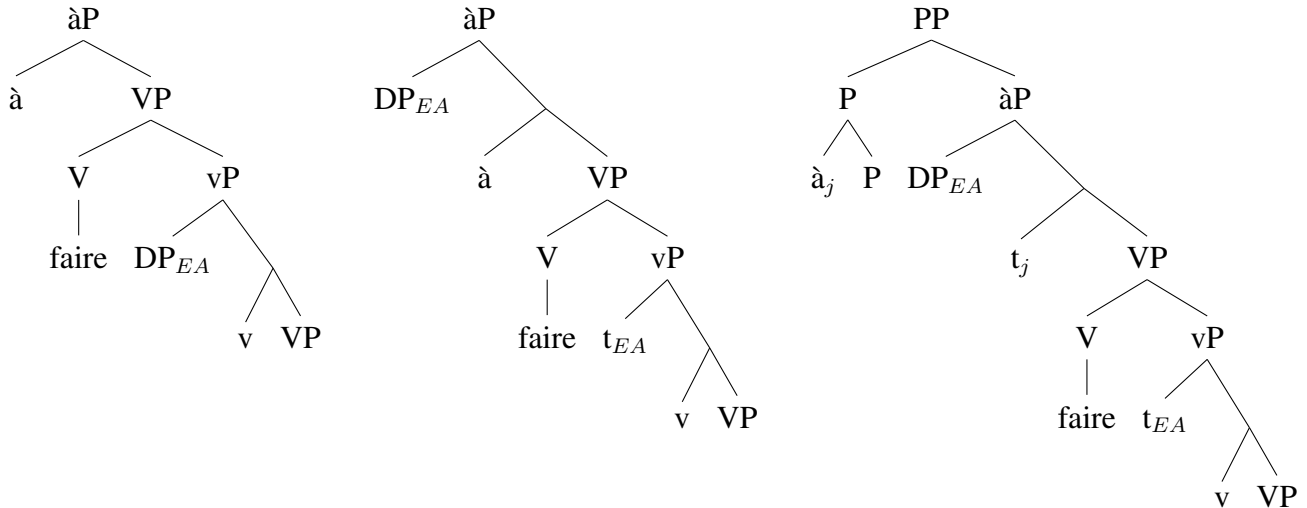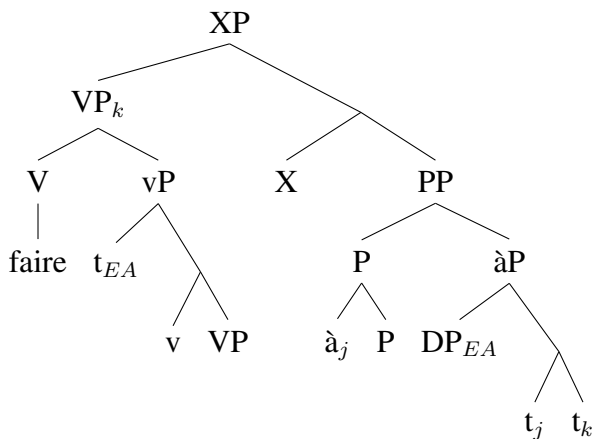

(iv) VP rolls up over PP

The Ps-as-probes analysis is cyclic and ties the availability of the licensing strategy to the *faire*-environment, which seems right. But it involves *à* selecting the *faire*-PP, whereas if anything the opposite should be the case; we don't see Ps selecting verbs much (at all?), whereas ditransitive verbs regularly select PP specifiers in French.

There's also an issue (potentially) with P-D amalgamation:

(46)   Marcel a fait épouser sa fille   **au** médicin.
         Marcel has made marry   his daughter to.the doctor
         'Marcel made his daughter marry the doctor'   (Postal 1989, 2)

In Kayne's structures, the DP is in a specifier of a projection below the P-*à* complex head. It would be ideal if P-D amalgamation involved a local relation like P immediately dominating D (cf. Svenonius 2012), as morphological conflation seems to regularly be confined to such configurations (see e.g. Embick and Noyer 2001). I don't yet have an empirical version of this argument from French, but there is an empirical argument that emerges from Celtic, which was anticipated in McCloskey (1984) to some extent.

Appendix II: raising to P revisited

Standing back a bit, the analysis of inserted Ps is basically raising to the complement of P generalized:

(47)

```
                XP
              /    \
            PP      X'
           /  \    /  \
          P   DP_i X    ...
                        |
                        YP
                       /  \
                     t_i   Y'
                          /  \
                         Y    ...
```
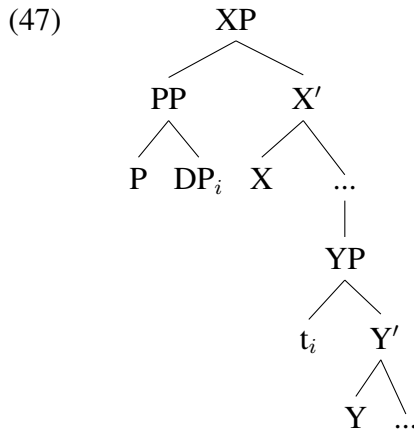
A version of this was proposed by McCloskey (1984) to account for some rather challenging Irish raising facts. I'm going to argue now that the present account explains those facts in a way that other existing accounts do not.

Basics on the Goidelic 'exceptional' raising constructions

In certain Irish and Scottish Gaelic raising constructions, the EA of an embedded clause raises to subject, where it forms a constituent with the Ps *do* (roughly "to") or *le* (roughly "'with") (McCloskey 1984, McCloskey and Sells 1988, Stowell 1989). In Irish, the two prepositions mark the subjects of various constructions, including modal constructions, whereas in Scottish Gaelic *le* is used consistently with subjects which receive experiencer roles (Adger 2022).

(48) Thiocfadh le Ciarán teach a   cheannach.
      come.COND with Ciaran a-house buy.INF
      'Ciaran could buy a house'   (Irish, McCloskey 1984, 448)

(49) Thiocfadh do Chiarán teach a   cheannach.
      come.COND to Ciaran   a-house buy.INF
      'Ciaran could buy a house'   (Irish, McCloskey 1984, 448)

(50) B'   fheàrr leinn   fo   'r cois iad.
      COP.PRES better with.1.PL under our feet them
      'We'd prefer them under our feet.'   (SG, Adger 2022, 3)

(51) B'   fheàrr dhomh bhi 'g obair   air a' bhuntàta.
      COP.PRES better to.1.SG be ASP work.INF on the potatoes
      'I had better work on the potatoes'   (SG, Adger 2022, 4)

McCloskey presents abundant evidence for analysing the dependency (between the lower thematic position, Spec,vP, and the P-marked higher position) in terms of raising. For example, the P-marked subject can be an idiom chunk (62):
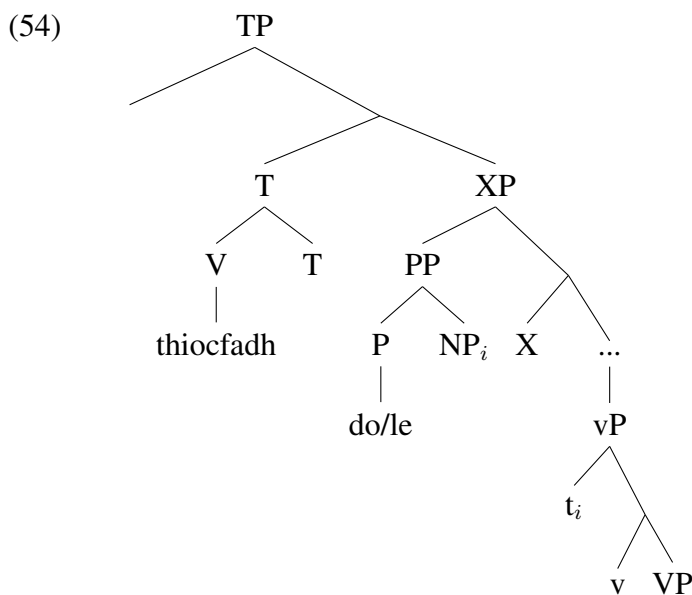
(52) B'   éigean do-n-a ainm a   bheith   i mbéal na ndaoine.
      COP.PST must   to-his name PRT be-NONF in mouth the people-GEN
      "He must have been very famous"   (Irish; McCloskey 1984, 455)

Also the raised subject can be separated from lower predicate by matrix-level adverb, (53).

(53)   Tharla   dó   go minic a   bheith   ar an anás.
        happened to-him often   PRT be-NONF on poverty
        "He often happened to be destitute"   (Irish; McCloskey 1984, 465)

The prepositions are clearly selected by the higher environment, not the embedded infinitive, as they combine somewhat idiomatically with the initial predicate to provide the higher predicate's meaning. There are no restrictions on the lower predicate, beyond basic compatibility with the higher predicate's semantics (e.g. future orientation, stativity).

Therefore these seem to involve raising to the complement of P. This was McCloskey's analysis, and it was somewhat controversial. Here's one updated tree:

(54)

```
                        TP
                   ┌────┴──────┐
                   │           │
                   T           XP
               ┌───┴──┐     ┌──┴────┐
               V      T    PP       │
               │         ┌──┴──┐   ┌┴────┐
           thiocfadh     P   NP_i  X    ...
                         │              │
                       do/le           vP
                                     ┌──┴──┐
                                    t_i    │
                                        ┌──┴──┐
                                        v   VP
```
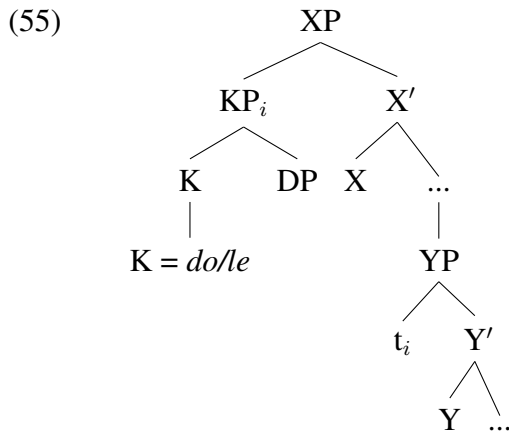
This doesn't suffer the selectional problems, but it violates all other sorts of principles, as Stowell and McCloskey discuss. McCloskey's is a bite the bullet analysis, while Stowell advocates for a reanalysis of these constructions in terms of raising to inherent case, where the Ps are case markers.

The quirky case analysis

Stowell (1989) advocates for a quirky case analysis of *do/le*, and so for him these involve a form of raising to dative. The dative morpheme would still not be selected in the lower position, so it would constitute a LoS problem on modern assumptions (merge-based syntax, piece-based morphology), but it seems others are willing to bite that bullet.

Adger (2022) proposes a workable account of the K analysis in terms of allomorphy, where all DPs (potentially) are KPs and the realisation of K as one case marker or another can be determined by the derived syntactic context. On this analysis, some apparent Ps are actually Ks, and movement to the higher position licenses it.

(55)

```
                    XP
                   /  \
                KPᵢ    X′
               /  \   /  \
              K   DP X   ...
              |          |
          K = do/le     YP
                       /  \
                      tᵢ   Y′
                          /  \
                         Y   ...
```

He claims that this works for *do*, while *le* is a true selected P in SG on his analysis, base-generated in its higher position from which it binds a PRO in the embedded clause. But this won't generalise to Irish, which allows *le* and *do* both in unambiguous raising contexts.

The evidence for a PP analysis

The quirky case analysis fails to capture some important facts which strongly indicate that *do/le* they are true Ps and not case markers.

First, consider **cleft augments**. In Irish and SG, clefts co-occur with a cleft augment which is sensitive to the category of the clefted constituent. This distinguishes (uncontroversial) PPs from DPs in both languages.

In Irish, the the DP-augment is *é* (singular, "it") or *iad* (plural, "them"), and the PP-augment is null.

(56)   Ba   **é** Eoghan a   tháinig isteach.
       COP.PST it Eoghan REL came   in
       'It was Owen who came in'   (McCloskey 1984, 469)

(57)   Is   le Ciarán a   labhraíonn sé
       COP.PRES with Ciaran REL speaks   he
       'It's Ciaran that he speaks to'   (McCloskey 1979, 111)

In Scottish Gaelic, the DP-augment is *e* (invariant), and the PP-augment is *ann*.

(58)   'S   {e / *ann} Calum a   thug   an can do Mhàiri.
       COP.PRES it in.3.SG Calum REL give.PST.IND the cat to Mary
       'It's Calum who gave the cat to Mary'

(59)   'S   {ann / *e} do   Mhàiri a   thug Calum an cat.
       COP.PRES in.3.SG it Calum REL give.PST.IND the cat
       'It's to Mary that Calum gave the cat '

Adger (2011) shows that in SG, the *ann* augment occurs with PPs, APs, AdvPs, AspPs, while the *e* occurs with DPs, including DP predicates, and clauses of all kinds (finite and nonfinite). He argues for a semantic characterisation of the generalisation:

> "While *e* denotes a function that ultimately gives information about an individual, *ann* plays the same role with respect to a situation." (p.4)

The same generalisation appears to hold of Irish, as the augment is required for DPs and absent for PPs, APs and VPs, but I've not yet established the full picture. Note also that this resembles the Breton *rannig*, which is a C-like morpheme that occurs in V2 contexts which seems to "agree in category" with the fronted XP in Spec,CP (Rezac 2004, Weisser 2019) and which picks out DPs as one class and other XPs (AdjPs, AdvPs, PPs, VPs). I'm not yet sure if there is a manifestation of this in Welsh.

Turning to "quirky" subjects, when they are clefted, they don't appear with the augment that occurs with DP-pivots, (60). This is seen with both Ps in this construction Irish, as McCloskey noted.

(60) Is (*é) le Ciarán a thiocfadh a bheith i bhfad ar shiúl.
      COP   with Ciaran C be-INF   far away
      "It Ciaran who could be far away"   (McCloskey 1984, 469)

This is a strong indication that they are PPs! Especially if Adger's semantic account of the cleft augment is right, and indeed if it generalises to Irish.

Things are a bit murkier in Scottish Gaelic clefts. Adger reports that the *le*-based subjects trigger *ann* for some speakers, while others prefer to strand the P.

(61) % 'S ann le Iain as   fheàrr cofaidh
        COP AUG to Iain REL.COP.PRES better coffee
        'It's Iain that prefers coffee'   (Adger 2022, 17)

With *do*-marked subjects, the typical route is to delete the *do* and se the *e* augment. Here the *do* doesn't show up.

(62) 'S e Màiri a bu   chòir a bhidh ann
      COP AUG Mairi REL COP.PST duty PRT be.INF there
      'It's Mary that ought to be there'

Adger doesn't present examples showing that using the *ann* with the full PP is impossible:

(63) [judgment] 'S ann dhomh(se) a bu   chòir a bhidh ann
                  COP AUG to-me   REL COP.PST duty PRT be.VN there
      'It's me that ought to be there.'

He notes (p.c.) that "a couple of speakers... said they'd prefer the dropped version, but one speaker thought that [an equivalent of (62)] was ok but was very bookish, and one speaker... hated it", noting furthermore that the speakers were from different regions. There seems to be some ongoing change in the status of *do* in these constructions.

Second, consider *wh*-questions. An interesting thing about question formed on PPs in Irish and SG is that they typically allow for **pied-piping with inversion**, which is also seen in many Mayan predicate-initial languages.

(64) Cò dha   a thug   e aoigheachd?
      who to.3.M.SG REL give.PST.IND he hospitality
      "Who did he give hospitality to?"   (SG, Mark 2003)

(65) Cé leis   a raibh tú ag caint?
      who with.3.M.SG REL be.PST you PRT talk.VN
      'Who were you talking to?'   (Irish, McCloskey 1979, 94)

This construction is specific to prepositions, and it only occurs with pronominal *wh*-expressions.

In SG, we again see the *le* construction behaving more like a PP, and the *do*-construction less so: the *le* construction allows pied-piping with inversion, while the *do*-construction involves deletion of the P.

(66)   Cò leis   as   fheàrr bainne?
         who with.3SG REL.COP better milk
         'Who prefers milk?'   (SG, Adger 2022, 19)

(67)   *Cò dha   as   fheàr falbh?
         who to.3SG REL.COP better leave.INF
         'Who had better leave?'   (SG, Adger 2022, 19)

(68)   Cò as   fheàr falbh?
         who REL.COP better leave.INF
         'Who had better leave?'   (SG, Adger 2022, 20)

But pied piping with inversion *does* seem to be possible in Irish with the *do*-construction (although this is preliminary data):

(69)   Cé dó   ar   cheart a dhéanamh?
         who to.3.S C.COP.PST right PRT do.INF
         'Who should do it?'

It is very hard to see how the whole set of data could possibly work if P was always a case marker, as I can see no postsyntactic realisation rule that would derive the PPWI structure from a simple case marker.

Morphological evidence against the Ps as probes analysis

Irish also provides a steep challenge to the Kayne (2004) proposal, as anticipated in McCloskey (1984).
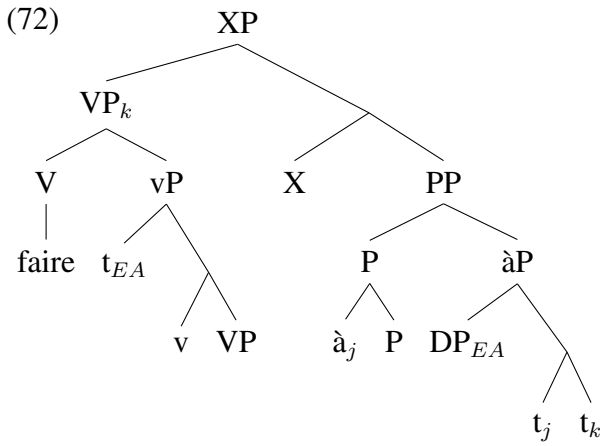
In the Irish raising structures, pronominal arguments of the P incorporate into the P obligatorily. Such a rule seems to be reserved for very local relations, e.g. complementation. (SG is the same.)

(70)   Ní   thig {leis   / *le é} a   bheith i bhfad ar shíul.
         NEG comes with-him with him PRT be-NONF far   away
         "He can't be far away"   (Irish, McCloskey 1984, 461)

Irish and SG also have a range of prepositional complementizers, for instance in control structures, and these seem to involve a constituency like what is expected on Kayne's analysis, i.e. the DP is in a specifier immediately below the P. These definitely don't allow P-incorporation:

(71)   Bhí mé ag feitheamh {le tú / *leat}   an t-airgead a   thabhairt dhomh.
         was I   PRT wait-VN   with you with-you the money   PRT give-NONF to-me
         "I was waiting for you to give me the money"   (p.461)

McCloskey notes this and concludes that the P must be taking the raised DP as its complement. This difference is very hard to account for if raising to P has a Kaynean analysis, since it would look a lot like Kayne's analysis.

(72)

```
                    XP
           ┌────────┴────────┐
         VPₖ                  │
      ┌───┴───┐        ┌──────┴──────┐
      V      vP        X            PP
      │    ┌──┴──┐              ┌────┴────┐
    faire t_EA               P          àP
            ┌──┴──┐       ┌───┴──┐   ┌────┴────┐
            v     VP     à_j     P  DP_EA      │
                                          ┌────┴────┐
                                         t_j       t_k
```
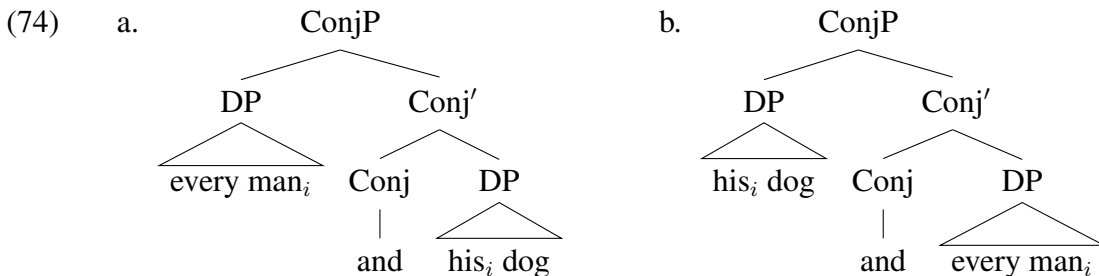
Appendix III: conjunctions

Excised online-only section on conjunctions! Conjunctions are a pain when it comes to selection as well. Why can they slot in any old place without disrupting selection?
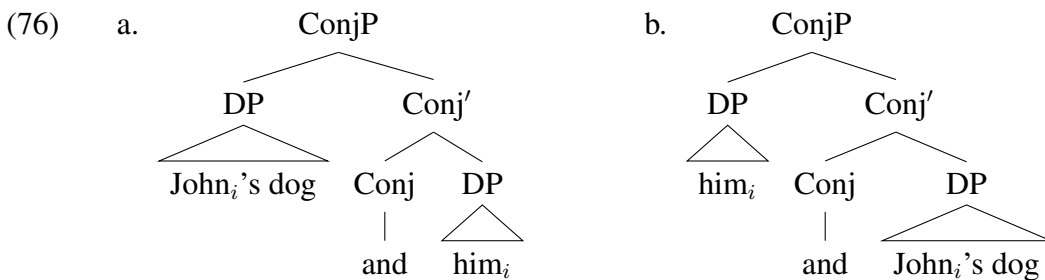
Binary branching and ConjP

The same considerations which thrust VP-shells upon us – binding, X-bar theory – also gave us the idea that coordinations might involve some sort asymmetric embedding of coordinands within a functional structure headed by the conjunction (Munn 1993, 16; see also Zhang 2010, ch.2):

(73) a. [Every man]$_i$ and his$_i$ dog went to mow a meadow.
      b. His$_{*i}$ dog and [every man]$_i$ went to mow a meadow.

(74) a.

```
            ConjP
       ┌──────┴──────┐
      DP           Conj′
       △        ┌────┴────┐
  every man_i  Conj      DP
                │         △
               and     his_i dog
```

b.

```
            ConjP
       ┌──────┴──────┐
      DP           Conj′
       △        ┌────┴────┐
   his_i dog   Conj      DP
                │         △
               and    every man_i
```

(75) a. John's$_i$ dog and him$_i$ went for a walk.
      b. Him$_{*i}$ and John$_i$'s dog went for a walk

(76) a.

```
            ConjP
       ┌──────┴──────┐
      DP           Conj′
       △        ┌────┴────┐
  John_i's dog  Conj      DP
                │         △
               and      him_i
```

b.

```
            ConjP
       ┌──────┴──────┐
      DP           Conj′
       △        ┌────┴────┐
     him_i     Conj      DP
                │         △
               and   John_i's dog
```

For a recent extended defense of this analysis (and many other references) see Weisser (2015).

There's a clear LoS problem here, since the ConjP layer needs to be invisible for selection wrt whatever introduces the coordinated arguments thematically. As far as I know, no language has a predicate that selects ConjP.

ConjP in a derived structure: symmetric predicates

van Craenenbroeck and Johnson (2023): there are reasons to believe that there is a derivational relationship among the following triplets, which are basically all the same meaning-wise.

(77)   a.   Raj married Joan.
          b.   Joan married Raj.
   c.   John and Raj married.

(78)   a.   John met Mary.
          b.   Mary met John.
          c.   John and Mary met.

It's appealing to treat this as an unaccusative-ish sort of alternation. One reason to think of these as unaccusative: these symmetric predicates can't be passivized on their symmetric use.

(79)   a.   Joan was married by Raj.   OK but $\neq$ (77)
          b.   Mary was met by John.   OK but $\neq$ (78)

So the trees might look something like this, where the two arguments start out in some sort of adjunction structure.

(80)
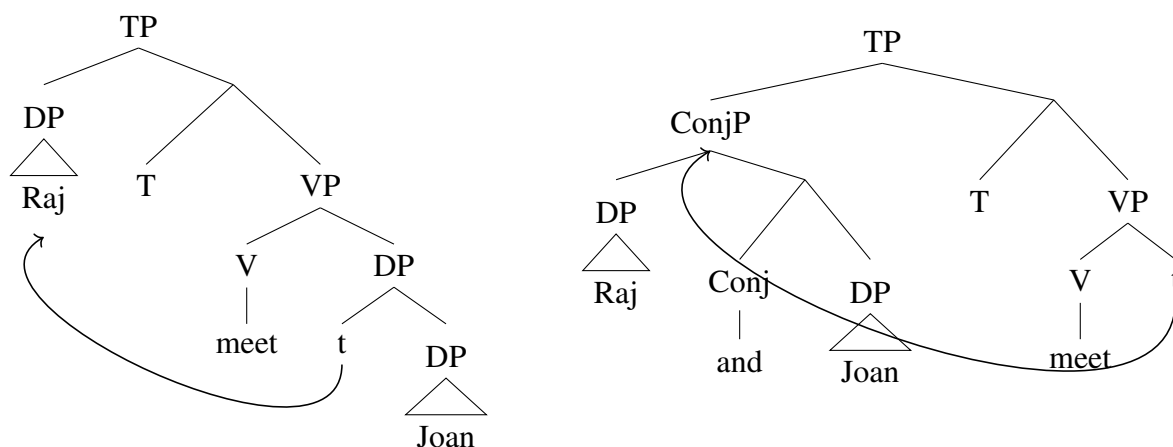
Where did that ConjP structure come from? If these are derivationally related, the *and* must be "inserted" to derive the (c) examples, much like our inserted prepositions. Clearly it's not selected in the complement domain, given that it can be absent in the (a)-(b) examples.

van Craenenbroeck provide further empirical motivation from ellipsis. It seems we can get mismatches between ellipsis clauses and their antecedent wrt the alternations we see here, giving rise to so-called participant-switching VP-ellipsis, (81)-(82), as well as apparent transitivity-mismatching cases too, (83)-(84) (Stockwell 2020).

(81)   John can marry Bill, but Bill SHOULDN'T ~~marry John~~.

(82)   John wanted to meet Mary, and she wanted to ~~meet him~~, too.

(83)   John and Mary wanted to meet, but she didn't want to ~~meet him~~.

(84)   John wanted to meet Mary, and in the end, they did ~~meet~~.

Participant switching is only possible with symmetric predicates; it's ruled out with non-symmetric predicates.

(85)   *Raj should admire Jyoti, but Jyoti CAN'T ~~admire Raj~~.

Transitivity mismatching is possible with VP-ellipsis, in particular in passive-active pairs.

(86)   This can be presented in an informal manner, and I often do ~~present it in an informal manner~~.
        (Merchant, 2013)

But there are limits, as not all such mismatches are possible; for instance with the dative alternation.

(87)   *Someone might show the solution to you, but (in all likelihood,) you WON'T be ~~be shown the solution~~.

Merchant (2013) made a compelling case for these effects being syntactic, where certain diathesis alternations are possible because they involve mismatches with respect to functional structure that's outside the antecedent domain for ellipsis, and others are ruled out because the mismatches are inside the ellipsis domain. van Craenenbroeck and Johnson show that you can account for the possible mismatches with symmetric predicates with a similarly strong syntactic story, if you adopt the unaccusative analysis outlined above. One cost is *and*-insertion, which they do with a prosodic mechanism.

But perhaps we might want to do that in a more syntactic fashion, especially given that coordinators introduce asymmetry of a sort that doesn't fit well with the adjunction structures van Craenenbroeck and Johnson outline (on which see Nevins and Weisser 2019). See also Weisser (2015) for a really interesting argument for syntactically derived coordination coming from clause chaining.
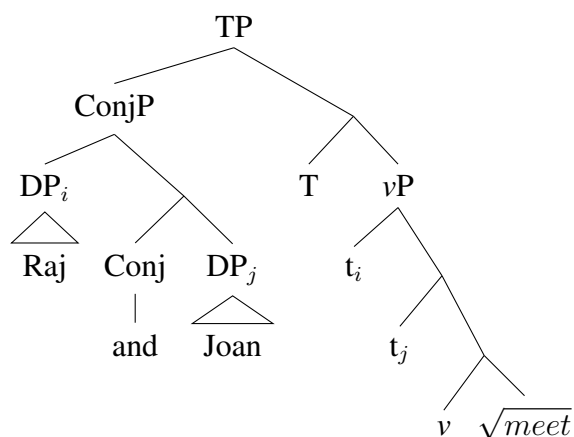
Analysis: inserted conjunctions

Following Weisser (2015), we can pursue an analysis where conjunction starts out in a sort of adjunction analysis, but then the asymmetric coordination structure we know and love is derived once the conjunction is introduced. Here's a simplified version that ignores what I said about DPs earlier:

(88)
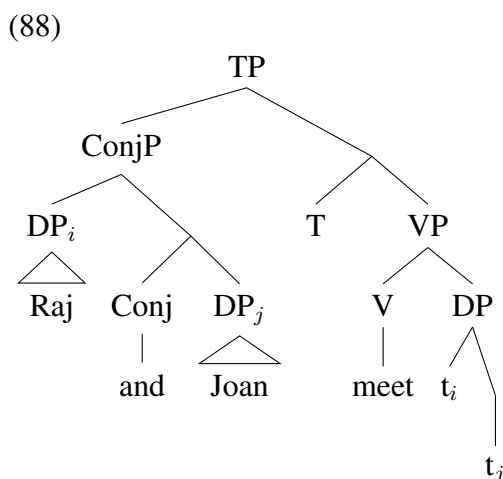
We can also consider an alternative like the following, where the arguments are simply iterated in the thematic positions and the hierarchical arrangements between them are derived purely on the basis of negotiating the introduction of functional structure. Minimally this involves arguments being introduced in specifiers, something I'd assume anyway, and coordination would involve multiple specifiers, something I assume the semantics could handle.
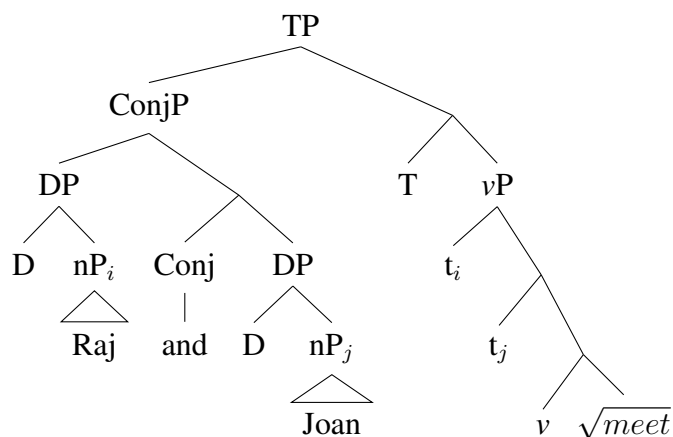
(89)

```
                        TP
              ┌─────────┴─────────┐
           ConjP                  ┌──┴──┐
        ┌────┴────┐               T    vP
      DP_i      ┌──┴──┐              ┌──┴──┐
       △      Conj   DP_j           t_i   │
      Raj      │      △                  ┌─┴──┐
             and    Joan                 t_j  │
                                            ┌─┴──┐
                                            v  √meet
```

I prefer the second version, since (88) raises a question regarding how to avoid pied-piping, and also questions about what's stranded in (88).

Things become more complicated still when we accept that DPs are formed derivationally. The following may be a simplification if DPs are formed by movement to AspP.

(90)

```
                        TP
              ┌─────────┴─────────┐
           ConjP                  ┌──┴──┐
        ┌────┴────┐               T    vP
      DP       ┌───┴───┐             ┌──┴──┐
     ┌─┴──┐  Conj     DP             t_i   │
     D  nP_i   │    ┌──┴──┐                ┌─┴──┐
         △   and   D    nP_j              t_j  │
        Raj              △                    ┌─┴──┐
                        Joan                  v  √meet
```

I see these complications as opening up a range of analytical avenues for understanding the various asymmetries that we find in coordination (Johannessen 1998). It's also possible, as we admitted earlier, that the subject position requires a DP, so if that's the case then we might have a LoS-compatible reason for introducing a D above ConjP which is responsible for negotiating the language-particular processes of agreement resolution that have occupied many syntacticians recently (see Nevins and Weisser 2019 for an excellent overview). So maybe we need something like this:

(91)
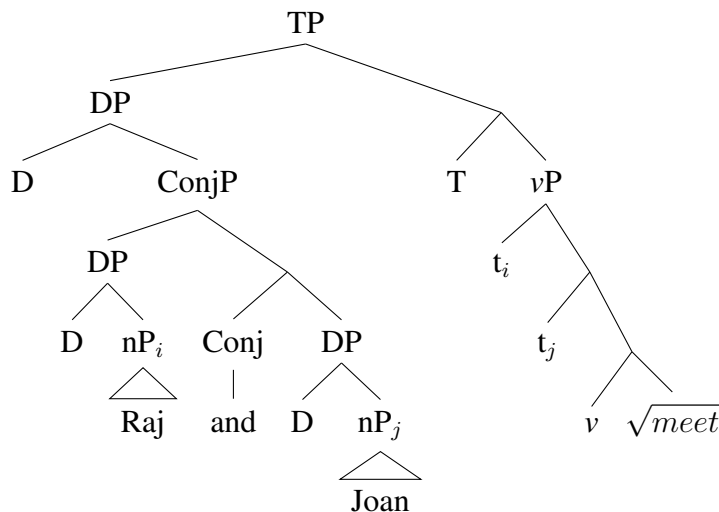
It might be the case that the D and the *and* are both necessary to ensure the multiple nominals can take scope. That taking scope is relevant seems to be suggested by the fact that our *every man and his dog* cases seem to be able to allow singular agreement, unlike other cases where there's no binding from one conjunct into the other.

(92)   a.   Every boy and his dog was/??were there.
          b.   Raj and Joan *was/were there.

What's important about this analytical route is that the representation in the "trace" position(s) – below the surface position, and presumably in a different position relative to the T probe – are distinct from the one in the derived position. The mysteries of conjunct agreement could be seen as another case of conflicting representations, and we might be able to keep agreement simple while allowing the conflicts between the different representations be the crucial factor in determining the patterns we find.

One last question: why would we do something like this with syntax? Or, more pertinently, why would learners land on such complex derivations? This question is at its sharpest with coordination I think. The answer I'd offer is general to the other cases before, and it's that kids are conservative learners and they are very intransigent about giving up on selectional rules that they learn at an early age.[6] Thus they learn "V selects N" very early – maybe it's the first true syntax rule they learn – and don't give up on it, ever; it's too deeply embedded. When they learn "D selects NP", which comes later, they're forced to do something other than just step-by-step external merge to derive a single-rooted result that allows both rules to be satisfied; that is, they need a layering derivation and to remerge the DP formed on the side into the main root.

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[6]The ideas here developed very much in parallel with those expressed in Diercks et al. (2023), who I've benefitted from discussing these issues with.