The representation of selection in syntax

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1 Introduction

- This talk revisits some puzzles about selection:
  - locality of selection, "anti-selection" for DP, smuggling

  - **Main takeaway**: restrictions on the content of syntactic features can explain the locality of different kinds of selectional relationships
    - **Proposal**: the content of syntactic selectional features are restricted by the following principle(s):

(1) The Sparse Feature theory:
Syntactic Merge-inducing features refer to abstract, syntactic properties.

    - **Consequence**: features that might have been posited in other theories must get replaced with an *underspecified* syntactic feature if they do not meet the criteria in (1).

(2) [·X·]: a merge-inducing feature that can be checked by a phrase of any category (Newman, 2024b)

  - Which features get replaced by [·X·]?
    - Any feature used to represent a non-syntactic selectional relationship: e.g. s(emantic) selection or l(exical) selection.

- Outline of talk:
  - §2 outlines the feature-checking system that I will adopt, and introduces [·X·]
  - §3 revisits puzzles about the locality of selection and predicts the relative configurations of complements and specifiers in two contexts: 1) l-selection of prepositions and complementizers, and 2) smuggling derivations.
  - §4 revisits an old puzzle about c-selection and s-selection, in which some verbs appear to select for anything but DP. I argue that representing s-selection with [·X·] resolves it, provided we reanalyze verbs like *wonder* as unaccusative.
  - §5 shows some l-selection facts in Passamaquoddy-Wolastoqey that I've been looking at recently, which show the same locality restriction within the verbal morphology.

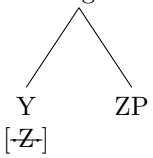
2 A sparse theory of features and feature-checking

- Theoretical background: a feature-driven approach to Merge
  - Lexical requirements are encoded as syntactic Merge-inducing features (Chomsky, 1995; Adger, 2003; Pesetsky and Torrego, 2006; Heck and Müller, 2007; Müller, 2010; Longenbaugh, 2019; Newman, 2024b, a.o.).

*Many thanks to the audience at the "Locality across the board" workshop for their helpful feedback and encouragement on this project. An especially large thanks to David Pesetsky for listening to me talk about this for years, and for making me finally write it up properly. Another thank you to Peter Grishin and Norvin Richards for teaching me so much about Passamaquoddy syntax, and to our language consultants: Dolly Apt, Edwina Mitchell, Grace Paul, and Roger Paul for sharing their language. All mistakes are my own.

(3) **Last Resort** (Chomsky, 2000, 2001)
α can only target K if a feature of either α or K is checked by the operation

(4) ZP merges in order to check [·Z·] on Y



(5) [·α·] = an instruction to Merge with an element bearing [α] (Heck and Müller, 2007; Müller, 2010)

- Heck and Müller use these features to encode c-selection.
  - But what if a lexical item selects for something without c-selecting it?

(6) [·X·]: a merge-inducing feature that can be checked by a phrase of any category

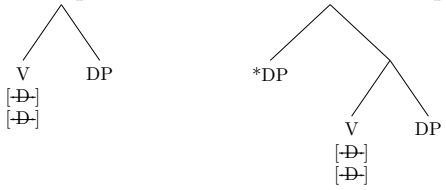
- The significance of an underspecified feature: how it interacts with economy conditions on feature-checking.
  - Chomsky (1995); Pesetsky and Torrego (2001); Rezac (2013); van Urk and Richards (2015); Longenbaugh (2019): a single instance of Merge can check multiple features (based on Chomsky's Free Rider condition).
    - Importantly, the Free Rider condition is not a global economy condition: it does not tell the derivation which elements to Merge. Rather, if something merges, it regulates how many requirements of a head are satisfied as a result.

(7) Free Rider/Feature Maximality condition: Given a head H with features [F_1]...[F_n], if XP discharges [F_i], XP must also discharge each [F_j] that it is capable of (Chomsky, 1995; Pesetsky and Torrego, 2001; Rezac, 2013; van Urk and Richards, 2015; Longenbaugh, 2019).

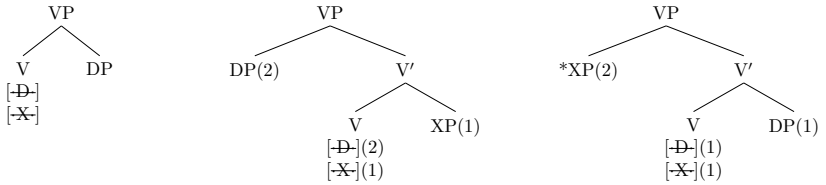
- Some consequences:

1. No head can c-select two arguments of the same category.
2. Phrases introduced by [·X·] must be complements.

(8) Consequence: no c-selection for multiple phrases of the same category



(9) *The non-DP first theorem*: if V merges with a non-DP (licensed by [·X·]), the non-DP must merge first. (Newman, 2024b)



- In my book, I looked at how the content of Merge-inducing features affects phrase structure.
  - **Today**: the relationship between Merge-inducing features and the kinds of selectional relationships that verbs might have.
    - **Proposal**: while c-selection maps to specific syntactic features on heads, other selectional relationships (s-selection, l-selection), being non-syntactic, do not.
    - Motivated by the following desiderata about the content of syntactic Merge-inducing features.

(10) Desiderata on the content of Merge-inducing features:
  a. Merge-inducing features refer to *abstract* properties.
  b. Merge-inducing features refer to *syntactic* properties.

  - **Conjecture**: there are no syntactic properties that map perfectly to semantic types or lexical items.
    - [·X·] is invoked when there is no syntactic property available to characterize the selectional relationship.

3 The locality of selection

- Chomsky (1965) proposed that two sorts of rules regulated the relationship between a head and its structural context.
  - *Subcategorization*: the (arbitrary) structural requirements that a head imposes on the head of its complement(s) (e.g. functional sequence, selection for specific complementizers/prepositions).

(11) Subcategorization frames from (Chomsky, 1965, p.94, ex.40)
  a. V → CS/_ α, where α is a string such that Vα is a VP (general rule)
  b. V → CS/_ *that* S′ (example for a verb like *say*)

  - *Selection*: the relationship between a verb and its arguments:
    - Used to introduce either complements or specifiers, and could impose featural restrictions on those phrases, such as whether they were animate, concrete, etc.

(12) Selectional rules for subjects and objects (Chomsky, 1965, p.95, ex.42)
  a. [+V] → CS/ [+Abstract] Aux ___
  b. [+V] → CS/ [-Abstract] Aux ___
  c. [+V] → CS/ ___ Det [+Animate]
  d. [+V] → CS/ ___ Det [-Animate]

(13) Corresponding English verbs with the above selectional requirements
  a. Sincerity frightens the boy. (12a,c)
  b. The boy fears sincerity. (12b,d)

  - The differences between *subcategorization* and *selection*:
    - 1) their locality profile, and 2) their inputs.
    - Subcategorization regulated head-head relations and only introduced complements; selection regulated head-feature relations and introduced both complements and specifiers.

- Later work re-drew of the typology of selectional relationships.
  - One reason for this was the VP-internal subject hypothesis: not all specifiers are arguments of the head that attracted them.
  - For this and other reasons, authors like Grimshaw and Pesetsky suggested that we distinguish selectional rules from each other according to other parameters.
    - Grimshaw (1979): s(emantic)-selection and c(ategory)-selection
    - Pesetsky (1982) added l(exical)-selection for other cases where there was no obvious semantic type or syntactic category to appeal to.

- This redrawing of the typology of selectional rules has been successful in many ways – but it obscures the locality puzzle.
  - Some selected elements must be complements, which we will capture with the Sparse feature theory.
    - Up next: l-selection of prepositions/complementizers and the organization of functional heads in the verbal domain.

3.1 L-selection of P and C

- A special subcase of Pesetsky's *l-selection*: when heads require the heads of their complements to be a specific preposition or complementizer.

(14) L-selection (based on Merchant 2019)
A head H_1 *l-selects* for a head H_2 if H_2 must be realized as a specific lexical item.

(15) Verbs l-select for certain prepositions
  a. Wallace **depended** *on*/**to*... Gromit's intelligence.
  b. Gromit **bristled** *at*/**on*... Wallace's hubris.

(16) Verbs l-select for certain complementizers
  a. Wallace **arranged** *for*/**that*... Gromit to win.
  b. Gromit **said** *that*/**for*... Wallace would win.

  - Neeleman (1997): l-selection of prepositions only occurs with complement PPs, not specifier PPs.
    - PP subjects do not have the same profile as l-selected PP complements: their interpretation is predictable from the choice of preposition rather than from the choice of verb.

(17) PP subjects are interpreted according to the meaning of P, not V
  a. **Under the bed** is a good hiding place.
  interpretation of 'under the bed' = location

b. **Into the room** walked the students.
interpretation of 'into the room' = goal

- The aspects of (15-16) that are most puzzling:
  - The specificity of the relationship as well as its locality profile. Rather than being satisfied by a feature or semantic type, head 1 demands that a *particular lexical item* be head 2.
  - Furthermore, head 2 heads the *complement* of head 1.
- CP arguments appear to have the same profile: can have C l-selected when CP is a complement but not a specifier.

(18) C heads of clausal subjects not conditioned by verb choice.
a. [That Wallace could win the race] would interest me.
b. [For Wallace to win the race] would interest me.
c. [Whether Wallace wins the race] would interest me.

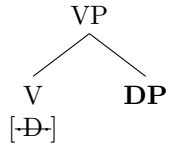
- Many other languages restrict the forms of their clausal subjects in some way, by requiring a special complementizer, tense/mood, case marker or demonstrative, for example (see Hartman 2012 for an overview).
  - In languages with such restrictions, however, it doesn't appear to be the *verb* that conditions these choices, but rather language-wide requirements on the forms of subjects.

- What kinds of features could represent these relationships?
  - For c-selection, the choice is clear: a requirement to merge with an element of a particular category is represented as a Merge feature specified for that category.

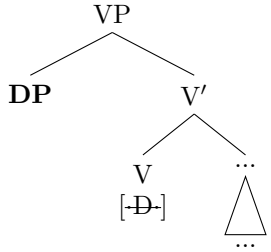
(19) C-selection: a selectional relationship characterized by syntactic category, represented by the presence of $[\cdot\alpha\cdot]$ on a head, where α is a syntactic category

  - Merge features can be checked by any instance of Merge: c-selection therefore may be satisfied by complements or specifiers.

(20) Checking a feature via complementation



(21) Checking a feature via specifier formation



(22) Different verbs that select for DP
a. Wallace built <u>a rocket</u>. DP = complement
b. Wallace put <u>a rocket</u> on the moon. DP = specifier

- The question is: what feature(s) is used to describe l-selection?
  - Any specific syntactic feature will be a poor choice: it is not the *syntactic properties* of *on* or *for* that are selected in (15,16), it is the lexical items *themselves* that are.
  - **An idea from Merchant**: we could add features like $[\cdot on\cdot]$ and $[\cdot for\cdot]$ to the inventory of Merge-inducing features for the purposes of describing l-selection.
    - **Problems**:
      - What is the principle that makes these features part of the inventory of Merge-inducing features? Do we also have ($[\cdot cat\cdot]$, $[\cdot run\cdot]$, $[\cdot on\cdot]$...) for every lexical item?
      - The locality profile: what prevents $[\cdot on\cdot]$ from being checked by a specifier?
- The Sparse Feature theory avoids both problems by restricting syntactic features.

- No lexical items correspond to Merge-inducing features, only abstract properties do. If a category isn't the right choice, [·X·] is used, which can only be checked by complements.[1]

(23) *Selection of complements theorem*:
Phrases introduced by [·X·] are complements.

(24) L-selection (updated)
A head H_1 *l-selects* for a head H_2 if H_2 must be realized as a specific lexical item.
Syntactic representation: [·X·]

3.1.1 What enforces l-selection?

- On this proposal, the syntactic representation of l-selection does not actually specify the choice of lexical item: the syntax only knows that something needs to merge, but cannot specify that it needs to be a phrase headed by *on*, for example.
  - In that case, what actually enforces l-selection?
  - Consider two observations: 1) cases of optional l-selection, and 2) cases of l-selection for multiple prepositions.

(25) *React* optionally l-selects a phrase headed by *to*, but does not require an object.
  a. Wallace reacted (when the doctor tapped his knee).
  b. Wallace reacted **to**/*on/*in... the doctor's tap.

(26) *Trust* optionally l-selects a phrase headed by *in*, but can alternatively take a DP or CP complement.
  a. Gromit trusted Wallace.
  b. Gromit trusted **in**/*on/*to... Wallace.
  c. Gromit trusted that Wallace would arrive on time.

[1] A potential counterexample to the claim that the heads of specifiers are never l-selected could come from quirky subjects. Verbs whose subjects must have a special case (e.g. dative, genitive) could be an instance of l-selection for a particular case feature/head on their specifier. I leave investigation of quirky subjects aside here because they raise several other issues that are not obviously connected with l-selection. First, their status as base-generated specifiers needs to be further examined – as dative subjects in some languages are realized as rightward experiencer PPs in other languages, one could imagine the possibility that they are actually base generated as complements, which later raise to subject position. Second, the status of quirky case as being l-selected vs. featural/assigned is not well established. Thus, further work is needed to understand whether quirky subjects are actually counterexamples to the generalization that l-selected elements are always complements.

(27) *Look* optionally l-selects phrases headed by various prepositions, where the choice of preposition affects the interpretation of *look*.
  a. Wallace looked **at** Gromit.
  b. Gromit looked **after** Wallace.

- **Proposal**: the l-selected preposition in each case is not enforced by the syntax but rather by the semantics.
  - The verb clearly *does not* require a phrase headed by a particular preposition as its complement.
  - However, the verb may only acquire certain *interpretations* in the presence of phrases headed by those prepositions, in a non-compositional way.
- The syntax is indeed agnostic about the form of the complement, as [·X·] suggests.
  - But the choice of complement affects interpretation.
- **A puzzle**: verbs like *depend*, which really do require a complement headed by *on*.
  - **Proposal**: *depend* is like a *cran-* morpheme.

(28) a. Sue sat **on the bus**. *bus = location*
  b. Sue depended **on the bus**. *bus = dependee*

(29) Meanings associated with *on*:
  a. designates its argument as a *location*
  b. designates its argument as a *theme* in the context of verbs like *depend/rely*

    - The preposition *on* has a meaning outside of its l-selected use. Apparently the same is not true of *depend* – it only acquires a meaning in the context of *on*.

- **Summary**: heads may be picky about the heads of their complements but not their specifiers
  - Explained if the feature responsible for introducing such phrases is only checked by complements.
  - An underspecified feature ensures this, and is also the most accurate characterization of the selectional relationship in these cases.

- The underspecified nature of this feature allows heads like *trust* to satisfy it with a range of elements, where the interfaces may constrain the interpretations that result from some of these choices.

- In cases where heads are *cran-* morphemes, the options for satisfying [·X·] become more limited, as with *depend*.

3.2 The functional hierarchy and smuggling

- **Takeaway from the above**: there isn't a perfect relationship between Merge-inducing features and selectional requirements.

  - There can be selectional requirements with no syntactic correlate, in which case the best the syntax can do is provide an underspecified feature.

  - There can also be Merge-inducing features that don't represent a selectional requirement for an argument at all (e.g. EPP requirements).

    - An example of the latter: raising to object.

(30) *Believe* selects for one argument, may merge with two phrases
  a. Sue believed [the story].
  b. Sue believed [that the world is round].
  c. Sue believed [the world] (with all her heart) [to be round].

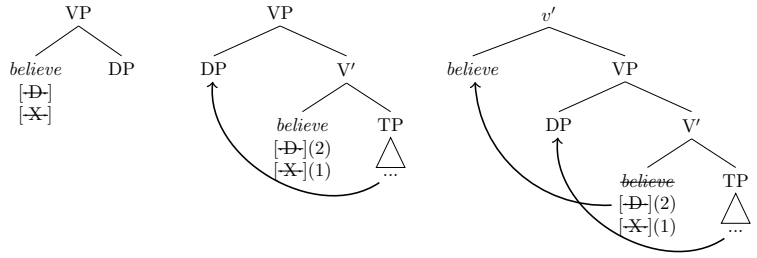
  - The selected argument can be a DP, TP or CP.

    - The raised argument can only be a DP.

(31) *Sue believed [into the room] to have walked the soldiers.

(32) a. Wallace believed Gromit's side of the story.
  b. *Wallace believed [of the story] Gromit's side.

(33) *Raising to object*: if V merges with a non-DP (licensed by [·X·]), a DP may raise to check [·D·] (V moves to v, deriving the right word order)



- Observation: raising to object is not the only case of this kind of phenomenon.

  - "Smuggling" shows the same pattern: v attracts VP as a specifier when something else merges as its complement.

    - Three cases of smuggling: Collins (2005, 2024) on the passive, Newman (2024a) and Collins (2024) on the position of VP in ditransitives, and a VP-fronting approach to Romance causatives dating back to Kayne (1975).

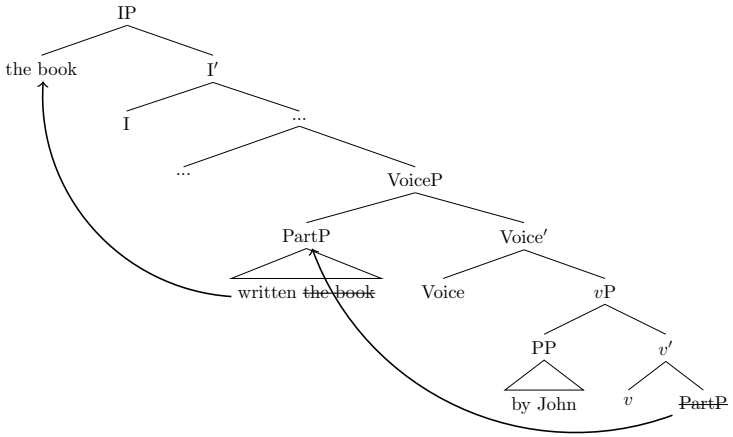
3.2.1 Passives and ditransitives

- Collins: passive clauses merge external arguments in the same position as in active clauses, but have different verbal structure.

  - Supporting evidence: binding/scope reconstruction showing that the passive agent c-commands the base position of the direct object.

    - Since raising the object past the subject would violate minimality, he proposes that structure containing the object moves first, smuggling the object to a position from which it can raise to Spec TP.

(34) Collins (2005, 2024): smuggling the object past the subject



- This kind of fronting doesn't only happen when the object needs to move to subject position.

  - Smuggling is also sometimes proposed to capture scope reconstruction facts between objects of a ditransitive.

- In the double object construction, the indirect object can bind a variable inside the direct object, but not vice versa (36a,d).

- In the prepositional dative construction, by contrast, either object can bind a variable inside the other (36b,c). (Barss and Lasnik, 1986; Larson, 1988; Kitagawa, 1994; Takano, 1998; Harley and Miyagawa, 2017)

(35) The two ditransitives:

a. The boss gave the employee a paycheck. *Double object*

b. The boss gave a paycheck to the employee. *Prepositional dative*

(36) Asymmetric tolerance for backwards variable binding (Collins, 2024, 137)

a. John gave every man his paycheck. *Double object*

b. ?John gave his paycheck to every man. *Prepositional dative*

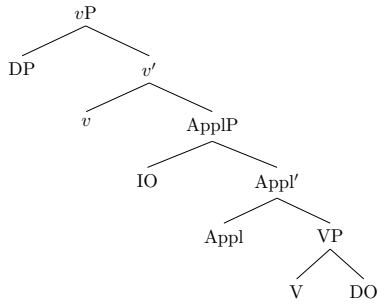
c. John gave every dog to its owner. *Prepositional dative*

d. *John gave its owner every dog. *Double object*

▸ Collins' approach: the prepositional dative construction is derived from the double ojbect construction by fronting VP across the indirect object to a higher position (as in (39)).

- Starts with a high applicative construction:

(37) High applicative structure of Pylkkänen (2008)



- His proposal is slightly more complicated than this, but if VP moves to Spec vP in the prepositional dative construction, the DO can be interpreted either within the scope of IO, or not, depending on whether VP reconstructs.

◆ In Newman (2024a), I also consider a smuggling derivation in certain ditransitives, but for a different reason.

▸ A puzzle about double object constructions is that they allow "symmetric passivization" in many languages: in a passive, either the direct or indirect object may raise to subject position (38).

- Holmberg et al. (2019) discuss a number of such symmetric languages including: Norwegian, North-West British English, Zulu, Lubukusu, Xhosa (Visser, 1986), Swati (Woolford, 1995), Haya (Duranti and Byarushengo, 1977), Fuliiru (Van Otterloo, 2011), Sotho (Morolong and Hyman, 1977), and Tswana (Creissels, 2002) (this is not meant to be a comprehensive list).

(38) *Norwegian symmetric passives of double object constructions* (Haddican and Holmberg, 2015, ex. 2, p. 146)

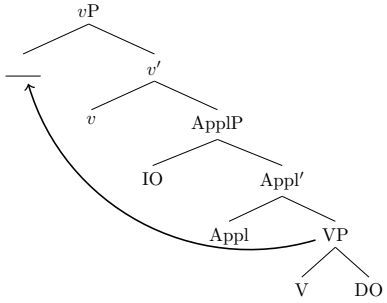
a. Jeg ble gitt _ Paralgin Forte.
I was given Paralgin Forte
'I was given Paralgin Forte.'

b. Lånet ble gitt meg _.
the.loan was given me
'The loan was given to me.'

▸ The puzzle is how to derive this symmetry from the structure in (37), in which the IO asymmetrically c-commands the DO.

- Smuggling solves the problem: if VP can raise past the indirect object, smuggling the direct object to a high position, the direct object could raise to Spec TP without without violating minimality.

(39) VP smuggling in a ditransitive



◆ These analyses of smuggling raise a question: what are the circumstances that lead to smuggling?

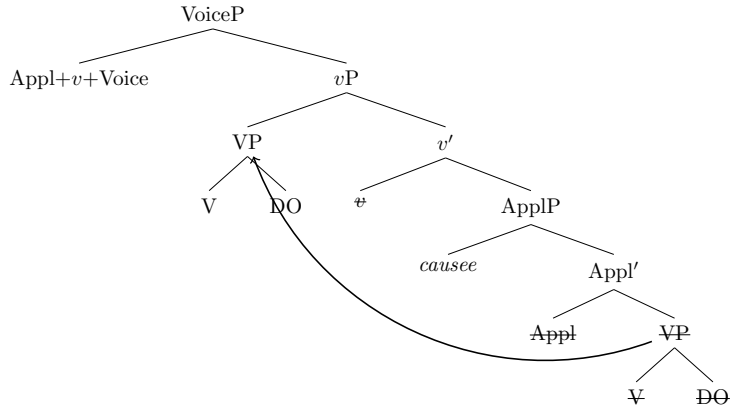
▸ The locality argument might lead one to expect that smuggling arises only when the direct object wants to raise past an intervening DP.

- But this doesn't cover the dative alternation case, or Romance causatives.

3.2.2 Romance causatives

- Smuggling is proposed for *faire*-infinitives across different Romance languages (Kayne, 1975; Zubizarreta, 1985; Burzio, 1986; Pitteroff and Campanini, 2013; Belletti, 2017, 2020; Pineda and Sheehan, 2023).
  - In some versions of this analysis, the *faire*-infinitive is represented as an ApplP, whose subject is interpreted as the *causee*. The VP inside it is proposed to undergo movement to a higher specifier position.

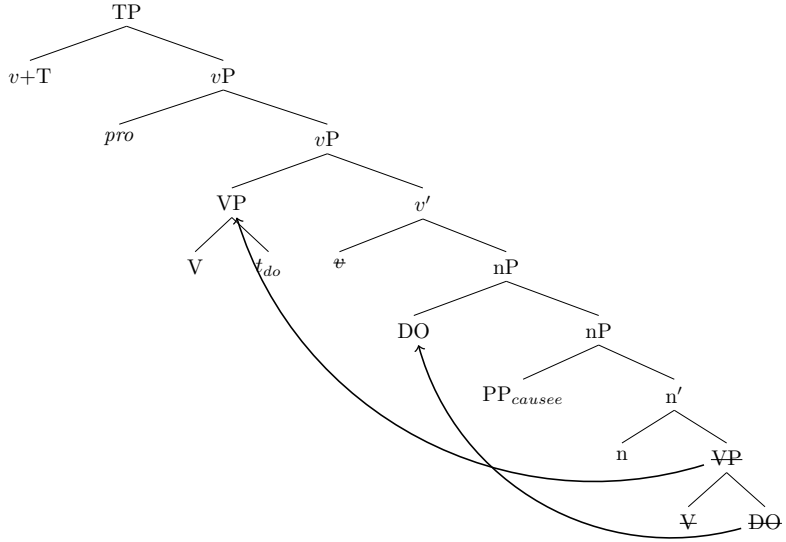
(40) A smuggling approach to Romance *faire* causatives (Pitteroff and Campanini, 2013, 227, with adjusted notation)(Pitteroff & Campanini 2013: 227)



(41) He fet [$_{VP}$comprar {un llibre}] [$_{causee}$a la Núria {#un llibre}].
have.1SG made buy.INF a book to the Núria a book
'I made Núria buy a book.' (Pineda and Sheehan 2023: ex. 17, p. 192)

- Sheehan and Cyrino (2016) also extend a smuggling account to Romance *faire-par* causatives, adapting proposals from Guasti (1993, 1996); Folli and Harley (2007).
  - In the *faire-par* construction, the complement of v is a nominalized passive clause, whose passive agent is interpreted as a causee.

(42) VP-fronting out of a nominalized VP in French/Italian/RP Spanish Faire-par infinitives (Sheehan et. al 2016: ex. 22)

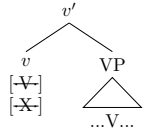


(43) Se hicieron [construir una casa (por un grupo de arquitectors)].
SE made.3PL build a house by a group of architects
'They had a house built by a group of architects.' *Spanish* (Sheehan and Cyrino, 2016, ex. 1e)

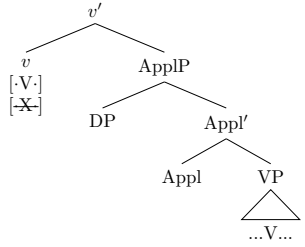
- If all of these proposals are right, the following must be true:
  - v can in principle merge with a range of complement types: VP, PartP, ApplP, nP.
    - The default is for v to merge with a VP complement.
    - But if v merges with something else, VP-fronting (smuggling) occurs.

- **Proposal**: smuggling is like raising to object but with v and VP instead of V and DP.
  - v has [·V·] to define the default case, but also [·X·] to license other options.
    - v only selects for one phrase, but if that phrases is a non-VP, smuggling occurs.

(44) Default: VP checks [·V·] and [·X·]

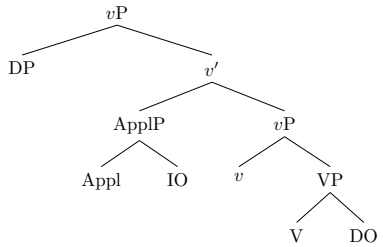


(45) Ditransitives: Appl checks [·X·] but not [·V·]



- What are the alternatives?
  - We could have posited [·n·], [·Appl·], or [·Part·] features as well.
    - **Problems**:
      - The same v seems to be used in all of these constructions (same morpheme, same meaning, same ability to introduce an external argument).
      - So if one of these v heads has a [·V·] or a [·n·] or a [·Appl·] or a [·Part·], they all must have all of those.
      - So what prevents the following structure?

(46) An imaginable but not adopted structure with ApplP



  - The Sparse feature theory rules out some of these features: [·Appl·] and [·Part·] don't refer to abstract properties, but rather morphemes (lexical items).
    - Thus, the Sparse theory doesn't overgenerate structures like (46).
- When v selects for a non-VP complement, VP raises to Spec vP, just as when V selects for a non-DP argument, DP raises to Spec VP.
  - This pattern is derived from interactions between specific and non-specific features on a head, in cases where the head only selects for one phrase.

4 A note on c- and s-selection

- We have discussed selectional features for l-selection, c-selection, and the functional hierarchy.
  - What about s-selection?
  - S-selection is when the kind of argument is predictable from its meaning rather than form.
    - E.g. *ask* selects a question, which can have multiple syntactic forms.

(47) *Ask* s-selects for Q(uestion), satisfied by CP, DP, PP
  a. John asked me [$_{CP}$what the time was].
  b. John asked me [$_{DP}$the time].
  c. John asked me [$_{PP}$about the time].

- By hypothesis, syntactic properties are distinct from semantic ones, so there are no syntactic features specified for semantic types.
  - The best the syntax can do is [·X·], for introducing s-selected elements, which can be checked by any of the above phrases.
    - Puzzle from Grimshaw (1979): verbs like *inquire* have the same semantic requirements but different syntactic ones.

(48) V s-selects Q, satisfied by CP but not DP
  a. John wondered [$_{CP}$what the time was].
  b. *John wondered [$_{DP}$the time].
  c. Mary cares [$_{CP}$where we are going].
  d. *Mary cares [$_{DP}$our destination].
  e. Bill inquired [$_{CP}$how old I was].
  f. *Bill inquired [$_{DP}$my age].

- Pesetsky (1982): these verbs exhibit an *anything but DP* selectional profile. Can also select PP in some cases.

(49) Bill inquired **about** my age.

- How do we capture an *anything but DP* selectional pattern with features?
  - Option 1: posit rampant homophony in the lexicon. (not very explanatory)
  - Option 2: invoke [·X·] again. (needs something extra to get the distinction between *ask* and *inquire*

(50) Homophony approach: *Ask* can be associated with 3 different feature bundles
  a. [·C·]
  b. [·P·]
  c. [·D·]

(51) Homophony approach: *Wonder* can be associated with 2 different feature bundles
  a. [·C·]
  b. [·P·]

(52) The same feature bundle for *ask* and *wonder*: [·X·]

  - Since [·X·] can be checked by any element, this proposal makes the right predictions for *ask*, but not for *wonder*, which can't have a DP complement.

- Pesetsky proposes that Case Theory rather than c-selection is an ideal candidate for regulating the distribution of DPs in this case.

(53) Q can range over CPs or DPs, but DPs (unlike CPs) need case
  a. ask: [+___ Q], [+objective case]
  b. wonder: [+___ Q], [-objective case]

(54) A re-writing of the idea in a feature-driven framework:
  a. ask:
  c-selection: [·X·]
  s-selection: Q
  case assignment: +case
  b. wonder:
  c-selection: [·X·]
  s-selection: Q
  case assignment: -case

- In support of this approach, Pesetsky shows that verbs like *ask* can be passivized, while verbs like *wonder* cannot.

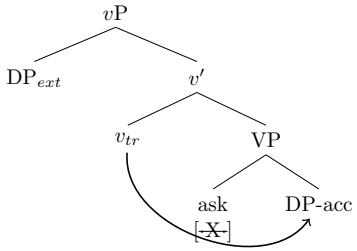
(55) a. It is not known whether John ever arrived.
  b. It was asked when Mary would be there.
  c. It has been guessed why you're here.
  d. *It is not cared what time it is.
  e. *It was inquired who killed Caesar.
  f. *It has been wondered where John went.

- **The problem**: it's not clear that accusative case assignment is actually determined by properties of V.
  - Burzio's generalization, long passives, dependent case theory, etc. suggest that properties of v play a more important role in predicting whether accusative case gets assigned than V.

4.1 An alternative approach

- If v is responsible for determining whether accusative case gets assigned...

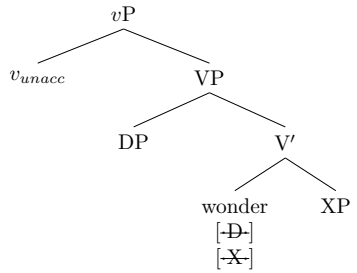
(56) *Ask* combines with transitive v



  - This raises the question of what properties the v head should have that combines with *wonder*.
    - If transitive v is chosen, *wonder*'s complement should be able to get case → wrong result.

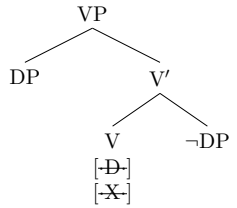
- **Alternative hypothesis**: what if unaccusative v is chosen?
  - Then, *wonder*'s subject had better start out in Spec VP, not Spec vP.

(57) *Wonder* combines with unaccusative v



- If *wonder* needs to merge a DP and something else, that other phrase had better not be a DP, or it would bleed the specifier.
  - **Result**: treating *wonder* as a ditransitive unaccusative explains the category restriction on its complement, and also its inability to participate in the passive alternation.

(58) Feature bundle for V that s-selects a Question and another argument: [·D·], [·X·], where [·X·] cannot be checked by a DP due to (7).



- Is *wonder* really unaccusative?
  - Some unaccusativity diagnostics in German and Dutch suggest it might be!

(59) German *fragen* vs. *sich fragen* (Nina Haslinger, p.c.)

a. Er fragt [wie lange der Film dauert].
he asks how long the movie lasts
'He asks how long the movie is.'

b. Er fragt **sich** [wie lange der Film dauert].
he asks REFL how long the movie lasts
'He wonders how long the movie is.'

(60) Impersonal passives with *fragen* vs. *sich fragen* (Nina Haslinger, p.c.)

a. Es wurde gefragt [wie lange der Film dauert].
it was ask.PTCP how long the movie lasts
'It was asked how long the movie is.'

b. *Es wurde **sich** gefragt [wie lange der Film dauert].
it was REFL ask.PTCP how long the movie lasts
intended: 'It was wondered how long the movie is.'

(61) Unergatives vs. unaccusatives with *-er* (Fagan, 1991, ex. 29,31, p. 47)

a. der Tänzer, der Schwimmer, der Arbeiter *German*
de danser, de zwemmer, de werker *Dutch*
'the dancer, the swimmer, the worker'

b. *der Kommer, *der Sterber, *der Faller *German*
*de komer, *de sterver, *de valler *Dutch*
intended: 'the comer, the dier, the faller'

(62) *vragen* vs. *zich afvragen* (Hedde Zeijstra, p.c.)

a. Zij is a vrag-er.
she is a ask-ER
'She is an asker.'

b. *Zij is een zich af-vrag-er.
she is an REFL P-ask-ER
intended: 'She is a wonderer.'

5 L-selection in Eastern Algonquian

- L-selection isn't just an issue in languages like English, and it isn't just an issue about prepositions and complementizers.
  - I've been looking at l-selection in Passamaquoddy-Wolastoqey (Eastern Algonquian), which shows the locality profile and richness of l-selection in a number of ways.
  - Some background: Algonquian verbs are often described with a template.

(63) (from Grishin 2023)

a. Clausal template
prefix – **complex stem** – theme sign – NEG – central suffix – tense – peripheral suffix

b. Complex stem template
(preverb) – [$_{stem}$ (initial) – (medial) – final]

- Finals provide some information about the argument structure of a verb.

(64) Finals encode verb class

Verb (final underlined)	Meaning	Verb class
wolinaqot	it looks good	Inanimate intransitive (II)
assokeyu	s/he is odd	Animate intransitive (AI)
nostomon	s/he understands it	Transitive inanimate (TI)
moskuwal	s/he finds h/	Transitive animate (TA)

- Finals can be lexical, functional, or both (internally complex).

(65) Lexical finals

Verb (final underlined)	Meaning	Meaning of final
pitiyahte	it is brightly lit	ahte = shine (II)
aqamihpu	s/he eats more	hpi = eat (AI)
wisokeltomon	s/he cherishes it	eltom = feel about (TI)
nutiyahkalal	s/he throws h/ out	ahkal = throw (TA)

  - ◇ My colleague Norvin has been amassing a list of finals in this language, and he has found over 300 so far. It is a much much richer list than the inventory of prepositions and complementizers in English...

- ▸ There are scenarios that reveal something about the inner mechanics of stem formation.
  - Complex stems can be used as initials, which attach to new finals to add arguments.

(66) Unergative/transitive pairs

Verb (final underlined)	Meaning	Meaning of final
siktelomu	s/he laughs	elomi = laugh (AI)
siktelomuhtuwal	s/he laughs at h/	uhtuw = ?? (TA)

  - There is some reason to break this final down further into *-(u)ht-* and *-uw-* subparts: *-uw-* is a common TA final on its own.

(67) *-uw* in other contexts

Verb (final underlined)	Meaning	Meaning of final
apenke	s/he pays	?? (irregular, AI)
't-apenkuwal	s/he pays h/	uw = TA
conessu	s/he stops	essi = move (AI)
con-k-uwal	s/he make h/ stop	uw = TA

- ▸ If this is right, the *-uht-* part of *siktelomuhtuwal* is a bit like the preposition *at* – necessary for the verb to introduce an argument, but not part of the usual morphosyntax of a transitive verb.
  - Some examples where changing that morpheme leads to a different relation with the internal argument.

(68) *-uht-* vs. *-k-*

Verb (final underlined)	Meaning	Meaning of final
tqesu	s/he is embarrassed	osi = reflexive (AI)
'toqesi-**ht**-uwal	s/he is embarrassed around h/	uw = TA
'toqesi-**k**-hal	s/he is ashamed of h/	h = TA

- The vast majority of finals are internally complex in this way! (though not all of them show such pretty transitivity alternations)
  - ▸ Hunch: these are showing us chains of l-selection at work.
    - The intransitive stem *siktelomi-*, the morpheme *-uht-*, and the final *-uw* seem to each require their neighbor to be **that** morpheme and no other one... just like *laugh* wants its argument introduced by *at*.
    - The difference is we see this at the word-level – which suggests successive complementation plus roll-up head movement.
  - ▸ We see the same in English derivational morphology.

(69) derive – deriv-ation/*deriv-ance – derivation-al/*derivation-ous

- There's a lot more work to do, but Passamaquoddy-Wolastoqey highlights a need to be able to say something more general about l-selection and its being restricted to complement position.
  - ▸ There is no small class of functional elements involved – there is a long list of morphemes involved, ranging from functional to lexical, and the locality restriction remains.

6 Conclusion

- **Main takeaway**: two desiderata for mapping selectional requirements to structure-building features.

- Structure-building features are abstract and syntactic, and sometimes underspecified if need be.
- The distribution of [·X·], as motivated by the Sparse Feature theory, makes the right predictions about which kinds of phrases are restricted to complement positions.
- [·X·] is invoked whenever the selectional relationship is non-syntactic (semantic or lexical), and is always checked first (i.e. by the complement).
  - The distribution of [·X·] and other features (e.g. [·D·] and [·V·]) interact to produce smuggling configurations and anti-selection for DP.

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