

Particles and Prepositions at the Syntax-Semantics interface

Challenges at the Syntax-Semantics Interface
CoLi, WS 2017
Meaghan Fowlie

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We looked at Ramchand and Svenonius (2002) and also a bit at McIntyre (2007). The former examines Johnson (1991) and Den Dikken (1995).

1 Introduction

- *particle*: kind of a garbage can category for small, functional (closed-class) lexical items. Here, it means words/clitics that look like prepositions but have some different behaviours

- Germanic particle verbs:

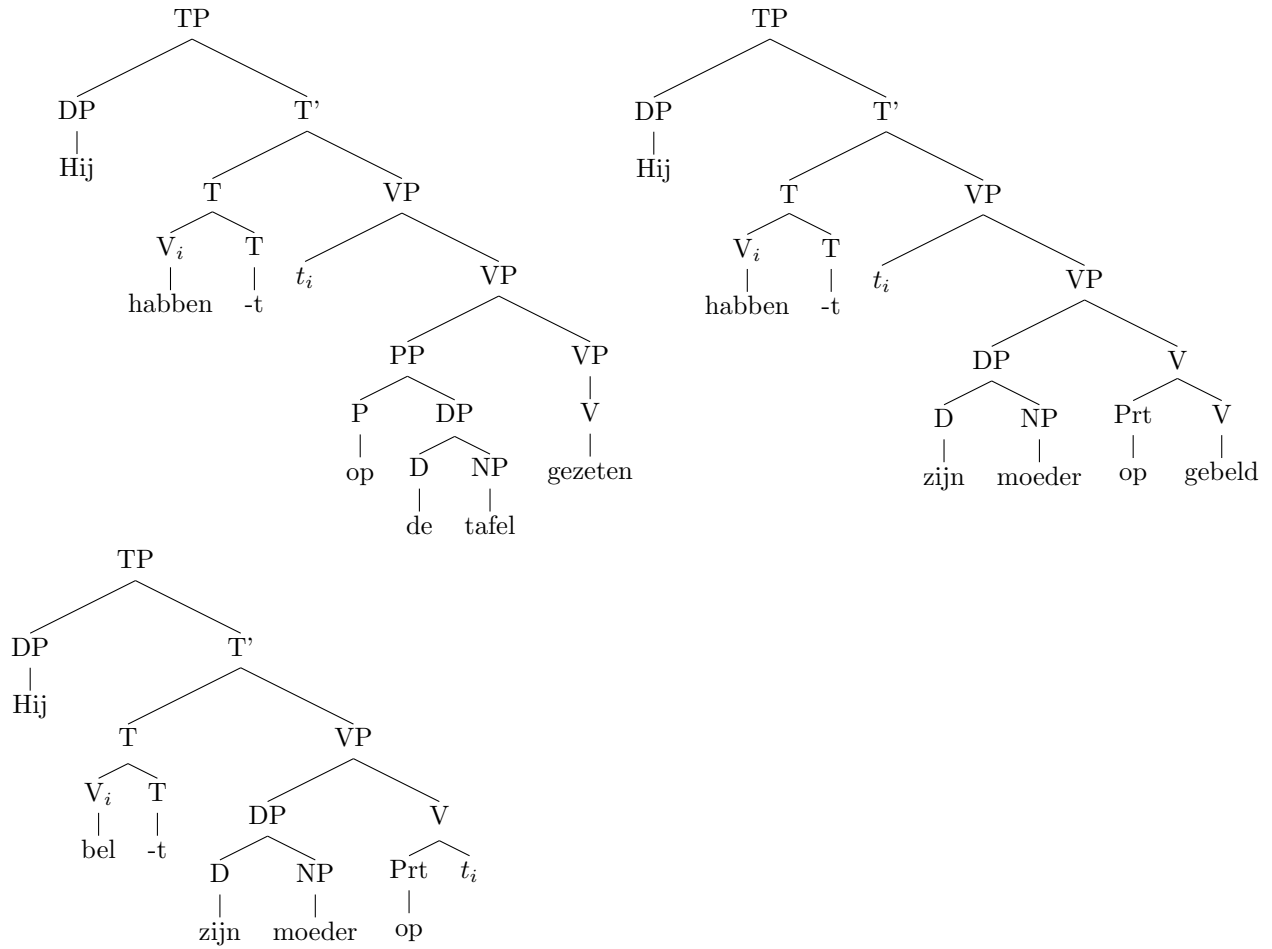
- V + Prt or Prt + V, where meaning isn't strictly compositional
- In English in particular it can be hard to distinguish particle verbs from verbs together with prepositional phrases (PPs). Note here the (a)'s look the same. Only the (b)'s are different

- (1) a. Dana **looked** [**up** the hill] toward the castle PP
b. *Dana **looked** the hill **up** toward the castle
- (2) a. Dana **looked up** the word in the dictionary V + Prt
b. Dana **looked** the word **up** in the dictionary

- Dutch is easier: (a) and (b) patterns are exactly inverted

- (3) a. Hij heeft [**op** de tafel] **gezeten**
he has on the table sat
'He sat on the table' PP
b. *Hij heeft de tafel **opgezeten**
he has the table on-sat
c. Hij **zat** [**op** de tafel]
he sat on the table
'He sat on the table'
d. *Hij **zat** de tafel **op**
he sat the table on
- (4) a. *Hij heeft **op** zijn moeder **gebeld**
he has his mother up-called

- ‘He called his mother’
- b. Hij heeft zijn moeder **opgebeld**
 he has his mother up-called
 ‘He called his mother’
- c. *Hij **belt op** zijn moeder
 he calls up his mother
 ‘He calls his mother’
- d. Hij **belt** zijn moeder **op**
 he calls his mother up
 ‘He calls his mother’



2 Interpretation of prepositions

(5) Dana is [on the table]

- $[[\text{on}]] : E \rightarrow E \rightarrow T$
- The type of $[[\text{on}]]$ is $\langle e, \langle e, t \rangle \rangle$
- $[[\text{on}]] = \lambda x \in E . [\lambda y \in E . y \text{ is on } x]$

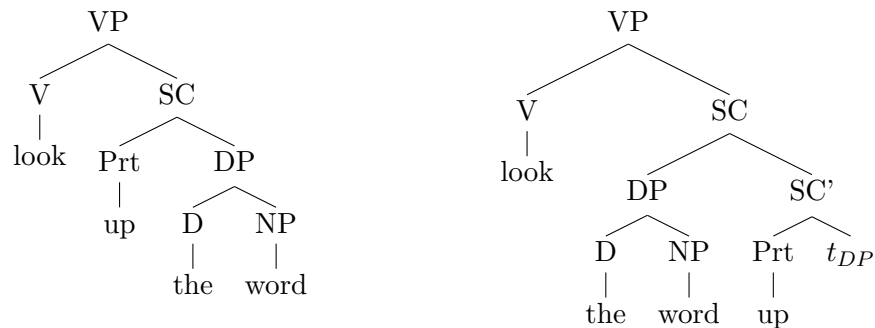
- $\llbracket \text{on the table} \rrbracket = \lambda x \in E . [\lambda y \in E . y \text{ is on } x](\llbracket \text{the table} \rrbracket)$
- Let $\llbracket \text{the table} \rrbracket = t (\in E)$
- $\llbracket \text{on the table} \rrbracket = [\lambda y \in E . y \text{ is on } t]$
- $\llbracket \text{is} \rrbracket = \text{id}$
- $\llbracket \text{Dana is on the table} \rrbracket = \text{FA}(\llbracket \text{Dana} \rrbracket, \llbracket \text{on the table} \rrbracket) = [\lambda y \in E . y \text{ is on } t](\llbracket \text{Dana} \rrbracket) = [\lambda y \in E . y \text{ is on } t](d) = [d \text{ is on } t]$

(6) Dana sat on the table

- $\llbracket \text{sat} \rrbracket : E \rightarrow T$
- $\llbracket \text{Dana sat} \rrbracket \in T$
- Can't apply *on the table* to *sat* or *Dana sat*
- Davidson: use event semantics: add a third domain V of events.
- $\llbracket \text{sat} \rrbracket : V \rightarrow E \rightarrow T$
- $\llbracket \text{Dana sat} \rrbracket = \exists e \in V . \text{sat}(e, d)$
- $\llbracket \text{Dana sat on the table} \rrbracket = \exists e \in V . \text{sat}(e, d) \wedge \llbracket \text{on} \rrbracket(e, t)$
- Then (this particular?) *on* has a different type: $\langle v, \langle e, t \rangle \rangle$, meaning *the event took place on x* rather than *y is on x*
- $\llbracket \text{Dana sat on the table} \rrbracket = \exists e \in V . \text{sat}(e, d) \wedge e \text{ took place on } t$

3 Particle Verbs

3.1 Small Clause analysis (den Dikken 1995)



Assumptions of this analysis:

- Prt can't assign Case (Sure, seems reasonable?)
 - But then why can it also stay *in situ*?

- → different Case assigning in the sentences. But if we look at Scottish Gaelic, this looks wrong. It has the same two word orders, and if particles assign case it probably Dative (since that's what prepositions assign), but Case is whatever the verb assigns in both orders (Accusative, here.)

(7) Accusative assigned by the V to the specifier of its complement

- a. Thug e an còta dheth
gave he the coat.ACC off
'He took the coat off'
- b. *Thug e an a'chòta dheth
gave he the coat.DAT off

(8) Accusative also assigned by Prt to its complement even through prepositions assign dative

- a. Thug e dheth an còta
gave he off the coat.ACC
'He took the coat off'
- b. *Thug e dheth an a'chòta
gave he off the coat.DAT

But if we look at Icelandic, which has lots of overt Case morphology, we get the same word-order options without different Case situations.

- (9)
- a. hann fylgdi málinu fram
he followed goal.DAT forth
 - b. hann fylgdi fram málinu
he followed forth goal.DAT
'He pursued the goal'

- DAT is the Case assigned by *fylgdi* 'follow' whether there's a particle or not

- A DP can get case as the specifier of the complement of a Case assigner (*exceptional case marking* (ECM) is also proposed for things like *I want [him to leave]* where *him* is the subject of the complement of *want*.)

Another issue: if particles and prepositions are really similar, we should expect the semantics of the complement of a preposition and a particle to be similar.

- Figure: the thing we're focussing on
- Ground: where it is
- eg [The book]_{figure} is on [the table]_{ground}
- Complement of P should be the ground.

- (10)
- a. Take [the hat]_{figure} off [your head]_{ground}
 - b. Take [SC off [the hat]_{figure}]

An advantage of this analysis: the structure of a particle verb is very different from a verb plus PP, predicting a different interpretation.

Semantics are pretty reasonable sometimes. Meaning of particle verbs is often a *resultative predicate*. For example, with *chop the tree down*, after the event the tree is down. Assuming an “intransitive” version of $\llbracket \text{down} \rrbracket = \lambda x . [x \text{ is down}]$ (see Heim & Kratzer) we can get something like:

$\llbracket \text{the tree down} \rrbracket = \lambda x . [x \text{ is down}](t) = t \text{ is down}$

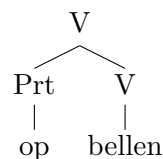
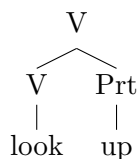
But how exactly does this combine with $\llbracket \text{chop} \rrbracket : E \rightarrow E \rightarrow T$? (This might not really be a problem with the right event semantics, but I’m not sure.)

But with *look up*, the word is not “up” after having been looked up.

3.2 Complex Predicate Analysis (Johnson 1991)

- V+Prt = morphologically complex word

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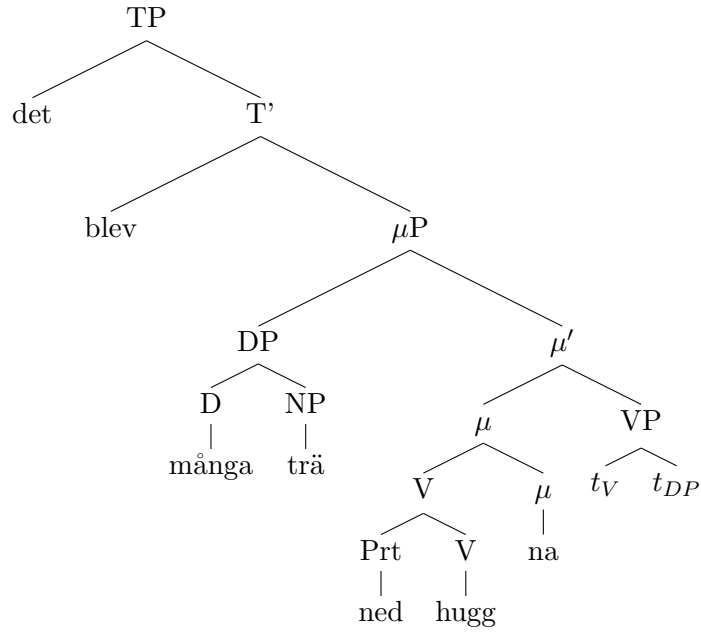


- **Problem 1:** English, Scandinavian morphology is usually right-headed:

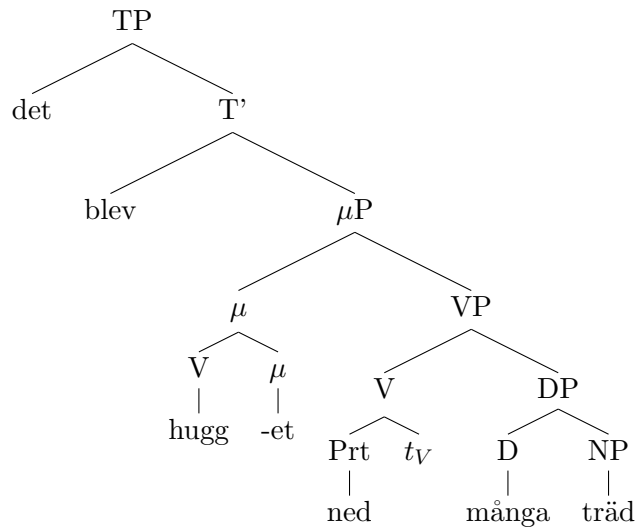
- (11)
- | | | |
|----|-------------|---------------------------|
| a. | tomato soup | a kind of soup |
| b. | black-board | a noun, a kind of board |
| c. | happi-ness | a noun (not an adjective) |
| d. | look up | a verb (not a particle) |

- (12) Swedish
- a. Det blev **hugget ned** många träd
it became down chopped many trees
‘Many trees were chopped down’
- b. Det blev många träd **nedhuggna**
it became many trees down-chopped
‘Many trees were chopped down’

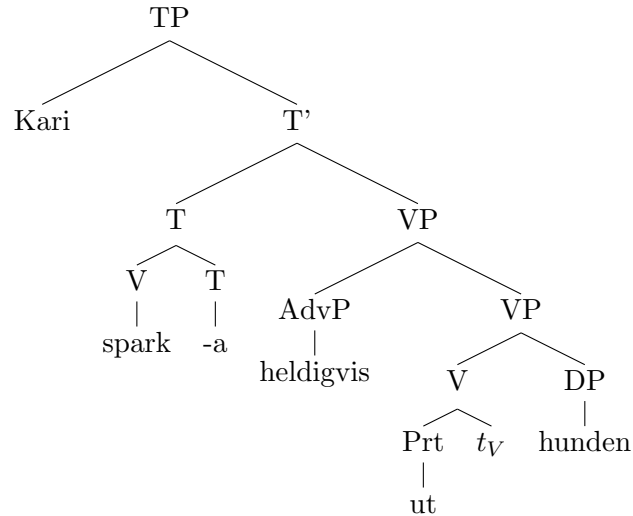
In (12-a), the whole V(Prt, V) word moves up to μ .



In (12-b), only the verb part of the V(Prt, V) word moves up! Also, I don't know why this is supposed to be active. Probably the claim is that it must be active because the object DP can stay *in situ*?



However, if the verb is moving all the way to T, only the V part may move. (Norwegian example)



Some assumptions in this analysis:

- VPs in Scandinavian are underlyingly Verb-Object (compare German, Dutch)
- It's possible to separate parts of words (*excorporation*) (no one really likes this)
- Words can be made and separated by head movement (pretty standard)

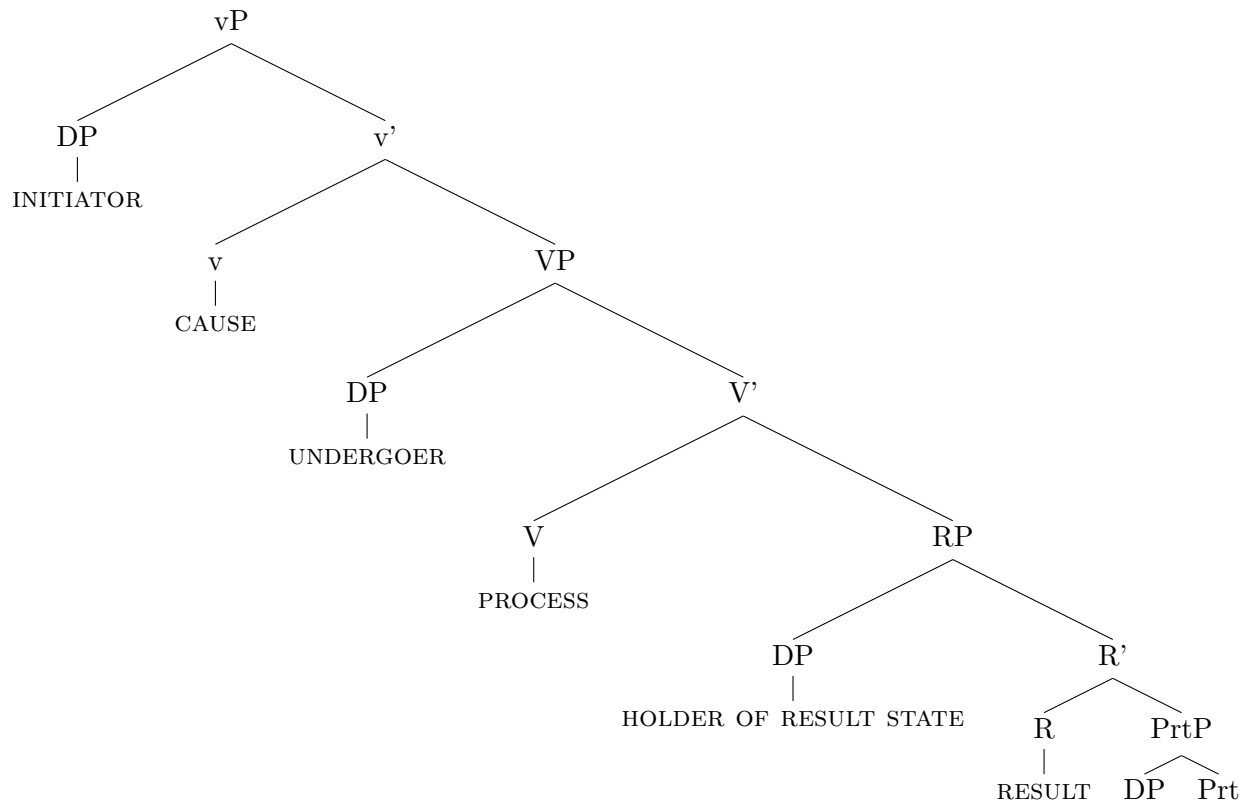
Authors don't like this analysis because:

- English case violates right headedness of morphology
 - Query: Must it?
- excorporation
- V excorporates obligatorily under some head movement (up to T) but optionally in others (up to μ)
 - Query: is the μ excorporation really optional? Are these cases the same?

Another problem: “bracketing paradox”: it's weird that the whole complex *nedhugg* can be treated as a stem to get morphology from μ but not from T . Some analyses actually re-bracket, which is very non-compositional: [[prt V] -suffix] \rightarrow [prt [V -suffix]]

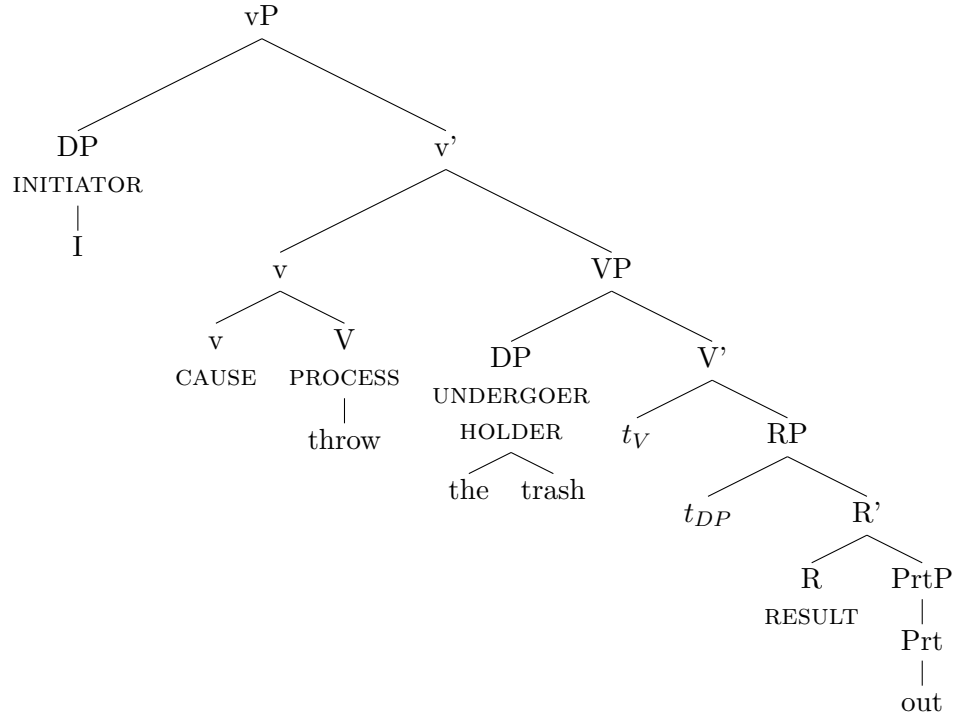
Advantage of this analysis: we can interpret the V-Prt complex as one word, which explains why the particle verb means something different from just the verb plus the preposition.

3.3 Their analysis

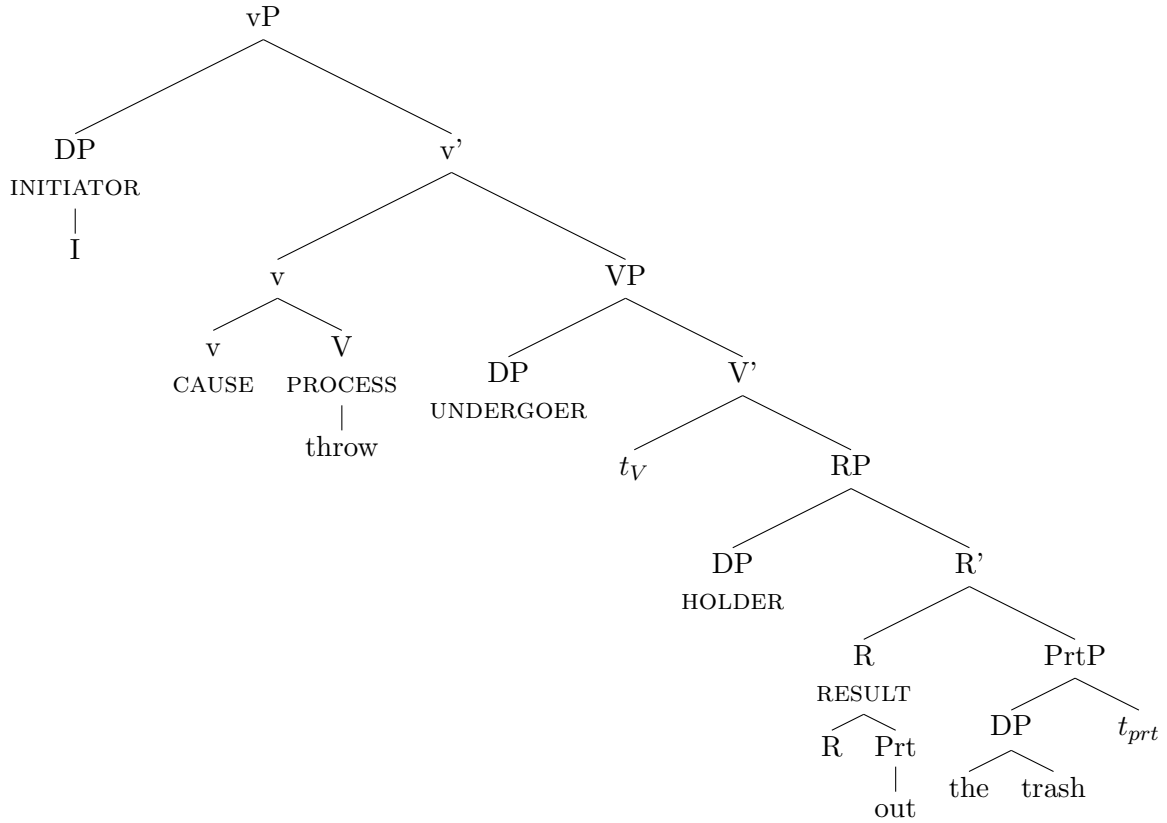


- RP is optional
- The DPs don't all have to be “merged” – they can also get there by movement, and then they're interpreted as playing both roles.

(13) I threw the trash out



(14) I threw out the trash

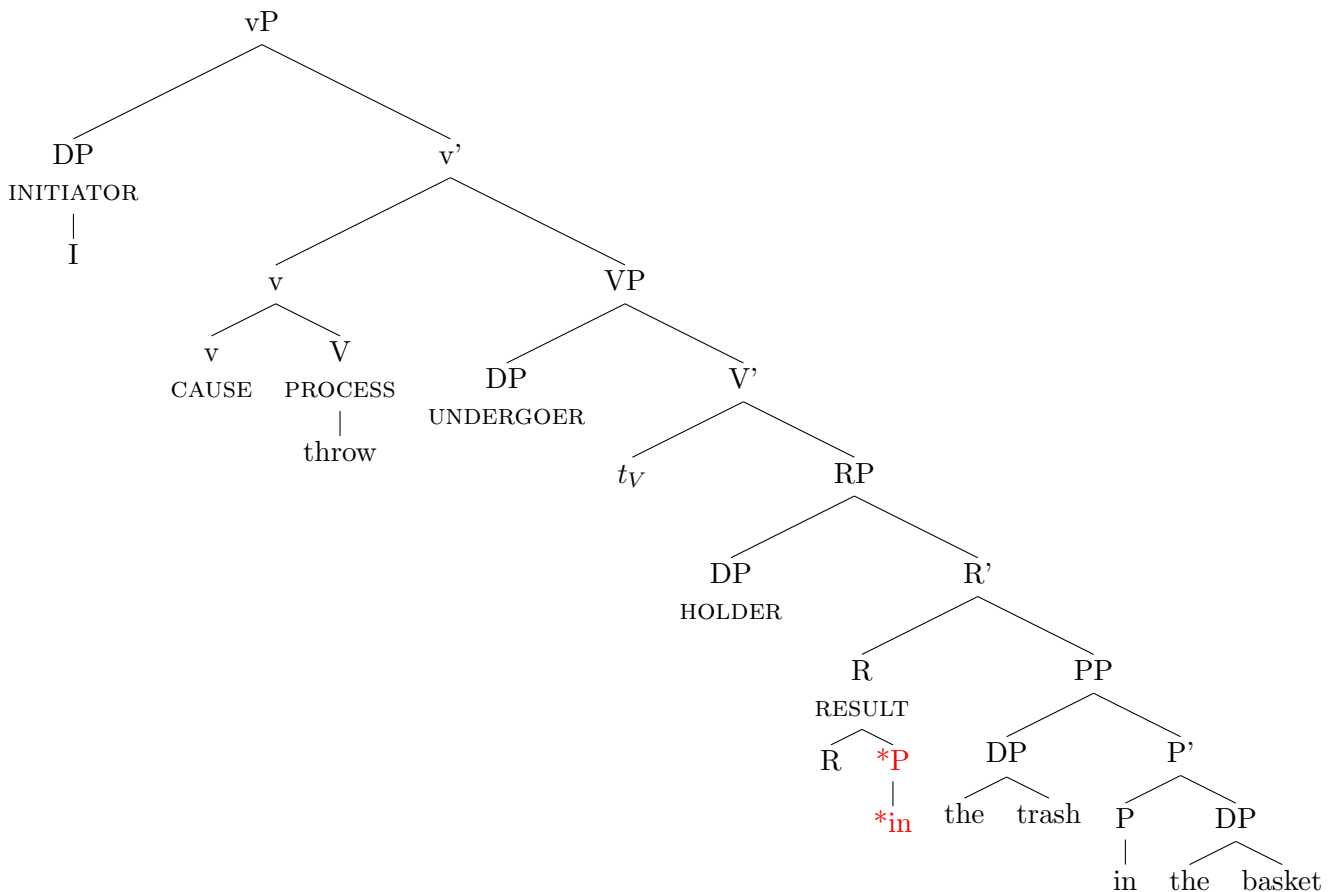


Some assumptions of this model:

- V moves to v (very standard)
- Existence of RP (not common)
- Move can allow different roles for one DP (very unusual! Compare control (posited a silent pronoun so that there would be exactly one DP per merge position))
- You can have a specifier without having a complement (not clear this is well-defined, but it's not really unusual)
- Prt is basically a preposition that can't have a complement
- Particle shift is Prt to R movement (Prt DP order)
- DP Prt order is DP moving overtly to higher DP position, but (crucially) Prt not moving

Problems:

- How does the DP get undergoer and holder roles when it stays *in situ* (in the Prt-DP order)?
 - Apparent solution: “covert” movement (= movement only semantics knows about)
- Why can't a P also move to R?
 - “Solution”: some syntactic bullshit.



Advantages:

- Syntactic independence of V and Prt maintained, but the semantic unity comes from the interpretation of the vP as the complete event.

References

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