Deriving Selective Opacity via Path-based Locality

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Overview

- The Condition on Extraction Domains (CED) (Huang, 1982; Chomsky, 1986; Cinque, 1990; Manzini, 1992) defines a fundamental asymmetry between complements and adjuncts (as well as specifiers, which we'll set aside):
- The CED states that movement may not cross a barrier XP, unless XP is a complement (1):

(1) Who$_i$ were you surprised [$_{CP}$ t$_i$ that/*when you saw t$_i$]?

- Prior accounts of the CED have involved according adjuncts some special status, e.g. claiming that they allow sideward A-movement (Drummond and Hornstein, 2014) or are late-merged (Lebeaux, 1991; Fox, 2002; Abe, 2018) or are phasal (Chomsky, 2008; Müller, 2010).

Movement out of *some* adjuncts is actually possible (violating the CED) (Chomsky, 1982; Cinque, 1990):

(2) * What$_i$ did Maria work [whistling t$_i$]?

(3) What$_i$ did Maria arrive/drive Jill crazy [whistling t$_i$]?

- Truswell (2011) argues that such movement is licit just in case the constituent containing the launching and landing sites of movement asserts the existence of a single event in the actual world (Single Event Condition).
- This is satisfied in (3) but not in (2).
- Any theory of the CED must thus be able to account, not only for its general applicability, but also its systematic exceptions in cases like (3) above.

We'll see that the opacity of adjuncts for syntactic dependencies turns out to be even more nuanced when we turn to phenomena beyond movement. Adjuncts are:

- transparent for Obligatory Control
- but opaque for Long-Distance Agreement
- yet themselves (sometimes) able to agree with (something in) their hosts

In other words, adjuncts present a treasure trove of Selective Opacity effects (see Keine, 2019, for other cases).

Research goal:

- ☞ To account for selective opacity effects without according adjuncts some special primitive status.
- ☞ I.e. concretely, to develop a syntactic model that derives such locality asymmetries naturally, simply as a function of the way in which structure is built and dependencies between sub-trees are created.

Core empirical insight:

☞ We'll propose that selective opacity effects involving adjuncts and complements involve a systematic directionality restriction.

- complements are transparent to syntactic dependencies both into and out of them; E.g. they license both upward dependencies like obligatory control (OC) and downward dependencies like $\phi-$agreement.
- in contrast, adjuncts are (selectively) opaque only to dependencies from above but transparently allow syntactic dependencies out of them. Thus, adjunct OC is possible, but $\phi-$agreement into an adjunct is not.

What we'll do in this mini-course:

- We'll start by giving some general background on locality effects in grammar and different ways to think about them.
- Then we'll present some core evidence to motivate some observations about directionality contrasts in opacity with adjuncts and complements.
- Then we'll develop a particular approach to structure building and syntactic dependencies that breaks down Agree into two distinct operations, checking and valuation.
- This sets up restrictions on how probes and goals can interact for the two operations in terms of sisterhood + path-based locality.
- We will show how this theoretical machinery can derive complement/adjunct selective opacity effects without ad hoc stipulations about adjuncts or complements.

Background on (types of) locality

Grammatical dependencies in natural language seem to be constrained by locality:

☞ Relationships and operations can only apply when the bits involved are close enough to each other.

E.g. in many languages verbs agree with a noun phrase, but this is only possible when the verb and the noun phrase are local:

(4) a. I am stinky.
    b. She is stinky.

(5) a. She thinks that I am stinky.
    b. * She thinks that I is stinky.

☞ In 5b, she is not close enough to is for agreement.

Locality is also relevant for the distribution of reflexives and other anaphors:

(6) a. I saw myself.
b. I doubt that she saw herself.
c. * I doubt that she saw myself.

(7) a. I want to see myself.
b. * I want her to see myself.

And it's important for how things can move around in a sentence, e.g. in questions:

(8) Steve thinks Rachel bought a pie.

(9) a. Who does Steve think <who> bought a pie?

b. What does Steve think Rachel bought <what>?

(10) a. Who does Steve think <who> bought what?

b. * What does Steve think who bought <what>?

The fact that locality should matter in languages is not so surprising.

- Most (perhaps all?) physical processes and relationships care about locality too.
- E.g. if I want to physically move an object, like a chair, I have to be close enough to physically touch it.
- Even forces and relationships that involve ‘action-at-a-distance’ generally get weaker the further away two objects are (gravity, electromagnetic waves, etc.)

And if you're thinking from the perspective of how the mind actually constructs and interprets sentences, a bit of locality is a good principle for keeping things simple:

- Imagine that you want to build a sentence with a few emeddings, like (11).

  (11) Dave thought that you claimed that the aristocrats regretted that I am here.

- Without locality, it's not obvious what the verb am should agree with. Should it be Dave. . . is or you. . . are or the aristocrats. . . are? Is there optionality?
- In principle you might have to consider an unbounded amount of material to find the controller of agreement.
- With locality, it's much simpler. The space in which you have to look is quite restricted, and you can quickly and unambiguously determine that it has to be I. . . am.

But there's a big difference between recognizing that locality is good thing for language to have, and really understanding it.

- Given how pervasive it is, it seems like the sort of thing our theory of grammar should cover, and ideally explain.
- And so for decades, people have been building grammatical models with notions of locality built in.
- But this is where things get complicated, especially given phenomena like selective opacity…

There are in fact a number of different ways to think about locality, and many competing approaches that incorporate one or more of these ways.

- This is not (just) a matter of taste or theoretical predilection, but is in no small part motivated by the different phenomena that people focus on.
- Selective opacity — *cases where, in a particular context, locality effects obtain under a set of conditions* α*, but not under another set of conditions* β — force us to confront tensions between different views of locality.

Basic Locality:

- The simplest local configuration is one where X and Y simply appear in the same locality domain.

Thus, in (12), subject-verb agreement may only obtain between a verb and subject that are already in the same clause:

(12) BASIC LOCALITY (verb agreement in German):

Ich behaupte/*behauptet, [dass Maria Bier mag].
I declare.1SG/*3SG, that Maria beer likes.3SG
'I declare that Maria likes beer.'

Cyclic Locality:

- Here, what looks at first glance like a single unbounded dependency turns out to be comprised of a series of local/bounded dependencies.

(13) CYCLIC LOCALITY (West Ulster English wh-movement (McCloskey, 2000)):

a. [$_{CP_1}$ [What all]$_j$ did Susan say [$_{CP_2}$ t$_j$ (that) Maria liked t$_j$?

b. [$_{CP_1}$ What$_i$ did Susan say [$_{CP_2}$ [t$_i$ all]$_j$ (that) Maria liked t$_j$?

c. [$_{CP_1}$ What$_i$ did Susan say [$_{CP_2}$ t$_i$ (that) Maria liked [t$_i$ all]?

d. * [$_{CP_1}$ What$_i$ did Susan ask [$_{CP_2}$ whether Maria liked t$_i$]?

- The wh-object in (13a) may licitly Ā-move out of the embedded CP in (13a)-(13c);
- but it must first *cyclically* stop over at the edge of CP_2 before moving on to its final landing site in CP_1, as reflected by the optional presence of the floating quantifier 'all'.
- When such intermediate movement is made impossible, as by the presence of 'whether' at the edge of CP_1, the sentence is rendered ungrammatical, as in (13d).
- Long movement in Irish (McCloskey, 1979, a.o.) and Chamorro (Chung, 1998; Lahne, 2009) famously affects the shape of complementizers and verbal agreement, respectively, along its path; in Asante Twi, such movement leaves tonal reflexes (Korsah and Murphy, To Appear).
- These provide further support for the idea that long-distance dependencies involve cyclic locality.

I. Domain-based Locality/DL (e.g. Phases):

- In Minimalism (Chomsky, 2001, et seq.), basic and cyclic locality are modelled in terms of categorially-defined, semi-permeable locality domains (conventionally, *v*Ps and CPs) called phases.
- Upon completion of a phase, the phase domain, which is everything but the phase-edge comprising the head, specifier and optional adjuncts, is spelled out leaving only the phase-edge visible for further syntactic operations (Phase Impenetrability Condition, PIC).
- Basic locality as in (12), involves dependencies within a minimal phase.
- But given cyclic Spell-Out, cyclic locality, as in (13), is possible just in case it is mediated through material at the phase edge.

☞ Phases thus implement a kind of Domain-based Locality (DL): XP constitutes a locality domain under DL iff properties inherent to XP restrict operations across it.

II. Intervention-based Locality/IL (e.g. Relativized Minimality):

- Orthogonal to this absolute notion of locality is a relative kind.
- This is defined, not in terms of domains, but in terms of intervention.

☞ Intervention-based Locality (IL) cannot be defined in terms of a domain, but must be *relativized* to the properties of a specific probe, goal, and intervener.

One instantiation of this is (Relativized) Minimality (in Rizzi, 1990, and another recent one is the probe-horizons model in Keine, 2016, 2019):

(14) $[\ldots \mathrm{X}_\alpha \ldots [_{ZP}\ \mathrm{Z}_\alpha \ldots [\ \mathrm{Y}_\alpha]]]$

- I.e. in order for a dependency between X and Y (where X c-commands Y) to obtain for some syntactic feature α …
- X cannot c-command an element Z also marked for α, which in turn c-commands Y.

- Syntactic dependencies in Minimalism are *feature-driven* via Agree, between a probe and a goal with matching features.
- For instance, *wh*-movement is triggered by a $[wh]$-feature on a silent element (the *probe*) which is matched by a $[wh]$-feature on a wh-element (the *goal*).
- Given (14), in a structure where two (or more) wh-elements are involved, a lower one cannot move past a higher one.

This is confirmed for English: (16) instantiates a so-called Superiority Violation:

(15) $[_{CP}$ Who$_i$ $[_{TP}$ t$_i$ said what]?

(16) * $[_{CP}$ What$_j$ $[_{TP}$ did who$_i$ say t$_j$]?

III. Path-based Locality/PL:

- Both DL and IL define locality in terms of *opacity*, i.e. conditions under which dependencies are *blocked*.
- A third conception of locality is instead defined in terms of *visibility paths*, i.e. it specifies the conditions under which dependencies are *allowed*.

☞ Path-based Locality (PL): two elements X and Y are syntactically visible to each other iff they are connected by an uninterrupted sequence of steps, each of which satisfies the same (syntactic) condition.

Instantiations of PL:

- PL-based or -inspired approaches have been espoused in certain proposals within the GB framework (see e.g. Pesetsky, 1982, and Kayne, 1984).
- Analyses in this spirit have also regulated notions of locality in other grammatical frameworks like HPSG/LFG (functional uncertainty in Kaplan and Zaenen, 1989), CCG (Steedman, 1996) and TAG (Kroch, 1989).
- But PL has not, as far as we are aware, found as much currency within Minimalism.
- *In this mini-course, we will pursue an approach to locality that combines PL with Minimalist assumptions.*

- DL and IL have been classically used to derive fundamentally distinct types of locality: simplifying, this is DL for distance-effects and IL for intervention-effects.
- PL seems to have been mostly superseded by DL within Minimalism, as described above.

The core data

Now that we've had some background, let's consider a particularly interesting pattern of selective opacity that we think favors an approach in terms of path-based locality.

- We'll give a relatively brief presentation of examples showing the outline of selecitve opacity with adjuncts.
- Adjuncts are fun because they instantiate two different types of selective opacity:
  1. Selective opacity across domains ($\text{SelOp}_{domains}$), where one and the same syntactic dependency is possible or impossible into a given bit of structure depending on how it fits into the larger structure
  2. Selective opacity across operations ($\text{SelOp}_{operations}$), where one and the same domain is transparent for one syntactic operation but opaque for another operation

SelOp$_{domains}$:

Consider the contrast between (17) and (18):

(17) Who$_i$ were you surprised [$_{CP}$ t$_i$ that you saw t$_i$]?

(18) * Who$_i$ were you surprised [$_{CP}$ t$_i$ when you saw t$_i$]?

- ☞ Both involve a finite embedded clause, a CP.
- ☞ But the one in (17) is the complement of the main clause predicate, and wh-extracting the subject is possible. . .
- ☞ . . . while in (18) it's an adjunct, and the movement leads to ungrammaticality.

A parallel but less discussed contrast can be found with long-distance ϕ-agreement:

- In some languages like Hindi, the matrix verb can agree with an argument of an embedded clause, as in (19).
- Typically this requires the embedded clause to be non-finite and structurally reduced, and it *always* requires the embedded clause to be a complement.
- That is, as far as we are aware, *no* language allows something like (20), where the matrix verb agrees with an argument inside an adjunct clause.

(19) Vivek-ne [kitaab parh-nii] chaah-ii
V.M-ERG [book.F read-INF.F] want-PFV.F
'Vivek wanted to read the book.' (Bhatt, 2005)

(20) * Vivek worked-f [to buy the book.f]

Both of these phenomena amount to the same thing:

- ☞ Adjunct clauses are opaque for operations that complement clauses are transparent for.
- ☞ This amounts to SelOp$_{domains}$.
- ☞ In both contrasts we have the same structural unit (i.e. the same size and type of clause), the same grammatical operation and the same language.
- ☞ The only thing that is different is how the structural unit is incorporated into its host (complement vs. adjunct), so this is what the opacity must be sensitive to.

SelOp$_{operations}$

That's not the whole story though:

☞ It's not the case that adjuncts are always opaque to dependencies that complements are transparent to:

(21) Vivek$_i$ enjoyed [PRO$_i$ reading the book].

(22) Vivek$_i$ traveled [PRO$_i$ reading the book].

- (21) and (22) involve non-finite embedded clauses with a null subject, in (21) a complement clause, in (22) an adjunct.
- In both, the null subject (indicated as PRO) is dependent for its interpretation on the matrix subject in a way that we call obligatory control (OC).
- We won't go into the details here for time reasons, but there are very good reasons to think that OC represents a *syntactic* dependency, not just a semantic one.

This means that the adjunct clause in (22), repeated here as (23), is transparent for at least one syntactic operation.

- ☞ However, this doesn't mean that it's transparent for everything!
- ☞ As (24) shows, this same adjunct clause, while transparent for OC, is still opaque for wh-movement:

(23) Vivek$_i$ traveled [PRO$_i$ reading the book].

(24) * What$_j$ did Vivek travel [PRO$_i$ reading t$_j$]?

- So here we have SelOp$_{operations}$.
- We have one and the same bit of structure, in exactly the same environment, in exactly the same language, which is opaque for one operation but transparent for another.

Empirical observations

Here's an idea about how to bring these observations together:

- It's pretty clear what configuration is involved in the impossible long-distance agreement, where the matrix verb can't agree with an argument inside an adjunct.
- We have an unvalued feature in the host trying to probe a valued feature inside the adjunct, i.e. it would be valuation out of an adjunct.
- Now, one analysis of OC is that the PRO subject is looking to get information about its reference by agreeing with its controller in the matrix clause.
- This would amount to the opposite configuration, an unvalued feature in an adjunct trying to probe a valued feature in the host, i.e. valuation into an adjunct.

Starting hypothesis:

(25) a. Adjuncts are opaque for probing into them from the host, and hence for valuation out of them.
b. Adjuncts are transparent for probing from out of them into the host, and hence for valuation into them.
c. Complement structures, on the other hand, are transparent in both directions.

Prediction:

This predicts that we should find agreement where a target in an adjunct reflects the properties of a controller in its host.

- Switch reference marking on adjunct clauses seems to involve a configuration of this type (Arregi and Hanink, 2018; Clem, To Appear).
- And it's also instantiated in many, many languages in the form of concord, where an adjective or other modifier of a noun agrees with it in ϕ-features, e.g. in Latin:

(26) tabula bon-a, ager bon-us, oppidum bon-um
table.F good-F, field.M good-M, town.N good-N

☞ So this hypothesis is promising.

We then have to find a way to incorporate movement. We'll come back to this in more detail later, but here's the idea we'll pursue:

- Movement is triggered by the needs of something at the landing site, a probe.
- This has to search for something to move.
- Assume that this is subject to the same conditions as a probe looking to be valued.
- So movement out of an adjunct is impossible just like valuation is impossible out of an adjunct.

But now we need a theory of probing for valuation (and probing for movement) that delivers these directional asymmetries between adjuncts and complements…

Core theoretical foundations:

Our account of selective opacity will build on and extend recent work by Bjorkman and Zeijlstra (2019) and especially Zeijlstra (To Appear).

- This work reexamines the range of syntactic dependencies and their treatment in some Minimalist work in terms of a single syntactic operation Agree.
- It replaces Agree with two distinct, but related operations, allowing broader empirical coverage, subsuming selection and the labeling algorithm.

Two types of syntactic operation:

An important distinction has to be made:

Structure building is the putting together of smaller syntactic objects to make larger ones, in Minimalist terms the domain of Merge (and its sub-type Move).

Structure enrichment is the transfer of information between nodes in a previously constructed syntactic structure, e.g. in agreement or case assignment.

It is reasonable to think that both of these are feature-driven.

- This has led some researchers to attempt to analyze both as involving a single operation of Agree, which manages dependencies between (morpho-)syntactic features.

But this is probably a mistake, or at least an oversimplification:

- ☞ Structure building and enrichment are after all rather different effects.
- ☞ More importantly, they seem to be subject to distinct locality and directionality distinctions.
- ☞ The requirements that drive and constrain structure building require extremely local satisfaction (like c-selection) or involve clear directional asymmetries (like NPI licensing).
- ☞ Structure enrichment, on the other hand, is possible at (relatively) long distances, and possibly in both directions (LDA).

Checking vs. Valuation:

The idea then is to distinguish two notions:

Checking underlies structure building:

- It is essentially part of the conditions on Merge and thus essentially only operates under sisterhood.

Valuation underlies structure enrichment:

- It presupposes an existing structure and thus can only operate on the basis of structure building.
- This means it is less local, but it is still constrained to follow pre-established checking relationships.

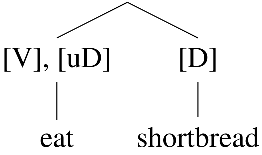
The basics of structure building for Zeijlstra (To Appear) are as follows (with close parallels to Categorial Grammar, e.g. Steedman, 1996):

- The label of a syntactic node is just the set of features it bears.
- Categorial features come in matching pairs of [F] and [uF], and each instance of Merge must involve two nodes, one containing an [F] and the other a matching [uF].
- The label of the resulting node is just the union of the feature sets of the merged nodes, *except* for the matching [F] and [uF].
- By default *everything* projects, from both sides. Checking is not deletion or anything else special, but just the failure of the features that drove the Merge to project further.

Checking:

Here's a maximally simple example, showing a transitive verb selecting a DP object:

(27)



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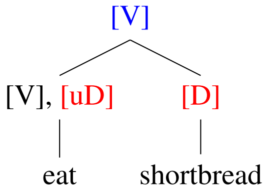

- The colors are just for emphasis. Nothing actually happens to the 'checked' features. They're still there, just not relevant for subsequent instances of Merge.
- And checking, as part of Merge, always happens under sisterhood and is thus super local, as seems right for basic c-selection...

But there is a way to get the *appearance* of checking under c-command rather than strict sisterhood:

- ☞ Unchecked features project up and can thus be checked by something merging at a subsequent step.
- ☞ The checking will still be under sisterhood, but the original source of the feature will be asymmetrically c-commanded by the checking node.

Here's a toy example of how this could work for something like NPI licensing (Note that this should *not* be mistaken for a real analysis of NPIs or this particular sentence.):

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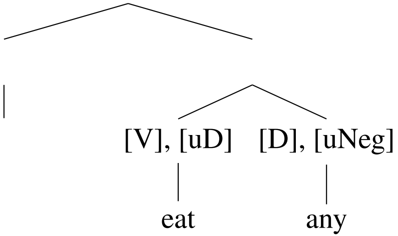

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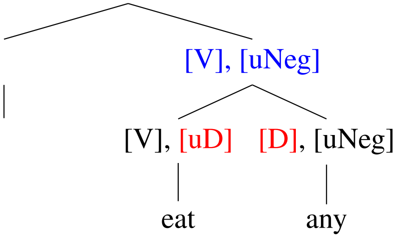

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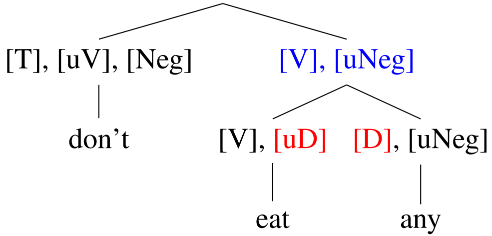

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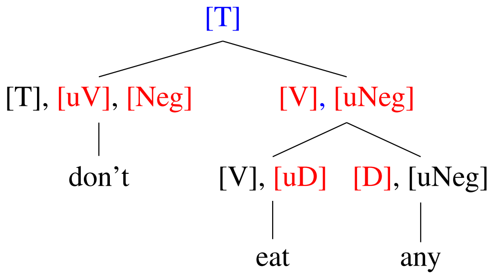

Implications for adjuncts vs. complements:

This way of doing things sets up an interesting analysis for adjuncts:

- ☞ An adjunct merges with a host, with the resulting projection bearing the unchanged label of that host.
- ☞ It is crucially not selected by its host, which seems more or less oblivious and indifferent to the adjunct being there.
- ☞ In the current system, this can be captured by saying that an adjunct actually selects its host, with the appropriate [uF], but also has a matching [F] that projects.

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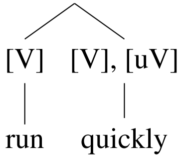

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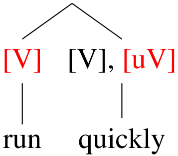

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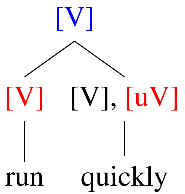


Valuation:

So much for checking. What about valuation?

- Again, things like ϕ-agreement do not seem to be restricted to sisterhood, especially given long-distance agreement phenomena.
- And they don't involve requirements that an element of the right type be added to the structure like a verb requiring an object or an NPI requiring a licensor.
- Furthermore, unlike the things that trigger structure building, there is at least some evidence that they systematically tolerate failure (Preminger, 2011, etc.).

Main idea:

(30) Valuation can only apply between nodes that are already in a checking relation.

- We will argue that if we flesh this out in the right way, we can use it to capture the way in which valuation is related to but less constrained than checking.
- In particular, valuation has to follow paths defined by checking relations, which will provide crucial insight into the selective opacity effects with adjuncts.

The idea

Again, we want to account for the patterns of selective opacity we find with adjuncts:

- Adjuncts differ from complements in that they are (usually) opaque for movement and for valuation from the adjunct into its host.
- But they are like complements in that they are transparent for OC, which we can understand as valuation from the host into the adjunct.

Selectional asymmetries – adjuncts vs. complements:

We're going to go after this in terms of what we take to be the defining difference between adjuncts and complements:

- ☞ A complement is selected by its host.
- ☞ An adjunct is *not* selected by anything.

Recall that the system of structure building we're using here delivers just this and even goes a bit further:

- ☞ Rather, adjuncts select their hosts.

Formalizing selection:

- Selection is what we model with checking, the dependency between two features [uF] and [F] that drives structure building.
- Again, valuation is distinct from checking and enriches an already built structure by copying feature values from one place to another.
- Still, valuation of one feature by another is crucially dependent on a prior checking relationship between the two heads that they are on.

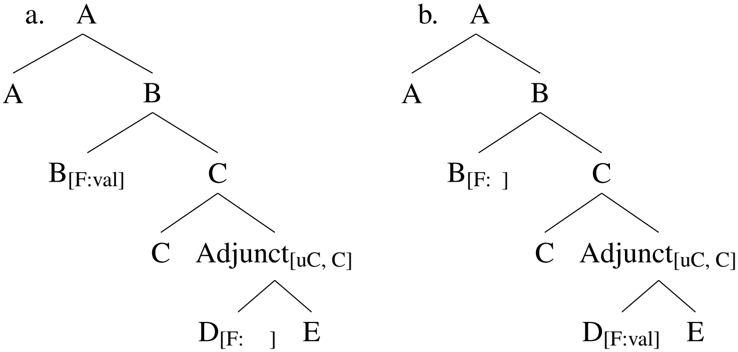
Modifying Valuation:

Now we can make more precise how valuation depends on checking. Here we depart from the assumptions in Bjorkman and Zeijlstra (2019) in two important ways:

1. We'll add in a recursive step, so that two nodes can be visible for valuation due to mediated checking dependencies.
2. We'll add a restriction such that valuation can only follow checking in one direction.

☞ All of this will yield the asymmetries we observe between complements and adjuncts and the directionality effects of selective opacity in adjuncts.

These trees give a suggestion of how the asymmetry for valuation into vs. out of adjuncts is going to work:



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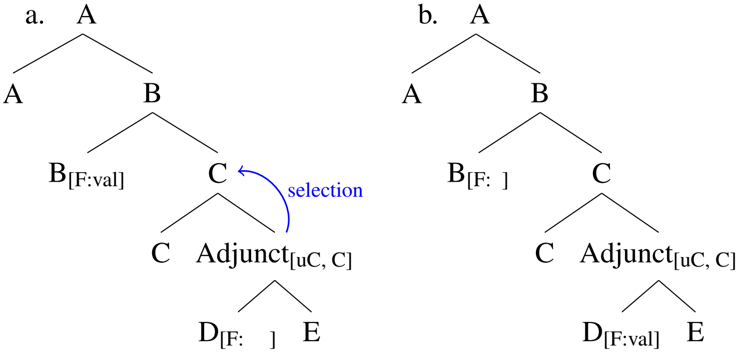

☞ The adjunct selects its host C, and this allows an unvalued feature within the adjunct to find and be valued by a matching feature in the host in (a.).

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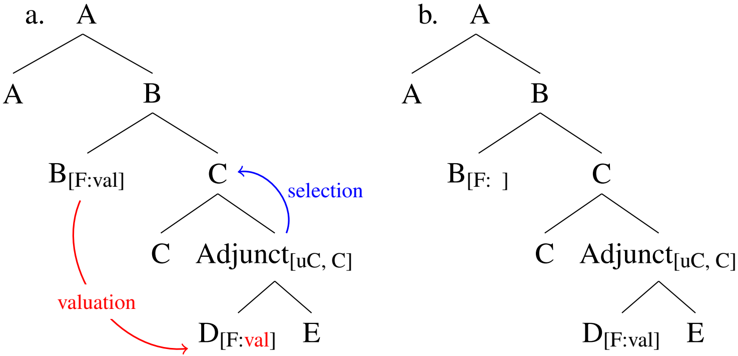

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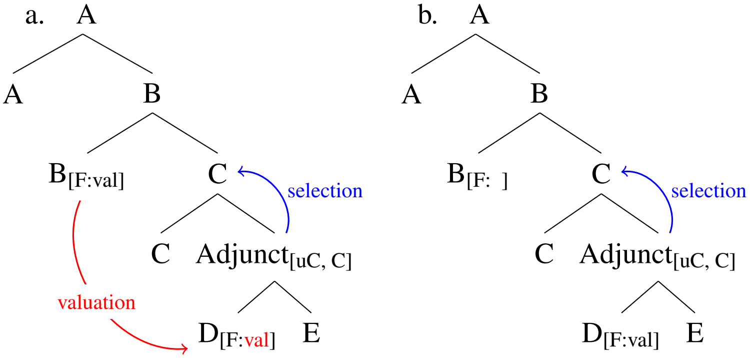

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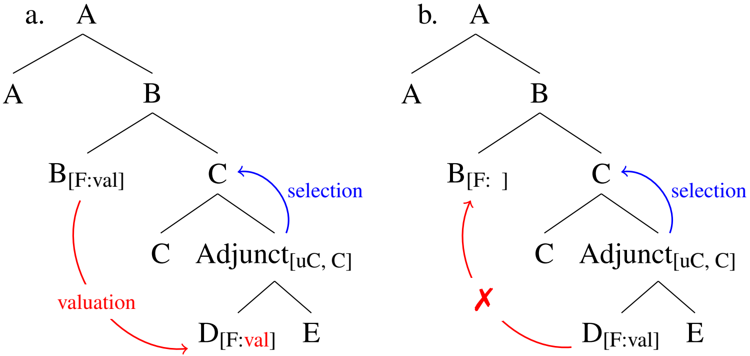

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The formalization

Here's the definition we're going to adopt for valuation:

Valuation: An feature [Y:] on a probe P can be valued by a matching [Y:val] on a goal G iff:

i. P and G are sisters, or
ii. there is a feature [X] on G which checks a feature [uX] on P, or
iii. for a sequence of heads $H_1, H_2 \ldots H_n$, such that P = H_1 and G = H_n, for all j such that $1 < j \leq n$, there is a feature [X] on H_j that checkes a feature [uX] on H_{j-1}.

In other words, given that checking = selection:

- If P selects G, then a feature on P can be valued by a feature G.
- If A selects B, and B selects C, then a feature on A can be valued by a feature on C.
- The part about valuation via transitivity of selection is recursive, so we can use it to define arbitrarily long chains of selection, which in turn create paths for valuation.

But it's very important that selection only licenses valuation in one direction:

- ☞ Again, if P selects G, then a feature on P can be valued by a feature G.
- ☞ But this does *not* necessarily mean that a feature on G can be valued by a feature on P.
- ☞ In order for that to possible, there would also have to be a feature [uF] on G that is checked by a feature [F] on P, i.e. P and G would have to mutually select each other.

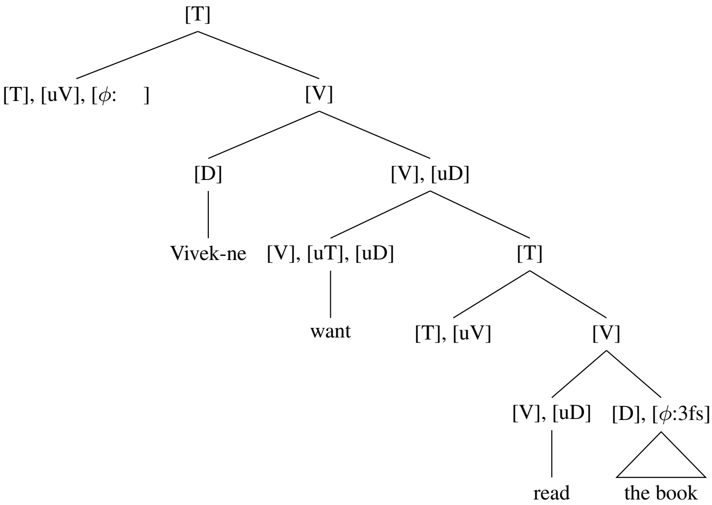
Running the examples

Now we'll show how the analysis works by going through derivations for some key examples:

1. Long-distance agreement, where something in a complement clause values features on something in the matrix clause.
2. The same thing, but with features of something in an adjunct clause valuing features on something in the host clause, which is ruled out.
3. OC into an adjunct clause, where the features of something in an adjunct clause are valued by something in the host.
4. OC into a complement clause.

LDA, valuation from a complement clause into the matrix:

(31) Vivek-ne [kitaab parh-nii] chaah-ii
V.M-ERG [book.F read-INF.F] want-PFV.F



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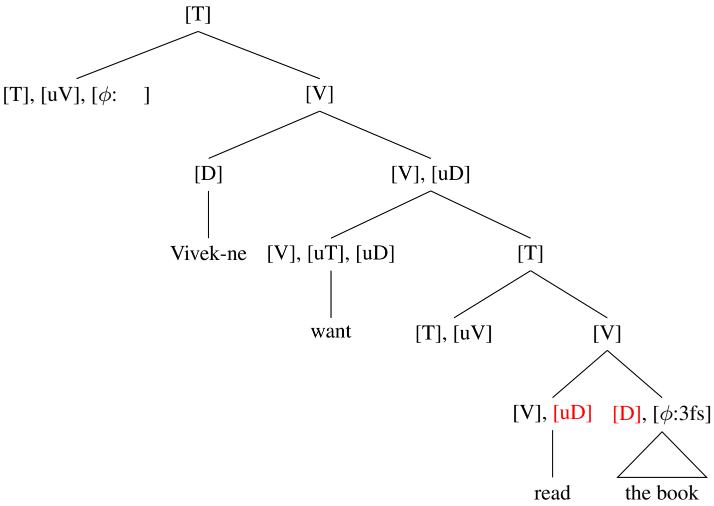

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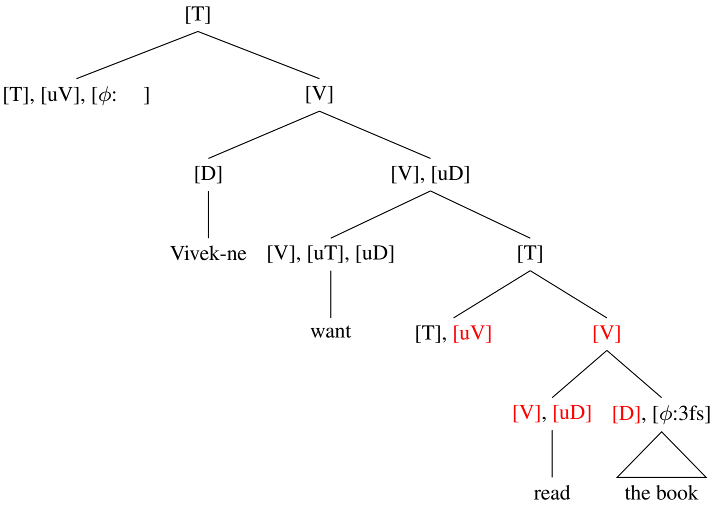

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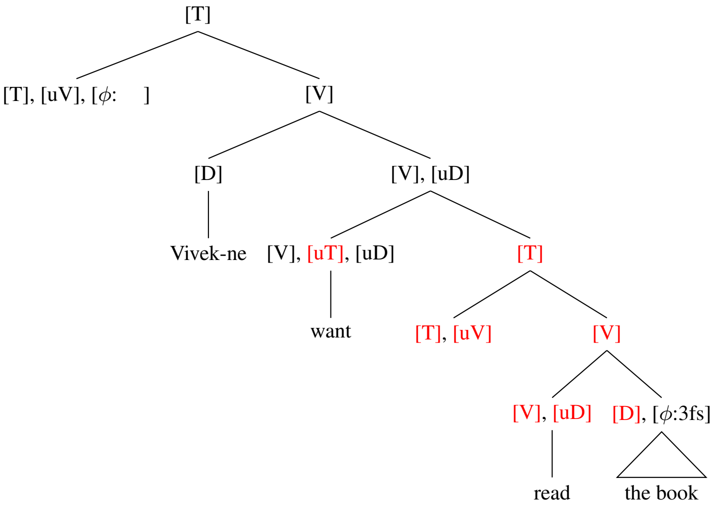

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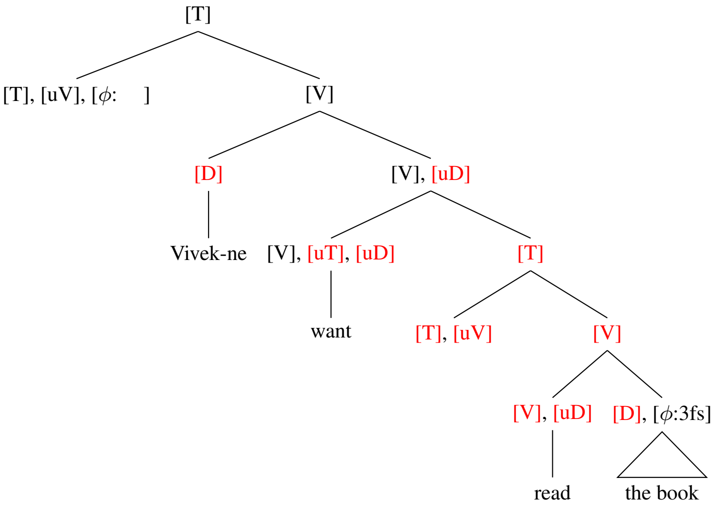

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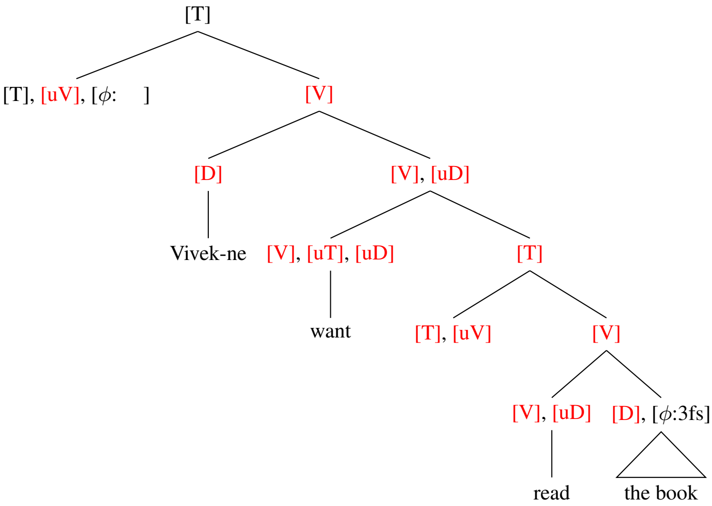

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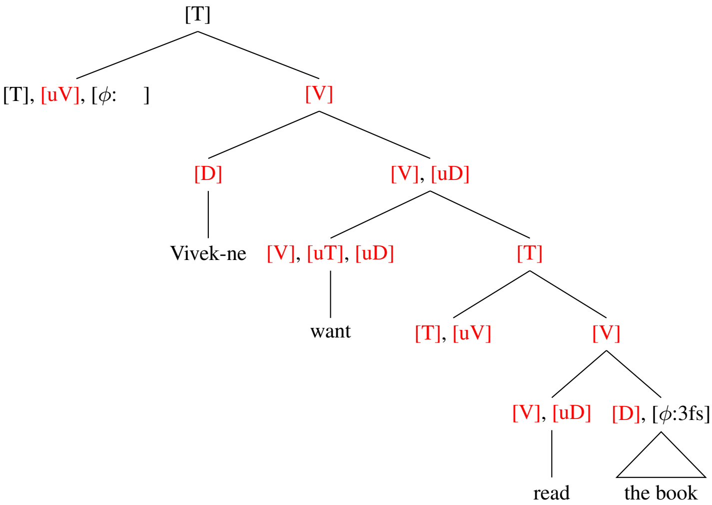

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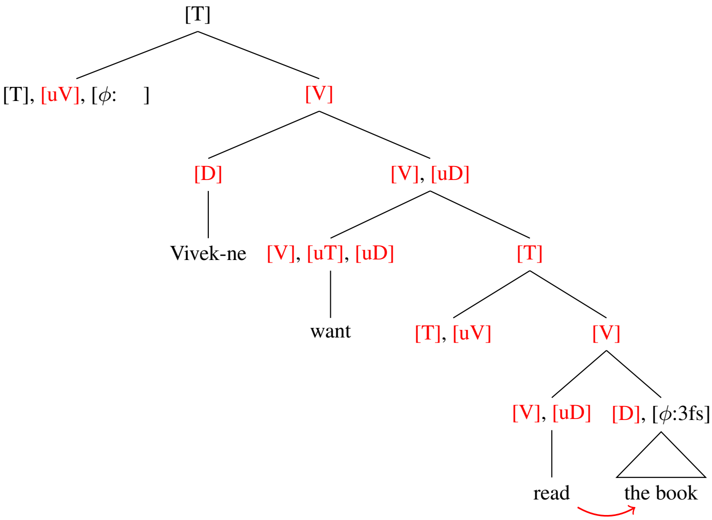

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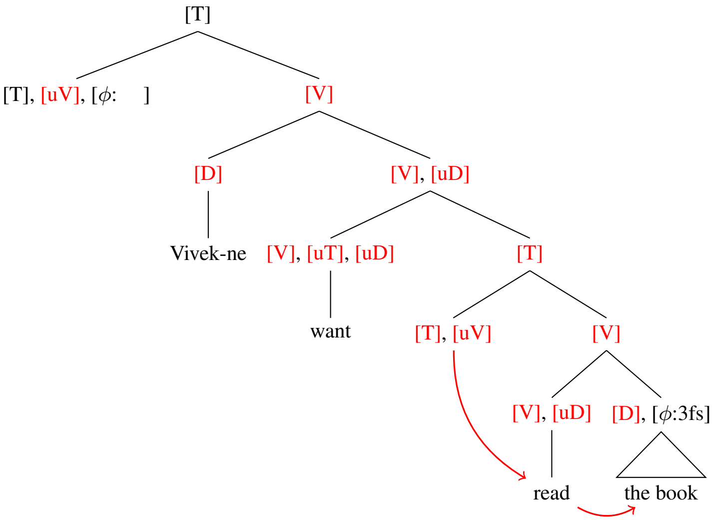

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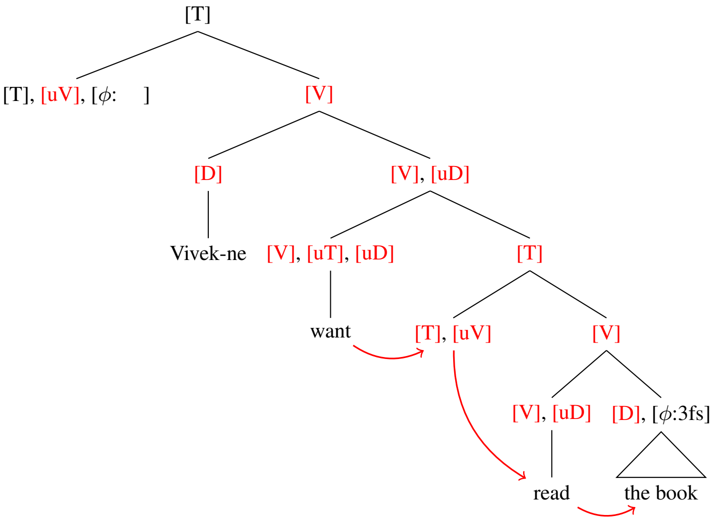

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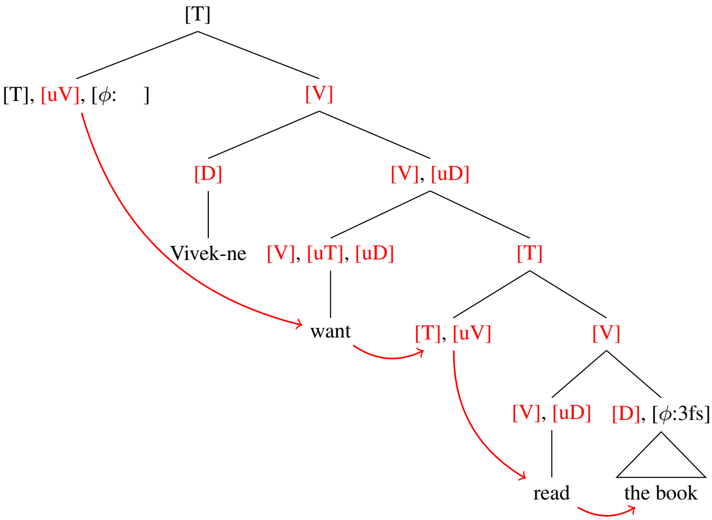

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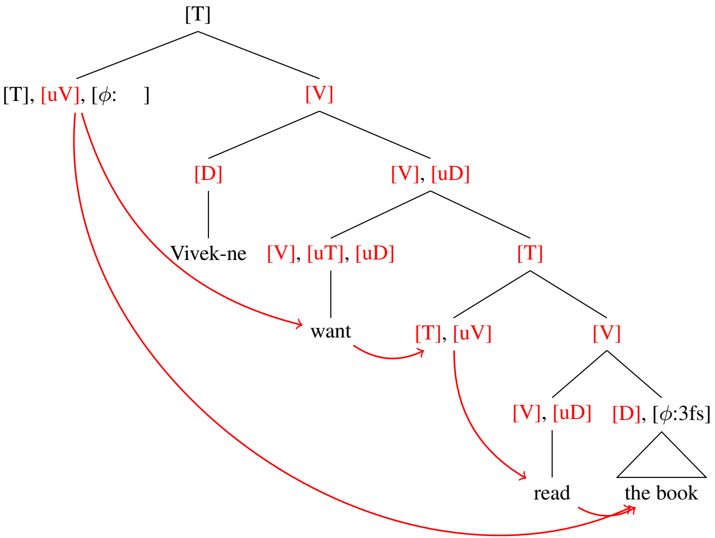

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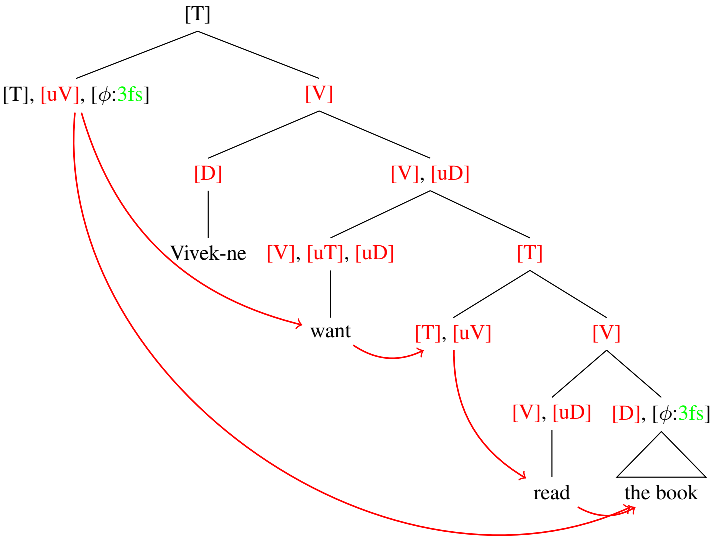

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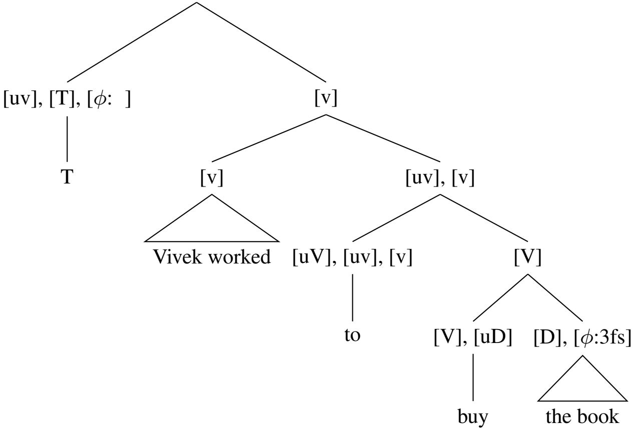

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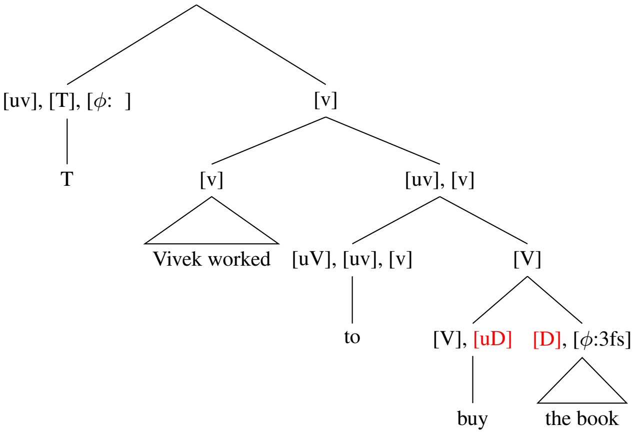

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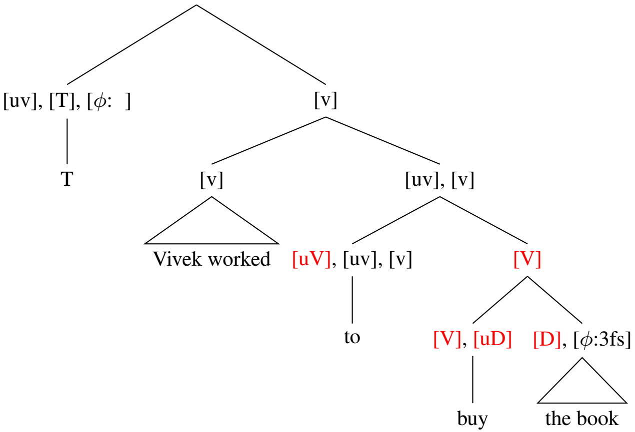

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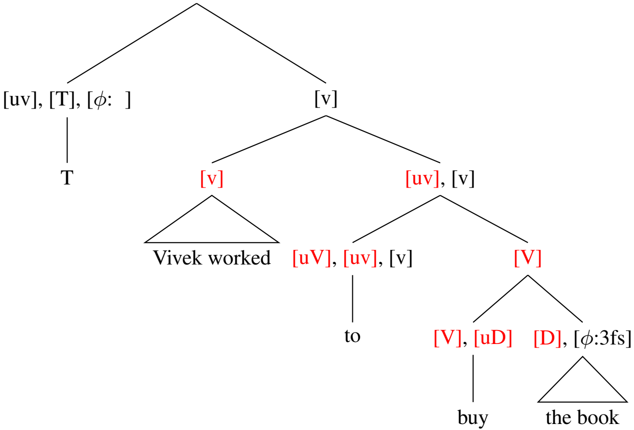

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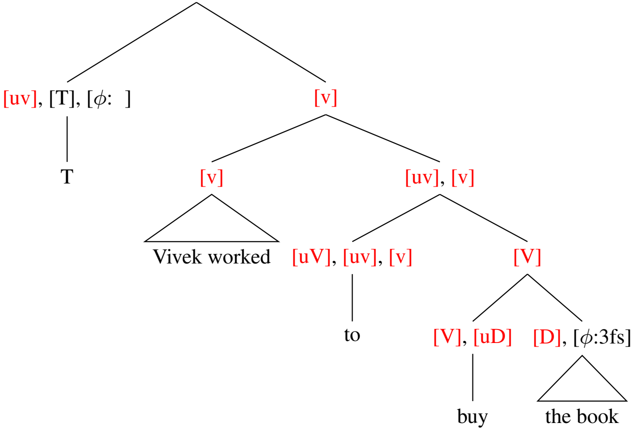

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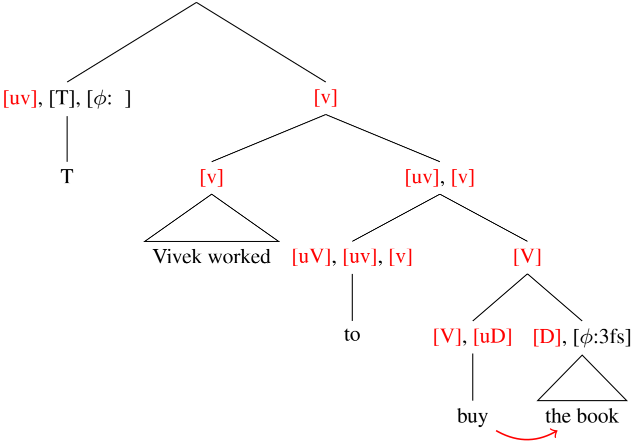

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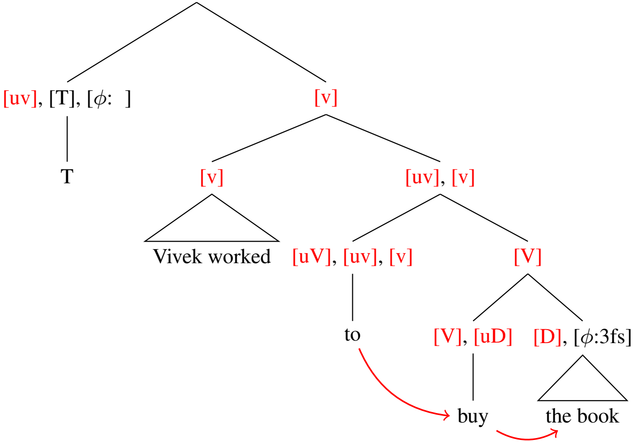

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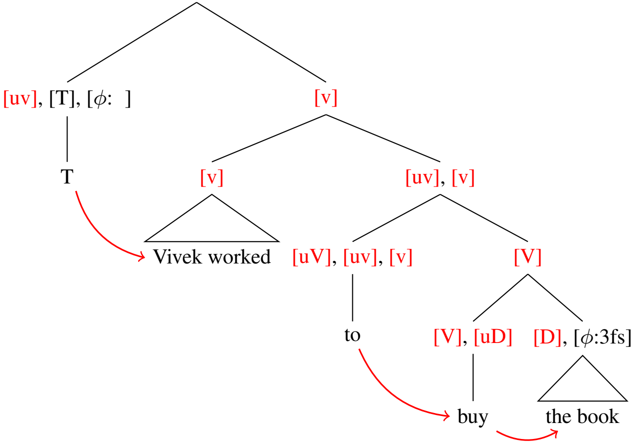

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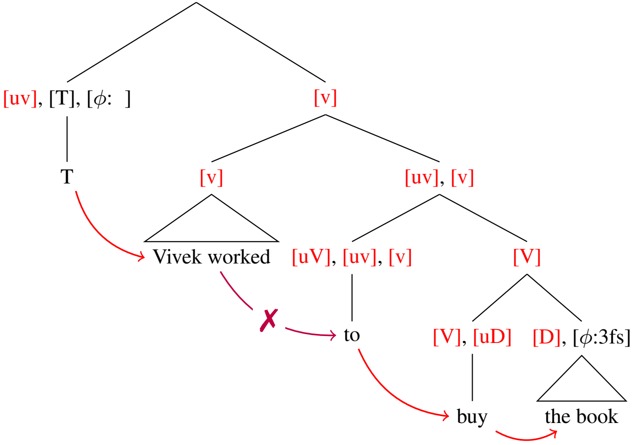

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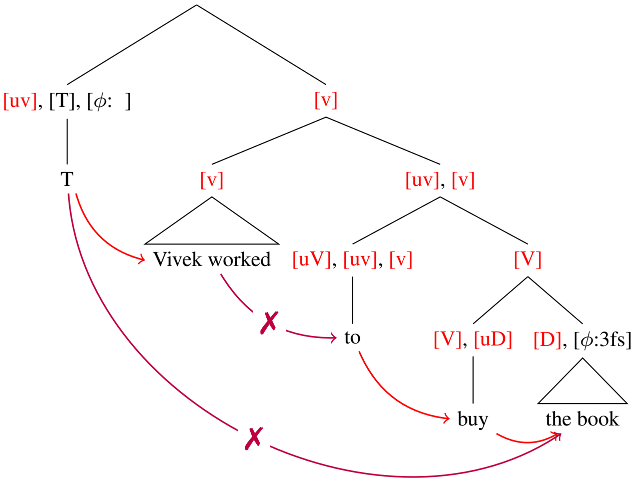

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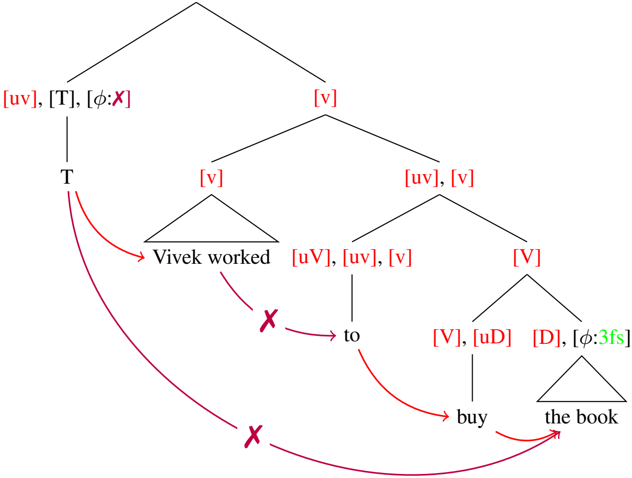

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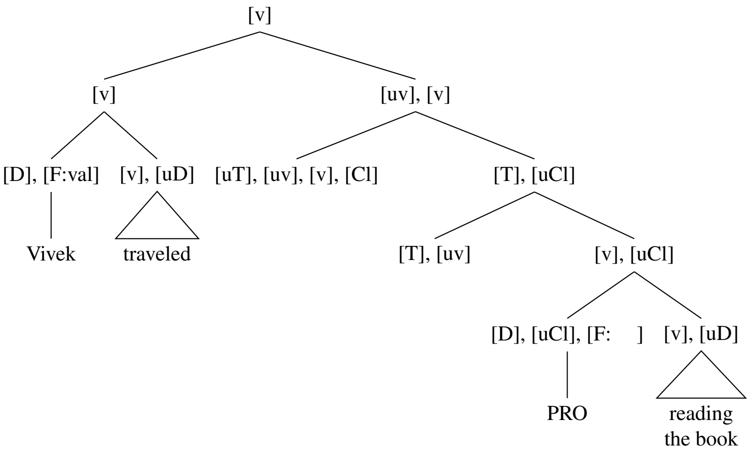

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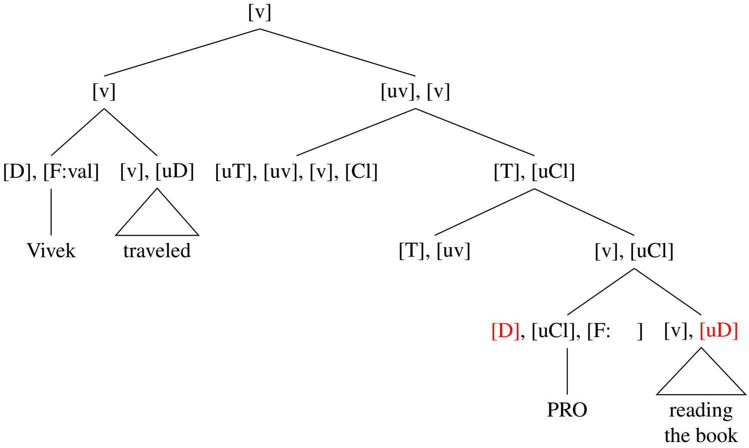

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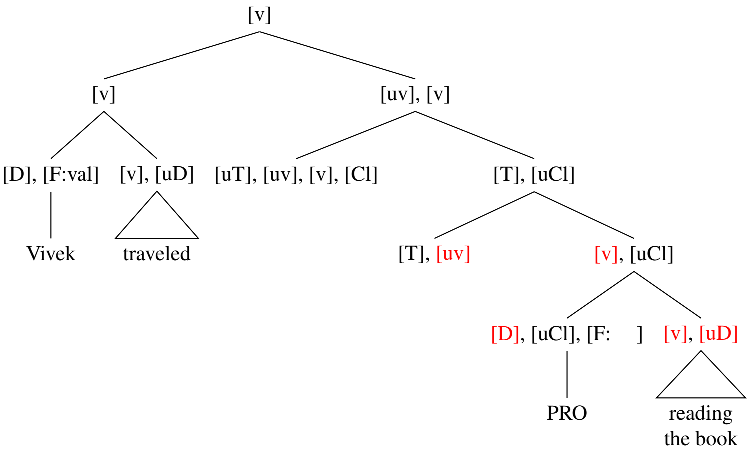

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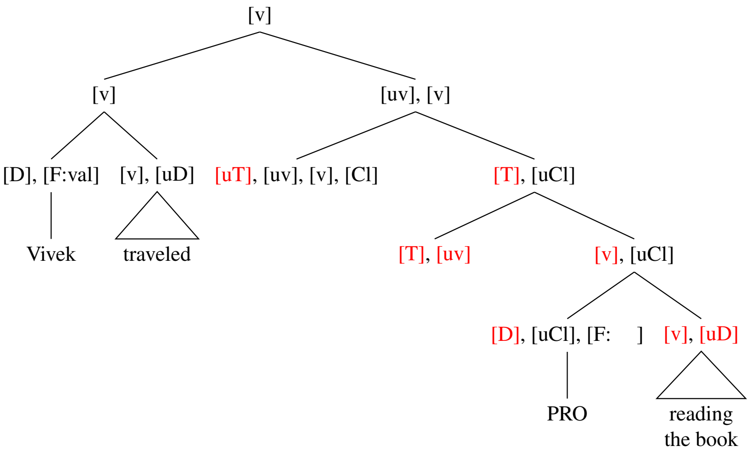

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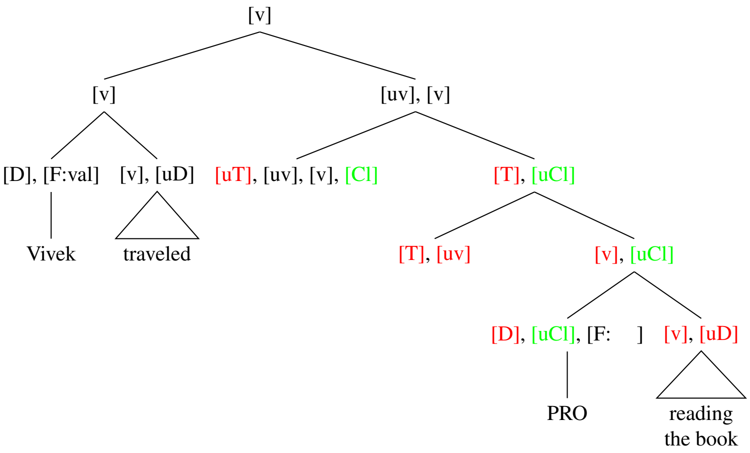

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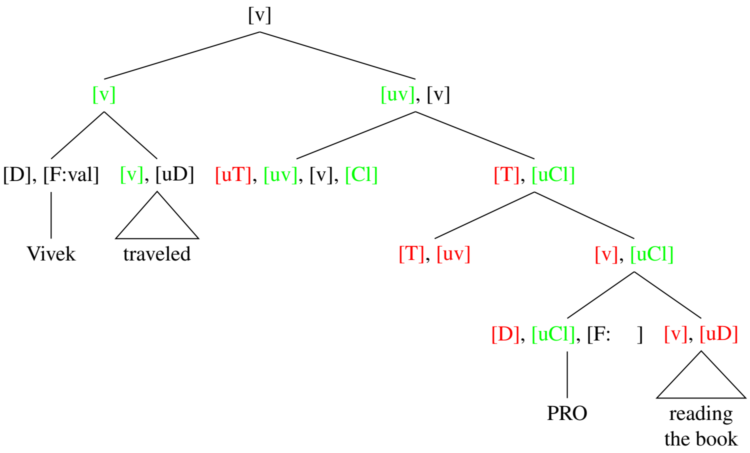

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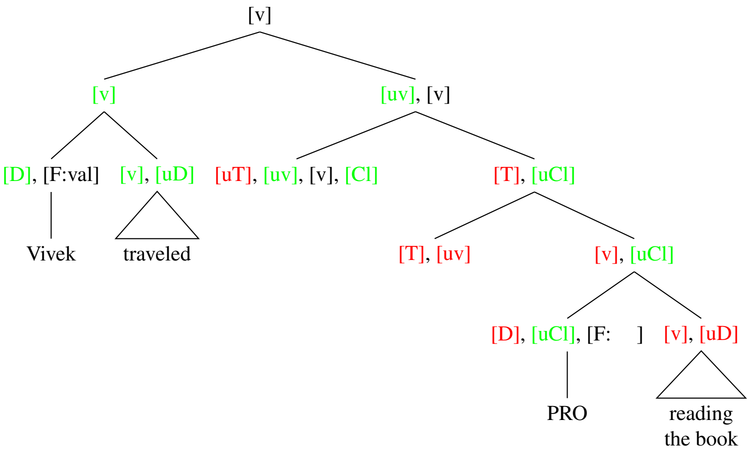

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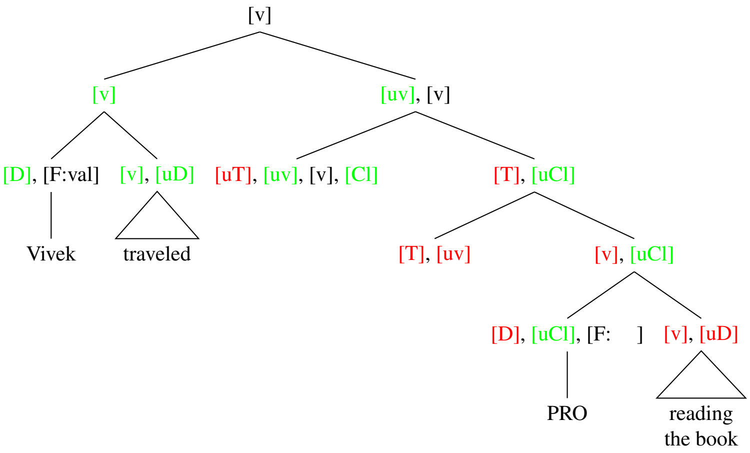

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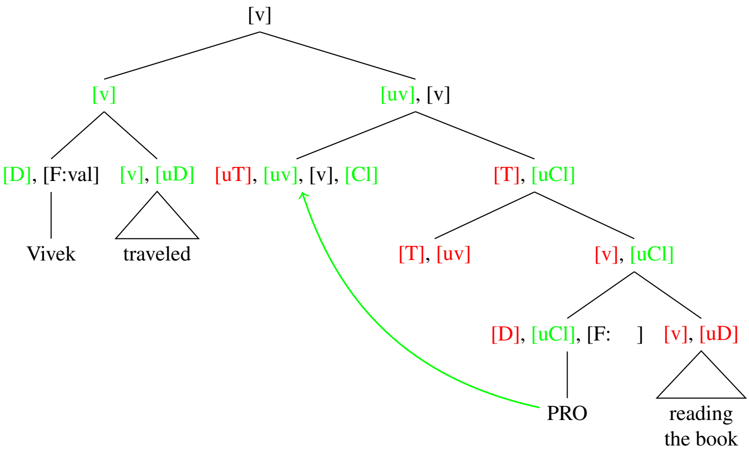

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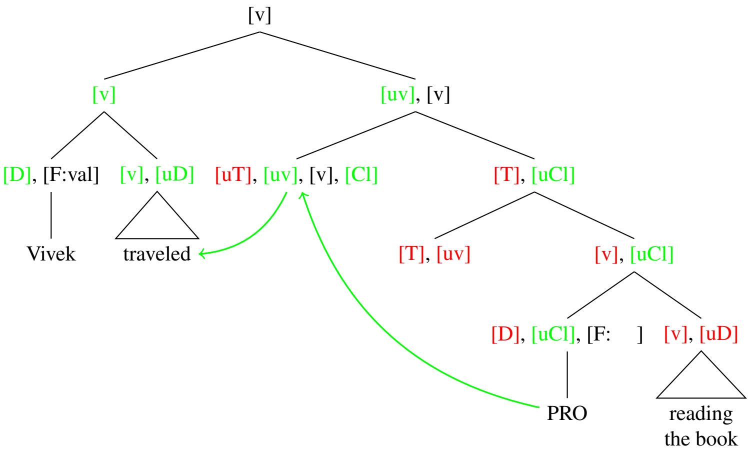

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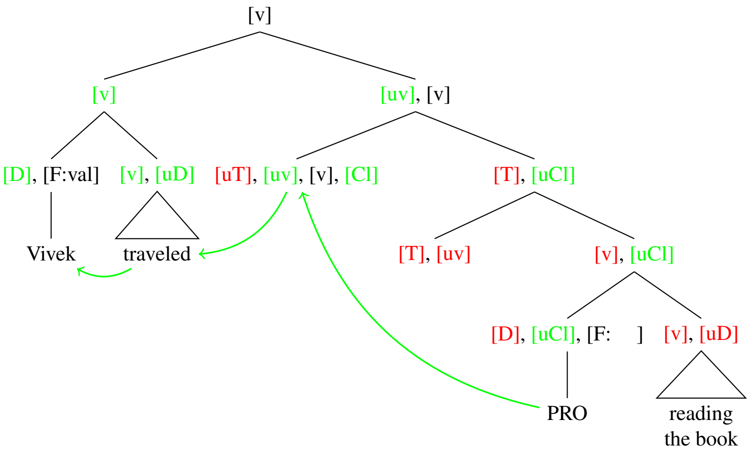

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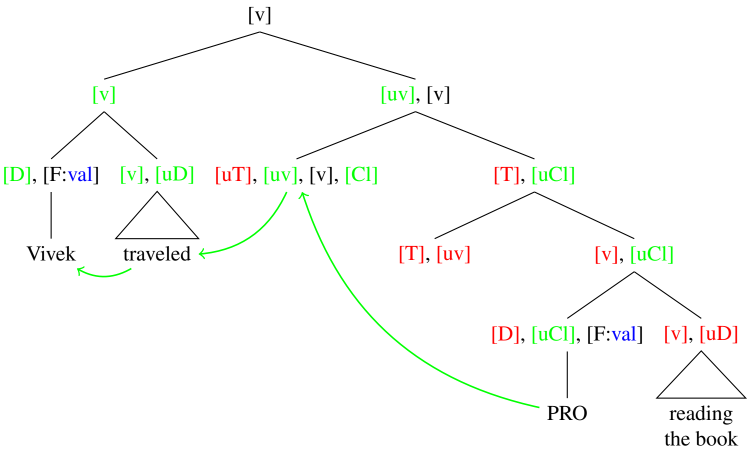

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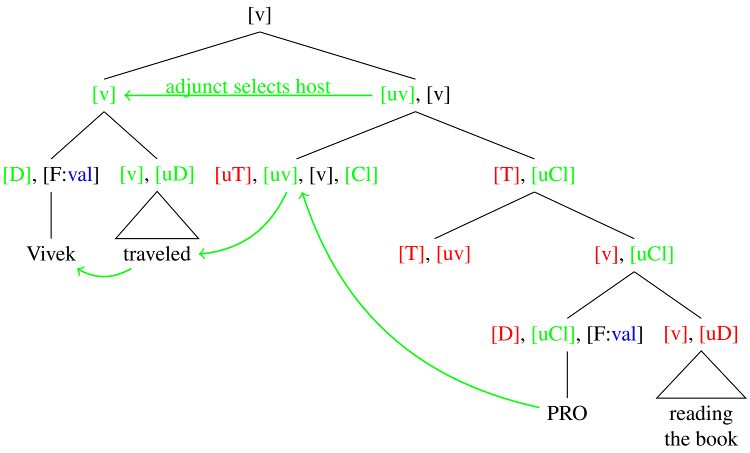

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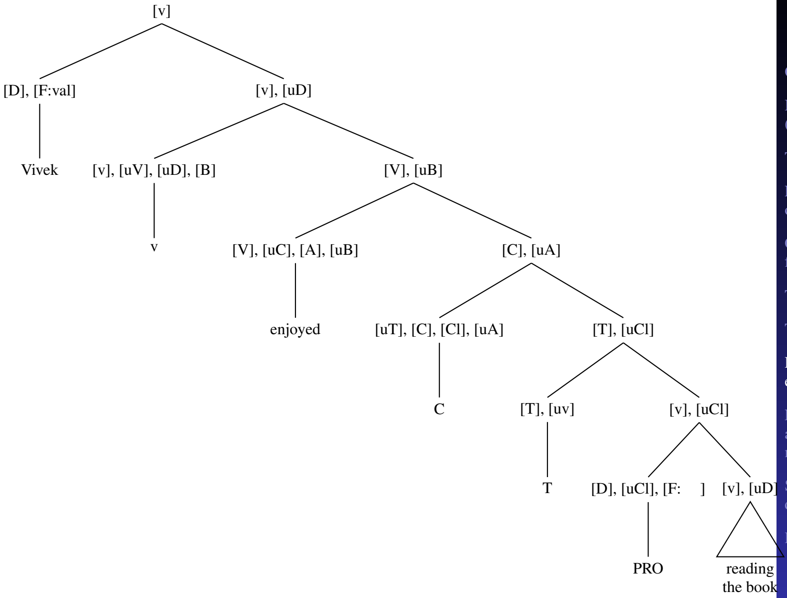

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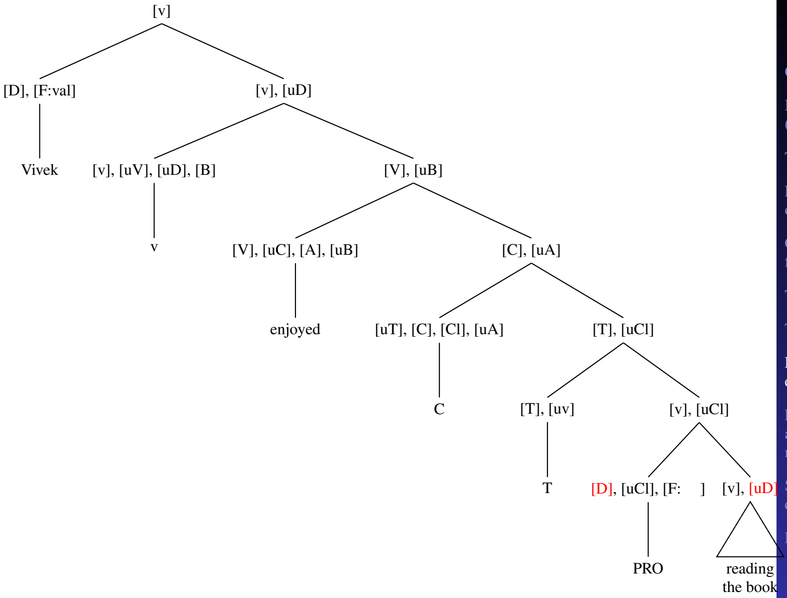

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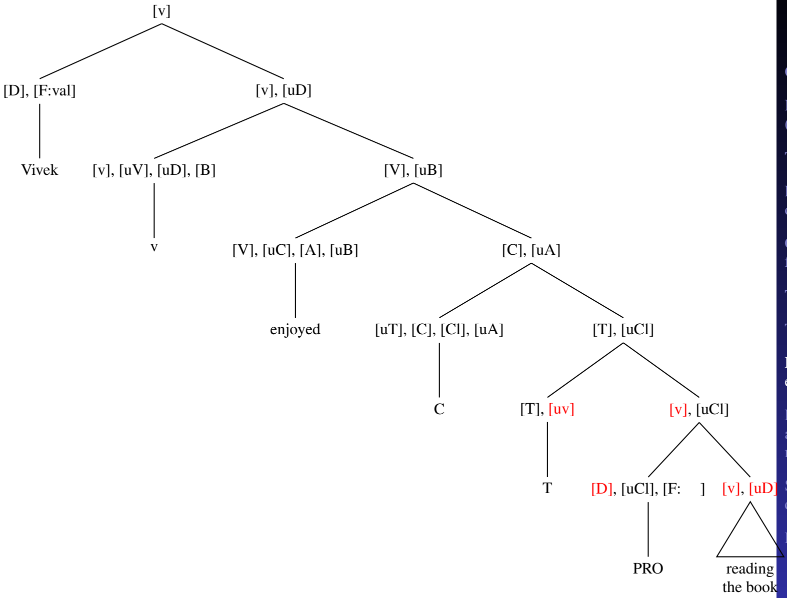

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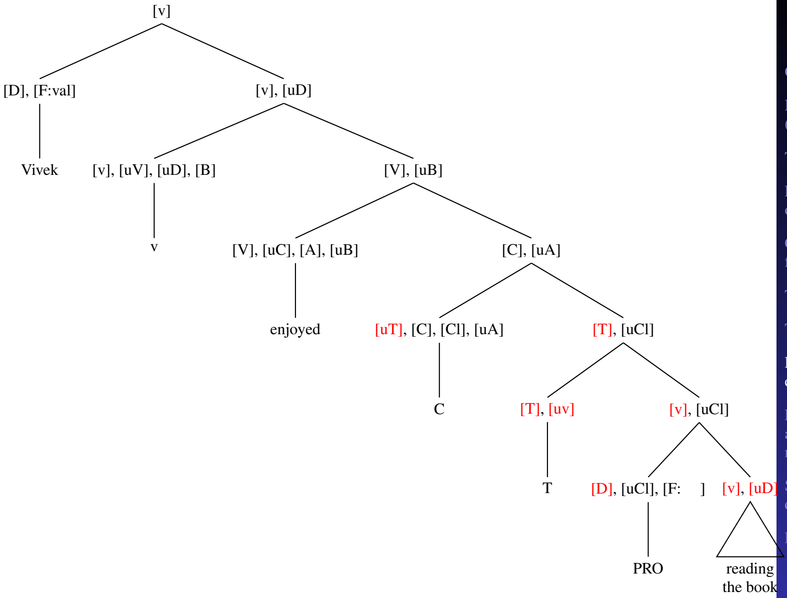

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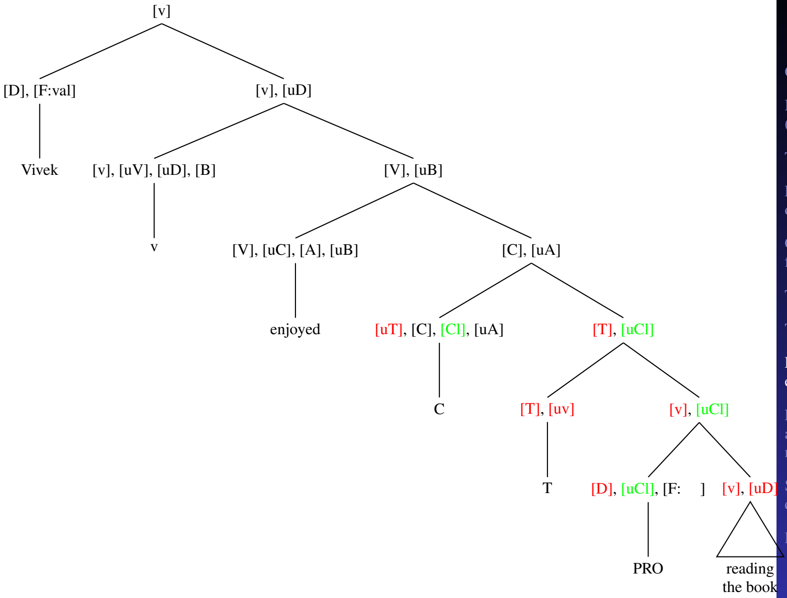

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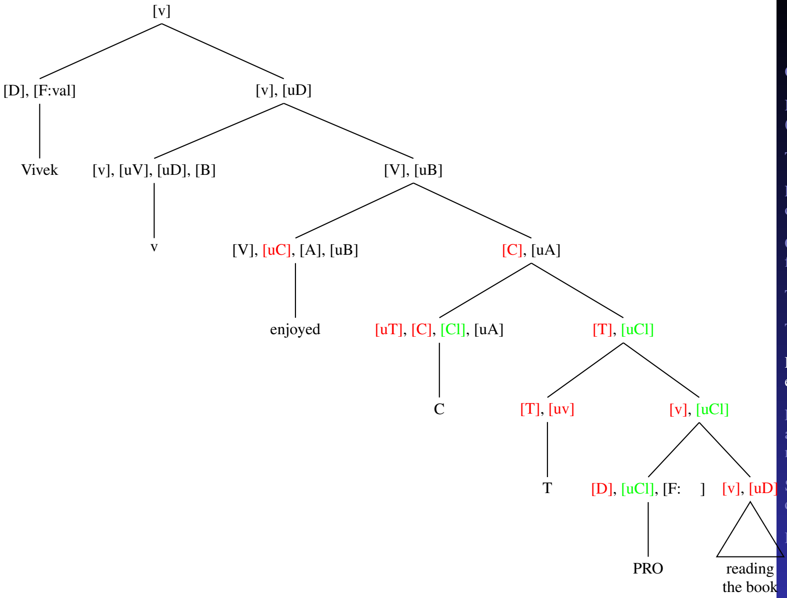

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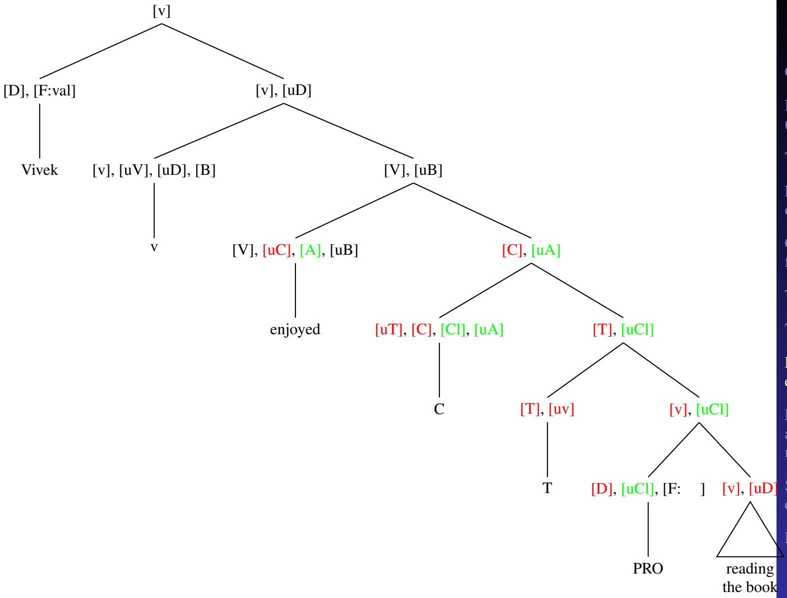

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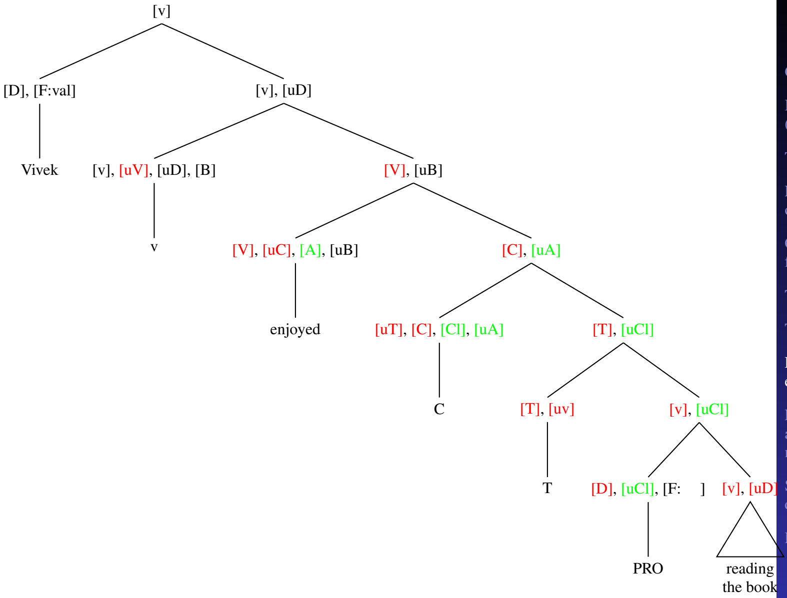

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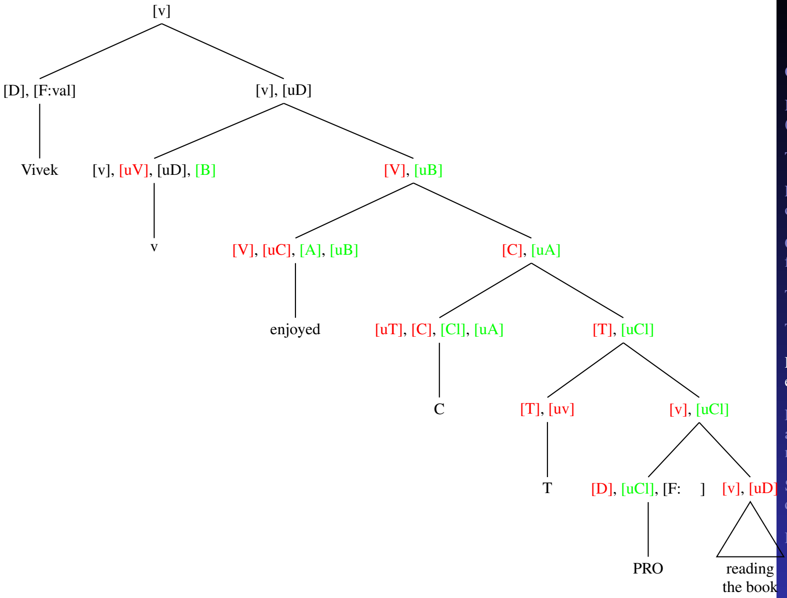

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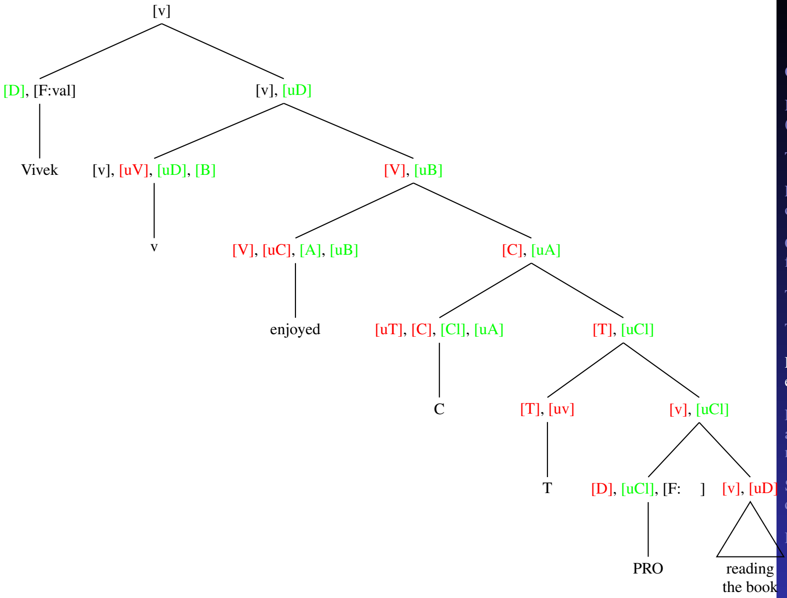

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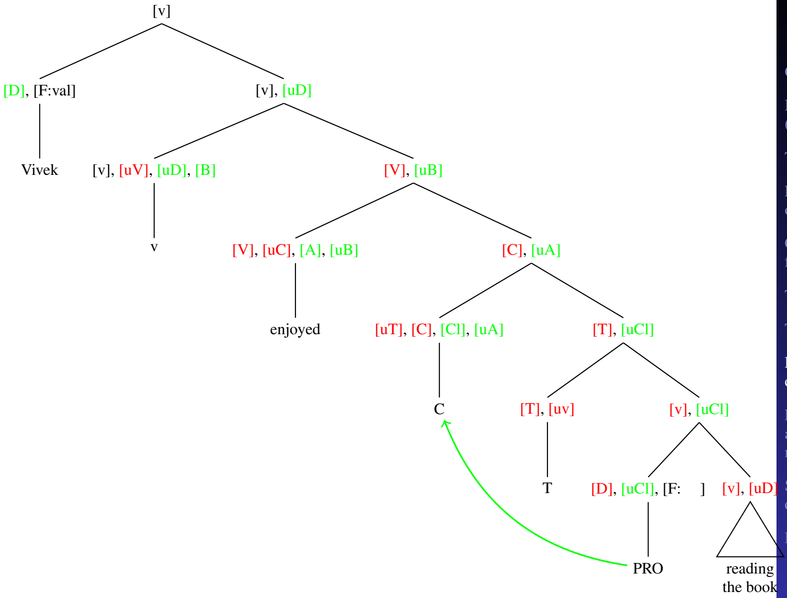

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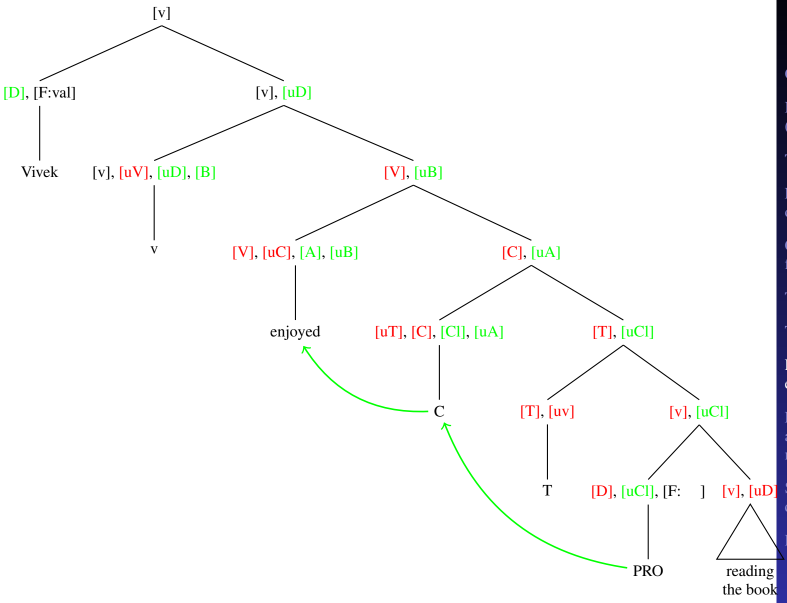

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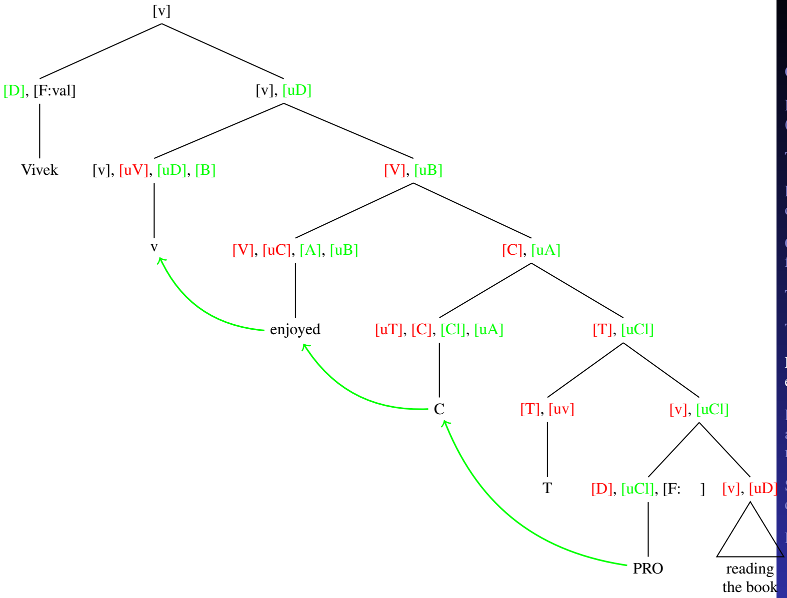

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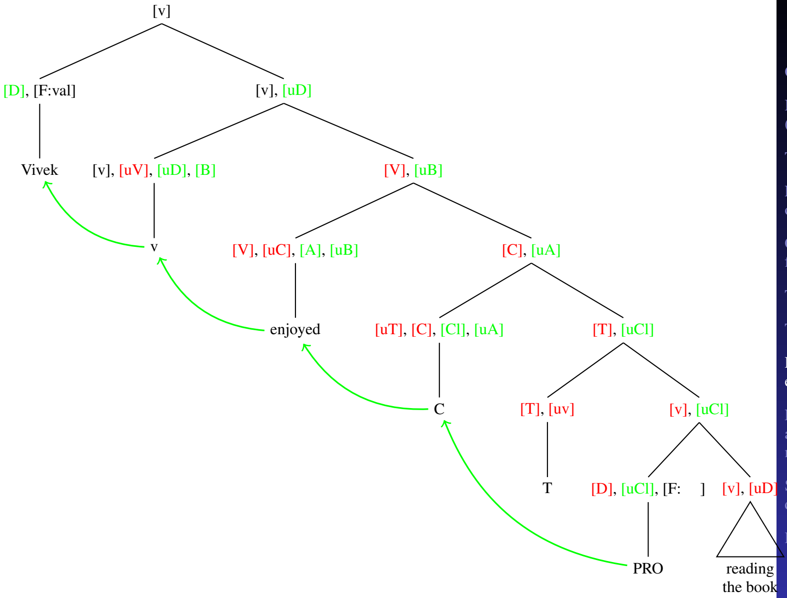
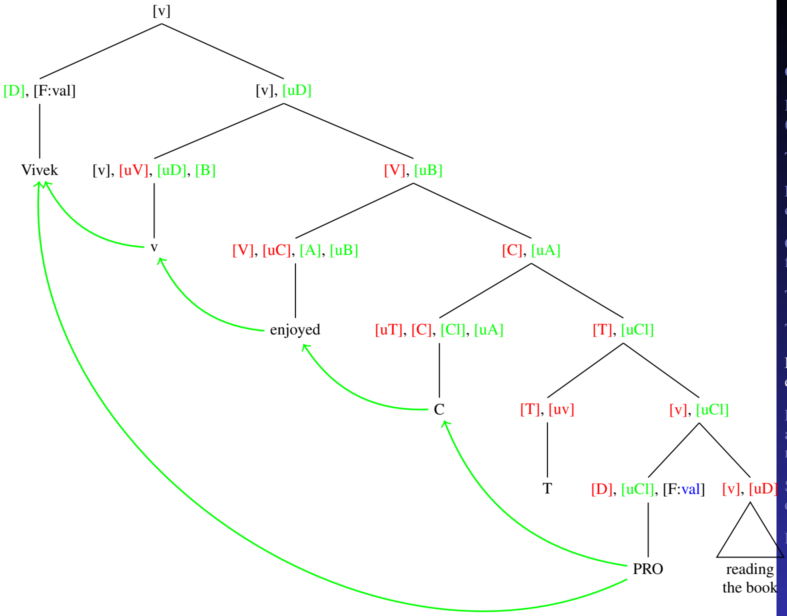


OC, valuation into a complement:



Extending the account to movement

- Movement is Merge preceded by some search operation for an appropriate mover, which is initiated by the needs of something at the landing site, a probe.
- Assume that this search is subject to the same conditions as a probe looking to be valued.
- So movement out of an adjunct is impossible just like valuation is impossible out of an adjunct.

Recall then the important facts from Truswell (2011, with a lot of antecedents):

(34) * What$_i$ did Maria work [t$_i$ whistling]?

(35) What$_i$ did Maria drive Jill crazy [t$_i$ whistiling]?

What could we say about these cases?

- One possibility is that things normally regarded as adjuncts, at least when they obey Truswell's Single Event Condition, are in fact selected!
- Another is that these configurations (and others that show apparent restricted movement possibilities out of weak islands) don't involve movement after all, but something more like a kind of $\bar{\text{A}}$-control.

Some (more) open questions

- ? If at least some locality is path based, what does that mean for phases? Can we get rid of them? Or maybe restrict their use in a way that will simplify how they are defined and operate?
- ? Checking paths actually also replace c-command in our definition of Valuation. Can this generalize to other places where c-command is assumed, e.g. dependent case?
- ? How do valued/unvalued features interact with projection? Could we maybe *derive* the checking-path sensitivity of valuation from how projection works?

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