Ling 165B: Syntax II

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Checking in: **Poll ??** Last time we looked at:

(i) X-bar theory

(ii) small clauses

How are you doing?

Poll ?? on small clauses.

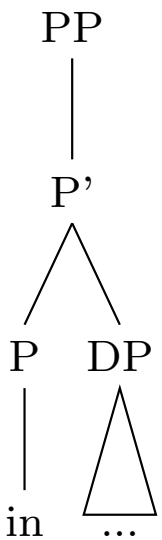
Locality of Selection I

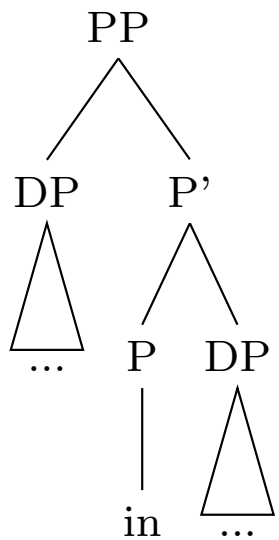
At this point, we have a system where structure is mostly dictated by the selectional properties of individual lexical items.

→ **Lexical entries can be used to represent this information.** The information in these lexical entries tells us how to build structure.

- It tells us whether, and which, complements are required. And it tells whether a specifier is required.
- For example the lexical entry below tells us that two structures are possible for the phrase headed by 'in':

in P free (selects DP) c-selects DP





Locality of Selection II

→ Locality of selection means that these requirements are local: the argument required by 'in' is a complement to this P head, whereas the subject must be in the specifier position.

Locality of Selection (preliminary)

If an atom selects an element, it acts as a head. This head must have the selected element as its complement or its subject. Selection is local in the sense that there is a maximal distance between a selector and what it selects.

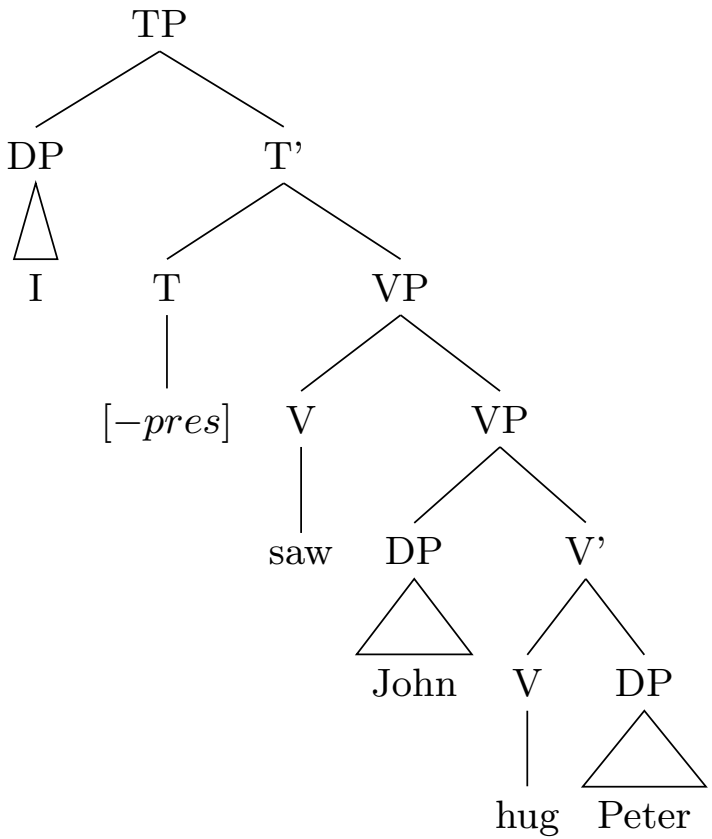
If α selects β as complement, β is a complement of α;
If α selects β as subject, β is the subject of α;
If α selects β as an adjunct, β is the adjunct of α;

In other words, complements and subjects are realized within the maximal projection headed by the lexical item. Nice and tidy.

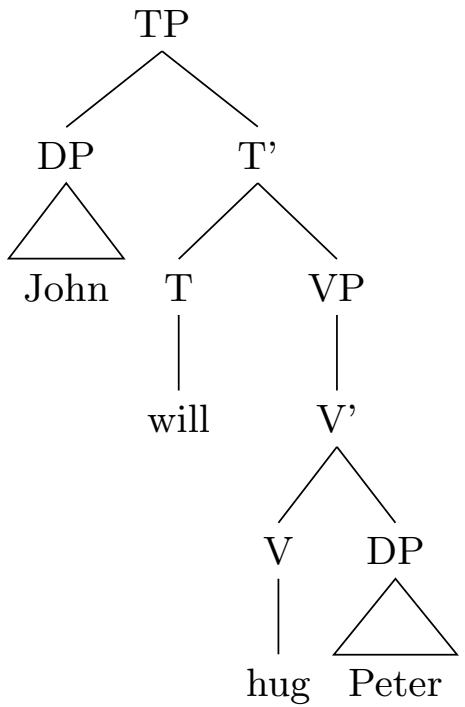
VP-internal Subject Hypothesis I

But there is a blatant violation of this principle in what we've been doing so far.

a. I saw John hug Peter.



b. John will hug Peter.

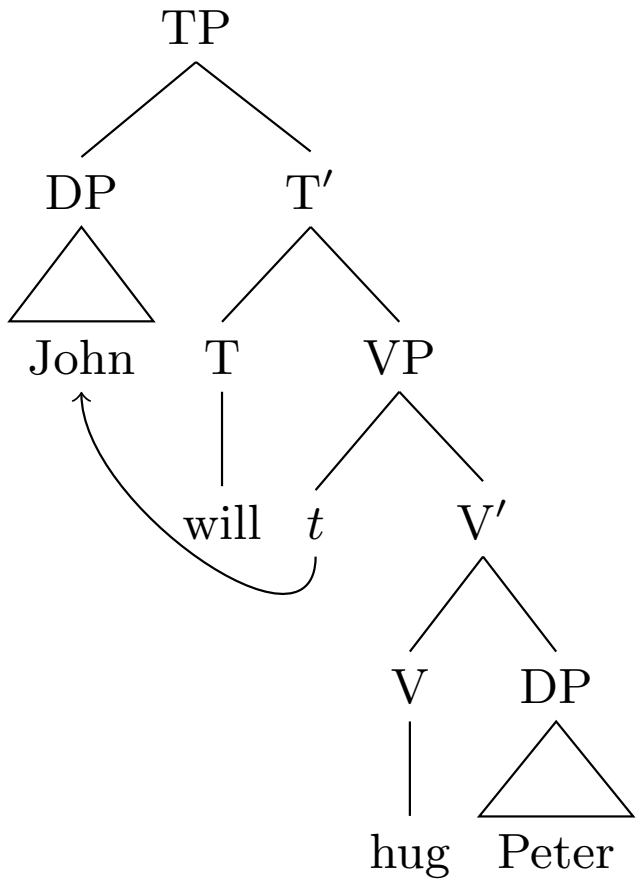


VP-internal Subject Hypothesis II

Proposal:

→ Subjects enter the derivation in the VP.

→ They end up in Spec, TP as a result of movement.

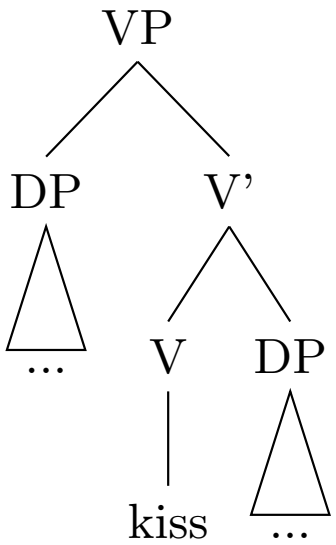


→ This is called the **VP-internal Subject Hypothesis**.

VP-internal Subject Hypothesis III

→ It applies to the selected subject of all predicates.

kiss	V	free	<u>DP</u>	DP



In §6.8.2. the authors of your textbook adopt the convention that the phrases selected as specifiers are <u>underlined</u>.

→ if subjects are VP internal, why do they move?

The Extended Projection Principle (EPP)
The specifier of TP always has to be filled.

Head Movement

Problem In our tree structures, present and past tense morphemes are separated from the V.

> Our tree structures correctly represent the relations between head and phrases but they do not capture the way in which the heads are actually pronounced. hug**ed**, danc**ed**, run**s**, finish**ed**...

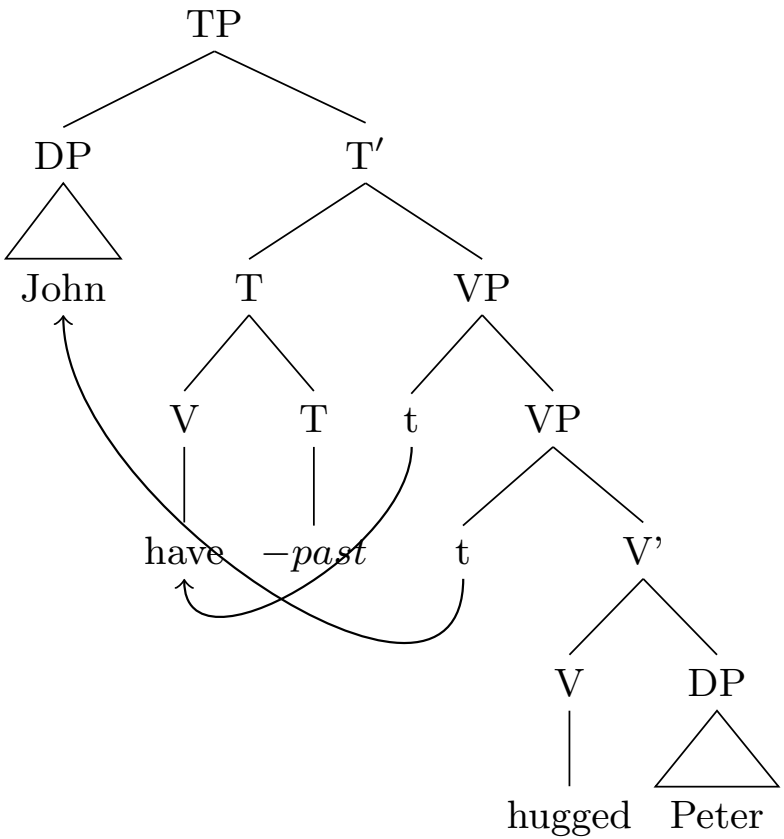
(1) John hugged Peter

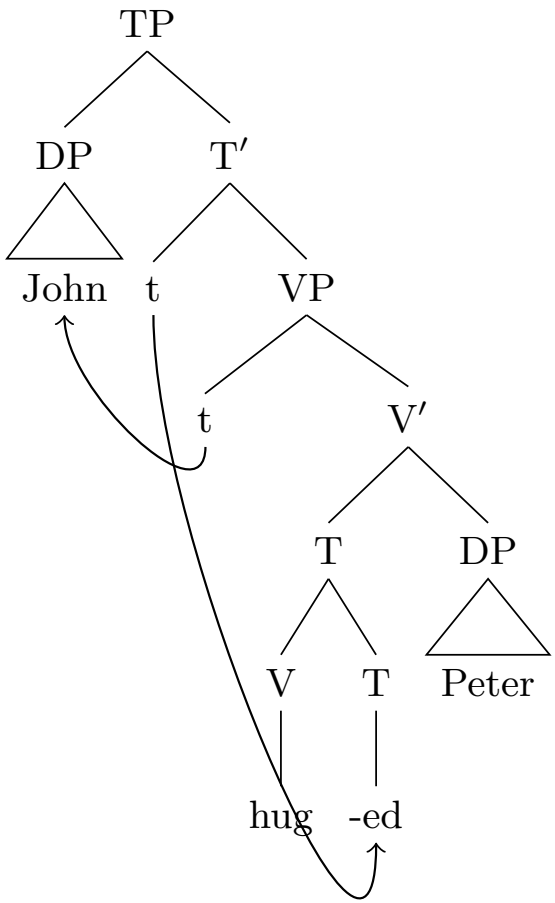
What MOVE operation could put together the verb 'hug' and the bound morpheme '-ed' in (1)?

(i) the V moves up to T;

(ii) T moves down to V.

Both operations turn out to exist, but for different subclasses of verbs, the former for auxiliary verbs (like *have* and *be*), the second for all other English verbs.


TP
DP
T′
John
T
VP
V
T
t
VP
have
−past
t
V’
V
DP
hugged
Peter

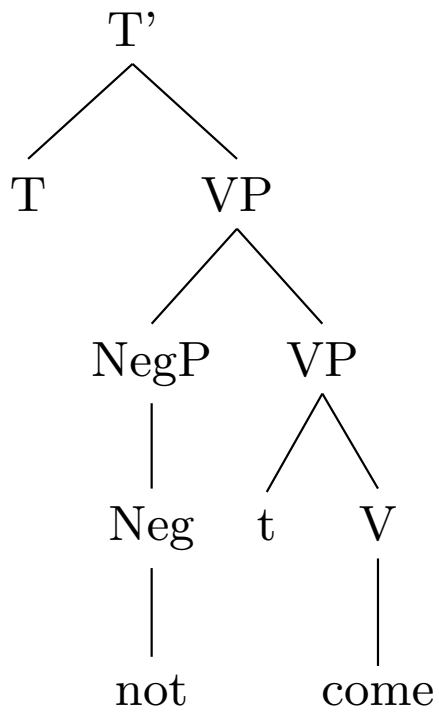

TP
DP
T′
John
t
VP
t
V′
T
DP
V
T
Peter
hug
-ed

The evidence for this account comes from the distribution of (i) adverbs and (ii) negation.

→ Adverbs and negation are adjuncts to VP.

→ We use them as diagnostic for where the verb is.

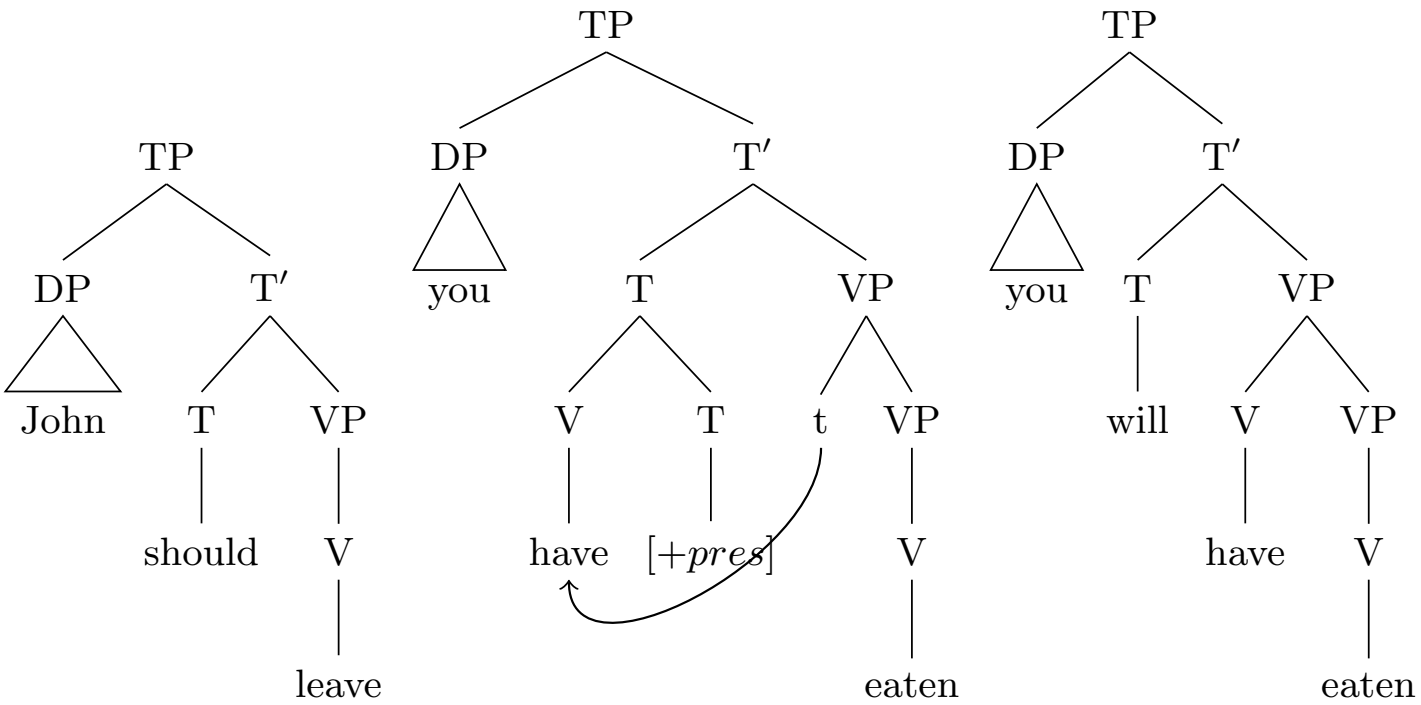
(2) a. John will **not** come.
b.*John **not** will come.
c. John has **not** come.
d.*John **not** has come.
e. John did **not** come
f. *John came **not**



V-to-T movement I

→ Modals are generated in T;

→ Auxiliaries are verbs (heads of VPs). They can move to T when the position is not otherwise occupied.



V-to-T movement II

→ Lexical verbs do not move to T in English. In other languages lexical verbs do move to T (i.e. French)

English: **Subj >> Adv/Neg >> Lex Verb >> Dir Obj**

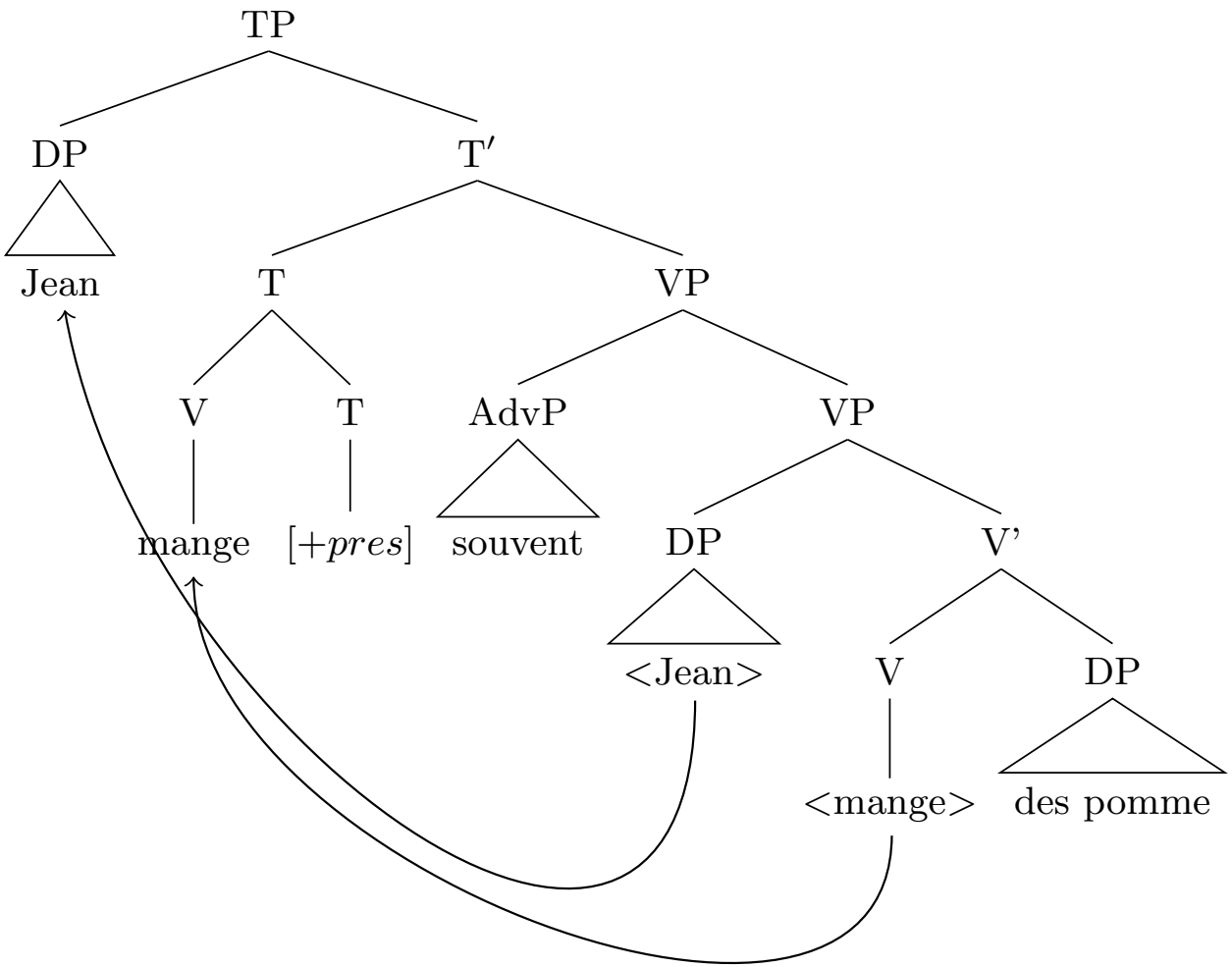
French: **Subj >> Lex Verb >> Adv/Neg >> Dir Obj**

(3) Je mange souvent des pommes
I eat often apples
'I often eat apples'

(4) Je (ne) mange pas de pommes
I eat NEG apples
'I do not eat apples'

(5) Je (n') ai pas mangé de pommes
I AUX NEG eaten apples
'I have not eaten apple'

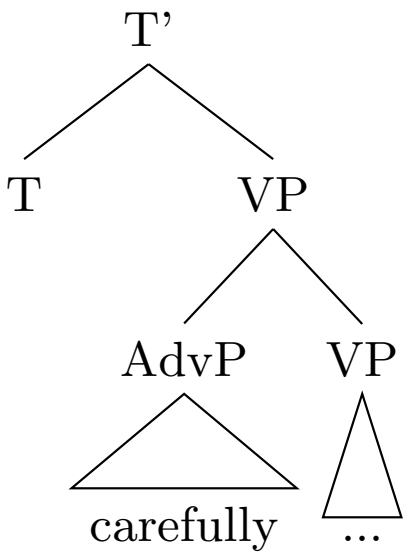
V-to-T movement III



Tense Lowering I

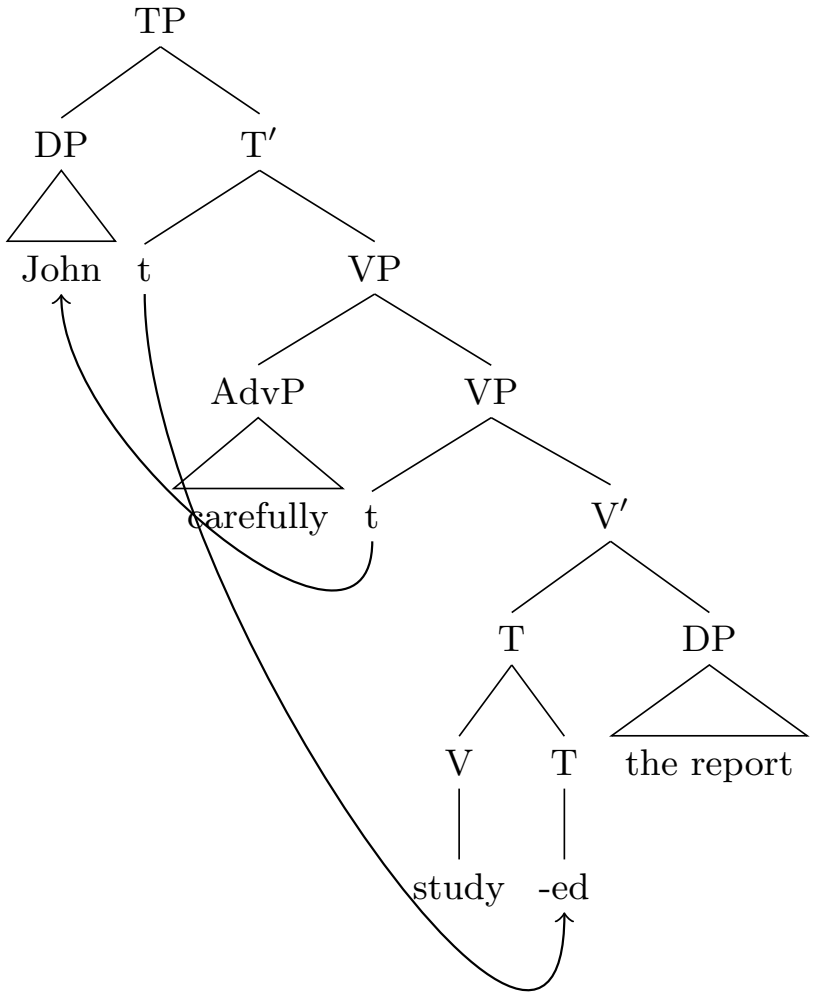
→ Lexical verbs do not move to T in English.

(6) a.*John studied carefully the report
b. John carefully studied the report.



Tense Lowering II

→ T moves onto the verb (affix hopping)



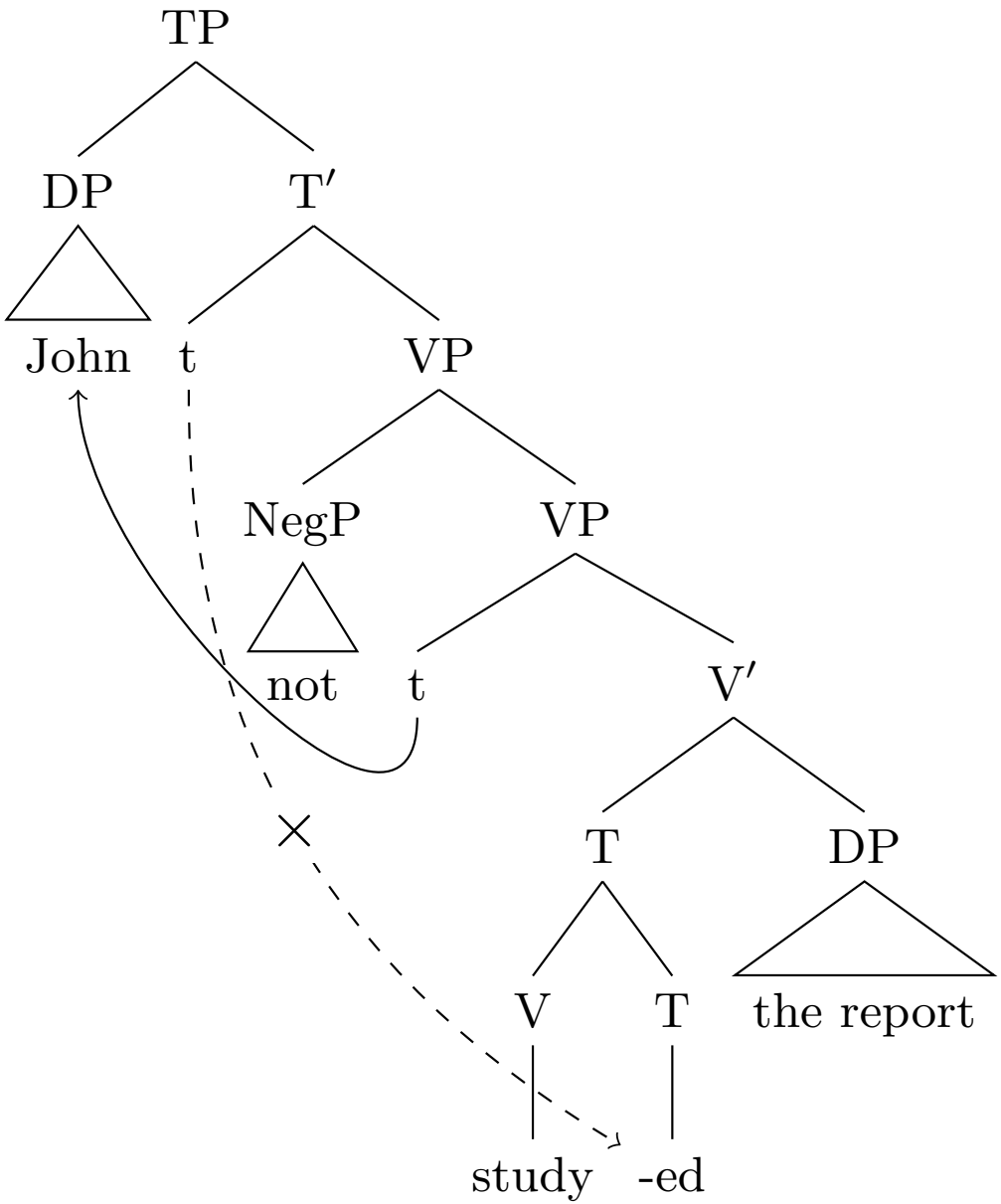
do-support I

→ Tense lowering does not apply in some cases.
A dummy verb *do* can be inserted to support the stranded affix.

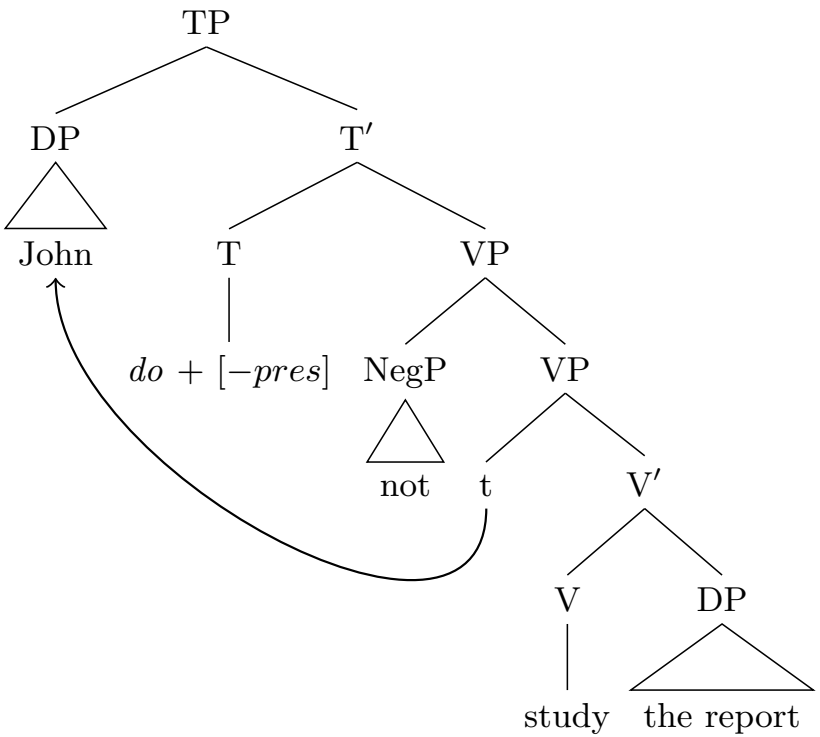
(7) **Negation**

a.*John studied not the report	V to T is not possible
b.*John not studied the report.	T to V is also not possible
c. John <u>did</u> not study the report.	*do*-support
d.*John did/do not studied the report.	

do-support II



do-support III



Do-support: when there is no other option for supporting inflectional affixes, insert the dummy verb *do* into T.

Poll ?? on V to T.

T-to-C movement I

→ An operation that moves the material in T to C:

→ Unpronounced complementizers trigger the movement

In English, C[+Q]

→ So we get subject-auxiliary inversion:

(8) a. John should study the report
b. Should John study the report?

→ all auxiliaries do this:

(9) a. Peter is walking → Is Peter walking?
b. Peter has walked → Has Peter walked?
c. Peter will walk → Will Peter walk?

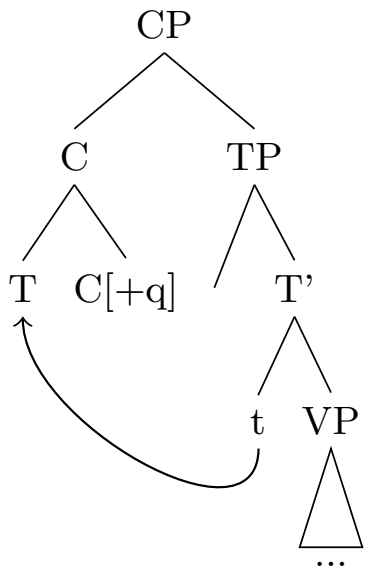
T-to-C movement II

→ More precisely: only the auxiliary in T can precede the subject (head movement targets the closest auxiliary):

(10) Peter should have walked the dog
→ Should Peter have walked the dog?
→ *Have Peter should walked the dog?

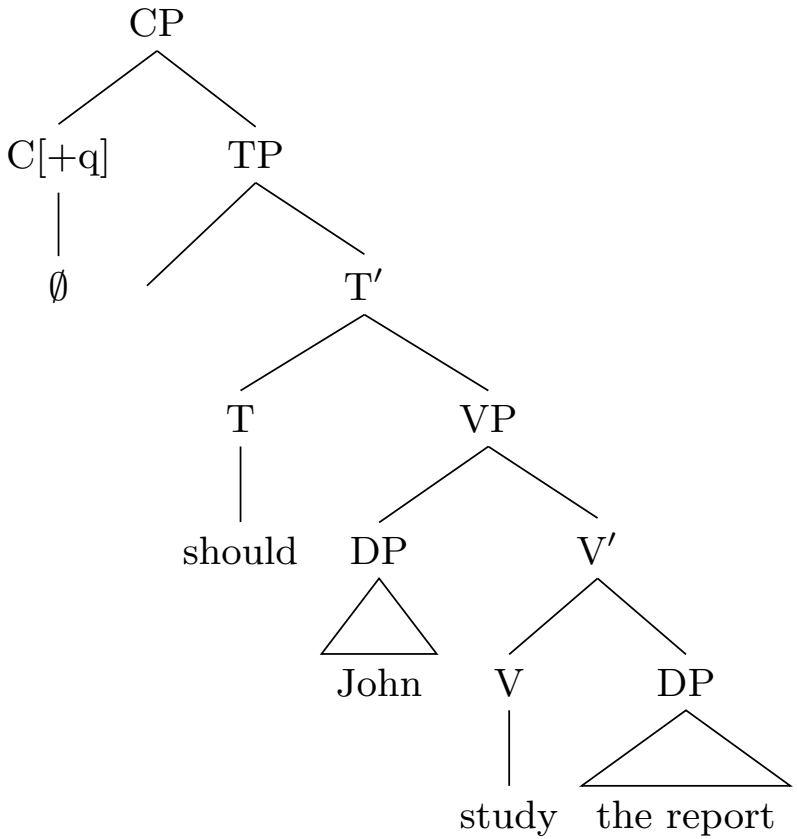
Proposal: The question complementizer C[+*Q*] is an affix which need to be pronounced

→ It triggers movement of T to C.

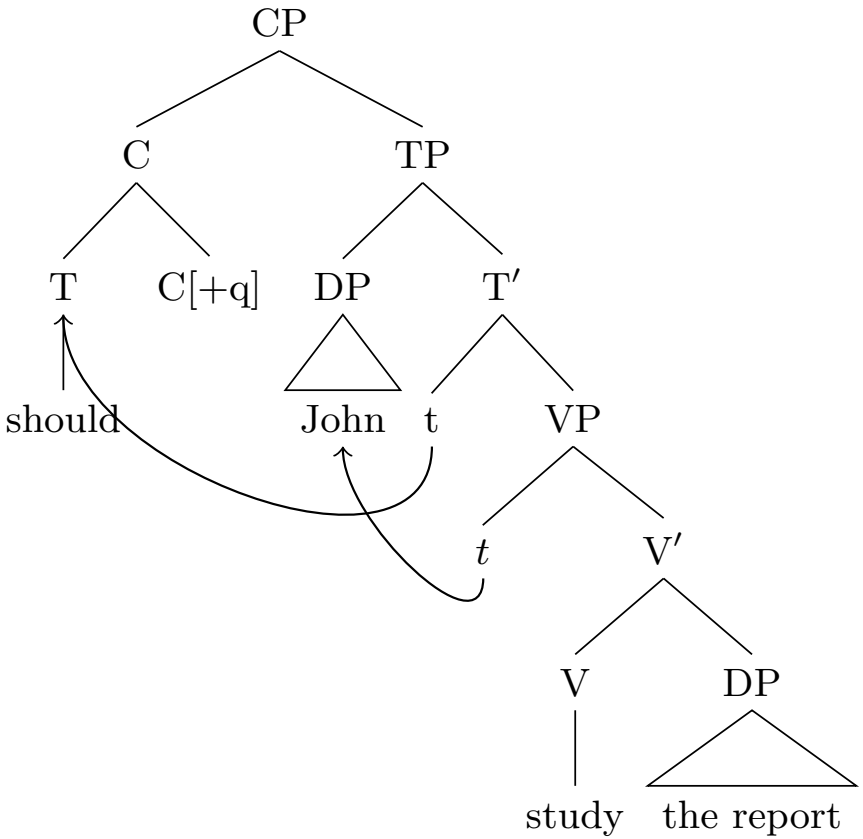


T-to-C movement III

Underlying tree



Surface Tree



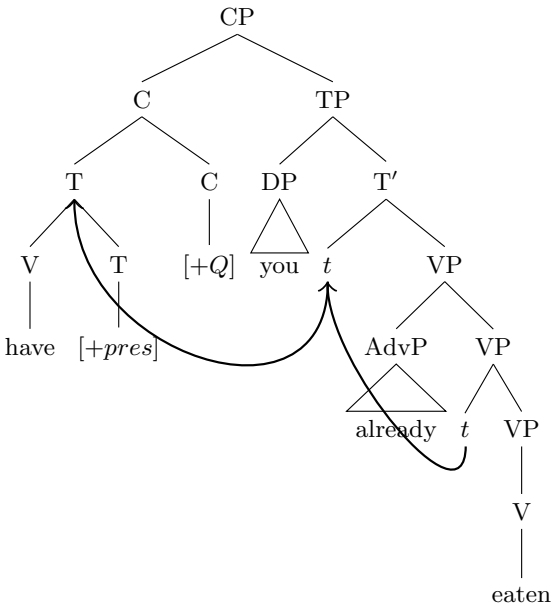
T-to-C movement IV

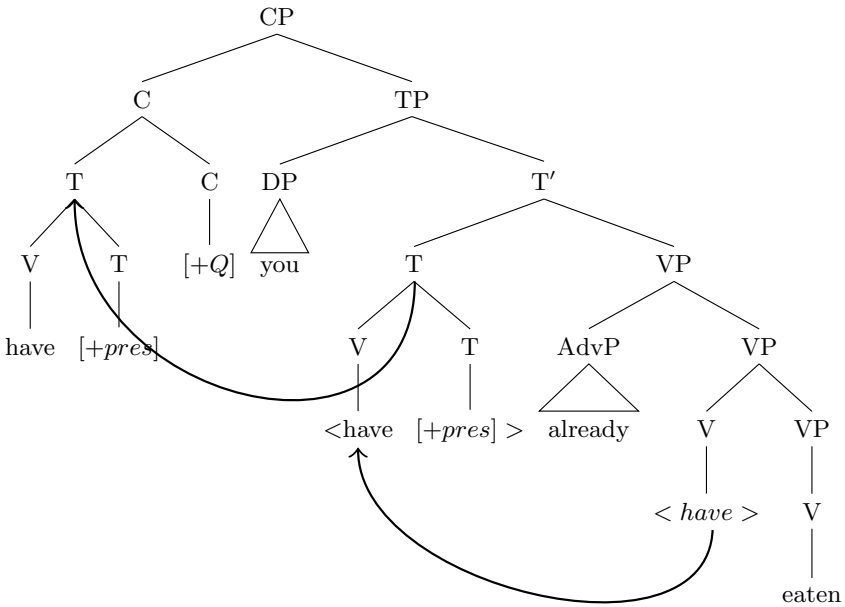
→ Head movement is *local* (intervening heads cannot be skipped)

- V to C does not exist: in order to move what is in V to C, you need a two step movement: (i) V to T and (ii) T to C.

→ Below is an example of a two step movement, given in two different formats (I omitted the subject movement here)

(11) Have you already eaten?





T-to-C movement VII

→ What about cases in which what is in T is **not** a free morpheme (a sentence with no auxiliary or modal verb)?

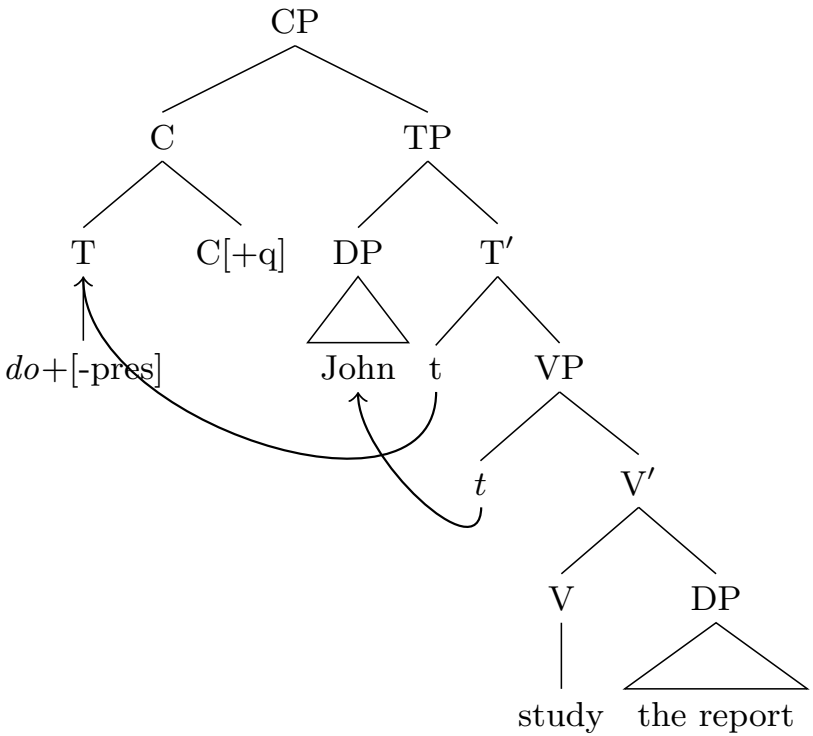
(12) a. John studied the report. — Did John study the report?
b. John knows the anwer. — Does John know the answer?

- In this cases T does not lower to V:

(13) a.*Do John studied the report?
b.*Do John knows the answer?

- Instead we move T to C and then insert a dummy auxiliary (*do*)

T-to-C movement VIII



- The same rule (*do* support) applied in the case of negation. It is a **last resort** rule: it applies only in case that there is nothing else to do.

Summary about Head Movement

→ Head movement is a way of providing bound morphemes with a pronunciation

→ Languages differ on which heads undergo and which heads trigger head movement (French vs. English)

How to proceed (for English)

If you have bound morphemes that need to be pronounced:

1. Is V-to-T possible/justified?
2. If (1) is not an option or the output is still unpronounceable: is T-to-C possible/justified?
3. If (2) is not an option or the output is still unpronounceable: is tense lowering (from T to V) possible?
4. If (3) is not an option or the output is still unpronounceable: *do support*!!
5. If you still have a morpheme that need to be pronounced, go back to step (1).

Practice Draw a tre for the following sentence:

(14) Has Maria's boyfriend been telling the truth?

X-bar Theory and Cross-linguistic variation

→ X-bar theory says something about how subjects and complements are hierarchically organized in a given category, but does not entirely predict linear order.

- Heads combine with complements first and then with subjects;
- Adjuncts combine with the projection that is formed.

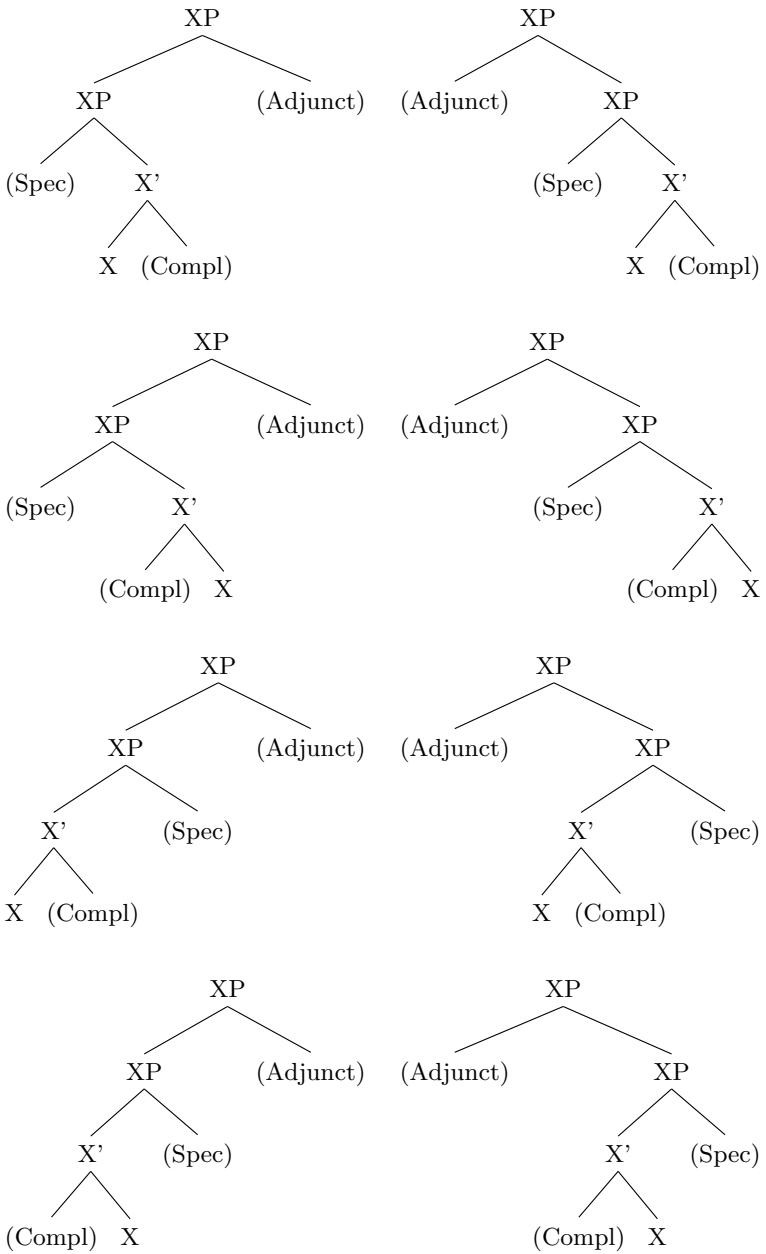
→ It does not say anything about the order of sisters.

- How the relations are linearized is determined by parameters in each individual language.

a. In English we have Spec >> Head >> Compl
b. In other languages we could have a different linear order.

- Some oders are excluded by X-bar Theory.

→ Thus, X-bar theory predicts the following types of phrases to be possible



Japanese (SOV)

(15) a. taro-wa inu-o mita
taro-TOP dog-acc saw
'taro saw the/a dog'
b. taro no inu
taro GEN dog
'taro's dog'
c. Tokyo kara
tokyo from
'from Tokyo'
d. taro-wa aruite iru
taro-TOP walking be
'taro is walking'

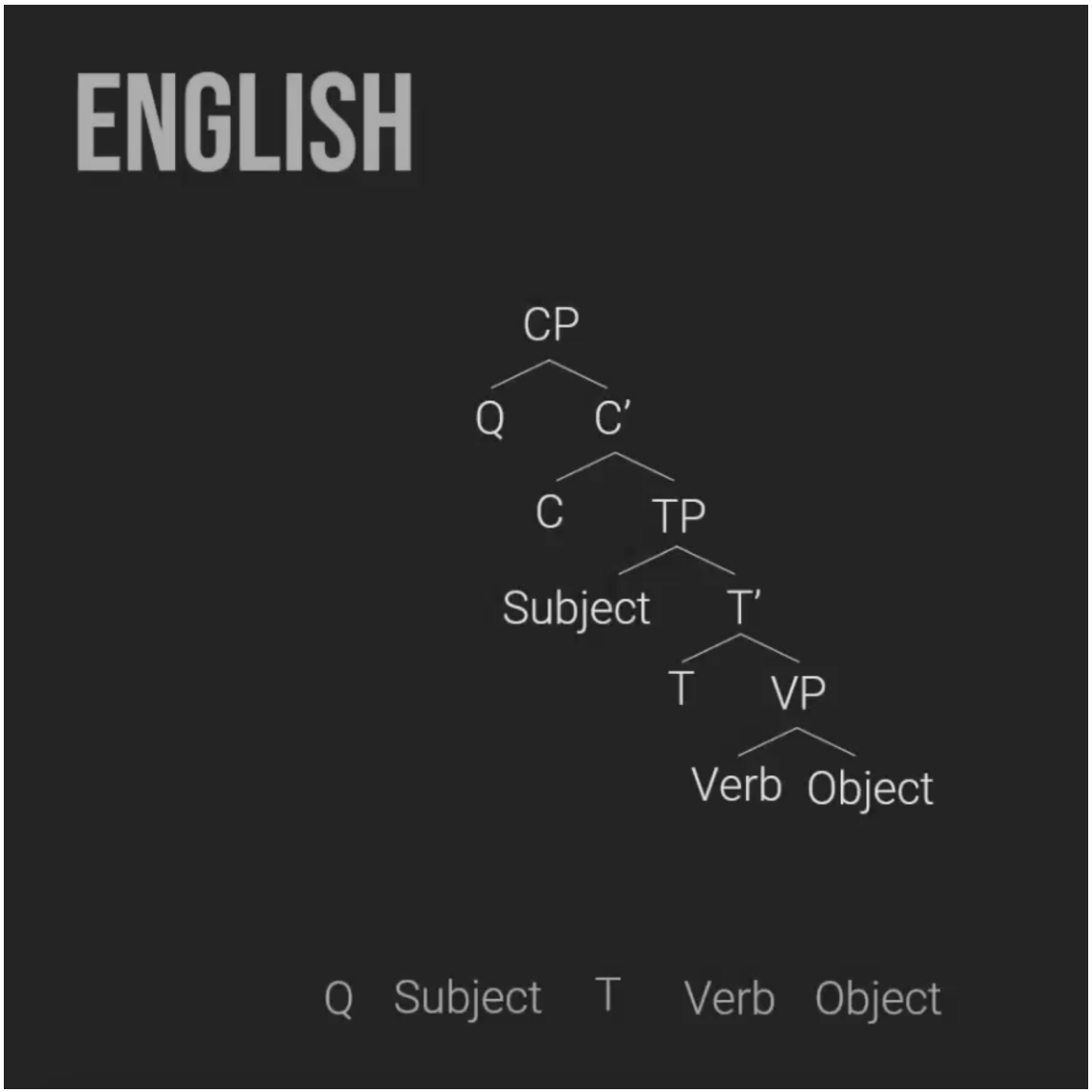
Malagasy, Austronesian (VOS)

(16) nihita ny mpianatra ny vehivavy
saw the student the woman
'the woman saw the student'

hixkaryana, Carib; Brazil (OVS)

(17) toto yahosiye kamara
man it-grabbed-him jaguar
'the jaguar grabbed the man'

Cool animation from Ryan Rhodes @wavphd:



VSO order: the case of Irish I

9 percent of the world's languages is VSO. Irish is one of them.

(18) Phóg Máire an lucharachán.
Kissed Mary the leprechaun
"Mary kissed the leprechaun"

X-bar theory cannot generate a sentence of this type.

This is how we are going to derive the Irish order.

(i) We are going to assume that VSO languages are underlyingly SVO (at D-structure);

(ii) The verb moves to T;

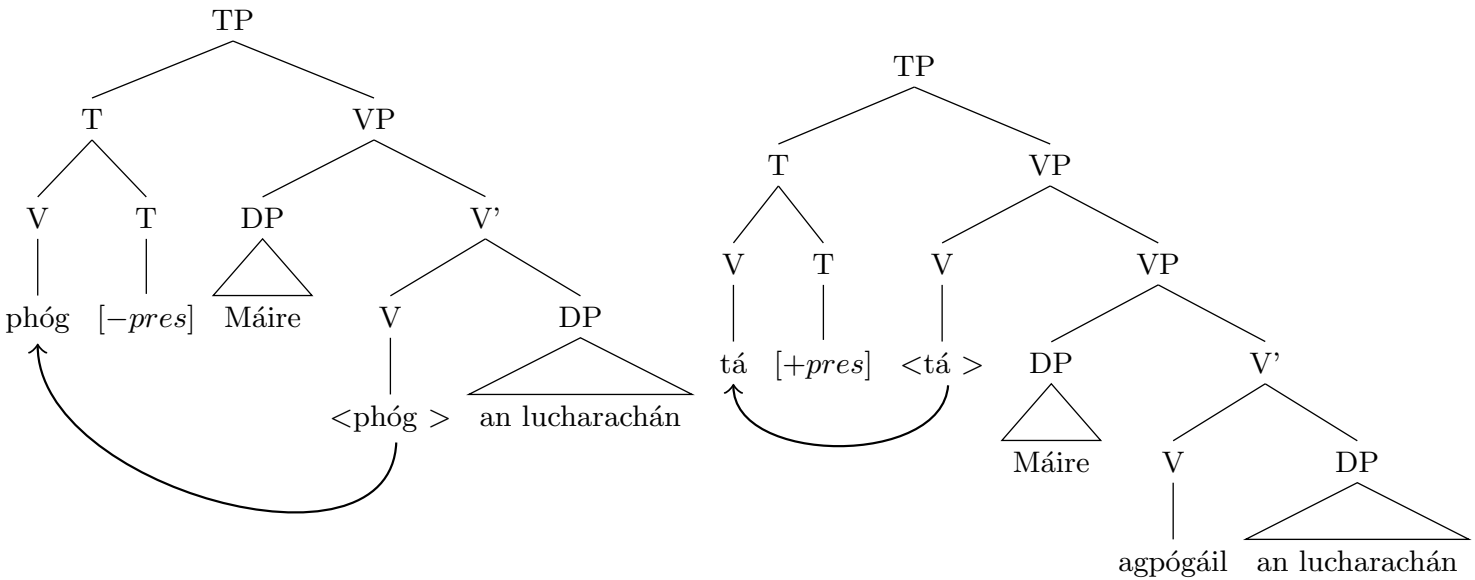
(iii) The subject stays in the VP.

Lexical verbs do not move to T when there is an auxiliary verb. In this case the underlying SVO order is visible.

VSO order: the case of Irish II

(19) Tá Máire ag-pógáil an lucharachán.
Is Mary ing-kiss the leprechaun
Aux [**S** **V** **O**]
"Mary is kissing the leprechaun"

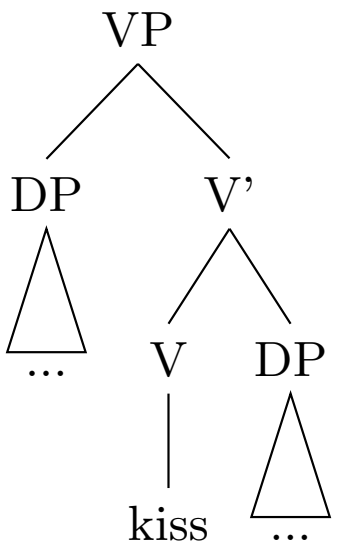
Here are the derivations for (18) and (19):



Raising Verbs

The Locality Constraint on Argument structures:
Arguments are generated within the phrase headed by the predicate that selects them.

kiss V free <u>DP</u> DP



If the principle of locality of selection is correct, then (20) is a problem.

(20) John seems to have left

→ the agent of *leaving* is John, but it appears very far away from its predicate.

leave V free <u>DP</u>

→ also there seems to be no subject in the embedded clause.

→ what is/are the argument(s) of *seem?*

seem V free **?**

Well, we notice that *seem* can also take a CP argument:

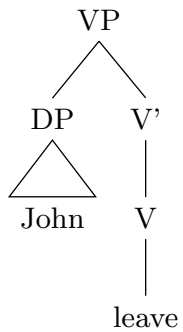
(21) It seems [that John will leave]

→ What is the relation between (20) and (21)?

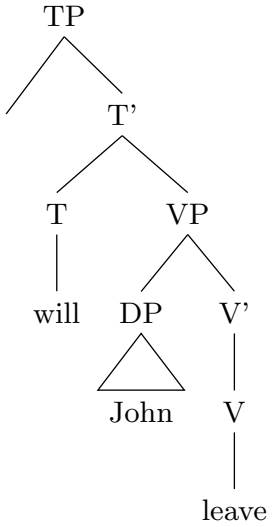
→ Why is there the expletive 'it' in (21)?

Let's start by drawing the tree for (21):

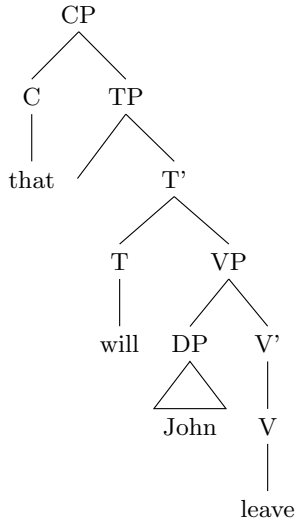
Step 1 The VP headed by the lexical verb 'leave':



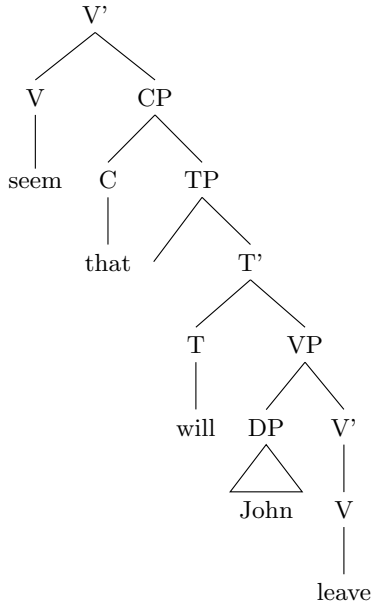
Step 2 The TP.



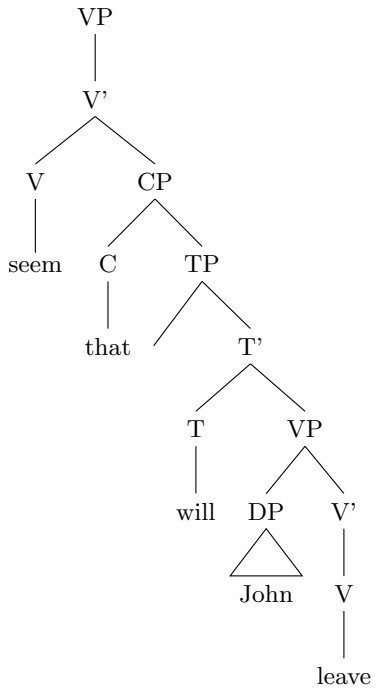
Step 3 The CP.



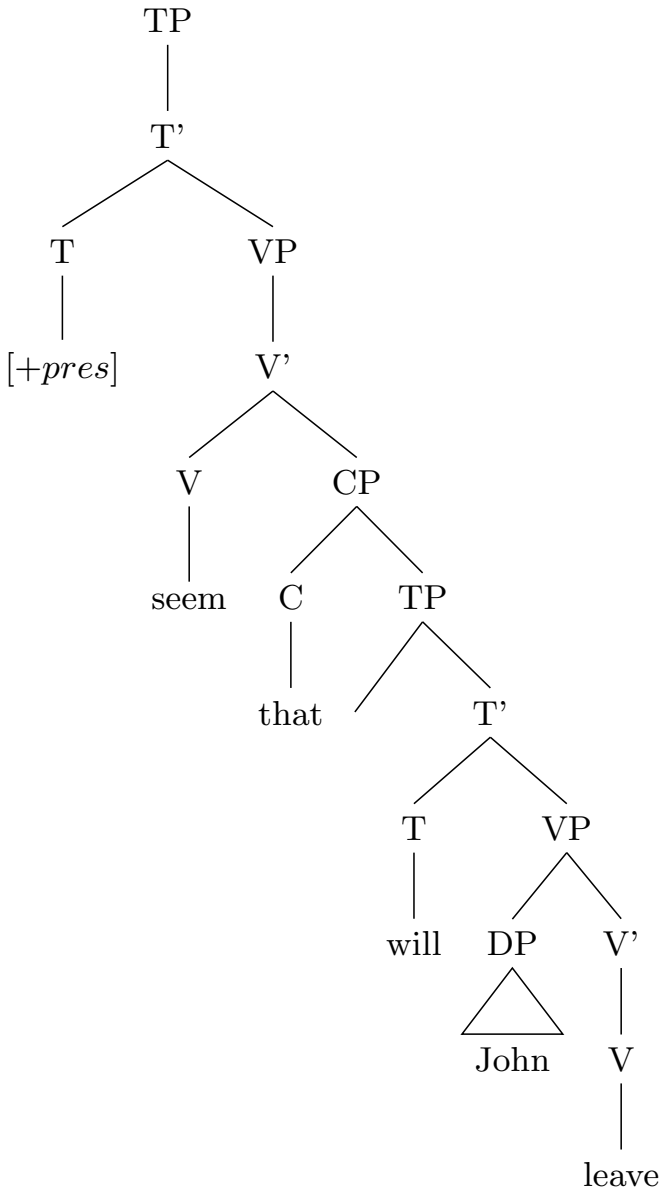
Step 4 The CP is selected by 'seem'.



Step 5 Predicates like 'seem' do not take any external arguments:

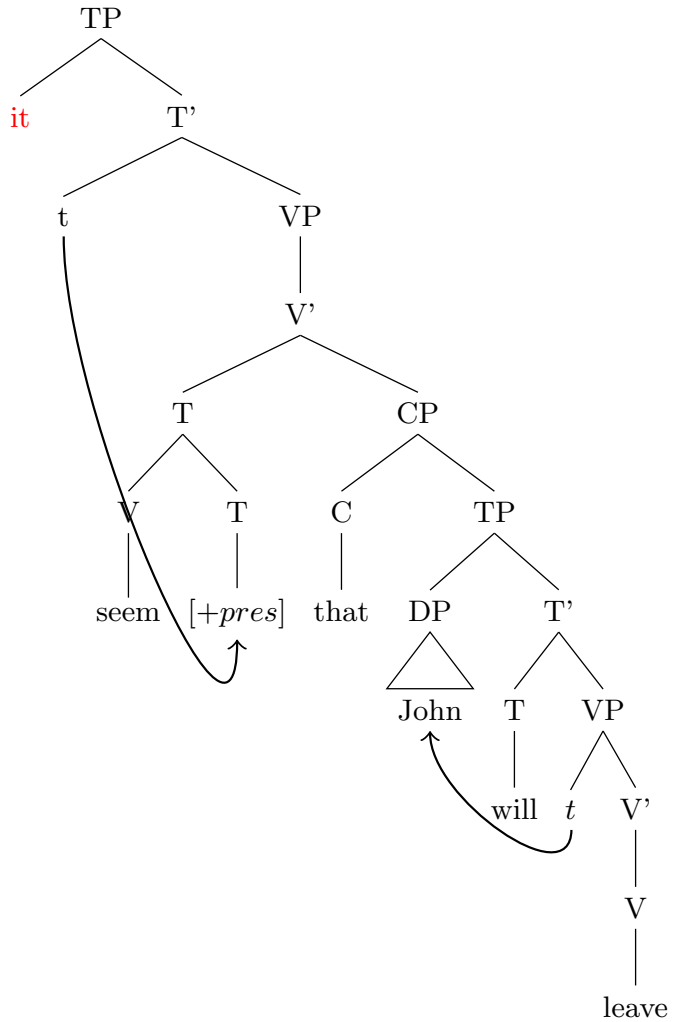


Step 6 The rest of the deep structure tree:



Step 7 T to V and Subject to Spec, TP.

Since the sentence needs a subject (to satisfy EPP) and no DP is available, an expletive is inserted.



Now, we can go back to (20). We said that the verb 'seem' does not select 'John'. How do we know that?

(i) Semantic requirements:

The selectional relation is between the V *elapse* and the DP *time*.

(22) a. Time seems to elapse slowly in the tropics.
b#Mary seems to elapse slowly in the tropics.

(23) a#Time seems to swim slowly in the tropics.
b. Sharks seem to swim slowly in the tropics.

Seem allows weather *it* (the subject of atmospheric verbs such as *rain*, *snow*...)

(24) a. It rains/snows.
b. It seems to be raining.
c.*It hopes to be raining.

(ii) Idiomatic meanings are available with *seem*.

The construction 'the cat is out of the bag' gets its idiomatic meaning (the secret is widely known) when the expression is generated as a whole. When is not generated as a whole, it can only get a literal interpretation ('the feline is out of the sack'). See ISAT, §8.4.2

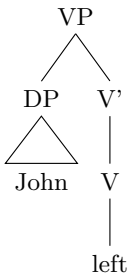
(25) The cat seems to be out of the bag. ✓ idiomatic interpretation

vs.

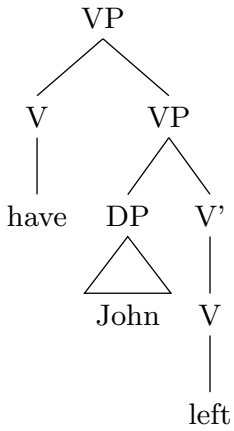
(26) The cat wants to be out of the bag. ✓ NO idiomatic interpretation

Let's diagram!

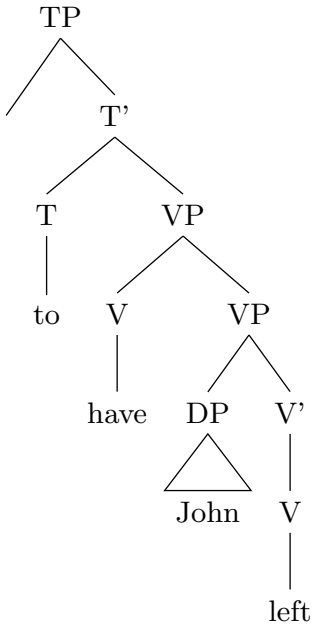
Step 1 The VP headed by the lexical verb.



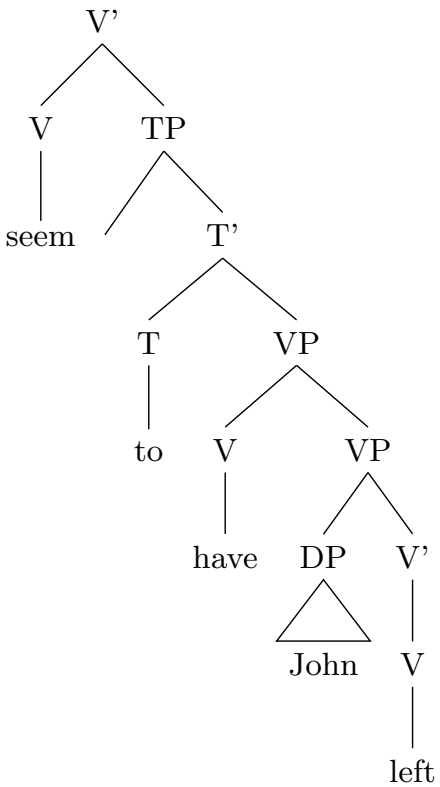
Step 2 The V headed by the auxiliary verb.



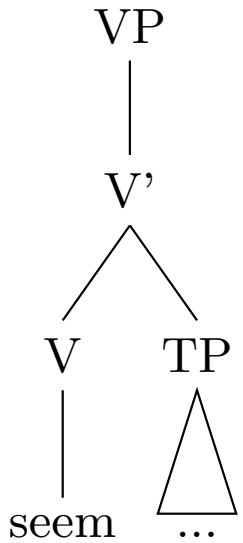
Step 3 The non-finite TP headed by the free morpheme *to*



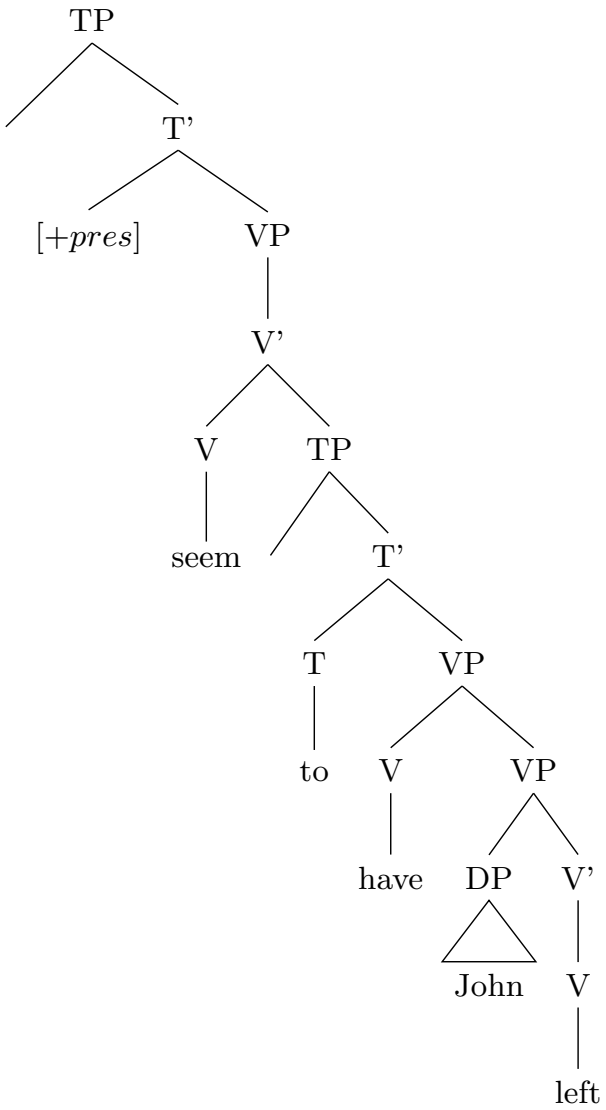
Step 4 The non-finite TP is selected by 'seem'.
There is no evidence for a CP-layer and complementizers cannot appear between 'seem' and the TP:
*John seems that to have left



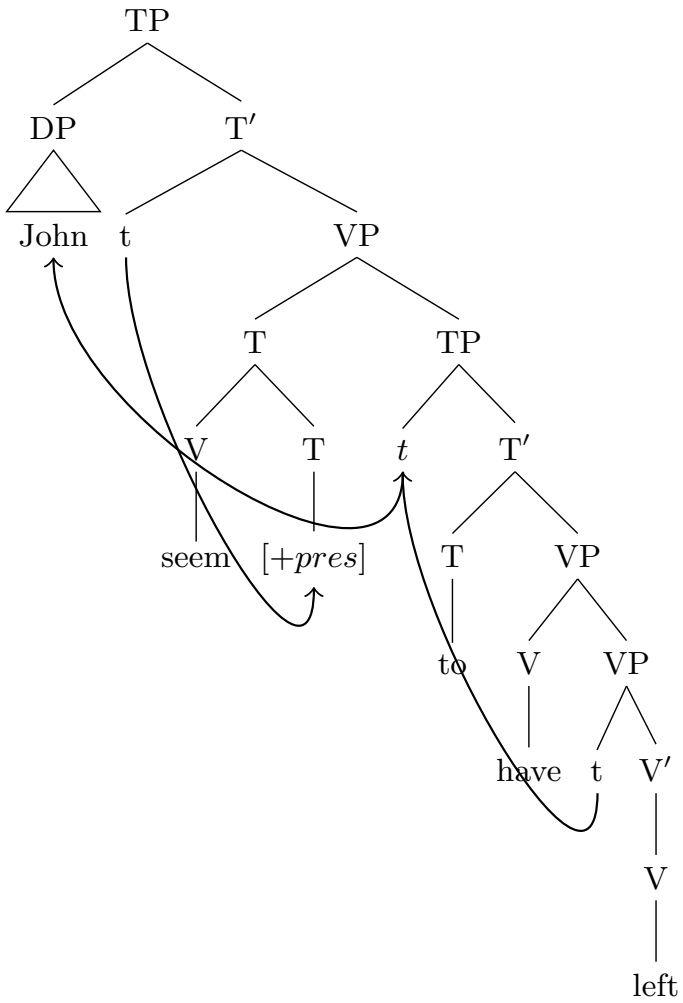
Step 5 No external argument: no specifier.



Step 6 The deep structure tree



Step 7 The surface structure tree



To sum up, *seem* can take CP or TP complements:

→ When it takes a tensed CP complement, raising cannot take place:

(27)*John seems that ~~John~~ left

and a expletive 'it' is inserted to satisfy EPP:

(28) It seems that John left.

→ When it takes a -finite TP complement, the subject is taken from the complement of 'seem'

The movement of 'John' to [Spec, TP] is called **raising to Subject**. Verbs like *seem*, whose superficial subject comes from their complements are called **raising verbs**.

Other examples of raising verbs are: *appear* and *happen*.

Examples of raising adjectives are: *likely* and *liable*.

Practice Draw surface tree structures for the following sentences:

(29) David is likely to get a promotion.

(30) Hermione appeared to know the answers.