# I04 Subjects are VP-internal

Course in Semantics · Ling 531 / 731

McKenzie · University of Kansas

This reading is really about syntax more than it is about semantics. But what we'll be talking about from here on out will make a LOT more sense if you read this and understand it. So do that.

On Wednesday we saw subjects being placed inside the VP, instead of at a higher level. There is a good compositional reason for doing this, but as it turns out, syntacticians figured out a long time ago (from Fukui & Speas 1986) that subject DPs *have to* originate inside the VP. From there, they move to a higher specifier position ([Spec, IP] or [Spec,TP]), in order to satisfy the EPP.
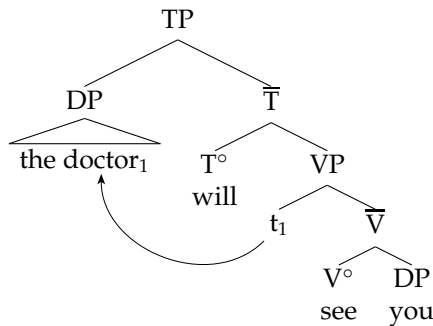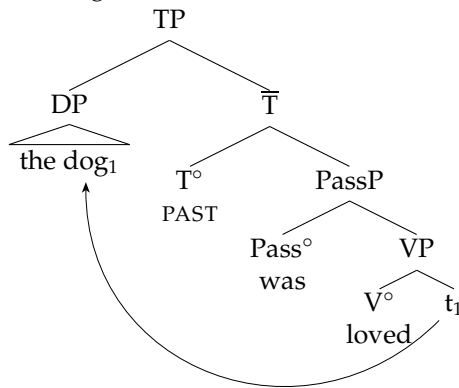

There is plenty of evidence, and the paper by McCloskey (1997) highlights them well:

Exhibit 1: Coordinate structure constraints

We derive passives by moving the subject out of the object position inside the VP.

(1) The dog$_1$ was [$_{VP}$ loved t$_1$]

The subject *the dog* moves to its left-edge position from the spot in object position; it leaves behind a trace, represented by t$_1$

And we can conjoin VPs and IPs:

(2) The girls$_1$ will [$_{VP}$ write a book] and [$_{VP}$ be awarded t$_1$ a prize]]

(3) Marta$_1$ [[$_{IP}$ asked for red wine] and [$_{IP}$ was given t$_1$ white]]

Thing is, (2) and (3) are actually impossible as written, under the Coordinate Structure Constraint, which forbids movement out of only one conjunct. You have to move out of both.

(4) *Who$_1$ did you meet [$_{DP}$ Bill and t$_1$]? …etc.

In (2), if the DP *the girls* moved out of the second VP, because it's a passive. Thus, it had to have moved from the first as well. That is, the subject must have moved from *inside* the VP. Which means that the subject had to be there to begin with.

(2′) The girls$_1$ will [$_{VP}$ t$_1$ write a book] and [$_{VP}$ be awarded t$_1$ a prize]]

(3′) Marta$_1$ [[$_{IP}$ t$_1$ asked for red wine] and [$_{IP}$ was given t$_1$ white]]

Exhibit 2: Quantifier float

Some quantifiers can 'float' in positions separated from their first argument. But they can't be floated just anywhere, as we can see in (5) [where *all* quantifies the subject]. What rules out the last two sentences?

(5) a.   The girls **all** must have been drinking wine.
     b.   The girls must **all** have been drinking wine.
     c.   The girls must have **all** been drinking wine.
     d.   The girls must have been **all** drinking wine.
     e. * The girls must have been drinking **all** wine.
   f. * The girls must have been drinking wine **all**.

The interpretation is such that *the girls* is part of the meaning of *all*; each sentence is equivalent to *all the girls must have been drinking wine*. This means, of course, that at some point in the derivation, the P property has to be the sister to the determiner *all*. But how, if they're not adjacent in the spoken sentence?

Putting subjects inside VP answers both questions— the subject is sister to *all* at least from the point of insertion, in Specifier of VP. [1] It moves out of Spec-VP,

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[1] A specifier is a phrase that merges with a projection and terminates it.

leaving a trace. The trace is interpreted there, and this explains the interpretation. Where the subject moves away is where *all* remains. [This is called 'quantifier stranding'].

Here is the structure for (5d).
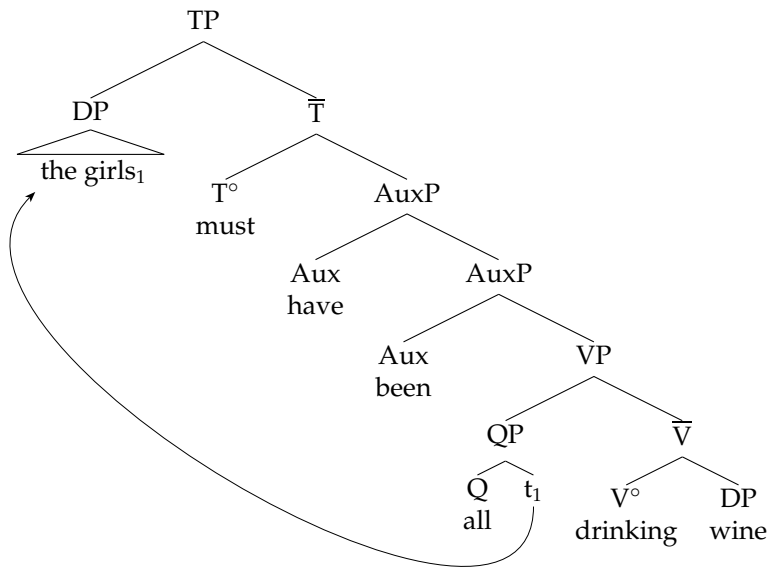
The other trees can be derived if the QP (quantifier phrase) moves *all the girls* together before *the girls* moves on its own. Stranding explains why we can't get e. and f.: We can't float *all* below [Spec, VP], because it was never below that spot. That reflects the general observation that constituents can move up a tree, but not down it.

Exhibit 3: Quantifier scope

In other lecturelets we see that quantifiers take scope. Many adverbs do, too, and so does negation.

(6) *Jeremy isn't necessarily a good guy*　　　(he might be, he might not be)
　　Jeremy necessarily isn't a good guy　　　　　　(he definitely sucks)

Adverbs and negation are useful for using semantics to uncover syntax, because they cannot undergo movement, even for semantic purposes (like quantifier raising).

But if these don't move, how come the following sentences are ambiguous?

(7) *At least one player always loses*

a. There is one (particular) player who always loses
$\exists > \forall$ [referential reading of *one player*]

b. Every time we play, at least one of the players loses.
$\forall > \exists$ [co-variant reading of *one player*]

(8) *Every player didn't score*

a. Nobody scored ($\forall > $ not)
b. Not every player scored (not $> \forall$)

Simple: In the second reading, the subject is interpreted below the adverb. But that means that it has to be there at LF. Which means there has to be a position for it. At first you might think to start the subject at Spec, IP, and move it down to VP somewhere. But remember: You can't move down. Instead, you have to move the subject up from VP to IP, and then interpret the lower version.[2]. Put another way, the movement is in PF and at LF, the movement never happened.

The point here

There is actually more evidence for VP internal subjects— VP-fronting, it derives VSO languages (V to I, not V to C), emphatic constructions in AAVE (*ain't nobody comin'*), imperatives in Belfast English (*Open you that door*), transitive expletives (*there were three people arrested at the airport*).

The point is, subjects do not start at [Spec, IP] or [Spec, TP]. They start at [Spec, VP].

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[2]This is a process that syntacticians call 'reconstruction', and involves using copies of moved constituents, rather than traces. We will not concern ourselves with those details. The point is that the subject needs to start inside the VP