Quick discussion of \(X'\)-theory, CP—IP—VP, splitting IP into AgrSP—TP—AgrOP, split-VP hypothesis. Questions before we begin on McCloskey?


This article reviews and evaluates arguments for the **VP-INTERNAL SUBJECT HYPOTHESIS**, roughly: The subject originates in SpecVP (and usually then moves to SpecIP).

McCloskey gives conceptual and historical motivation for the hypothesis, and surveys two classes of arguments made for it in the literature, **lower origin** arguments (which show evidence that the subject was at one point inside the VP), and **lower position** arguments (which purport to show the subject actually in the VP).

The lower origin arguments:
1. Coordinate Structure Constraint
2. Quantifier-float
3. Relative scope options of subjects
4. VP-fronting and binding

The lower position arguments:
1. VSO languages/VP-ellipsis in Irish
2. AAVE “negative inversion”
3. Imperatives in Ulster English
4. Transitive expletives (sort of)

Afterwards, however, McCloskey shows that once we adopt the “Split INFL” hypothesis (Pollock 1989), most of the lower position arguments become dubious as arguments for actually seeing the subject *inside the VP* (though they remain arguments for seeing the subject in a lower position). He also briefly addresses the “Split-VP” hypothesis and the question of whether AgrOP (assumed to be the target for object shift) is above or below the base position of the subject, tentatively concluding that AgrOP must be *above* the base position of the subject.

**History:**

The **subject** seems to be important from the point of view of syntax. Many linguistic processes seem to distinguish subjects from non-subjects.

A list of subject properties:
- **AGENT, CAUSER, EXPERIENCER** \(\theta\)-role characteristically assigned to the subject.
- The subject is the “most prominent” argument (it c-commands all the others) (binding reflexives, licensing NPIs, scope)
- Many (all?) languages require all clauses to have a subject. None require a DO.
- Subjects are almost always nominal—not as true for other argument positions.
- Grammatical operations often promote arguments to subject (not other positions) (passives, unaccusatives, subject-to-subject raising)
- Subjects are typically formally marked (agreement with verb, position [e.g., preverbal]).
  - (Case on the subject? But NOM is generally Ø)

Under PS rules, [NP,S] (‘NP daughter of S’) was the subject. Had the properties, but stipulated (obligatory, promotion to subject, etc.). Doesn’t generalize well crosslinguistically.
- position and marking vary across languages, other properties seem to be the same.

Next round of theory (\(X'\) theory, with IP above VP and subject in SpecIP).
Things begin to get more principled.
- IP is outside the lexical layer (VP)
- licensing of arguments (projection) is based on properties of the lexical heads (verbs, etc.). This all happens in the lexical layer.
- the fact that all sorts of things can move into SpecIP stems from the fact that it is not under the direct influence of the \(\theta\)-grids of the verbs.
- no question SpecIP c-commands the entire VP
- inflectional features of IP (agreement) requires a local (Spec-head) relation with a nominal phrase.
- but still all one position (now SpecIP instead of [NP,S])…

Generative grammarians have a “methodological instinct” that every relation should have a canonical position:

If a single element participates in several relations, it needs to occupy several positions in the structure—a *derivation*.
What did everyone eat?

What:
• THEME of eat (sister of V)
  • receives ACC case (sister of V / SpecAgrOP)
  • is an operator binding a variable (SpecCP)
  • scope wrt everyone (adjoined to ‘IP’?)

Hence, it is unsurprising that the many properties of subjects have been split into several structural positions connected by movement.

The (VP-)Internal Subject Hypothesis: The subject originates in SpecVP.

This is partly driven by the desire to keep lexical (idiosyncratic information) out of the functional (non-idiosyncratic—subject agreement, tense, etc.) layers.

Verbs assign θ-roles, even to subjects. θ-roles “belong” in the VP—there shouldn’t be a special rule for assigning θ-roles (long-distance) to SpecIP.

Of course, this isn’t just about the “instincts” of syntacticians—the instincts got us looking, but the empirical evidence convinced us that there’s some truth to it.

Arguments for VPISH

| • lower origin arguments (the subject started lower than we see it) | • lower position arguments (subject is still in its base position sometimes) |

Lower origin arguments

One: Argument from the Coordinate Structure Constraint

We have firm beliefs:
• Passives derived by moving object to subject position.
  [The ball] was kicked t₁

• You cannot move something out of just one conjunct in a coordinated structure (CSC).

*Who did you meet [DP Bill and t₁ ]? What did you [VP buy t₁ and read t₁]?

*Who did you meet [DP t₁ and Bill]? (ATB exception)

Two: Quantifier Float

(12) a. They all must have been drinking wine.
   b. They must all have been drinking wine.
   c. They must have all been drinking wine.
   d. They must have been all drinking wine.
   e. * They must have been drinking all wine. ← mismarked in McC’s article.
   f. * They must have been drinking wine all.

Idea: All in some fundamental way quantifies over they. All of them (not all of us).
Assume: To be interpreted, they need to be together at some point in the derivation.
Suppose: They start out as a constituent [they all].
Each movement that the subject makes can be either of:
[they all]
  or they alone (leaving all behind).

Every place you can see a “stranded” all is a position where the subject once was.
(12) d. They must have been all drinking wine.

The subject used to be way down there—below its final resting place in SpecIP. ➢ ((12b–c) suggest that the subject actually hops in several steps on the way up)

We can use a VP-marker (perhaps like often, which we used in splitting up IP) to see if the subject starts inside VP.

(13) a. They have often eaten salad.
    b. They often eat salad.
    c. * They eat often salad.

(14) a. They all often eat salad.
    b. They often all eat salad.

(15) They must simply all retake the exam.

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As a side note: Other analyses of all (“floating quantifiers”) are possible.

E.g., all (or both, etc.) is an adverb which can adjoin at various levels in the clause.

Why is this impossible? (and why is that a potential problem?)

(16) * They were arrested all (last night).

At least arguably similar is a construction in West Ulster English, where all can either travel with what or be left behind (McCloskey 1995)

(17) a. What all did he say (that) he wanted?
    b. What did he say all (that) he wanted?
    c. ? What did he say (that) he wanted all?

What kind of adverb could be there in object position?

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Three: Scope

Preliminary assumption: Adverbs, negation, modals only take scope where we see them on the surface (at S-structure). (That is, QR is not available for them)

(18) a. A Fiat isn’t necessarily reliable.
    b. A Fiat necessarily isn’t reliable.

(19) a. Shelly usually doesn’t do her homework.
    b. Shelly doesn’t usually do her homework.

Further support: Negative Polarity Items (NPI) need to be licensed. A c-commanding negative element can license them.

(20) a. * I bought anything.
    b. I didn’t buy anything.
    c. * Anyone left.
    d. * Anyone didn’t leave.

If negation could undergo QR, (20d) should be fine, as should (21b).

(21) a. Which of the kids doesn’t anyone like?
    b. * Which of the kids does anyone not like?

Grant the assumption: Negation, adverbs can’t undergo QR. Now: Why are (22a–c) ambiguous?

(22) a. At least one player always loses.
    ‘There is at least one player [say, Pat] who always loses.’
    ‘Always, there is at least one player who loses.’
    b. Most (of the) guests might be late.
    ‘Most (of the) guests are such that they might be late.’
    ‘It might be that most (of the) guests will be late.’
    c. Every player didn’t score.
    ‘Every player finished scoreless.’
    ‘Not every player scored (though probably some players did’

Consider (22c):

• Every is above negation.
• Negation can’t move.
• Every can be interpreted below negation.
• Every moves down to a position under negation?
• But, theoretically, we don’t want to posit downward movement (ECP).

Solution? Reconstruction. You’re allowed to interpret things in places that they once were in the derivation (i.e. ‘put them back’). If the subject was in SpecVP, that’s below negation—problem solved.
Additional reasons to think that this is possible (here no issue of VPISH)

(23) a. **A citizen from New York is likely to win the lottery.**
   ‘There is a citizen from New York [say, Andy] who is likely to win.’
   ‘It is likely that some citizen from NY will win the lottery.’

b. **At least one student tends to fall asleep in class.**
   ‘There is at least one student [say, you] who tends to fall asleep in class.’
   ‘It tends to be the case that, in each class, at least one student falls asleep.’

**Four: VP fronting**

The following are ambiguous (with respect to the antecedents of the anaphors):

(24) Which stories about **themselves** did the teachers think that **the kids** preferred?
    *themselves = the teachers, or themselves = the kids.*

(25) Which portraits of **each other** did the teachers think that **the kids** would like best?
    *each other = the teachers, or each other = the kids.*

**Idea:** The anaphor is contained in a *wh*-phrase, which moved successive-cyclically.
(It stopped off in the intermediate SpecCP on the way up.)
The anaphor can take the higher antecedent (*the teachers*)
if interpreted in the intermediate position.

Compare:

(26) **The teachers** weren’t sure [CP which pictures of **each other**
    would be published in the school paper].

It’s possible to front a predicate (like a VP) in English, as in:

(27) John said he’d eat the whole package, …
    …and [VP eat the whole package]j he did tj.

But VP fronting does not seem to permit the same kind of possibilities as *wh*-movement:

(28) They told us that the children might obey the teacher, …
    …but [VP listen to each other]i they said the children won’t ti.

This turns out not to be ambiguous—*each other* can only be the *children*.

Why might this be? (How might the VPISH interact with this?)

(29) …but [VP tj listen to each other]i they said the childrenj won’t ti.

Think back to binding theory. What’s the closest subject to *each other* here?

“A celebrated and influential argument” for the VPISH, but not without problems.

(30) * Hej was (tj) very pleased with the pictures that **Pollockj** painted in his youth.

(31) [*tj How pleased with the pictures that Pollockj painted in his youth]i
    do you think hej really was tj?

Maybe there is something else that makes the VP fully reconstruct—making this a non-
argument for the VPISH (but not a counter-argument to the VPISH).

**Summary of the lower origin arguments:** The subject originates lower than SpecIP:

- **One:** Coordinate Structure Constraint
- **Two:** Quantifier float
- **Three:** Quantifier scope
- **Four:** VP-fronting
One: VSO languages

Hypothesis about VSO languages: **V-to-I, subject remains in SpecVP**  
(i.e. like French, but without the EPP)

(32) \[ \begin{array}{c}
\text{IP} \\
\text{I'} \\
\text{V'} \\
\text{V[FIN]}_i \\
\text{I[FIN]} \\
\text{DP}_{\text{subj}} \\
\text{V} \quad \text{complements} \\
\text{V} \quad \text{complements} \\
\text{I' \quad V' \quad V[FIN]}_i \\
\text{I[FIN]} \\
\text{DP}_{\text{subj}} \\
\text{V} \quad \text{complements} \\
\text{V} \quad \text{complements}
\end{array} \]

One argument for this: VP ellipsis must take the subject with it (but not in English).

(33) Ni tháinig muid ’na bhaile anuraidh ach tiocfaidh — i mbliana.  
NEg came we home last-year but come[FIN] this-year  
‘We didn’t come home last year, but we will this year.’

Generally a reasonably elegant analysis—  
but don’t get too used to it, it will be discarded soon.

Two: AAVE (African-American Vernacular English)

Negative emphatic construction, fronting a negative auxiliary around the subject.

(34) a. Ain’t nothin’ happenin’.  
b. Can’t nobody say nothin’ to dem peoples.  
c. Can’t nobody tag you there.  
d. Didn’t nobody see it.

Not actually very exotic; cf.:  
(35) Didn’t John see it?

We analyze (35) as being I → C movement of the auxiliary.

But in AAVE, the negative emphatic construction seems not to be I → C movement:  
(These are places where inversion is generally not allowed—the clearest case is (36a),  
where you can see that before the inverted auxiliary, but apparently these have kind of a  
marginal status in AAVE).

(36) a. I know a way that can’t nobody start a fight.  
b. It’s a reason didn’t nobody help him.  
c. I knew ain’t nobody leavin’.

Suggests that this is not I → C movement in the first set, since we see that sitting there.  
> (We may need to re-evaluate this in light of the  
Rizzi/Culicover papers in a couple of weeks, though).

Three: Imperatives in Belfast English

Belfast English allows overt subjects in imperatives

(37) a. Go you away.  
b. Open you that door.  
c. Eat you your dinner.

The imperative verb has raised out of the VP:

(38) Read you quickly that book.

Obligatory Object Shift of weak object pronouns to a position left of always.  
This tells us that Object Shift carries the pronoun outside of the VP.

Data not given by McCloskey, but it would be of the form:

(39) The cashier us always greets.

In imperatives, the subject can appear on either side of the shifted object.

(40) a. Throw us you that rope.  
b. Throw you us that rope.  
\text{you is not necessarily outside VP}\n\text{you is outside VP}

(41) a. Bring them you over here to me.  
b. Bring you them over here to me.  
\text{you is not necessarily outside VP}\n\text{you is outside VP}

Can we do better? Let’s try adverbs like always…
(42) a. Tell them always you the truth.   you inside V, inside shifted object  
b. * Tell them you always the truth.   you outside VP, inside shifted object  
Con: Subject raising is optional—when not raised, the subject is inside the VP.  

Some further discussion, which doesn’t really add much to the point.  

(43) a. Be picked yous for that team or I’ll be furious  
b. Have gone you out before I get back.  

Derry city dialect and gon < go on imperatives. We believe that gon is in C; compare:  

(44) —Gon make us a cup of tea. —Gon you.  
—He made us a cup of tea. —Did he?  

So, here, the verb make can’t be in C (since gon is):  

(45) Gon make us you a cup of tea.  
Which puts you the subject below the object shift position again.  

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<th>Four: Transitive expletive constructions</th>
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| (46) a. [Three people]i were ti’ arrested ti at the airport.  
| b. Therei were [three people]i arrested ti at the airport.  

Without the VPISH, we already have a hard time with (46b)—where is three people?  

(47) There were three people eating  

(46a–b) show us two options for connecting the VP-internal subject to SpecIP (EPP).  

One: Move it from SpecVP to SpecIP.  

Two: Use a coindexed expletive (there).  

Although English can’t do this, if there are generally both options, we expect that we could find languages with regular transitives that connect the subject to SpecIP via an expletive.  

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<th>Icelandic</th>
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| (48) a. það dansaði maður í garðinum  
| there danced a-man in the-garden  
| ‘There danced a man in the garden.’  
| b. það hefur maður dansað í garðinum  
| there has a-man danced in garden-the  
| ‘There has danced a man in the garden.’  

(49) a. það grefur kona gröf í garðinum.  
| there digs a-woman a-grave in garden-the  
| ‘The digs a woman a grave in the garden.’  
| b. það hefur einhver borðað epli.  
| there has someone eaten an-apple  
| ‘There has someone eaten an apple.’  

Again, without the VPISH, there’s no position there—where is maður or kona or einhver?  

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<th>Wherein everything right becomes wrong again…</th>
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| Now. How much of this relied on there being only one I, only one SpecIP?  
If we split IP into several positions (at least AgrSP and TP), this leaves one position below the canonical (SpecAgrSP) subject position—could the subjects be there instead of in SpecVP?
### Lower origin arguments: The subject originates lower than SpecIP.
- **One:** Coordinate Structure Constraint ✓
- **Two:** Quantifier float ✗
- **Three:** Quantifier scope ✗
- **Four:** VP-fronting ❓

### Lower position arguments: The subject is still in SpecVP.
- **One:** VSO languages ✗
- **Two:** AAVE emphatic negative fronting ✗
- **Three:** Belfast English imperatives ✗
- **Four:** Transitive expletives ✗

Of course—there have to be multiple positions for the subject, but whether it’s SpecTP & SpecAgrSP or SpecIP & SpecVP (or both) is unclear.

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### Transitive expletive constructions again

Like in the Irish English examples: In Icelandic, there is Object Shift.

OS moves the object to a position outside VP.
The lower subject position is *even further out.*

(50) a. það bordað **margin strákar** biðgur ekki

Icelandic

there ate many boys the-sausages NEG

‘Many boys did not eat the sausages.’

b. * það bordað biðgur ekki **margin strákar**

accidentally forgot the *

‘Many boys did not eat the sausages.’

The two positions for the subject in Icelandic are probably SpecTP and SpecAgrSP.
We probably can never see it still sitting in SpecVP.

Sketchy point made about Finnish sitä ‘it’ expletive as well—looks like it is in SpecAgrSP (always immediately before the thing inflected for subject agreement). Also, exactly one thing can precede it, and only if it is focused (suggesting that it is in the C projection).

Since sitä is so high, it leaves open several positions for the subject. Holmberg & Nikanne (1994:182) [NELS 24] give reasons to think the subject can be between VP and AgrSP but not down in SpecVP.

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Subject in Irish VSO? Well, it always has to appear to the left of things like *always* or *often before.* Suggests it is out of the VP too.

(51) Deireann **siad** _i_ gcónaí paidir roimh am lúi. (Irish)

say they _always_ prayer before time lie [–FIN]

‘They always say a prayer before bedtime.’

#### “External arguments” vs. VPISH

(52) a. She took a book from the library.
b. She took a nap.
c. She took offense at his remarks.
d. She took a well-earned rest.
e. She took a bus to Waltham.
f. She took her medicine.

**Idea:** Verb and object combine to produce a meaning (which takes contributions both from the verb and the object) and then the combination (with the idiosyncratic contribution from the object) combines with the subject.

The subject seems to be in some sense “too far away” from the verb to contribute idiosyncratic meanings—there don’t seem to be idioms with the subject + V.

(but lots of object idioms, e.g., *kick the bucket*).

How to accommodate VPISH & the “externalness” of the subject?

**Solution:** Split the VP.
The subject is still “inside VP” but “VP” is made up of two projections.

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![Diagram](attachment://diagram.png)
Once VP has been split up into two projections like this, people unsurprisingly started thinking about the possibility that there might be a functional (Agr) projection between them. Perhaps AgrOP belongs between vP and VP.

\[ \text{(54)} \]

This could solve a couple of problems.

- **One**: theory-internal problem about constraining movement to be “as short as possible” (that we’ll talk about later on in relation to the Minimalist Program).
- **Two**: we’ve been having a lot of trouble finding cases where the subject was actually below the inflectional projections (“inside the VP”)—but on this view, perhaps it was never there; it started out past AgrOP (presumed to be the target of object shift).

Fairly radical in a certain sense, since it interleaves “functional” and “lexical” categories (taking lexical categories to be those that deal in theta relations, i.e. including v).

**Why the Split-VP hypothesis (with AgrOP in the middle) is probably wrong…**

The clear prediction of (54) is that the subject should never be able to appear below the position of object shift.

Breton (VSO+V2) + object shift.

\[ \text{(55)} \]

It is V2, so if we topicalize something other than the subject, we might get some information about where the subject starts.

\[ \text{(56)} \]

Look, the subject after the shifted object.

Same in complement clauses, where there is no V2:

\[ \text{(57)} \]

Irish and its visible AgrO

\[ \text{(58)} \]
Given that a is AgrO, here we have a plausible case of the subject inside VP, the verb having moved out and over it—to AgrO. (So: AgrO can’t be below the subject)

(60) AgrOP
    /\                     \
   /   \                   /   \
AgrO′   
    /\                     /\ 
   /   \                   /   \  
AgrO   VP
    /\   \                   /\   \ 
   /   \ subject V′      /   \

Conclusions concerning subject positions

There are at least three subject positions…

• One “inside VP” (including SpecvP as an option)
• Two above (maybe SpecTP and SpecAgrSP).

…not one subject position, as thought in the olden days. The properties of “subjects” are distributed (and hence in principle dissociable?) across positions.

There used to be a distinction between “derived” and “underived” subjects (those which raised to SpecIP from object position—passives and unaccusatives—and those which started in SpecIP without moving there—subjects of transitives and unergatives). Now, we have to assume that every subject, whichever class it used to be in, is “derived” in the technical sense that it has moved from one position lower in the clause to another position higher in the clause.

Why are subjects apparently required and why do they have to be nominal? The answer boils down to a stipulation about the functional heads—AgrS for reasons we don’t know seems to require an agreement relation and with a DP.