1. Introduction

Since Chomsky (1995), it is generally assumed that the external argument is base-generated outside the lexical VP, in the specifier position of the phase head v*, which—in most analyses—encodes (covert) causative morphology and assigns accusative Case.

This view has recently been questioned in Harley (2007) and Pylkkänen (2002), where the external argument is argued to be generated higher up in the structure, as the specifier of Kratzer’s (1996) voiceº, which no longer qualifies as a version of v*, as tacitly assumed.

In this squib I provide four empirical arguments in favor of generating the external argument below both voiceº and v*, as a species of VP adjunct. Discussion is divided as follows: section 2 reviews the arguments that were used to argue for the external argument being generated in SPEC-v*; in section 3 I present the evidence for raising the external argument up to voiceº; finally, in section 4 I present four pieces of evidence suggesting we should go back to a more classical implementation of the VP Internal Subject Hypothesis, with the external argument and the lexical VP forming what appears to be a small clause-like configuration; section 5 summarizes the main conclusions.

2. Lowering the external argument

In the late GB period (see Chomsky 1986), clauses came to be analyzed as in (1), with the external argument (in the sense of Williams 1980), being base-generated in SPEC-IP:

(1) [[IP John I [VP called Mary ] ]

For the most part, (1) was intendentend to adapt the early GB analysis in (2) to X-bar restrictions.

(2) [s [NP John] INFL [VP called Mary ] ]

Most attention was then devoted not to the position occupied by the subject but to SPEC-IP being obligatorily occupied (Chomsky’s 1982 Extension Projection Principle), which some
proposals related to predication requirements of the VP being satisfied through I\textsuperscript{1}.

Though compatible with the X-bar schemata, the analysis in (1) was soon discarded on both empirical and theoretical grounds. Theoretically, subjects in SPEC-IP were ‘too far’ for the verb (or the entire VP, as per Marantz 1984) to assign them the relevant θ-role, a process that (like any other) should be subject to locality constraints. Also anomalous was the fact that SPEC-IP’s thematic status was unstable –active in regular cases, but not in raising ones, as Chomsky & Lasnik (1995:60) pointed out. On the empirical side, cross-linguistic evidence related to floating quantifiers suggested subjects were generated ‘somewhere’ below IP (see Kitagawa 1986, Koopman & Sportiche 1991, Kuroda 1988, and Sportiche 1988)\textsuperscript{2}. To solve this tension, external arguments were supposed to be base-generated within the VP, giving rise to a small clause configuration (see Stowell 1981; 1983) that is usually referred to as VP Internal Subject Hypothesis:

\begin{equation}
(3) \left[ \text{IP e I [VP John [ called Mary ]]} \right]
\end{equation}

The analysis in (3) accomodated the empirical and theoretical concerns raised by Sportiche (1988) and other scholars, but, technically, it posed the yet to be settled issue of what the structural status of external arguments is: specifier or adjunct\textsuperscript{3}.

Within minimalism, Chomsky (1995:315), building on ideas of Hale & Keyser (1993) and Larson (1988), proposed for the external argument to be introduced by a light verb v that, in the v-VP configuration, encodes the “causative or agentive role of the external argument.”

\begin{equation}
(4) \left[ \text{VP John v [VP called Mary ]} \right]
\end{equation}

\textsuperscript{1} The idea is similar to Hale & Keyser’s (1993) claim that, in deadjectival verbs (e.g. break), SPEC-V is projected due to requirements imposed by the underlying adjective. If APs = PPs, as Mateu (2002) claims, the parallelism suggests that ‘internal’ and ‘external’ subjects (in Hale & Keyser’s sense) are required by P-like elements. This would require for v* to be akin to P (or, perhaps more accurately, Appl(licative)). I cannot consider this possibility here. See Hoekstra (2000) for related ideas.

\textsuperscript{2} The floating quantifiers data do not necessarily indicate the first-Merge position of subjects, if Bošković (2004) is correct: they just indicate subjects start off below IP.

\textsuperscript{3} Though Huang’s (1982) CED facts remain (but see Broekhuis 2006 and Uriagereka 1988 for examples of Subject Condition circumvention), it is not obvious that external arguments and adjuncts can be collapsed (see Preminger 2008 for such a proposal). This is clear at least under Chomsky’s (2004) pair-Merge analysis, where adjuncts involve a kind of semantics external arguments lack, i.e. predicate composition.

Some version of the adjunct analysis, however, is often appealed to in order to capture Marantz’s (1984) generalization about idiomatic expressions—in fact, under Kratzer’s (1996) approach, external arguments are not arguments of the verb, but arguments of an independent functional head, so they are in a sense more like adjuncts. As Heidi Harley as repeatedly observed (see Harley 2002; 2007), this argument only holds if internal arguments directly compose with the verb (contra neo-Davidsonian accounts; see Marantz 2003; 2005).
The analysis in (4) offered a nice way to capture the (theta-Case) connection embodied by Burzio’s Generalization, but most importantly, it also provided a way to distinguish unaccusatives from transitives under Bare Phrase Structure (see Chomsky 1995 and Harley 2005).

Synthesizing, lowering the external argument from SPEC-IP to a position closer to the verb was a necessary step under the reasonable assumption that θ-role assignment takes place in a local fashion (within the same cycle/phase). Any of the implementations in (3) and (4) proved useful in accounting for both cross-linguistic empirical facts and semantic analyses arguing for a more fine-grained lexical decomposition of verbs.

3. Raising the external argument.

Although theoretically elegant and empirically superior to its predecessors, the bipartite structure in (5) has been recently reconsidered.

In particular, Pylkkänen (2002), following the growing literature on applicatives (see Jeong 2007 for recent discussion), argues that the external argument is not introduced by a causative light verb, but by Kratzer’s (1996) voiceº, which is placed above Chomsky’s (1995) v:

\[(5) \text{[voiceP John voice [vp v [vp called Mary ] ] ]}\]

Similarly, drawing data from Hiaki, Harley (2007) shows that applicative arguments are not below vP –as one would expect, if external arguments ‘close off’ the vP projection. This can be seen in (6), where -ria, the applicative suffix, follows -te, the causative morpheme.

\[(6) \text{Santos Maria-ta kari -te -ria.} \quad (\text{Hiaki})\]
\[
\text{Santos Maria-ACC house-CAUS-APPL} \\
\text{‘Santos is building a house for Maria’} \\
\text{[from Harley 2007:12]}
\]

Regardless of (6), it is indeed the case that the external argument (Nee) c-commands the applied argument (usi-ta), as (7) shows:

\[(7) \text{Nee ili usi-ta avion-ta ni’i-tua –ria –k.} \quad (\text{Hiaki})\]
\[
\text{I little child plane-ACC fly -CAUS-APPL-PERF} \\
\text{‘I made the (model) plane fly for the child’} \\
\text{[from Harley 2007:15]}
\]

From these facts, Harley (2007) concludes, with Pylkkänen (2002), that external arguments are introduced by Kratzer’s (1996) voiceº, which she takes to be placed right above applicative and causative projections.

\[(8) \text{[voiceP John voice [ (ApplP) [vp v [vp loves Mary ] ] ] ]}\]
Apart from being consistent with the facts in (6) and (7), the analysis in (8) is capable of accounting for the Japanese and Finnish data below, where causative morphology (-sase and -tta) is detached from external arguments:\^4

(9) Hiroko pizza-o tabe-sase-rare-ta.               (Japanese)
   Hiroko pizza-ACC eat -CAUS-PASS-PAST
   ‘Hiroko was made to eat pizza’
   [from Harley 2007:21]

(10) Maija-a laula-tta -a.                         (Finnish)
   Maija-PART sing -CAUSE-3SG
   ‘Maija feels like singing (at present)’
   [from Pylkkänen 2002:87]

In sum, the evidence Harley (2007) and Pylkkänen (2002) capitalize on appears to indicate that causative morphology and the external arguments do not go hand in hand.

For the punch line, it is worth noting that, since voiceº and v play different roles, (8) explains why external arguments need not be Agents (modulo analyses where v has different ‘flavors;’ see Arad 2002), and why passive vPs can have non-agentive external arguments. Both properties are illustrated in (11):

(11) a. John loves Mary.
    b. Mary was loved by John.

4. The external argument below v*

The previous section has focused on the arguments that have been used to cast doubt on Chomsky’s (1995) analysis of the external arguments. Incidentally, all of them were empirical in nature. In this section I would like to offer four empirical arguments that point to the opposite direction. The first two, to the extent that they are correct, tell us that the external argument need not be introduced by voiceº, whereas the third and fourth ones are a bit stronger, for they are only compatible with a structure along the lines of (12):

(12) \[v*P [\text{John} [VP called Mary]]\]

The key feature of (12) is that John, the external argument, is below v*. I intentionally left unlabeled the merger of John and the VP called Mary, since, with Chomsky (to appear; 2007), I assume that external-Merge of two equally complex elements prevents label identification. The intuition behind this idea is better understood by considering the sets in (13): only (13a) allows for label identification by ‘minimal search’ (assuming Chomsky’s to appear; 2007 idea that label=Probe=head), (13b) illustrating what typically is a ‘complex specifier,’ an ill-understood type of dependent for which dedicated licensing

\^4 In the Finish example, the DP Maija is analyzed as an internal argument by Pylkänen (2002).
mechanisms have been postulated. For reasons I return to, I want to recall that complex specifiers have been argued to trigger either symmetry-breaking movement (see Moro 2000) or early Spell-Out (see Uriagereka 1999)\(^5\):

\[(13)\]  
\begin{align*}
  &a. \{X, YP\} \\
  &b. \{XP, YP\}
\end{align*}

It is important, before going on, to note that it was Chomsky himself that, in a sense, questioned his 1995 account by proposing a distinction between \(v^*\) (strong or \(\varphi\)-complete) and \(v\) (weak or \(\varphi\)-defective), a move largely motivated to accommodate Legate’s (2003) findings. Plausibly, Chomsky’s (2001) \(v^*/v\) distinction was also motivated by the observation that it is not always the case that accusative Case assignment and external argument coocur (see Boeckx 2006, D’Alessandro et al. 2008, Reuland 2000, and Sigurðsson 2006, among others). One such case comes from indefinite-SE structures in Spanish, where the internal argument agrees with C-T, ignoring the presence of the external argument (\(se\), according to Raposo & Uriagereka 1996)\(^7\):

\[(14)\]  
\begin{align*}
  &Se admiten\text{ \hspace{1cm} (Spanish)} \cr
  &\text{SE allow-3PL bets} \cr
  &\text{‘Bets are allowed’ (=People allow bets)}
\end{align*}

With this brief background in mind, consider the first argument in defense of (12), which comes precisely from phrase structure facts. As has been noted in the literature (see Abels 2003:140 and ff.) VP-fronting cannot pied-pipe the subject: it is restricted to the VO constituent\(^8\)\(^9\).

\[(15)\]  
\begin{align*}
  &a. \text{John said that } [VP \text{ call Mary }] \text{ he did } t_{VP} \\
  &b. *\text{John said that } [VP \text{ he call Mary}], \text{ did } t_{VP}
\end{align*}

There may be different ways to account for (15), one of them being the EPP. Be that as it may, the fact remains that he cannot be fronted together with call Mary. Things are compounded by reconstruction data:

\(^5\) Under some accounts, specifiers are even eliminated. See Starke (2004) and Jayaseelan (2008).

\(^6\) The ‘P’ in (13) is used for notational purposes. So, YP should really be interpreted as \(a \{Y, Z\}\), a non-head. See Boeckx (2008a,b) for related discussion.

\(^7\) In a similar way, various proposals have recently argued that accusative Case is related projections different from \(v^*\): a lower T, sandwiched between \(v^*\) and \(V\), according to Pesetsky & Torrego (2004), or \(V\) itself if selected by \(v^*\) according to Sigurðsson (2000). López (2001a,b) also claims that accusative Case depends on \(V\), not \(v^*\); to support this claim, López (2001a) suggests that, if accusative Case was parasitic on \(v^*\), we would expect sentences like ‘*John speaks someone’ to be acceptable. Notice, though, that this argument is irrelevant if speak is an unergative along the lines of Hale & Keyser (1993), with the true direct object already incorporated.

\(^8\) The facts carry over to Spanish, as Vicente (2007:ch.2) shows.

\(^9\) The same seems to hold in other cases of small clause topicalization, as Raposo & Uriagereka (1995) note. Mayr (2007) tries to derive Alexiadou & Anagnostopoulou’s (2001) Subject in situ Generalization (as well as other data related to stylistic movement) from (12) too.
These examples show that the anaphor himself cannot take John as its antecedent when the VP is fronted, a fact Huang (1993) capitalized on to claim that the VP in (16b) includes a copy of the external argument. Abels (2003) concurs, reinterpreting Huang’s (1993) observation in anti-locality terms: VP cannot move stranding v*, so the whole v*P moves, and the data follow.

Although Abels’ (2003) conclusion may well be correct, I just want to note that the example in (16b) is also compatible with the lexical VP (including the external argument) being topicalized if the relevant phase (top-most) head is voiceº, not v*. To be precise about it, v*P would be sandwiched between voiceP and VP, and that would suffice to make anti-locality worries disappear.

My second argument goes back to the Harley-Pylkkänen analysis, according to which the external argument is introduced by Kratzer’s (1996) voiceº. If this head is “the locus of traditional voice morphology,” as Harley (2007) points out, then Latin deponent verbs of the loquor type pose a non-trivial problem. This is so because loquor selects for an external argument, ignoring –it would appear- passive morphology (=or)\textsuperscript{10}\textsuperscript{11}.

(18) Dum loqu-or, hora fugit.                     (Latin)  
While talk-1SG.PASS time escape-3SG  
‘Time goes by as I talk’

Unless something else is at stake, facts like (18) are problematic for the claim that the external argument is introduced by (active) voiceº.

The third argument comes from Yoshida & Gallego’s (2008) analysis of Antecedent Contained Sluicing, as in (17):

(19) John must not kiss someone without knowing who.

\textsuperscript{10} The example in (18) is different from unaccusatives having active voice, a rather usual scenario. Harley (2007) handles those facts by assuming that, in both (active) unaccusatives and passives, voiceº lacks the relevant features to introduce an external argument, noting that it is not possible to “distinguish between unaccusative Voice and passive Voice” (sic.).

\textsuperscript{11} As Víctor Acedo (p.c.) makes me note, the case of loquor is not an isolated one, there being many unergative and even transitive deponent verbs in Latin, like hortor (Eng. order) or imitor (Eng. mimic), that take an external argument. See Acedo (in progress) for much related discussion.
The most salient trait of (19) is that negation and modals (basically, CP-phase related functional information) are not interpreted in the ellipsis site. As we note, if the PP without knowing who is adjoined in TP, as in (20), such information becomes available again:

(20) John will kiss someone tomorrow without knowing who.

In Yoshida & Gallego (2008) (19) and (20) are analyzed as cases of TP ellipsis (sluicing) that take either matrix (lexical) VP or TP as antecedent. We relate this double possibility to Chomsky’s Phase Theory, assuming VP and TP (the syntactic objects to which Chomsky’s 2004 Transfer is applied) are the domains that count for ellipsis resolution. Crucially, since the ellipsis site and the antecedent must hold a mutual entailment relation (under Merchant’s 2001 framework), the VP antecedent in (19) must include the external argument in order to count as a full proposition.

The final argument I would like to provide to argue for the external argument being generated below v* comes from Romance VOS sentences, which, following Ordóñez (1998), I analyze as involving object shift over the in situ subject:

(21) Recogió todo coche, su propietario. (Spanish)
    picked-up-3SG every car its owner
    ‘Its owner picked up every car’

The important thing to note in (21) is that we are before a bona fide instance of (object) A-movement, given the binding facts. If we were to stick to Chomsky’s (1995) analysis, (21) should be abstractly represented as follows, with the shifted object being in an outer-SPEC-v*.

(22) [\[v_P \text{Object} \] [v_P \text{Subject} v* [v_P \text{V} t_{\text{Object}}] ] ]

Though compatible with the facts, (19) shows some odd properties under the phase based system of Chomsky (to appear; 2007). In recent years, Chomsky has been arguing for a parallel behavior of CP and v*P with respect to the Case/agreement systems, assuming C and v* are the loci of structural Case.

Significantly, Chomsky (to appear) puts forward an inheritance process that downloads φ-features from phase heads to non-phase heads (see Richards 2007 for justification). Both Boeckx (2008a,b) and Chomsky (to appear; 2007) connect φ-feature inheritance to subject and object raising processes (i.e. EPP effects) to specifiers of non-phase heads. If inheritance precedes probing (for reasons discussed in Chomsky 2007:22), then the analysis in (22) cannot be correct, as it would predict that φ-features in v* can probe prior to inheritance.
Let us therefore suppose that $\varphi$-features are indeed passed down to $V$, from where they probe the object, raising it to $\text{SPEC-V}^{12}$. If that much is assumed, then the next step it to accept that the external argument is first-Merged below $v^*$, for otherwise the binding facts would remain unaccounted for:

$$(23) \begin{align*}
\text{a. } & [v_P \, v^* \varphi \, [\text{Subject } [v_P \, V \, \text{Object}]]) \quad \varphi\text{-feature inheritance} \\
\text{b. } & [v_P \, v^* \, [\text{Object } [\text{Subject } [v_P \, V \varphi \, t_{\text{object}}] \, ] \, ] \quad \text{object raising}
\end{align*}$$

From the derivation outlined in (23) the binding data noted by Ordóñez (1998) fall into place. Moreover, the fact that object raising is to $V$ and not to the edge of the $v^*P$ phase (pace Torrego 1998) explains why objects in VOS do not necessarily receive a discourse-oriented interpretation (say, specificity; see Chomsky 2001).^{13}

Although lowering the external argument has welcome consequences, the overall proposal raises some doubts. To my mind, the most pressing one concerns subject Case licensing: under any version of the PIC (see Chomsky 2001; to appear), the analysis in (12) places the subject in the complement domain of $v^*$, therefore out of C-T’s $\varphi$-Probe’s search space.\(^{14}\) One way to get around this problem would be to modify PIC’s definition, so that it applies to the complement of the element phase heads select (as Noam Chomsky suggests, p.c.). Since I know of no independent motivation to assume that, I will discard such a possibility. Keeping the PIC as it is, what I would like to propose is that the external argument moves to $\text{SPEC-}v^*$ due to its [+active] status, along the lines of Boeckx’s (2007) and López’s (2002) treatment of successive cyclic movement.\(^{15,16}\)

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\(^{12}\) This is in line with Chomsky’s (to appear; 2007) reinterpretation of the Lasnik-Saito-Koizumi approach to Postal’s raising-to-object. As Cedric Boeckx (p.c.) notes, the analysis violates anti-locality, requiring an additional projection between $V$ and the object. To make things simple, I put this aside here. See Boeckx (2007) for related discussion.

\(^{13}\) A fifth argument, which I will not dwell on here, may come from D’Alessandro & Roberts’ (2007) discussion about auxiliary selection, which is sensitive to the person specification of the external argument in Abruzzese (an upper southern Italian dialect). Under the assumption that auxiliaries are sensitive to argument structure (see Mateu 2003 and references therein), which requires for auxiliaries to be within the $vP$ phase, D’Alessandro & Roberts’ (2007) findings suggest that the AUX head (say, $v^*$ or some related projection) must be able to probe the external argument in its search space.

\(^{14}\) Things are worse in Romance languages that display VOS sentences, for subjects do not undergo raising, staying below $v^*$. In Gallego (2008) I suggest that nominative Case in VOS can be assigned if the subject involves a more complex structure, roughly of the doubling sort; if so, a null subject clitic raises to $T$, overcoming the minimality problem.

\(^{15}\) Subject movement is therefore ‘greedy,’ as in Chomsky (1993). However, with Boeckx (2007) and López (2002), I assume this does not involve look-ahead.

\(^{16}\) One other consequence of generating the external argument below $v^*$ is that it solves an unexpected asymmetry between CP and $v^*P$: there is no element being systematically merged in ($\varphi$-complete) SPEC-C.
5. Conclusions

The goal of this squib was to explore the position of the external argument, a topic that has received much attention during recent years. As we have seen, current proposals differ when it comes to raising or lowering this dependent with respect to Chomsky’s (1995) v*.

If the preceding discussion was on track, we have seen that there are plausible empirical grounds both to raise and lower the external argument. This conflicting scenario ceases to be puzzling if one assumes that the external argument behaves, at the relevant level of abstraction, like a VP-adjunct (as Hale & Keyser 1998:75 actually proposed), being able to show up at different points of the v*P phase (an idea I take from Boeckx 2008a).

\[ (24) \]
\[
\text{voiceP} \quad \text{AppP} \quad \text{EA}
\]
\[
\text{vP} \quad \text{VP}
\]

Incidentally, this ultimately takes us back to pre-minimalist implementations of the VP Internal Subject Hypothesis, where the external argument forms, together with the VP, a small clause configuration, but it says nothing about how this dependent receives its interpretation.

I believe the last consequence is not negative, because I suspect there is no non-stipulative way of predicting that property of external arguments: in the analyses I am familiar with, their interpretation follows from the relevant DPs being introduced by a dedicated head (flavored or not), but that is odd, and nothing like that (to my mind) has ever been proposed for internal arguments (i.e. there is no theme/patient head introducing underived objects). So, perhaps the interpretation assigned to external arguments cannot be calculated from syntactic construal alone, being a side effect of the conceptual properties (see Mateu 2002) of the atoms that participate in the structuring of the v*P. It may thus not be a coincidence, after all, that the theta role assigned to external arguments (“experiencer,” “agent,” “causer,” and “instrument”) is conceptually more transparent than “theme,” an elsewhere label that is more sensitive in the context of information structure.
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