

The EPP in Labeling Theory: Evidence from Romance*

Abstract. This paper puts forward an account of the EPP based on Chomsky’s (2013, 2015) Labeling Theory. Departing from Chomsky’s (2015) proposal, which adopts “feature strength” (cf. Chomsky 1993, 1995), it is suggested that the need for [Spec, TP] to be occupied by a DP can be attributed to labeling reasons, under the assumption that T is a copy of C (these heads being ‘bundled’ in the lexicon of languages of the English type). Since copies are inert for computational operations (cf. Chomsky 2000, 2001), it follows that they fail to label (cf. Chomsky 2013), which in turn makes it mandatory for [Spec, TP] to be filled. The paper further explores the consequences of this proposal for Null Subject Languages, where C and T are regarded as independent lexical items.

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1. Introduction

Chomsky (2015) offers an analysis of the EPP based on previous proposals within Labeling Theory (cf. Chomsky 2008, 2013, Epstein, Kitahara & Seely 2014). This labeling-based approach endorses a key property of early minimalism: feature strength (cf. Chomsky 1993, 1995). This paper explores an alternative account of the EPP in English that dispenses with feature strength (as customary in Phase Theory; cf. Chomsky 2000 and sub.) and is based on independently needed assumptions of the Copy Theory of Movement. The consequences for both EPP-related phenomena (*that*-deletion, ECP effects, *that*-trace effects, etc.) and linguistic variation are also considered.

The paper is organized as follows: section 2 reviews Chomsky's (2015) analysis of the EPP; section 3 introduces a feature-strength free analysis of EPP; in section 4 attention is shifted to the status of the parameter between EPP-obeying languages and Null Subject Languages; finally, section 5 summarizes the main conclusions.

2. Chomsky's (2015) analysis: back to feature-strength

A well-known puzzle of English-like languages concerns the necessity for the [Spec, TP] position to be overtly filled: the so-called EPP (cf. Chomsky 1981, 1982).

(1) *(Jon Snow) died

There have been many different accounts of this syntactic puzzle in the last 25 years (cf. Alexiadou & Anagnostopoulou 1998, Epstein & Seely 2006, Lasnik 2001, and references therein, among many others). Chomsky (2015) gives a new twist to this ill-understood phenomenon in the context of Labeling Theory. Building on the idea that all syntactic objects must be labeled for reasons that have to do with principles of the C-I interface, Chomsky

(2015) proposes a label-determining algorithm that dispenses with “projections” (i.e., labels themselves, a standard notation of PSG-descendants, including X-bar Theory). This Labeling Algorithm (LA) is understood as a case of “minimal search” procedure that detects the most accessible element in a domain—by assumption, a minimal element (or head).

As discussed in Chomsky (2013), LA operates unproblematically in $\{X, YP\}$ structures like (2), where X is the head, but it does not in (3), where it “finds $\{X, Y\}$, the respective heads of XP, YP, and there is no label unless they agree” (p.7).

(2) Merge $\{X, YP\}$ label: X

(3) Merge $\{XP, YP\}$ label: ?

Chomsky (2015) further argues that, in cases like (3), “the label is [a] pair of agreeing elements,” so in raising-to-subject cases and wh-movement cases respectively, the outcome is an exocentric structure whose label is determined by the features present in both Probe and Goal: ϕ -features and Q-features (Cable 2010).¹ This is shown in (4) and (5), where I use angle brackets to indicate copies.

(4) Jon Snow died $\{XP_\phi, \{T_\phi \{ \dots \langle XP_\phi \rangle \}}\}$ label: ϕ

(5) Who died? $\{XP_Q, \{C_Q \{ \dots \langle XP_Q \rangle \}}\}$ label: Q

¹ Cf. Colomina (2016) for explorations of Chomsky’s (2013, 2015) framework in the context of clitic combinations in Iberian Romance varieties.

Discussing the EPP case in more detail, Chomsky (2015) conjectures that the reason why subjects must stay in [Spec, TP] has to do with the inability of T to label on its own. Building on the symmetric behavior of the vP and CP phases (ϕ -feature inheritance, raising to object/subject, etc.), and more particularly the idea that T behaves like a root in the CP phase (Chomsky 2001), Chomsky (2015) makes the following suggestion concerning T:²

[this category] is too “weak” to serve as a label. With overt subjects, the SPEC-TP construction is labeled $\langle\phi,\phi\rangle$ by the agreeing features [...] Suppose that the subject raises to SPEC-CP, and is therefore invisible to LA for the usual reasons. What remains visible is T alone, which cannot label. [from Chomsky 2015:9]

In the same breath, Chomsky (2015) considers the case of Null Subject Languages (NSLs, henceforth), where subjects do not have to be merged with T for TP to be labeled. Consider this with Catalan:

- (6) Va negociar l’ Artur (Catalan)
 AUX-3.sg negotiated the Artur
 ‘Artur negotiated’

² It is not entirely obvious why TP has to be labeled. More generally, it is unclear whether all instances of Merge have to be labeled or only phasal objects do (as suggested in Chomsky 2015:6). Chomsky (2007, 2010) argues that labels might not be necessary for objects that do not enter into further syntactic computation, like ϕ -complete T (which is parasitic on C) or root CP (which is not Merged with anything else). In the account put forward in section 3, the fact that TP must be labeled follows from the idea that T and C are the same category.

Chomsky (2015) contends that “in terms of labeling theory, [Catalan] T, with rich agreement, can label TP and also {SPEC, TP}; for English, with weak agreement, it cannot, so that SPEC must be visible when LA applies” (p.9). As can be seen, Chomsky (2015) is thus going back to some version of the GB-rooted idea that the feature-endowment of heads can be strong or weak, a powerful source of parametric variation for movement processes.³

Given the problems of strength-based approach (a Procrastinate rule, a distinct LF cycle, uncertainty with respect to how languages determine feature-strength, etc.; cf. Chomsky 2000), an alternative account of the EPP still related to labeling theory is provided in the next section, but one that does not require feature-strength.

3. A Copy Theory based alternative to the EPP

The starting point of the solution I want to put forward is the idea that the relation between phase heads and non-phase heads can be much closer than it is assumed. Typically, C and T are regarded as distinct elements in the lexicon, but already in the 80s it was noted that certain morpho-syntactic effects indicate a much closer dependency between these categories: V2, *that*-trace effects, *that*-deletion, etc. (cf. Pesetsky & Torrego 2001 for an overview). In the same vein, Chomsky (2004) argues that nominative Case has C as its source (not T), and Chomsky (2007) further claims that ϕ -features are generated in C and then passed down to T through a process of feature inheritance (which has been extended to Q and other A' features; cf. Chomsky 2013).

³ As an anonymous reviewer makes me note, the idea that there is a parameter related to having a rich / weak T (or I) can be tracked back to Taraldsen (1980) and to Rizzi's (1986) idea that T is pronominal, hence somehow independent or self-sustained. Similarly, Alexiadou & Anagnostopoulou's (1998) proposal that V movement into T makes this head strong enough to stand without a specifier.

Given all these interactions, and in order to dispense with the operation of feature-inheritance (which would imply a richer, and thus less principled, UG), Gallego (2014) suggests that what is called T is actually a copy of C. Differently put, what is usually regarded as two heads should be conceived of as a non-trivial chain. The proposal immediately captures the idea that C and T ‘work together’ for Case / agreement purposes and dispenses with feature-inheritance, since the features that are in C must also be in T (a copy of C, under this view).⁴ Consequently, I assume that the relevant representation of (1) is as in (7):

(7) [C [Jon Snow <C> [v died <Jon Snow>]]]

In (7), C undergoes Internal Merge and the chain {C, <C>} chain is created. With this in mind, let us go back to the EPP, which Chomsky (2015) attributes to the fact that T is not strong enough to label in English. I would like to argue that part of the intuition is correct (labels may be behind the EPP puzzle), but T’s inability to label follows not from T’s feature-endowment being weak, but from T being a copy. More specifically, the copy status of T makes it invisible, not only for labeling, but for all computational processes as well.

⁴ Clearly, if features are present in both heads, Richards’ (2007) original motivation for feature inheritance cannot be maintained. With Chomsky (2013), I assume that the features can remain in C (in fact, they have to), their overt realization being subject to parametric variation. The valuation of these (abstract) uninterpretable features takes place in the CP phase, and I assume that if they are valued in one occurrence of the chain, they are in all occurrences (all the occurrences are part of the same discontinuous element). For a similar approach, I refer the reader to D’Alessandro & Roberts (2010) and D’Alessandro & Ledgeway (2010).

The idea that copies are inert has antecedents in the literature. In Chomsky (2000:131, 2001:16) it is argued that copies are invisible for computational operations (Merge and Agree): only the head of a chain is visible to operations. Chomsky (2015) applies the same idea to labeling, suggesting that the vP label is determined after the external argument is raised to [Spec, TP], thus neutralizing the (unlabelable) {XP,YP} configuration.

- (8) a. [α Alice [v [found [the rabbit]]]] label of α : ?
 b. [β Alice [T [α <Alice> [v [found [the rabbit]]]]]] label of α : v

If T (C's copy) is invisible for all computational processes (Agree, Merge, and LA), then it follows that an XP will have to be merged to provide the relevant features for labeling to be possible at that derivational stage.

4. A feature-strenght free parameter

Even if the analysis above is tenable, we still have to say something about why T does not require an XP in its specifier to label the "TP" in NSLs. The idea I would like to push is that C and T are distinct lexical items in NSLs, unlike in English. If they are, then T will no longer be a copy of C, and it will be able to label by itself.

The idea that some languages assemble a category X and a category Y into a single lexical item Z in the lexicon has well-known antecedents in literature (cf. Bobaljik & Thráinsson 1998, Pollock 1989, Rizzi 1997, and references therein) and has been recently explored in the context of the vP domain (cf. Pytkäinen 2002, Harley 2017), where it is argued that voice and v can be collapsed or bundled, predicting that the properties of these

Maria glass-ACC break-TR-PRF

‘Maria broke the glass’

b. Uu vaaso ham -te -k (Hiaki)

The.NOM glass break-INTR-PRF

‘The glass broke’ [from Harley 2017]

If Hiaki is indeed v-voice-splitting, then the *-ta* morpheme should correspond to *v* alone, but not to both *v* and voice. This predicts that we could affect the external argument introducing head (voice) without altering *-ta*. Harley (2017) argues that this happens when a passive morpheme stacks outside *-ta*, which is what happens when (11a) is passivized. In such circumstances, instead of substituting *-ta*, the passive suffix *-wa* is added outside:

(11) Uu vaaso ham -ta -wa -k (Hiaki)

the.NOM glass break-TR-PASS-PRF

‘The glass was broken’ [from Harley 2017]

Pytkäinen (2002) built on the same reasoning in her study of causativization, where cross-linguistic variation is partially derived from the possibility that voice and *v* (responsible for introducing the external argument (EA) and causative semantics respectively) to bundle in a particular language:

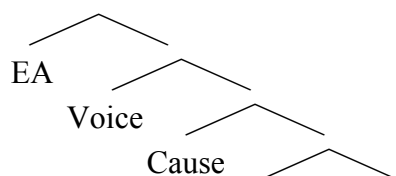
I would like to argue that while Cause [*v*] and [*v*]oice are separate pieces in the universal inventory of functional heads, they can be grouped together into a morpheme in the lexicon of a particular language. In such a language, [*v*]oice and Cause [*v*] form a similar feature bundle as tense and agreement in languages which do not have a split INFL.

[from Pytkäinen 2002:90]

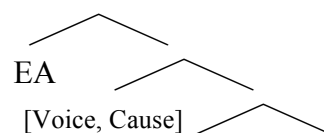
The parametric outcome of this parameter would thus be as depicted in (12):

(12) Voice-bundling Parameter

a. Non-Voice-bundling causative



b. Voice-bundling causative



[adapted from Pytkänen 2002:76]

As Pytkänen (2002) argues, the Voice-bundling parameter predicts that languages of the English type will not be able to have unaccusative causatives (structures involving a causing event that does not introduce an EA), simply because *v* and voice are one and the same element. This is possible, for instance, in Japanese and Finnish, as the data in (13) show:

(13) a. Musuko-ga sin -ase -rae -ta (Japanese)

son -NOM die -CAUSE -PASS -PAST

‘The son was caused to die’

b. Maija-a laula -tta -a (Finnish)

Maija-PART sing -CAUSE -3.SG

‘Maija feels like singing’

[from Pytkänen 2002:82, 86]

Another bundling parameter is probably behind the well-known typological distinction between satellite-framed and verb-framed languages (cf. Talmy 2000). As has been noted in the literature, the elasticity of satellite-framed languages such as English make it possible for

V to incorporate a manner component that is expressed as an adjunct in Romance languages. This can be seen in (14), where the manner component is expressed as part of the verb in English, but as an adjunct in Spanish.

- (14) a. Jon Snow **faught** his way into Winterfell
 b. Jon Snow se abrió camino hacia Winterfell **luchando** (Spanish)
 Jon Snow SE opened-3.sg way into Winterfell fighting
 ‘Jon Snow faught his way into Winterfell’

The contrast in (14) illustrates just one of the structures that are allowed by satellite-framed languages (cf. Mateu 2011, 2012 and references therein), for which a parameter analogous to that Pylkänen (2002) and Harley (2017) advocate for could be entertained.

With this much as background, let us now go back to C and T, and the possibility that they can be subject to a bundling parameter. In the case of these categories, the following phenomena have been attributed to each of them:

- | | |
|-----------------------------|------------------------|
| (15) a. C-related phenomena | b. T-related phenomena |
| <i>that</i> deletion | subject agreement |
| <i>that</i> -trace effects | A movement |
| A' movement | EPP |
| force / modality markers | tense / mood markers |

The relevant parameter, in accord to the bundling / splitting logic above, should be formulated as in (16):

(16) Does a language L bundle C and T? YES / NO

I am assuming that English fixes (16) positively. This predicts that the phenomena of the columns in (15a) and (15b) should be closer in English than they are in NSLs, which seems to be correct. Pesetsky & Torrego (2001) provide an analysis whereby *that* is actually the way T is spelled-out when moved to C. In their proposal, *that*-deletion is possible due to the possibility that a T feature in C is valued by the subject's Case feature, and *that*-trace effects follow from the fact that C cannot establish two dependencies of the same type with elements bearing the same feature, T itself (*that*) and the subject. In the case of NSLs, the lack of these properties would be expected if the complementizer (*que, che, etc.*) is not T, but C proper.⁷

This solution may have interesting consequences for the A / A' distinction. In English, the behavior of both types of operations is rather stable: A' operations target the CP, whereas A operations are tied to the TP. We might thus assume that the way the system has to yield the relevant distinction is largely configurational, by creating a discontinuous element. This of course still raises the question why A movements target the TP and A' movements the CP, yielding the customary A' > A scenario—and not the other way around.

If A movements are related to uninterpretable features (the ϕ -features), then we could expect that they have to be handled before, under some version of Featural Cyclicity, Shortest Move, or the Earliness Principle (cf. Chomsky 1995, 2000, Pesetsky & Torrego 2001). But there may also be independent C-I related reasons to prevent the reverse A > A' scenario. One such reason concerns Chomsky's (2000, 2001) Phase Impenetrability Condition, which assumes that transferred material must fall within the complement domain of phases. Under the assumption that valuation and deletion of ϕ -features is simultaneous with Transfer (cf.

⁷ This certainly aligns with the pro-drop parameter, whose status has been recently questioned (cf. D'Alessandro 2015 and references therein for discussion).

Epstein & Seely 2002, Chomsky 2004, 2008, Epstein, Kitahara, & Seely 2015), then it follows that ϕ -features cannot be left out of the Transfer (Valuation / Deletion) Zone, as depicted in (17) (where “uFF” and “P” stand for uninterpretable features and phase head respectively, and β is the complement domain of P):⁸

- (17) a. [... [P ... [β uF]]]
 b. *[uF [P ... [β ...]]]

A second reason, also based on conditions of the C-I systems, concerns the nature of sentential modality operators, which determine the (interrogative, exclamative, etc.) interpretation of the object they scope over. Consider the case of interrogative sentences (cf. Cable 2010, Cheng 1991, Hagstrom 1998, among others), where the Q operator must take the entire sentence as its second argument (the scope), like binary quantifiers do. Under this assumption, (18b) would be ruled out as an illegitimate object for interpretation:⁹

- (18) a. What nonsense did Trump say this time around?
 b. *Trump what nonsense said this time around?

In the case of NSLs, the A / A' distinction has always been more slippery, and it has often been noted that [Spec, TP] is a hybrid (both A and A') position. This would follow if NSLs

⁸ This logic doesn't necessarily affect the ϕ -features of C under the present account, but it does require for the Subject DP to end up in [Spec, TP] to get its structural Case checked.

⁹ If a language can generate (18), it would have to be assumed either that the subject has been A' moved or else that there is subsequent covert movement of the wh-phrase.

actually have two distinct Cs, and would be further consistent with the fact that nominative can be assigned within the v*P (cf. Belletti 2004, Zubizarreta 1998). An additional set of properties make subjects in [Spec, TP] special in NSLs: They display a topic-like reading (cf. Rizzi 2006, Ordóñez & Treviño 1999), they freeze for scope-taking purposes (cf. Uribe-Etxebarria 1992), and they give rise to intervention effects in successive cyclic wh-movement (cf. Torrego 1984). The basic facts are as in (19):

- (19) A' properties of [Spec, TP] in NSLs
- a. En Joan canta (Catalan)
 the Joan sing-3.sg
 'Joan sings' (Joan is a singer)
- b. Canta en Joan (Catalan)
 sing-3.sg the Joan
 'Joan sings' (Joan is singing now)
- c. ?Qui creus que cada estudiant admira? (Catalan)
 who think-2.sg that each student admira-3.sg
 Who do you think every student admires?
- d. Qui creus que admira cada estudiant? (Catalan)
 who think-2.sg that admira-3.sg each student
 Who do you think every student admires?

The examples (19a) and (19b) indicate that preverbal subjects favor a topic reading, whereas postverbal ones favor a focus one (cf. Rizzi 2006). (19c) and (19d), on the other hand, indicate, first, that preverbal subjects create a mild intervention for wh-movement (postverbal

subjects are always preferred, as Torrego 1984 noted), and, two, that if the subject is a quantifier, a scope freezing effect blocks a distributive (pair-list) reading. All these A' properties of the [Spec, TP] are absent in English, which would be consistent with the idea that T and C are independent heads in NSLs.

As an anonymous reviewer points out, something should be said about partial pro-drop languages, like Finnish, Russian, or Hebrew (cf. D'Alessandro 2015:9.1.1.3., Holmberg 2005, and references therein), where only 1st and 2nd person subjects can be omitted. It is not immediately obvious how to deal with these languages without invoking some version of feature defectivity. One could plausibly argue that 3rd person T contains no features at all (3rd person signaling the absence of person), which would entail its inability to label. Consequently, 3rd person T would qualify as a root (\sqrt{R}), thus failing to label according to Chomsky (2015:7-8)—that's what triggers raising-to-object within the v*P phase, which is precisely akin to raising-to-subject (i.e., the EPP). If correct, we can maintain that only roots and copies (but not lexical items) fail to label, with no need to resort to feature strength.¹⁰

For the punch line, consider a straightforward prediction made by the current analysis. If T's copy / non-copy status is crucial for labeling purposes, then we predict that T movement in NSLs will require the [Spec, TP] position to be occupied. Differently put, we predict that subjects will always leave the vP if T is moved. This option is somewhat difficult to test, given the restricted availability of T (verb)-to-C movement in NSLs (cf. Suñer 1994).¹¹

¹⁰ The account might also shed some light on some of the intricacies displayed by Romance *se / si* in impersonal / passive sentences (cf. D'Alessandro 2007, López 2007, Raposo & Uriagereka 1996, among others), but I leave this for further research.

¹¹ An anonymous reviewer brings up a potential problem for situations where T-to-C movement does take place in interrogatives. As just noted, this possibility is controversial in Spanish, but not in Italian. As the reviewer notes, Rizzi's (1996) observation that subjects

cannot intervene between the auxiliary (by hypothesis, in C) and the verb is relevant for our discussion. An example of this is (i), from Rizzi (1996:63), where *Maria* cannot appear between *ha* and *detto*, contrary to what the present analysis would lead us to believe.

- (i) Che cosa ha detto Maria? (Italian)
 what thing have-3.sg said Maria
 ‘What did Maria say?’ [from Rizzi 1996:63]

In order to account for this example (and similar data), we would have to consider what kind of relation is established between auxiliaries and past participles in NSLs. In Spanish, the situation seems to depend on the specific form in which the auxiliary is inflected, as Suñer (1986) showed. So, as (ii) reveals, *habría* (Eng. ‘would have’) makes it possible for the subject *María* to break the AUX-PPART adjacency, unlike *ha* (Eng. ‘has’).

- (ii) Qué {habría / *ha} María dicho? (Spanish)
 what would-have have -3.sg María said
 ‘What {would have / has} María said?’

Thus, I assume that there are additional (partially phonological) factors that have an impact on the possibility to split the auxiliary and the participle. Things may be trickier the moment we take into account other Romance languages, where not only subjects (especially if they are pronominal), but also particles of different sorts can be sandwiched between C (auxiliary) and T (participle) (cf. Giorgi & Pianesi 1997, Cinque 1999, and references therein). Similar concerns arise if we consider other Aux-to-Comp structures, like Italian (iii) (cf. Rizzi 1982, Cecchetto 1999, among others):

- (iii) Avendo Gianni visto il film, non ci furono problemi (Italian)
 having Gianni seen the film not there were problems
 ‘John having seen the film, there were no problems’ [from Cecchetto 1999:53]

in [Spec, TP] cannot be bare singular / plurals in NSLs (they must be full DPs), but they can if they stay in a v*P internal position (cf. Ordóñez 1997 and references therein):

- (22) a. *(Los) niños cantan (Spanish)
 the boys sing-3.pl
 ‘The boys sing’
- b. Cantan (los) niños (Spanish)
 sing-3.pl the boys
 ‘The boys sing’

Now if we couple the facts in (20) and (21) with those in (22), we predict that, if the verb is an imperative, only full DP subjects will be licensed. This is borne out, as (23) indicates:

- (23) a. Cantad *(los) estudiantes (Spanish)
 sing-IMP.2.pl the students
 ‘You students sing!’
- b. Hablad *(los) periodistas (Spanish)
 talk-IMP.2.pl the journalists
 ‘You journalists talk!’

The sentences in (23) are ruled out if the determiner is dropped. It is unclear why, if after all the relevant subjects appear in a postverbal position, which typically licenses bare singulars / plurals.¹²

¹² Of course, these sentences become possible if a comma is added, but this would involve a vocative structure, which I take to imply a different (higher) position.

- (i) Cantad, estudiantes (Spanish)

- ‘We women denounced the injustices’
- b. Les étudiants, *(nous) avons ri (French)
 the students we have-1.pl laughed
 ‘The students, we have laughed’
- c. *Gli studenti lavoriamo molto (Italian)
 the students work-2.pl much
 ‘We students work much’

[from Höhn 2016:544, 547]

Interestingly, French and Italian reject (24), as the data in (26) and (27) below show. This is expected, given that these languages reject (25):

- (26) a. *Chantez les étudiants (French)
 sing-IMP.2.pl the students
 ‘You students sing!’
- b. *Parlez les journalistes (French)
 talk-IMP.2.pl the journalists
 ‘You journalists talk!’
- (27) a. *Cantate gli studenti (Italian)
 sing-IMP.2.pl the students
 ‘You students sing!’
- b. *Parlate i giornalisti (Italian)
 talk-IMP.2.pl the journalists
 ‘You journalists talk!’

The same reviewer asks about imperative sentences featuring little *pro*, under the assumption that no overt DP is required. Those sentences, which are indeed an option in NSLs, would also be consistent with the current proposal even though the subject is covert—PF features are not relevant for labeling purposes in Chomsky (2013, 2015).

There is, in fact, independent evidence that *pro* occupies [Spec, TP] in imperative sentences. Following ideas by Zubizarreta (1998), Cecchetto (2000) shows that the reconstruction of clitic left-dislocated DPs takes place in a position below preverbal subjects, but above post-verbal ones in NSLs (an outer *v**P specifier, I assume). This is shown in (28), where *Jon Snow* can bind the pronoun *le* only from a preverbal position:

- (28) a. A los hombres que *le*_i apuñalaron, Jon Snow_i los colgó (Spanish)
 ACC the men that cl-him stabbed-3.pl Jon Snow cl-them hang-3.sg
 ‘The men that stabbed him, he hang them’
- b. ?*A los hombres que *le*_i apuñalaron, los colgó Jon Snow_i (Spanish)
 ACC the men that cl-him stabbed-3.pl cl-them hang-3.sg Jon Snow
 ‘The men that stabbed him, he hang them’

Consider next the fact that the same binding effect obtains in (29), featuring an imperative:¹⁵

¹⁵ Binding is obligatory in (29). However (and interestingly), binding is also possible if the sentence is declarative:

- (i) A los hombres que *le*_i apuñalaron, *pro*_i los colgó (Spanish)
 ACC the men that cl-him stabbed-3.pl cl-them hang-3.sg
 ‘The men that stabbed him, he hang them’

(29) A los hombres que te_i apuñalaron, cuélgalos pro_i! (Spanish)

ACC the men that cl-him stabbed-3.pl hang-IMP.2.sg-cl-them

‘The men that stabbed you, hang them!’

All in all, the analysis above captures the asymmetry between DPs and NPs seen in (23). In the cases we have discussed, verb movement leaves a copy, which is then unable to label the TP, making the EPP mandatory.

5. Consequences and open questions

This paper has discussed the possibility that the EPP can be explained in labeling terms, but without adopting feature strength. The alternative put forward builds on two assumptions: (i) copies are inert for syntactic purposes (only the higher occurrence of a chain is visible) and (ii) C and T can be the same head in the lexicon.

If a proposal along these lines is correct, we have a way to explain the EPP without resorting to *ad hoc* features or the strong/weak distinction that was at the core of many GB

This raises the question of why *pro* must raise to [Spec, TP] this time, since clearly other overt DP subjects do not have to. The reason may follow from Labeling Theory itself. If Chomsky (2013, 2015) is right, external arguments must always abandon the first-Merge position within the v*P. In the case of NSLs, there are two possible landing sites: one is the postverbal (focus) position (a position within the extended projection of the v*P, according to Belletti 2004) and the other is the preverbal position, namely [Spec, TP] (cf. Cardinaletti 2004 for a more fine-grained scenario). Under the reasonable assumption that *pro* subjects cannot be focused (only overt material is), then the only position they can move is [Spec, TP], thus accounting for (i).

parameters (wh-movement, V-movement, object shift, etc.). At the same time, the proposal allows us to dispense with feature-inheritance and tests the validity of ‘bundling’ parameters, which have been the focus of much recent attention in the vP domain (cf. Pyllkannen 2002, Harley 2017, and references therein).

There are, nonetheless, open questions. One of them, perhaps the most pressing one, concerns the very bundling operation. It is not clear how it is different from Merge itself and how languages determine what lexical items are “bundled.” A second question is whether the C-T discontinuous category (a non-trivial chain) must always be created in languages of the English type. Representational economy would suggest that C does not have to move unless needed, that is, when both [Spec, TP] and [Spec, CP] play a role in the structure. Largely, this is needed with object wh-movement in matrix clauses and in embedded clauses featuring “that,”¹⁶ but not with subject wh-movement, where some version of Chomsky’s (1986) vacuous movement analysis could be adopted.

The overall analysis could also explain why the EPP is vacuously satisfied in (30):

(30) Who said that?

Chomsky’s (2008) analysis of (30) involves the movement of “Who” from [Spec, vP] to both [Spec, TP] and [Spec, CP], creating two parallel chains, as depicted in (31):

(31) [Who C [<Who> T [<Who> [v [said that]]]]?

↑ ↑ _____ |

¹⁶ This departs from Chomsky’s (2015) analysis of *that*-deletion, which requires that C is inserted into the derivation and then deleted (literally eliminated from the structure), triggering a “de-phasing” process whereby T inherits all the features of C.

| _____ |

The problem here is that, if T is not strong enough to label the TP (as Chomsky 2015 reasons), and the copy of “Who” in [Spec, TP] is invisible for labeling purposes, it is not clear how (31) is grammatical. A solution to this puzzle is also available in Chomsky (1986), where *Who* doesn’t raise to [Spec, CP], but to [Spec, TP], an option that is fully compatible with the solution this paper has explored. In our terms, *Who* would move to [Spec, CP], but in a scenario where C and T are the same lexical item.

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