

*Phase Sliding**

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ABSTRACT: In this paper I review different evidence suggesting that, in Null Subject Languages, T is endowed with what Chomsky (2005) calls *edge features* (i.e., the current term for the generalized EPP of Chomsky (2000)), and, consequently, becomes a strong phase head in those languages. Given that such a possibility is conceptually problematic (cf. Chomsky (2000; 2001; 2004; 2005)), I propose that the phase effects manifested in T, though pervasive and robust, can be regarded as a side effect of v^* -to-T movement: when internally merged to T, v^* re-labels the whole structure, forcing a species of *Reprojection* (cf. Donati (1997; 2000) and Hornstein & Uriagereka (2002)), to which I refer here as *phase-sliding*. The analysis clearly revamps Chomsky's (1986) idea that V-T amalgamation can free the VP of its barrierhood, and, if correct, refutes the empirical phenomena threatening the phase status of v^* in Null Subject Languages, for all the operations that appear to take place at the T level, actually occur at an "extended v^* " level. On more general grounds, the following pages support the idea that C and v^* are phase heads universally, and T exists to act as a feature-holder (of both ϕ and *edge features*) feeding parametric variation, an idea already present in the literature in one way or another (cf. Chomsky (1986), Jaeggli (1982; 1984), Kayne (1989), and Rizzi (1978; 1982), *inter alia*).

0. Introduction

This paper explores the syntactic dependencies between C, T and v^* in Null Subject Languages (NSLs, henceforth), which I argue to be the locus of parametric choices. Specifically, assuming Chomsky's (2005) proposal about feature inheritance, I consider a possible formalization of the empirically well supported idea that, in NSLs, T may be endowed not only with ϕ -features, but also with what Chomsky (2005) calls *edge features*, a move that virtually turns T into a strong phase head in those languages; in particular, I argue that T inherits *edge features* from v^* when this head moves to T in order to form a syntactically amalgamated head, a process that is virtually identical to Chomsky's (1986) proposal that v^* -to-T (V-to-INFL, by that time) can eliminate VP's barrierhood. Importantly, for this device to go through, one needs to assume that head movement is syntactic (*contra* Boeckx & Stjepanović (2001) and Chomsky (2001)): more precisely, it has to be assumed that head movement targets the root of the tree, forcing a *Reprojection* (cf. Donati (1997; 2000) and Hornstein & Uriagereka (2002)) for different implementations).

I extend this idea to the active left-peripheral behaviour of NSLs associated to what Uriagereka (1995) calls F, which presents a sort of *continuum* that goes from highly conservative NSLs like European Portuguese and Galician (showing bizarre left-peripheral phenomena, such as overt focus heads, inflected infinitivals, complex clitic clusters, etc.), to radical ones like French –not a NSL, actually– (lacking generalized left-peripheral affective constructions). I suggest that, in NSLs, T may subsume the syntax-pragmatics interface role played by Uriagereka's (1995) F, a hypothesis that naturally carries over to those clausal structures which, in Uriagereka's (1995) terms, do not have an active F (i.e., non-finite clauses), being therefore unable of exploiting generalized left-peripheral fronting. The resulting scenario has at least two non-trivial consequences for the general architecture of the system: first, it casts doubt on the take that inheritance only exists to satisfy interface requirements from the IC interface (actually, under what I will consider here, inheritance may well belong to UG and be exploited to yield parametric variation, as speculated by Chomsky (2005) himself), and, second, it reinforces the idea that T does not have properties that do not derive either from C or from v^* (but see section § 6), being a perfect candidate to encode parametric variation.

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The paper is divided as follows: section § 1 introduces the notion of *phase* and some recent qualifications introduced by Chomsky (2005); section § 2 assesses the role of Case in the computational system, considering Pesetsky & Torrego's (2001; 2004a; 2004b) work; in section § 3, I apply Pesetsky & Torrego's (2001; 2004a; 2004b) analysis of Case to NSLs (with special attention to Peninsular Spanish), suggesting that T (and not v*) seem to act as a phase head in those languages; section § 4 offers an analysis of indicative and subjunctive embedded clauses; section § 5 tries to reinforce the claim made in section § 4 by showing that preverbal subjects –as already pointed out by much of the GB literature–, behave as a species of topic (in particular, preverbal subjects will be argued to be the result of what we could call a “Subject Shift” operation to the edge of the TP phase, with a semantic effect ensuing); in section § 6, building on the observation by Ordóñez (1998a) that Spanish VOS order involves movement of the object DP to a SPEC position c-commanding the subject DP (which I identify as an outer SPEC-v*), it is shown that Chomsky's (2001) phase evaluation proposal further suggests that TP is a strong phase in NSLs; in section § 7, I concentrate on the so-called EPP, assessing the issue of whether it is active or not in NSLs. Finally, section § 8 explores some (sub)extraction data that will prove relevant for the overall discussion.

1. Phase Theory

One of the central theoretical issues being investigated within the Minimalist Program is whether (and how) access to the Lexicon must be restricted in some manner. Mainly due to economy considerations of that sort, Chomsky (1995) introduced the notion of *Lexical Array* (LA), understood as a pre-syntactic domain storing Lexical Items (LIs) to enter a given derivation¹. Thus, to derive an expression like (1b), (1a) is taken as its previous step (functional categories aside):

- (1)
- a. {The₂, book₁, John₁, put₁, on₁, shelf₁}
 - b. John put the book on the shelf.

Considering questions of computational load in more detail, Chomsky (2000:100-106) restricted the access to LAs so that only a given subpart is placed in ‘active memory’: a *phase*. The important question that emerges is how those subarrays are selected. Chomsky (2000; 2001; 2004; 2005) has given both conceptual and interface/output motivation endorsing the idea that phases are CP and v*P: conceptually, phases should be ‘small’ subarrays (so that computational load is avoided), whereas, interface-wise, phases manifest easily detectable semantic and phonetic properties indicating a sort of ‘independence’ (or ‘convergence’)².

The phase status of CP and v*P was complicated due to data raised by Legate (2003), forcing Chomsky (2001:12) to make a further distinction between *weak* and *strong* phases (i.e., vP vis-à-vis v*P). Although the distinction only holds for verbal phases, there being no similar counterpart in the CP phase (C is always ϕ -complete)³, there seem to be clear determining factors:

¹ Strictly speaking, a LA contains ‘tokens’ of LIs; if more than one ‘token’ of the same ‘type’ is selected, as in (1), an LA is called *Numeration*.

² Cf. Boeckx & Grohmann (2004), Chomsky (2000; 2001), Uriagereka (2002b), and references therein.

³ There is an interesting asymmetry here. In the present system, both T and v* may be ϕ -defective, the case of its closest DP being determined by a higher Probe. Why can't C be ϕ -defective as well? That is an asymmetry, as notorious as the one between T-v* and C-v* as the loci for case (cf. Chomsky (2004)). Incidentally, there is another asymmetry in Chomsky's system: T can appear without C, but V always needs v or v*. Chomsky (2005:15) argues that this follows from V being a Root category, hence needing v or v* to get a categorial status, presumably acting as a ‘tokenizer’, as already noted by Juan Uriagereka.

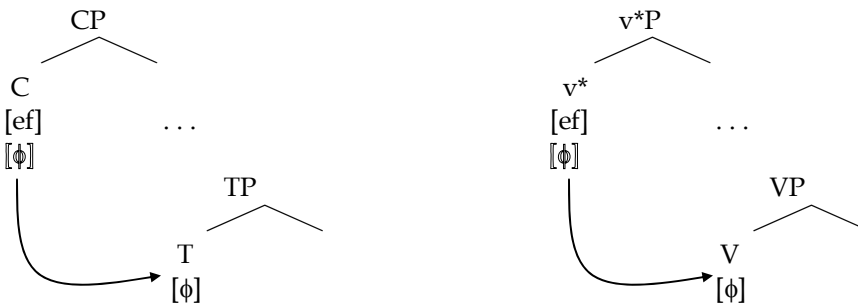
v* (but not v) has full argument structure, assigns accusative case and can (optionally) be endowed with EPP features.

Let us now shift our attention to the phase heads themselves: C and v*. In Chomsky (2004:115-116), they constitute the locus of Case, contrary to previous accounts, which took T and v* to assign structural case under Agree. One immediate consequence of that analysis of Case is that ϕ -features must be generated in C and v* as well, for in Chomsky's system Case is assigned under ϕ -feature agreement. That is actually the proposal by Chomsky (2005), where T and V manifest ϕ -features just derivatively, as a process of inheritance from C and v*⁴. According to Chomsky (2005), inheritance also derives the A-/A' distinction⁵: the agreement/case systems drive A-movement, whereas what Chomsky (2005) dubs *edge feature* (a sort of *alias* for the generalized version of the EPP introduced in Chomsky (2000)) drive A'-movement.

Graphically, then, we get (2a) and (2b), where [ef] stands for *edge feature* (responsible for all types of peripheral movement, in the sense of Rizzi's (1997) cartographic project)⁶.

(2a) Inheritance of ϕ -features (C → T)

(2b) Inheritance of ϕ -features (v* → V)



Jordi Fortuny (p.c.) has made me note that ϕ -defective T could derive from a ϕ -defective C and not from direct selection by V. This would virtually capture the same results, while keeping a layer dedicated to subordination (i.e., the CP). In section 4 I analyze subjunctive dependents as involving a ϕ -defective C.

⁴ Chomsky (2005) seems to be putting forward a new operation: inheritance. Can Inheritance be restated in a way so that it does not constitute a new operation? Theoretically, I can think of inheritance as a kind of downstairs percolation or Concord (i.e., context-free *Agree*) process. Chomsky (2000:148 fn. 89) denies that Merge alone triggers Agree (for otherwise external arguments would receive accusative Case and object agreement upon merger), but he leaves the door opened to Concord in Chomsky (2001:42 fn. 6). If that possibility is on track, then Inheritance would not have to be phrased in new terms, but, as I say, it appears that Chomsky (2005) argues for a new operation, completely independent on Merge and Agree.

⁵ The distinction was first related to theta-positions (A positions were dedicated to arguments –“A” from “argumental”). This was clear before the advent of the VP-internal subject hypothesis, for subjects were directly generated in SPEC-T. Later on, the definition had to be modified, since subjects in SPEC-T also show A properties like binding and control (the trick was to relate theta-role assignment to Case through the notion of ‘visibility’: a DP was said to be ‘visible’ to get a theta-role if its Case has been checked). Case, then, can be viewed as another test to see whether a position is A or A’. As Uribe-Etxebarria (1992) notes, the problem is that some languages do not need to move subject DPs to SPEC-T to get their Case checked. In those languages, therefore, SPEC-T would be an A’-position.

⁶ A theoretical warning flag must be raised here. Chomsky (2005) defines *edge-feature* as follows:

“For an LI to be able to enter into computation, merging with some SO (and automatically satisfying SMT), it must have some property permitting this operation, A property of an LI is called a feature, so an LI has a feature that permits it to be merged. Call this the *edge-feature* of the LI. If an LI lacks EF, it can only be a full expression in itself; an interjection [...] EF articulates the fact that Merge is unbounded, that language is a recursive infinite system of a particular kind.” Chomsky (2005:6)

Under that definition, the system seems to be complicated in some respects. First, recursion is no longer parasitic on the operation Merge, but on the fact that LIs bear *edge features*. Does that mean that the evolution of the Faculty of Language depends on the appearance of *edge features* (i.e., morphology)? Second, as just defined, *edge features* are responsible for all kinds of Merge, even the one which implies a verb and its internal argument, so it is restricted neither to phase heads nor to the creation of specifiers. Since I find that problematic, in this paper, I will assume that *edge features* are an exclusive prerogative of phase heads in order to create ‘extra’ specifiers (that is, *edge features* would not apply in the case of v*'s first SPEC and the SPEC of elements that select for a SPEC –prepositions, under Hale & Keyser's (2002) system).

The reader may recall that, in Chomsky (2000), a kind of edge feature was already assumed; by that time, though, [ef] was called “EPP feature”, drawing the parallelism from the Extended Projection Principle (cf. Chomsky (1981)) in that in both cases a SPEC position is created (cf. fn. 6). Viewed that way, phase heads, apart from their s-selection (say, C selects T, and v^* selects V), could have EPP-features to capture internal-Merge to their SPEC positions. This EPP-feature of Chomsky (2000) had two main properties: (a) it was created *only* by internal-Merge and (b) it was optional⁷:

“Each CFC allows an extra Spec⁸ beyond its s-selection: for C, a raised *wh*-phrase; for T, the surface subject; for *v*, the phrase raised by object shift (OS). For T, the property of allowing an extra Spec is the Extended Projection Principle (EPP). By analogy, we can call the corresponding properties of C and *v* *EPP-features*, determining positions not force by the Projection Principle.” Chomsky (2000:102)

“The EPP-feature of T might be universal. For the phase heads C/*v*, it varies parametrically among languages and if available is optional [...] The fact that the EPP-feature when available is **optional** for C/*v* suggests that it is a property of the phase Ph [...] the EPP-feature must be satisfied by raising within Ph: pure Merge from outside Ph is barred.” Chomsky (2000:109) <My emphasis, AJG>

The last paragraph is extremely relevant for what I will explore in this paper. Right after it, Chomsky (2000) proposes the next correlation:

(3) *Phase head and EPP-feature correlation*

The head H of a phase Ph may be assigned an EPP-feature.

[from Chomsky (2000)]

Although the main ideas of Chomsky (2000; 2001; 2004) remain, Chomsky (2005) defends that *edge features* may yield both external-Merge and internal-Merge. In the case of v^* , this is straightforward: it triggers external-Merge for “basic argument structure” (in the sense of Hale & Keyser (2002)) and internal-Merge for “Object Shift” and successive cyclic movement. Consider now C; there is no problem with internal-Merge (it could be involved in deriving topic-focus configurations; cf. Rizzi (1997) and much related work), but Chomsky (2005:7) also argues that C’s *edge features* trigger external-Merge in order to yield what he calls a “generalized argument structure”, involved in Rizzi’s (1997) cartographic hierarchies. Of course, this view has to accept that some SPECS of C can have their own theta-like nature, by parity with the ones of v^*P (cf. Chomsky (2000:103))⁹.

Let us go back to the main discussion about phase heads. In Chomsky (2005), it is argued that only these trigger operations, which entails that both A and A’ movement depend on Probes on C and v^* , working “in parallel”. The derivation of (4), illustrated from (4a) through (4d), may help understand the gist of Chomsky’s (2005) proposal. Assume the first step involves ϕ -features inheritance by T.

⁷ Optionality is preserved in Chomsky (2001), where a phase head H can be assigned EPP features if the process has an effect on the output: edge-semantics or successive cyclicity. Note, importantly again, the word ‘optional’:

“**Optional** operations can apply only if they have an effect on outcome: in the present case, v^* may be assigned an EPP feature to permit successive/cyclic A’ movement or Int[interpretation] (under O[bject] S[hift]).” Chomsky (2001:34) <My emphasis, AJG>

⁸ ‘Extra’ because v^* already projects a SPEC position, occupied by the external argument (cf. Chomsky (2000:108)).

⁹ Presumably, this also applies to the structures explored by Etxepare (1997).

- (4)
- a. Of which car was the driver found?
- b. $[_{CP} C [ef] [_{\phi}] [_{TP} was T [\phi] [_{VP} found v [_{VP} found [the driver [of which car]]]]]]$ INHERITANCE
-
- The diagram shows a vertical line from the $[\phi]$ probe in the CP phase down to the T head in the TP phase. An arrow points from the T head up to the $[\phi]$ probe in the VP phase, indicating inheritance.

As soon as the CP phase is activated, Probes start scanning “in parallel”: the ϕ -Probe seeks for the object DP (unproblematic for Chomsky’s (2000) PIC, since vP is not a phase), and the [ef]-Probe extracts the *wh*-phrase from that very constituent, as indicated in (4c):

- (4)
- c. $[_{CP} C [ef] [_{TP} was T [\phi] [_{VP} found v [_{VP} found [the driver [of which car]]]]]]$ PARALLEL PROBING
-
- The diagram shows a solid arrow from the T head in the TP phase to the $[\phi]$ probe in the VP phase. A dashed arrow starts from the C head in the CP phase and points towards the $[\phi]$ probe, indicating parallel probing.
- ___ A-Probe
 --- A'-Probe

- (4)
- d. $[_{CP} Of\ which\ car_j\ was\ C [ef] [_{TP} [the\ driver\ t_j]_i\ T [\phi] [_{VP} found\ v [_{VP} found\ t_i\ t_j]]]]$

Consider now the pair in (5). Note that, in both examples, although the subject appears in the same surface position (i.e., SPEC-T), different effects regarding Huang’s (1982) Subject Condition arise:

- (5)
- a. $*[_{CP} Of\ which\ car_i\ did\ [_{TP} [the\ driver\ t_i]_j\ t_j\ caused\ a\ scandal]]?$
- b. $[_{CP} Of\ which\ car_i\ was\ [_{TP} [the\ driver\ t_i]_j\ awarded\ t_j\ a\ prize]]?$

The contrast of (5) is crucial evidence –Chomsky (2005) argues– to show that movements are not sequential within a phase; that is, subextraction of the *wh*-phrase of *which car* does not take place after the subject DPs have been raised to SPEC-T, but from the ‘base structure’: SPEC-v* and the complement position of V, respectively. That conclusion, in turn, implies that T cannot have acted as a Probe, for otherwise the asymmetry would be wiped out. From (5), Chomsky (2005) concludes that Huang’s (1982) Subject Condition cannot be related to surface positions (i.e., SPEC-T; *contra* Boeckx (2003a), Stepanov (2001), Takahashi (1994), and Ormazábal, Uriagereka & Uribe-Etxebarria (1994)), but to base ones (SPEC-v*).¹⁰

In the context of the present discussion, it is worth asking whether inheritance is more economic than what we had before (C and T as independent different probes): that would be consistent with the facts, and it would respect both NTC and SMT, but, of course, at the cost of dispensing with the leading role of phase heads. On more general grounds, for Chomsky’s (2005) proposal to be on the right track one should not find properties on T that do not derive from C, and, at the same time, neither tense nor ϕ -features are expected to appear in what Chomsky calls ϕ -defective T. I will return to these questions in sections §§ 4 and 5 below.

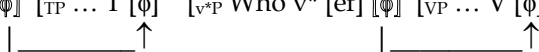
Given this approach to subextraction, chains are always uniform, as the derivation of (6a) indicates in (6b)-(6c)-(6d).

¹⁰ This approach seems to assume a literal *tucking-in* process for subjects: A-movement is invoked by C’s ϕ -features, but it stops at the closest position to its Probe (namely, SPEC-T). Notice, furthermore, that this *tucking-in* is irregular, since it assumes internal-Merge of the Goal and a category different from the Probe; put differently, if A-movement is indeed driven by C, it should create a specifier for C (be it an outer one or not), not T. Chomsky (2005:14) is explicit about it. A way to go about this would be to assume that A-probes are in fact launched from T, although inherited from C.

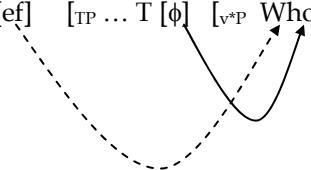
(6)

e. Who saw John?

f. [CP ... C [ef] [ϕ] [TP ... T [ϕ] [v^*P Who v^* [ef] [ϕ] [VP ... V [ϕ] saw John]]]] *INHERITANCE*



g. [CP ... C [ef] [TP ... T [ϕ] [v^*P Who v^* [ef] [VP ... V [ϕ] saw John]]]] *PARALLEL PROBING*



— A-Probe
--- A'-Probe

h. [CP Who_i C [ef] [TP Who_j T [ϕ] [v^*P Who_k v^* [ef] [VP ... V [ϕ] saw John]]]]

By the end of the derivation, 3 uniform chains are formed:

(7)

- a. {Who_k} A-Chain (trivial chain)
- b. {Who_j, Who_k} A-Chain (non-trivial chain)
- c. {Who_i, Who_k} Operator/argument-variable A'-Chain (non-trivial chain)

In sum, Chomsky (2005) constitutes an attempt to strengthen the leading role of C and v^* as phase heads. The proposal is perfectly consistent with previous work: inheritance from phase heads can be seen as the new implementation for the close relationship that C and T were assumed to have already in Chomsky (2000; 2001; 2004) (recall, T is ϕ -complete only if selected by C, and nominative Case only appears if C is present), although by that time such a relationship was stated in terms of selection. The second most remarkable aspect of Chomsky (2005) concerns the fact that Probes can scan “in parallel”, but that can also be traced back to Chomsky (2001), where evaluation of operations took place at the phase level, not before.

2. The Nature of Case

Since the advent of the Principle & Parameters framework, Case has played a key role in the development of syntactic theory, up to the point that it can be said to be, at one level, the first step towards Minimalism. In Chomsky's (2004; 2005) system, Case in nominals is valued and deleted by ϕ -probes located in C and v^* respectively (visible in T and V, but just as a process of inheritance; cf. section § 1). Under that perspective, therefore, ϕ and Case features are both sides of the same coin, thus following George & Kornfilt's (1981) thesis that structural Case is a reflex of agreement:

"Structural Case is not a feature of the Probes (T, v), but it is assigned a value under agreement, then removed by Spell-out from the narrow syntax. The value assigned depends on the probe: nominative for T, accusative for v (alternatively ergative-absolutive, with different conditions). Case itself is not matched, but deleted under matching of ϕ -features."
Chomsky (2001: 6)

In Pesetsky & Torrego (2001), a suggestive alternative approach to Case is put forward. In particular, these authors claim that what we call Case is actually an uninterpretable (i.e., misplaced, as noted by Boeckx (2003b)) tense feature on D heads¹¹.

(8) The Nature of Case

Case is [uT] in D

[from Pesetsky & Torrego (2001)]

This departure from mainstream analyses (where agreement and case are different names for the same phenomenon) nicely fits with Chomsky's Probe-Goal relation, for both Case and ϕ -features find an appropriate feature-mate. In Pesetsky & Torrego's (2001) system, feature valuation is always a one-to-one relation.

"The MI/DbP framework does not view structural case as the uninterpretable counterpart of an otherwise interpretable feature. Instead, it is a *sui generis* feature with a special relation to the ϕ -features: it gets valued only as a by-product of ϕ -feature agreement. Thus, when unvalued ϕ -features of finite T probe, on this approach, and find a suitable goal –for example, a DP with a full set of ϕ -features– the unvalued case features of that DP gets valued as a kind of 'bonus'." Pesetsky & Torrego (2004b:10)

In this vein, Pesetsky & Torrego (2004a) convincingly argue that prepositions are a species of T heads (both of them being birrelational spatio-temporal predicates), thus accounting for why they are also case checkers/assigners. Accordingly, Pesetsky & Torrego's (2004a) system is as depicted in (9), where the second T head could correspond to what some scholars have called Aspect or Voice (cf. Kratzer (1996))¹²:

(9) [_{CP} C [_{TP} T_{SUBJECT} [_{v*P} v* [_{TP} T_{OBJECT} [_{VP} . . .]]]]]]

Details aside, (9) provides more symmetry than Chomsky's system: phase heads select for T heads, the real locus of Case¹³.

¹¹ Cf. Svenonius (2002) for related ideas.

¹² The role of T_{OBJECT} is not directly relevant for anything I have to say here, so I will generally ignore it.

¹³ Cf. Chomsky (2001:7-9), where three alternatives concerning Case are considered, (i) being finally chosen.

(i) Locus T/ v^*
(ii) Locus T/V
(iii) Locus C/ v^* (fn. 18, p. 44)

Pesetsky & Torrego's (2001) analysis extends to some intriguing phenomena like superiority and *that*-trace effects. Capitalizing on robust evidence stemming from Den Besten (1983) showing that some T-like elements move to C (mainly in V2 languages), these scholars make the simplest (but still interesting) assumption about that operation:

(10) **Motivation for T-to-C Movement**

C bears an uninterpretable T feature (henceforth [uT]) (with the EPP property).
 [from Pesetsky & Torrego (2001)]

(10) is interesting in that it reinforces the relation between C and T, which is what Chomsky himself is pursuing in recent work. As noted in the literature, C-T-v* seem to establish a syntactic dependency, as shown by the facts in (11) and (12), which indicate that complementizers show subjects's agreement features (i.e., the so-called "complementizer agreement"; cf. Carstens (2003), Haegeman (1998), Watanabe (2000), and Zwart (1993; 2001)) and their form depends on the [\pm finite] character of the verb (cf. Pesetsky & Torrego (2001; 2004a)):

- (11)
- | | | |
|----|-----------------------|---------|
| a. | ... dat ze komt. | (Dutch) |
| | that she come-3SG | |
| | '...that she comes' | |
| b. | ... datte ze komme. | (Dutch) |
| | that-PL they come-3PL | |
| | '...that they come' | |
- [form Zwart (2001:40)]

- (12)
- | | |
|----|---|
| a. | John thinks <i>that</i> Basque girls <i>are</i> gorgeous. |
| b. | John wants <i>for</i> you <i>to be</i> fine. |

In sum, Case, for Pesetsky & Torrego (2001), depends exclusively on T (which has, by assumption, an interpretable [iT] feature, responsible for deleting D's [uT]). Note, moreover, that, as a consequence of having [uT], both C and D may be seen as a species of the same mega-category that turns predicative-like expressions (e.g., nouns and propositions) into arguments, as noted by Szabolcsi (1992)¹⁴.

Going back to (10), by the "EPP Property", Pesetsky & Torrego (2001) mean a trait of a feature, not a feature itself. Thus, if a feature F has the "EPP property", it triggers internal-Merge (making F 'strong', in the pre-minimalist sense of the word). In order to see how this system works, consider the paradigm in (13), noticed by Koopman (1983):

(13) **T-to-C asymmetry in matrix interrogative clauses**

- | | |
|----|---|
| c. | What did Mary buy? |
| d. | *What Mary bought? |
| e. | *Who did buy the book? [unless <i>did</i> is focused] |
| f. | Who bought the book? |

[from Pesetsky & Torrego (2001)]

Descriptively speaking, what is going on in (13) is very clear: *do*-insertion is blocked when a subject DP undergoes *wh*-movement to SPEC-C. What must be answered is why subject's *wh*-movement does not trigger *do*-insertion (which is itself an instance of T-to-C head movement,

¹⁴ At the same time, this would be against Stowell's (1981) *Case Resistance Principle*. Cf. Picallo (2002) and Uriagereka (in progress).

in Pesetsky & Torrego's (2001) analysis). According to Pesetsky & Torrego's (2001), *do*-insertion is barred whenever a subject *wh*-phrase moves because the nominative Case feature (that is, its [uT] feature) of the subject DP can delete C's [uT], rendering *do*-insertion as redundant. Graphically:

(14)

- a. [_{CP} Who_i[uT] C_[uT,-EPP][ef] [_{TP} t_i bought the book]]
- b. * [_{CP} Who_i[uT] did_j C_[uT,-EPP][ef] [_{TP} t_i T_j bought the book]]

Under the superiority effect of (14b) we find a core property of the computational system: economy¹⁵. As the reader may easily see, if one movement suffices to value two uninterpretable features of one lexical item, no extra movements are needed. In (14) the T feature of the subject is closer to C than T itself (taking c-command, and not node-counting, to signal closeness; see section § 7), and, in addition, the subject can also be used to satisfy the [ef]-Probe: by some general principle of computational efficiency driving syntax -like (15)-, the movement of the subject seems to be enough to satisfy C's requirements). On the other hand, when object DPs move, T is always closer to C, so pure T-to-C movement (i.e., *do*-insertion) must occur¹⁶.

(15) *Economy Principle*

A head H triggers the minimum number of operations necessary to satisfy the properties (including EPP) of its uninterpretable features.

[from Pesetsky & Torrego (2001)]

The analysis of *do*-insertion in (14) might be threatened by Chomsky's (1986) vacuous movement analysis of subjects, whereby *wh*-subjects remained in SPEC-T without moving to C. Pesetsky & Torrego (2001) argue that they do move by considering the distribution of expressions like *the hell*, which, as noted by Pesetsky (1987), are only allowed in *wh*-phrases that overtly move to SPEC-C:

(16)

- a. What *the hell*_i did Sue give t_i to whom?
- b. *What_i did Sue give t_i to whom *the hell*?
- c. Who *the hell*_i t_i bought what?

[from Pesetsky & Torrego (2001:36 fn. 9)]

Another piece of evidence comes from the pair in (17), where (17b) shows that a nominative *wh*-phrase that has not moved to SPEC-C does not license the chunk *the hell*¹⁷:

¹⁵ Contrary to what is normally assumed (cf. Rizzi (1990) and subsequent work), superiority effects are no longer valid when [ef]-Goals are at stake under Chomsky's (2005) proposal (cf. section 6). In (14), however, superiority does not involve [ef]-Probes, but the [uT] one, which is the flipside of Chomsky's φ-Probes.

¹⁶ There is a non-trivial drawback to this proposal: how is it the case that an uninterpretable feature like subject's [uT] can be used to value and delete C's [uT]. First of all, this possibility is severely restricted, for an uninterpretable feature can be used to value another uninterpretable feature only within the phase it has been "marked for deletion", as Pesetsky & Torrego (2004a) argue. Second, in Pesetsky & Torrego (2004b), a possible way out is sketched: all instances of T features form a sort of abstract syntactic dependency (technically, *Agreement* is regarded as *Feature Sharing*; cf. Frampton & Gutmann (2000)) so that an uninterpretable link is not 'alone' when valuing another uninterpretable feature appearing upstairs in the tree: the chain works together, as a whole, in valuation. Another possible implementation of this technical solution is, I think, Hiraiwa's (2001) *Multiple Agree*. I will come back to this issue (cf. sections §§ 3 and 7).

¹⁷ Cf. Lasnik & Saito (1992:101-102) for another argument in the same line. Other possibilities have been suggested: Boeckx (2002:54), building on McCloskey (2000), notes that the vacuous movement problem disappears if *wh*-subjects never land in SPEC-T to begin with, which, in turn, explains why there is no *do*-support (for Boeckx (2002), since nothing intervenes between C and T/V, affix hopping is without problems). Another plausible way out is explored by Fortuny (2005), who, in order to explain the lack of *do*-support and *that*-trace effects, argues that C and T can 'contract', becoming a unique category, by means of a mechanism that minimizes structure, preventing excessive feature proliferation. I cannot assess these alternative proposals here.

- (17)
- a. Who wondered who the hell bought this book?
 - b. *Who believed who the hell bought this book?

[from Pesetsky & Torrego (2001:36 fn. 9)]

Pesetsky & Torrego (2001) extend the logic of their proposal to *that*-trace effects. In their system, *that* (like *do*) is not a complementizer, but a clitic head launched from T. If that is correct, then we can understand why subject extraction and *that* are incompatible in English: since they can both delete C's [uT], on economy grounds, only one should do the job.

- (18)
- c. [_{CP} Who_i_[uT] did C_[uT, EPP]_[eθ] John say [_{CP} t_i C_[uT, EPP]_[eθ] [_{TP} t_i called Mary]]]?
 - d. *[[_{CP} Who_i_[uT] did C_[uT, EPP]_[eθ] John say [_{CP} t_j that_j C_[uT, EPP]_[eθ] [_{TP} t_i T_j called Mary]]]?

If *that* deletes C's [uT], and if deletion of uninterpretable features is required for convergence, one might now wonder next what to do with *that*-deletion in embedded contexts (cf. (19)). How is C's [uT] deleted in those cases? Pesetsky & Torrego (2001) argue that when C is merged with the so far assembled structure, both TP and [Spec, TP]¹⁸ are equally able to delete C's [uT], since, c-command-wise, both are equally close to C (they are "equidistant", in Chomsky's (1993; 1995) sense; cf. section § 6)^{19 20}.

- (19)
- a. John thinks [_{CP} that_j C_[uT, EPP] [_{TP} Mary T_j is gorgeous]]
 - b. John thinks [_{CP} [_{DP} Mary_i_[uT]] C_[uT, EPP] [_{TP} t_i is gorgeous]]

Let us recap: here I have presented the main points of Pesetsky & Torrego's (2001) analysis of Case features (henceforth, uninterpretable Tense features) and the C-T interaction. As we have seen, their proposal nicely accounts for some well-known phenomena in a unitary fashion, with the additional advantage of giving Case theory a more coherent treatment within a Probe-Goal system, like Chomsky's.

One further comment on Chomsky's (2005) Case system is in order: ϕ -features are inherited by T and V, and they -Chomsky assumes- trigger raising of both subject (to SPEC-T) and object (to SPEC-V, as independently argued by Lasnik (1999; 2003) in different terms); this, as it stands, is not really different from the SPEC-configurations with Agr nodes for Case purposes, as in Chomsky (1993). Why does Case assignment induce raising to a SPEC? Given present assumptions, in order to evoke raising, these ϕ -features, must have the "EPP property" (pure Agree does not trigger internal-Merge). I suppose this might be a language particular fact: some Case assignments have trigger internal-Merge (with interpretive properties as a result, if we stick to Chomsky's (2004) motivation for internal-Merge), some not. Under Pesetsky & Torrego's (2001) proposal, both raising operations would target T heads (the loci of Case). Again, correct or not, that would give more symmetry to the system.

¹⁸ Although I say TP here, it is actually the T head (spelled-out as *that*) that moves to C. Pesetsky & Torrego (2001) discuss this matter, arguing that, in cases like this, the head of the complement (rather than the entire complement itself) moves in order to prevent a derivation in which C merges with the same syntactic object (namely, TP) twice. Furthermore, note that, since TP dominates T, they are both equidistant from C (dominance is not a case of c-command), but T movement obtains, a fact that may be related to a familiar generalization: Travis' (1984) *Head Movement Constraint*. I will come back to "equidistance" (cf. sections §§ 6 and 7; for more general discussion, cf. Chomsky (1993; 1995; 2000) and Hiraiwa (2001)). If this notion is eliminated, as in Chomsky (2001), the possibility to use subject DPs' [uT] to value C's [uT] could still take place in a Multiple Agree/Feature Sharing fashion.

¹⁹ Another possibility would be for C to delete its [uT] feature by mere Agree. I assume that this is what happens in declarative clauses, for instance.

²⁰ There are some exceptions to this general pattern: factive verbs (e.g., *to regret*, *to realize*, etc.) and some verbs involving a manner component, like *to whisper*, do not allow *that*-deletion. I do not address the question of why this is so in this paper.

3. The C-T System in Null Subject Languages

In this section I would like to turn to NSLs, and investigate whether (and how) both Chomsky's and Pesetsky & Torrego's systems can be extended to them. In previous work (cf. Gallego (2003; 2004a; 2004b; 2005)), I tried to extend Pesetsky & Torrego's (2001) system to Peninsular Spanish and Catalan, arguing (*contra* Barbosa (1997; 2001), Bonet (1989), Cardinaletti (2002), Guasti (1996), Ordóñez (1998b), Solà (1992), Suñer (1994), and Uriagereka (2002b), *inter alia*) that Romance interrogatives do involve T-to-C movement, a highly controversial claim²¹. Since this issue deals with the also controversial phenomenon of head movement, let us consider it in some detail.

3.1. Head Movement

Before assessing why T-to-C movement occurs in NSLs, we should ask why V-to-v and [_v[V-v]]-to-T apply in the first place. The former operation might be universal, for categorical/tokenization (or word formation; cf. Hale & Keyser (2002) and Rizzi (2004b)) needs, if Chomsky (2004) is right²² in following Marantz (1997), but what about [_v*[V-v*]]-to-T? Here languages differ, which calls for a parametrization. Lasnik (1999) examines the different proposals within the generative literature, proposing that T and V can come with a different value from the Lexicon. Simplifying somewhat, Lasnik (1999) defends (20):

(20)

- a. T is either affixal or featural (and, if featural, it is 'strong', forcing overt movement).
- b. V (or v-V) can come from the Lexicon fully inflected or in a bare form.

(20b) distinguishes languages like French or Spanish from English -except from auxiliary verbs-, with the consequence that while lexically inflected verbs must raise overtly (as in Romance languages), non-inflected ones must undergo a process of Affix Hopping at the PHON/PF component (by and large, the case of English). As for (20a), it also draws the line between Romance and English: English T is normally an affix, whereas Romance T is not. As Lasnik (1999) notes, four combinations are possible from (20a) and (20b):

(21)

- a. T [+F] - V [+F] Romance (and English auxiliary verbs)
- b. T [Affix] - V [+F] LF and PF crash
- c. T [+F] - V [bare] LF and PF crash
- d. T [Affix] - V [bare] English

Technical details aside, Lasnik's (1999) point can be spelled out as follows: in English, [_v*[V-v*]]-to-T occurs at the PHON/PF component (not in Narrow Syntax); in Romance, [_v*[V-v*]]-to-T occurs in the syntax²³.

Let us now try to recast this analysis in current terms. First of all, it must be noticed that Lasnik's (1999) approach cannot be adopted under Chomsky's (1993) strong lexicalist hypothesis, which holds that all elements come from the Lexicon bearing inflectional features, these being unvalued in the case of functional categories like T and v*/V (cf. Chomsky (2001; 2004)). Moreover, inflectional features are understood in a rather different way by Lasnik (1999) and

²¹ See Benincà & Poletto (2004) for an attempt to show that a sort *do*-insertion exists in some Italian dialects, with the same general behaviour of English's.

²² This movement, as well as N-to-V à la Hale & Keyser (2002), might be a species of incorporation/conflation with word-formation or/and phonological properties.

²³ I am putting aside the case of auxiliary verbs in English, which, under Lasnik's (1999) treatment, come from the Lexicon inflected.

Chomsky (2000; 2001; 2004; 2005): the former takes them to be a sort of morphological information that V and T share, whereas the latter assumes that they are a licensing mechanism for arguments (actually, things are even worse, for Chomsky (2000; 2001; 2004; 2005) claims that ϕ -features of T and v^*/V are valued by different DPs, which, in turn, implies that ϕ -features can never “match” –although they can coexist in the same morphologically complex head, as in languages like Basque). So, (20b) cannot help us; what about (20a)? Note that it does not make any commitment to whether T, if featural, comes valued from the Lexicon, but it still leaves the problem that it allows T to act as a Probe, which is something Chomsky (2005) wants to avoid (only C and v^* are the Probes). That only leaves one possibility left: it is the [$v^*[V-v^*]$] complex that moves to T, invoking a sort of *Greed* (cf. Chomsky (1995)). To be concrete about this speculation, suppose phase heads can participate in more or less syntactic operations depending on its morphological richness (cf. Uriagereka (2002a; 2004)). That surely teases apart languages whose C can trigger multiple *wh*-fronting (like Bulgarian or Serbo-Croatian; cf. Bošković (1999) and Richards (1997)) or complex peripheral activity (like European Portuguese, Galician and Old Spanish; cf. Uriagereka (1995) and Raposo & Uriagereka (2005)) from those which do not have that possibility, like French and English. Suppose further that such richness does not only include being able to “attract” other elements, but also being able to “move”. If this is correct, we could consider the possibility that, in some languages, v^* 's richness allows it both to attract and move, a position that is equivalent to Rizzi's (1982). This reasoning, however, does not explain why v^* moves to T, it just gives it a possible motivation to it. Perhaps v^* -to-T is, in the relevant (morphologically rich) languages, equivalent to V-to- v^* , it is hard to tell. What seems to be clear is that, unless we want to postulate an additional feature, T does not have anything which can Probe v^* and trigger its internal-Merge (but see section § 5 for a different perspective, based on Pesetsky & Torrego (2004b)).

In what follows, I will assume that Lasnik's (1999) claim about different Ts suffices: if T is an affix in a given language, [$v^*[V-v^*]$]-to-T must occur at the PHON component; if T is not an affix, [$v^*[V-v^*]$] can move to T in the syntax. This conclusion differs from Chomsky's (2001), whereby head movement is cornered to the PHON component. As far as I see, the reasons Chomsky (2001) adduces reduce to the following ones:

(22)

- a. Verbs are interpreted in the same way whether they remain *in situ* or move to T (or C).
- b. Head movement violates the *Extension Condition* (and the *No Tampering Condition*)²⁴.

The only process of *bona fide* syntactic head movement accepted by Chomsky (2001; 2005) (apart from Baker's (1988) *incorporation*) has to do with Donati's (2000) analysis of free relatives. In these structures, as Donati (2000) shows, the head, once moved to C, imposes its label in such a way that the two labels coexist (cf. Chomsky (2005)). That head movement has a semantic import in free relatives is clear from the fact that the resulting structure is interpreted as a DP, not a CP²⁵
26:

(23)

- e. John will read [_{D/C} what_i Mary read t_i]
- f. *John will read [_{D/C} what book_i Mary read t_i]

All this said, we still have to answer two questions before moving on: a) can syntactic head movement receive a principled explanation?, and b) can Donati's (2000) analysis apply to some instances of [$v^*[V-v^*]$]-to-T movement?

²⁴ It might be investigated whether head movement involves *tucking-in* (cf. Richards (1997)).

²⁵ Cf. Hornstein & Uriagereka (2002) for related ideas, to which I return.

²⁶ Another drawback for a syntactic analysis of head movement comes, I suppose, from the fact that it is clause-bounded, unlike XP-Movement (but note that so is Quantifier Raising, putting aside ECM and raising infinitives).

Consider (a) first. The minimalist question should go like this: is head movement motivated by internal efficiency or Interface Conditions? If the answer is ‘Yes’, then head movement must depart from both edge-semantics and theta-semantics somehow. More concretely, head movement must give us a new variety of semantics. I cannot explore the full picture and its consequences here, but I will tentatively assume a view that is compatible with Koster’s (2003), who compares head movement to T and to C with partial *wh*-movement in Germanic languages, claiming that it involves a tense-oriented scope marking plus “clause typing”, in the sense of Cheng (1991)²⁷:

“I would like to claim that the verb movements in question are very much like other movements in that they have a semantic function, i.e., verb movements highlight the content of a chain with respect to a scope marker, in this case the Tense marker of the sentence.”
Koster (2003:3-4)

This view is compatible with Pesetsky & Torrego’s (2001): *that* (be it C itself or T moved to C) ‘types’ the clause, coding tense (or finiteness), as argued by Den Besten (1983). In this analysis, such movement is purely formal (C has to delete its [uT] feature), but there are syntactic and semantic consequences: once typed, clauses get an interpretation at SEM, and, syntactically, they can be arguments (recall, CPs are like clausal counterparts of DPs). Something similar is at stake in the case of Donati’s (1997; 2000) analysis of free relatives: the raising of the relative head types the clause too.

Note that, if we follow this route, we must find out why XPs cannot establish tense scope-dependencies and clause typing. The answer is not obvious to me; in what sense are “clause typing” and “tense dependencies” different from *bona fide* “edge semantics” (information structure, broadly speaking)? Parataxis could be an answer. Let me explain this: the C-I Interface might need a way to glue together big chunks of structure whenever hypotaxis is unavailable, and T elements might work as ‘pointers’. Of course, discourse dependencies of this sort are also informational, but crucially they are not structure-dependent, as command-units would not be visible by that time (cf. Uriagereka (2002a))²⁸.

Going back to (b), I want to defend that the answer to that question is ‘Yes’, and that [_v*[V-v*]]-to-T in NSLs is, in its essentials, formally analogous to Donati’s (1997; 2000) approach to free relatives. Consequently, I would like to argue for something like what we have in (24)

²⁷ Another possibility would be to relate T-to-C movement to “modality”, as J.M. Brucart (p.c.) notes, since the movement of the verb in many contexts (e.g., imperatives, interrogatives, exclamatives, etc.) has a clear bearing on that. I cannot follow that view, however, since in this system even relative clauses (which cannot be said to have any special modality) resort to T-to-C movement. In short, I believe that a more general label for the semantic effects of head movement is “clause typing” and “temporal scope”, which I take to subsume modality in a broad sense. Later on (cf. section § 4) we will see that quantificational properties of the sentence may also be related to head movement.

²⁸ A possible complication for Koster’s (2003) view is posed by examples like (i), I think:

- (i) John knows what Mary did.

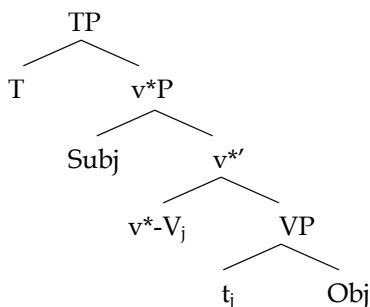
Assuming standard analyses, it is the *wh*-phrase *what* that types the clause, not head movement (actually, in (i) there is no head movement). This is a clear problem for what I have just said, unless we show that the role of the *wh*-phrase is different. I would tentatively like to defend that *what* is not really typing the clause, but just altering its informational structure (*what* is the focus of the embedded clause). As for “clause typing”, I would have to assume that, in those cases, it is done by Agree; as Pesetsky & Torrego (2001) note, there is no overt T-to-C movement in interrogative embedded clauses in English, but there is in Belfast English (and Spanish; cf. Gallego (2003; 2004a; 2004b)):

- (ii) She asked who had I seen.
(iii) They wondered what had John done.

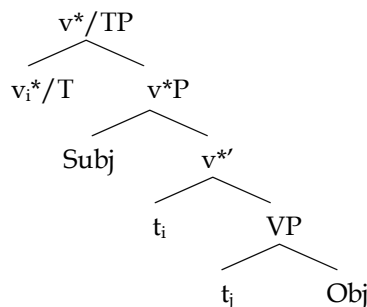
[from Henry (1995)]

(24)

Before v^* -to-T Movement



After v^* -to-T Movement



Note that the operation in (24) is not an instance of canonical head movement, since the moved head targets the root of the TP, without tucking-in. The most important consequence of (24) (to which I return in section § 3.3.) follows from the fact that the v^* P phase is somehow ‘moved upwards’ to TP, a possibility which strongly recalls two (long abandoned) strategies in the generative literature concerning head movement. The closest one goes back to Chomsky (1993; 1995), where verbal head movement could result in the extension of a “checking domain”. But, even more interestingly, the idea is already present in Chomsky (1986), where it is argued that v^* -to-T movement (V-to-INFL, in those times) could result in an amalgamated form V_1 capable of removing the barrierhood of VP. In Chomsky’s (1986) system, T did not L-mark v^* P (although it θ -marked it, because it governed it; for discussion, cf. Chomsky (1986:10-20)), and that was the key for v^* P being first a *Blocking Category*, and, as a consequence of it, a *Barrier*²⁹:

“Movement from V to I crosses VP, which should constitute a barrier to antecedent government of t by V. But the fact that this movement is legitimate shows that V must L-mark VP, voiding barrierhood [...] Prior to V-raising, I does not L-mark VP in (158) because it is not lexical. After V-raising, the newly formed element V_1 is lexical and therefore L-marks VP. This conclusion crucially rests on the assumption that I θ -marks VP: thus, I fails to L-mark VP, voiding barrierhood, solely because I is not lexical. We therefore conclude, as before, that I does θ -mark its VP complement and that L-marking is restricted to lexical categories.” Chomsky (1986:69-70)

As a matter of fact, if the process of (24) does happen within the narrow syntactic component, v^* , the strong phase head, can still be said to head the whole structure and, in principle, it should be able to trigger any syntactic operation from that very derived position. In a nutshell, it is as if we were ‘pushing up’ a phase (cf. (25)), with a sort of upstairs inheritance, an idea already explicitly put forward in Chomsky (1986):

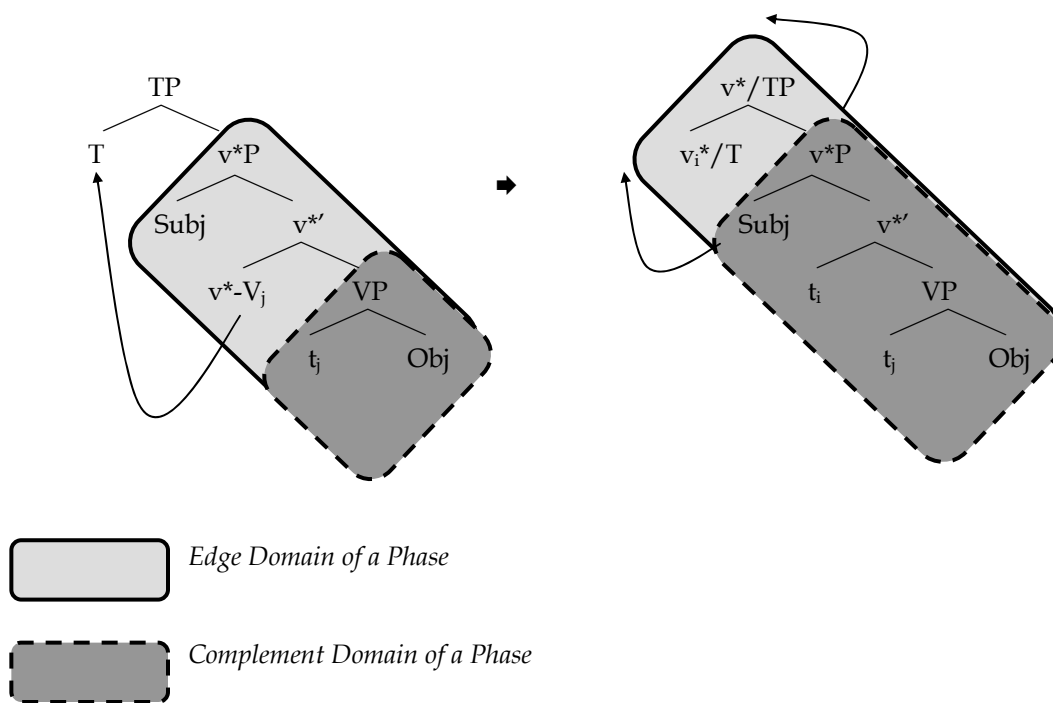
²⁹ Lasnik & Saito (1992) also arrived at a virtually equivalent proposal, with consequences for both subject extraction and subject subextraction. The main difference between Chomsky’s (1986) and Lasnik & Saito’s (1992) accounts concerns the barrier status of VP (and also whether or not a subject can be ‘properly governed’). For Lasnik & Saito (1992) VP is never a barrier to begin with, so, building on work by different scholars (e.g., Belletti & Rizzi (1981), Huang (1982), Jaeggli (1982), Rizzi (1978/1982), Sportiche (1981), and Torrego (1984)), they propose that INFL can L-mark the VP under some circumstances (for much relevant discussion, cf. Lasnik & Saito (1992: §§ 2.1.1 and 5.5.2.)):

“The above discussion indicates that in Chinese and Japanese the subject position is properly governed, like the object position and unlike an adjunct position [...] Huang (1982) assumes for Chinese that INFL is a proper governor for the subject position because of the lexical nature of INFL in this language [...] Belletti & Rizzi (1981), among others, assume that the postverbal subject NP is within the projection of V and is lexically governed by V. Saito (1984), on the other hand, suggests that INFL antecedent-governs the postverbal subject in (16) [...] We will tentatively adopt the antecedent government analysis of the postverbal subject in Italian and Spanish. But under either analysis, it is predicted that the subject position in (15) is properly governed.” Lasnik & Saito (1992:45)

“Let us adopt the fairly standard assumption that the relevant properties of the raised V, including index, “percolate” to V_i.” Chomsky (1986:72)

I will refer to this process as *Phase-Sliding*, a term suggested to me by Juan Uriagereka (p.c.):

(25) **Pushing up a Phase Boundary (*Phase Sliding*)**



In any event, I hasten to add that I do not have any clever motivation of the Probe-Goal sort for this *phase-sliding* to take place; it just seems to happen in NSLs when the verb (syntactically) moves to T. However properly stated, the operation is consistent with the idea that phase heads (and only those) need to be filled in by head movement. This is actually suggested by Chomsky (2000:144, fn. 50), when speaking about EPP features on phase heads, but has never been explored, in part because head movement is problematic within that streamlined system. In this paper, I will provide further evidence that develop Gallego’s (2004b) claim that TP is a phase in NLSs. However, if (24) is correct we can modify Gallego’s (2004b) technical analysis while still accounting for the facts if we say that it is not T, but rather v* moved to T, the head that triggers all the operations in the first phase domain.

Summing up, in this section I have reviewed some instances of verbal head movement described in the literature, focusing in the [_v[V-v*]]-to-T case, since this is the one that draws parametrical lines. I have pursued the idea that head movement can be taken to be strictly syntactic if gives us something that XP movement does not; in particular, following ideas of Koster’s (2003), it seems to me interesting to consider the possibility that head movement is related to clause typing or temporal scope dependencies, which would provide us a different species of semantics, furthermore explaining why this process is clause-bounded: if a given clause is to be typed, you do not need to move to a higher one -that would make no sense. Furthermore, I have put forward the idea that v*-to-T movement is syntactic in NSLs, and as such it provokes a Rejection when v* merges with T, creating a hybrid label from which all

operations are triggered; the analysis predicts that all the phase phenomena that must occur within the v*P domain are postponed to the v*/TP domain³⁰.

3.2. T-to-C Movement in NSLs

Let us go back to interrogative clauses in NSLs. The main objection of Gallego (2004a; 2004b) to analyses in which there is no T-to-C movement in those structures has to do with the fact that they adopt either Rizzi's (1996) *Wh-Criterion* or a slightly modified version of it³¹. So, for mainstream approaches to obligatory inversion, features must enter in a very specific checking configuration (typically, a SPEC-Head one), which is not a *sine qua non*, under Chomsky's (2000) Agree (cf. also Boeckx (2003a; 2003b; 2004)). In addition, given the system I am adopting here, it is problematic that T can have *wh*-features (as Rizzi (1996) originally claimed), since it would predict that superiority effects should not be found in English, contrary to fact³². Note that if *did* could check a [+Wh] feature in C, the asymmetry in (26) wouldn't be accounted for:

- (26)
- a. Who bought what?
 - b. *What did who buy?

In Gallego (2004a; 2004b), I further reviewed Spanish³³ data from Suñer (1994) and Ordóñez (1998b) dealing with adverbs, negation and auxiliary verb movement, trying to argue that they did not constitute a real problem for a T-to-C analysis. In sum, I claimed that Spanish does have T-to-C Movement in interrogative clauses, and that that pattern could naturally be

³⁰ As we will see later on (cf. section § 8), the predictions of this analysis are borne out in the case of subextraction from within subjects. Another clear prediction of this analysis is that, if there is C-to-V movement (i.e., a complementizer moving into a higher clause's V or some analogous process), the problems with subextracting from SPEC-C should vanish too. At present, do not know how to test this prediction (cf. Chomsky & Lasnik (1995), who argue that there is no known C-to-V movement). Another question emerges: what about T-to-C movement? Can this operation extend again a phase? Cardinaletti (2001), using different terminology, seems to suggest so. Here I will take it that T-to-C movement cannot extend a phase again: v*-to-T movement can, but, whenever wh move up to the CP domain, v* (or v*/T, under my analysis) becomes 'inert' (cf. Chomsky (2000)), and it is C (the phase head of that domain) that triggers all the relevant operations, including T-to-C movement.

³¹ The second main problem was that some analyses assumed no CP projection in interrogative clauses. Thus, a sentence like (i) would be analyzed as in (ii), crucially adopting a VP-internal subject hypothesis:

- (i) Qui va veure la Maria? (Catalan)
Who AUX-3S to-see the Maria
'Who did Maria see?'
- (ii) [TP Qui_i va veure_v [v*P la Maria t_v t_j]]

³² Interestingly enough, Spanish seems to lack superiority effects:

- (i) ¿Quién compró qué? (Spanish)
Who bought-3SG what
'Who bought what?'
- (ii) (?)¿Qué compró quién? (Spanish)
What bought who
'What did who bought?'

However, Ordóñez (1998a) and Uribe-Etxebarria (1992) note that they arise in certain contexts:

- (iii) *¿Qué le compró a quién quién? (vs. ¿Qué le compró quién a quién?) (Spanish)
What CL-to-him bought-3SG to whom who (vs. What CL-to-him who to whom)
'What did who buy to whom?' 'What did who buy to whom?'
- (iv) *¿Quién le compró a quién qué? (vs. ¿Quién le compró qué a quién?) (Spanish)
Who CL-to-him to whom what Who CL-to-him bought-3SG what to whom
'Who bought to whom what?' 'Who bought to whom what?'
- (v) *¿Qué dices que quién compró? (vs. ¿Qué dices que compró quién?) (Spanish)
What say-2SG that who bought-3SG What say-2SG that bought-3SG who
'What do you say that who bought?' 'What do you say that who bought?'

³³ Unless qualified, in what follows I will use the label "Spanish" mainly to refer to the Peninsular variety.

extended to Catalan (and other Iberian Romance varieties like Galician and European Portuguese). If Gallego's (2004b) treatment of T-to-C movement is correct, then [_v*[V-v*]]-to-T movement cannot be phonological, for otherwise the verb, when in T, should have been rendered out of sight for syntactic operations (unless verb movement to C occurs in "one fell swoop" from [_v*[V-v*]] to C, which is highly unlikely under Pesetsky & Torrego's (2001) analysis)³⁴.

In Gallego (2004b) I also presented an analysis accounting for why some interrogative phrases do not obligatorily trigger inversion, trying to show that the crucial cut has nothing to do with Torrego's (1984) original idea about the adjunct vs. argument asymmetry. To my ear, all adjuncts *a priori* need inversion^{35 36}:

³⁴ The main facts regarding obligatory inversion hold for European Portuguese, Galician, Catalan and Italian (cf. Barbosa (2001), Costa (2000), Gallego (2004a), Poletto & Pollock (2004), Rizzi (1996; 1999)). There are, however, cases in which T-to-C movement does not take place, sometimes depending on whether the subject is a full DP or a weak pronoun (as in French and Brazilian Portuguese; cf. Boeckx (2002), Cardinaletti (2001) and Mioto (1998)), or whether the verb is inflected in subjunctive mood (cf. Rizzi (1996) and Uriagereka (2002b)).

Actually, Spanish embedded interrogative clauses, which normally require inversion, can also marginally leave the verb in T to my ear, if subjunctive mood shows up and the subject is a pronoun:

- (i) (?)Eso depende de cómo uno lo haga. (Spanish)
That depends-3SG of how one CL-it does-SUBJ-3SG
'That depends on how one do things'
- (ii) (?)Ahora bien, cómo eso deba codificarse es un asunto muy diferente. (Spanish)
Now well, how that must-SUBJ-3SG encode is a matter very different
'However, how this must be encoded is a completely different matter'

As for French, which involves additional complications and more than one question formation pattern, I refer the reader to Boeckx (1999; 2002) for relevant discussion.

³⁵ When adjuncts do not trigger inversion, a semantic import obtains. Consider the following data:

- (i) Pero, a ver: ¿cuándo Juan ha dicho eso? (Nunca lo ha dicho...)
But, to to-see: when Juan has-3SG said that? (Never CL-it has-3SG said...)
'So, tell me: When has Juan said that? He never did so...'
- (ii) Pero, a ver, no me jodas: ¿dónde Juan es capaz de hacer esas cosas? (En ningún sitio...)
But, to to-see, not CL-me fuck-SUBJ-2SG: where Juan is-3SG able of to-do those things? (In no place...)
'So, let's see, stop fucking with me: where would Juan be able of doing such things? (Nowhere whatsoever...)'
- (iii) No me lo creo, ¿cómo Juan te dice esas cosas?
Not CL-me CL-it believe-1SG, how Juan CL-you says-3SG those things?
'I cannot believe it: how come Juan tells you those things?'

The judgements are subtle, but the general pattern seems clear to me: (i)-(ii)-(iii) are a sort of rethorical questions. In (i), the speaker does not expect an answer. Actually, the speaker seems to be questioning the truth value of a previous assertion (say, *Juan dice que el Real Madrid es el mejor equipo de España* –*Juan says that Real Madrid is the best team of all Spain*). I think that there are two possibilities: either those *wh*-words move from a modality-oriented position higher than T (assuming they would be endowed with T-like features; cf. below), or else they move from wherever they are generated (an adjunct position, arguably), and, as a consequence of T not moving to C, a semantic difference obtains. I will support the latter view, assuming that, in those cases, C's [uT] is deleted by mere Agree. This is similar to what Pesetsky & Torrego (2001) defend in the case of the questions vs. exclamatives: the former delete C's [uT] by moving T (e.g., *What book did you buy?*), the latter do it by moving the DP subject (e.g. *What an impressive book you bought!*). Since there is a different formal strategy to delete C's [uT], we expect semantic differences to occur as well.

Another *wh*-element that does not trigger obligatory inversion is *cómo* (Eng. *how come*), as noted by Uribe-Etxebarria (1992). Importantly, this element does not have a manner reading, but one whose paraphrase is something like "how is it possible that...", just like its English counterpart. As expected, the interrogative sentences in which this element appears are not questions.

³⁶ Ricardo Etxepare (p.c.) makes me note that (i) is fine, and not (ii) (the judgements are his):

- (i) ¿Qué libros Juan no ha leído? (Spanish)
What books Juan not has-3SG read
'What books han't Juan read?'
- (ii) *¿Qué libros Juan (sí) ha leído? (Spanish)
What books Juan (yes) has-3SG read
'What books has Juan read indeed?'

(i) seems to me to have a similar semantics than the examples in the previous footnote, with a presupposition of some sort. So, in (i), the speaker knows that Juan has read all the books he can reasonably think of. (iii) helps to settle a context for that interpretation:

- (iii) Pero, a ver, ¿qué libros Juan no ha leído? Si es que él los ha leído todos... (Spanish)
But, to to-see, what books Juan not has-3SG read? If is-3SG that he CL-them has-3SG read all...

- (27)
- a. *¿Cuándo Leticia vino? (Spanish)
When Leticia came-3SG
'When did Leticia come?'
 - b. *¿Dónde Leticia cantó? (Spanish)
Where Leticia sang-3SG
'Where did Leticia sing?'
 - c. *¿Cómo Leticia estudia? (Spanish)
How Leticia studies-3SG
'How does Leticia study?'

Nevertheless, some adjuncts noted in Torrego (1984) are able of preventing inversion: those pied-piping a (certain type of) preposition³⁷.

- (28)
- a. ¿Por qué Celia llamó a su hermana? (Spanish)
For what Celia called-3SG to her sister
'Why did Celia call her sister?'
 - b. ¿En qué medida la Constitución ha contribuido a esto? (Spanish)
In what measure the Constitution has-3SG contributed to that
'In what sense has the Constitution contributed to that?'

'But, let's see, tell me what books Juan hasn't read? He has read them all.

As for (ii), I agree with Ricardo Etxepare, but that sentence could improve with the following context:

- (iv)
- A: No, te equivocas: Juan no ha leído LGB ni TMP. (Spanish)
Not, CL-you be-wrong-2SG: Juan not has-3SG LGB nor TMP.
'No, you are wrong: Juan has read neither LGB nor TMP'
 - B: Ya, ya, pero es que yo te preguntaba otra cosa: que qué libros Juan sí ha leído? (Spanish)
Now, Now, but is-3SG that I CL-you asked-3SG other thing: that what books Juan yes has-3SG read
'OK, Ok, but I was asking you a different thing, namely, what books has Juan actually read?'

At any rate, neither (i) nor (ii) are *bona fide* questions, as expected.

³⁷ Two comments are in order regarding the data in (28): first, even if a purely interrogative interpretation is possible, the rhetoric reading is the most salient one, I think, due to non-inversion. The second thing has to do with prepositions: light ones, or those involved in Object Marking do not prevent inversion in my idiolect:

- (i) ??/*A quién Aritz ha llamado? (Spanish)
To whom Aritz has-3SG called
'Who has Aritz called?'

These examples seem to improve if the subject is focused. So, (i) would improve in another scenario:

- (ii) No, no, que lo que yo te preguntaba es que a quién Aritz (y no Juan) ha llamado. (Spanish)
No, no, that CL-it that I CL-you asked-1SG is that to who Aritz (and not Juan) has-3SG called
'No, no, what I was asking you is whom Aritz (and not Juan) has called'

The matters are rather obscure, but the main picture remains intact: inversion is required, unless discourse related factors interfere.

Unsurprisingly, some Spanish dialects, like Río de la Plata's, seems to prevent inversion even with *a*-marked DOs, as pointed out by Salanova (2002):

- (iii) ¿A quién Juan conoció en Buenos Aires? (RP.Spanish)
To whom Juan knew-3SG in Buenos Aires
'Who did Juan meet at Buenos Aires?'
- (iv) *¿Qué Juan vio en Buenos Aires? (RP.Spanish)
What Juan saw-3SG in Buenos Aires
'What did Juan see at Buenos Aires?'

[from Salanova (2002:9)]

To repeat, (iv) is out in my idiolect with no previous context. Apparently, the preposition *a* in Río de la Plata Spanish can provide its label to the whole structure. What remains to be explained, then, is why relative clauses like the ones in (vi) are saved by using the very same preposition that yields deviance in the case of interrogative clauses (cf. Gallego (2005)).

- (v) El hombre *(a) quien vi. (Spanish)
The man to whom saw-1SG
'The man who I saw'

- c. ¿Con cuánto dinero el Gobierno te ha premiado? (Spanish)
 With how-much money the Government CL-you has-3SG awarded
 ‘With how much money has the Government awarded you?’

The case of *por qué* (Eng. *why*) has already been noted in the literature (cf. Uriagereka (1988; 2002b) and Rizzi (1996; 1999)), but it has never received a principled account. Spanish speakers accept both (29a) and (29b), and they actually feel that there is a subtle difference in their semantics³⁸:

- (29)
- a. ¿Por qué Celia llamó a su hermana? (Spanish)
 For what Celia called-3SG to her sister
 ‘Why did Celia call her sister?’
- b. ¿Por qué llamó (Celia) a su hermana (Celia)? (Spanish)
 For what called-3SG Celia to her sister
 ‘Why did Celia call her sister?’

The semantics in (29b) is as expected: there is a reason *x*, such that Celia did not call her sister for that *x*³⁹. The semantics of (29a) is more difficult to grasp, though. It seems that (29a) can mean either “Why was it Celia (and not Inés, say) who called her sister?” or else “Why was it (true) that Celia called her sister?”. I believe the second possible meaning of (29a) is related to the meaning that *cómo* (Lit. *how* -Eng. *how come*) triggers in “Cómo Juan hizo eso?” (Eng. *How come Juan did that?*), which could be roughly translated as follows: “How is it (possible) that Juan did that?”. These facts could be taken as evidence to say that we are asking about the truth-value of the sentence, and, consequently, that we are moving some complex (modal-like) *wh*-phrase to C (as Jaume Solà (p.c.) suggested to me), but, in any event, note that the semantics of these expressions is not the one of a *bona fide wh*-question, and that could follow from not having pure T-to-C movement (cf. fn. 34, 35, 36).

Note that the general pattern blocking obligatory T-to-C movement seems to hold even in embedded contexts:

³⁸ (28) rises a question: where are Spanish subjects in *wh*-questions? If the verb has moved to C, there are two possible landing sites: SPEC-T and SPEC-v*. Guasti (1996) and Ordóñez (1998b) address this question. As Guasti (1996:176) notes, subjects always appear postverbally in interrogative sentences, but they do not behave on a par with postverbal subjects in declarative sentences with respect to negation scope, and analyzes them in a position out of its scope: adjoined to an AgrP.

As for Ordóñez (1998b), he notes that subjects with floating quantifiers do not allow stranding, contrary to what happens in declarative sentences:

- (i) Aquellos turistas vienen todos de Francia. (Spanish)
 Those tourists came-3PL all from France
 ‘Those tourists came all from France’
- (ii) * ¿De dónde vienen aquellos turistas todos? (Spanish)
 Of where come-3PL those tourists all?
 ‘Where do those tourists come all from?’

Ordóñez (1998b) takes these data to support a non T-to-C movement for interrogatives, with the additional consequence that subjects cannot occupy SPEC-T in these structures. In the system I am assuming, there is in principle no reason for subjects to not appear in SPEC-T: they can if there is an effect on the outcome. A possible conclusion is that both positions can in principle be occupied, but informational requirements yield more or less severe deviance. Actually, (ii) is probably deviant due to informational conflicts: there are two foci (e.g., the *wh*-phrase and the stranded quantifier). I cannot fully assess this fact here.

³⁹ As (29b) shows, the postverbal subject can occupy two positions, presumably SPEC-v* and SPEC-T, as I just argued (cf. fn. 36). This is consistent with what I have been assuming all along. Note, interestingly, that when the subject appears in the rightmost position, it can receive a focused reading, as José M. Brucart (p.c.) correctly notes:

- (i) ¿Por qué llamó a su hermana Celia? (... en lugar de Ana) (Spanish)
 For what called-3SG to her sister Celia? (... in place of Ana)
 ‘Why did Celia (and not Ana) call her sister?’

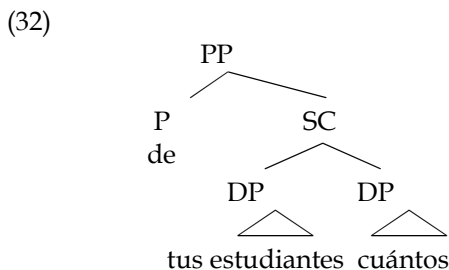
This possibility is not unexpected under the analysis of postverbal subjects I put forward in section § 5.

- (30)
- a. *No te imaginas [_{CP} cuánto tu padre me ha ayudado] (Spanish)
No CL-you imagine-2SG how-much your father CL-me has-3SG helped
'You cannot imagine how much your father helped me'
 - b. No te imaginas [_{CP} hasta qué punto tu padre me ha ayudado] (Spanish)
No CL-you imagine-2SG until what point your father CL-me has-2SG helped
'You cannot imagine how much your father has helped me'

Also, some proposals have claimed that obligatory inversion may be blocked by NP-heaviness (cf. Ordóñez & Olarrea (2005)), but (31) shows that such an analysis is not accurate⁴⁰:

- (31)
- a. *¿[Qué libro [que María dice que Pedro leyó]] Juan tiene? (Spanish)
What book that María says-3SG that Pedro read-3SG Juan has-3SG
'What book that María says that Pedro read does Juan have?'
 - b. ¿[Cuál de mis libros] Juan ha leído? (Spanish)
Which of my book Juan has-3SG read
'Which one of my books has Juan read?'
 - c. ¿[A cuántos de tus estudiantes] Juan ha entrevistado? (Spanish)
To how-many of your students Juan has-3SG interviewed
'How many of your students has Juan interviewed?'

(31b) and (31c) are interesting in various respects. First, they show that D-linking cannot be the relevant factor preventing obligatory inversion, for otherwise (31c) would be out. In addition, the prepositions of those examples, although apparently too 'buried' into the phrase marker, seem to be doing the same job that T-to-C movement does: C's [uT] checking. This seems to support an analysis of partitive phrases roughly as in (28), and, more generally, as in Uriagereka (1993), with a whole-part predication⁴¹:



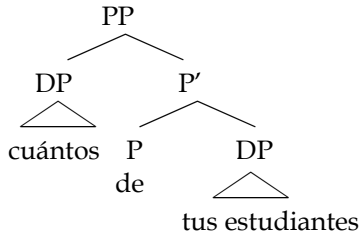
Another possibility, still compatible with (32), is (33), with a typical Figure-Ground relation (cf. Mateu (2002), Talmy (2000)). Either way, the P head (to repeat, a species of T, for Pesetsky & Torrego (2004a)) is heading the construction, which is good for our purposes, for no percolation process needs to be invoked⁴²:

⁴⁰ Juan Uriagereka (p.c.) notes that one might say that relative clauses, being in a separate plane, do not really count, length-wise, to discard a possible bearing of NP heaviness. I agree. Actually, I think heaviness (or length) of a given phrase has little (if any) relevance in syntactic computations. Nonetheless, and as far as relative clauses are concerned, they have to abandon the secondary plane they occupy at some point (when Spell-out applies, arguably), so the problem would still arise at that moment.

⁴¹ Cf. also Brucart (1997). In his analysis, the PP is taken as the complement, hence not projecting its label. If correct, it would call for a percolation-based account.

⁴² In some cases, one subchunk of this part-whole DPs can move stranding the other subchunk, as (ii) shows.

(33)



Gallego (2004a; 2004b) also claimed that, in Spanish, *que* is not a complementizer, but the Spell-out of T moved to C as well (*contra* Pesetsky & Torrego (2001), who thought that the patterns of inversion noted by Torrego (1983; 1984) were evidence for direct verb movement to C). In (34), we have examples of the type Torrego (1983; 1984) explored, in which we always find the order V-S in the embedded clauses:

(34)

- a. ¿Qué dijo María que sospechaba Juan que había hecho Pedro? (Spanish)
 What said-3SG María that suspected-3SG Juan that had-3SG done Pedro
 'What did Mary say that Juan suspected that Pedro had done?'
- b. ¿Dónde cree Juan que dijo María que trabajaba Pedro? (Spanish)
 Where thinks-3SG Juan that said-3SG María that worked-3SG Pedro
 Where does Juan think that María said that Pedro worked?'

In Gallego (2004a) it was argued that preverbal subjects are also possible in embedded contexts (cf. (35)), which reinforces the idea that embedded verbs never reach the C system.

- (35) ¿Qué dice María que Juan ha hecho? (Spanish)
 What says-3SG María that Juan has-3SG done
 'What does María say that Juan has done?'

It is true, however, that preverbal subjects tend to make low readings of *wh*-phrases like *por qué* (Eng. *why*) difficult, creating a species of intervention effect, as noted by Uriagereka (1988/2002b):

-
- (i) ¿Cuántos de tus estudiantes_i no han venido t_i? (Spanish)
 How-many of your students not have-3PL come
 'How many of your students have not come?'
- (ii) ¿Cuántos_i no han venido [t_i de tus estudiantes]? (Spanish)
 How-many have-3PL not come of your students
 'How many of your students have not come?'
- A more fine-grained analysis could explain the similar asymmetries noted by Bosque (1982) and Torrego (1994):
- (iii) ¿Cómo de triste_i se quedó Juan t_i? (Spanish)
 How of sad CL remained-3SG Juan
 'How sad was Juan?'
- (iv) ¿Cómo_i se quedó Juan [t_i de triste]? (Spanish)
 How CL remained-3SG Juan of sad
 'How sad was Juan?'
- (v) *¿Cómo de estudioso_i es Pablo t_i! (Spanish)
 How dilligent is-3SG Pablo
 'How dilligent Pablo is!'
- (vi) ¿Cómo_i es Pablo [t_i de estudioso]! (Spanish)
 How is Pablo of dilligent
 'How dilligent Pablo is!'

[from Torrego (1994:257)]

- (36)
- a. ¿Por qué cree Juan que llora María? (Spanish)
 For what thinks-3SG Juan that cries-3SG María
 ‘Why does Juan think that María cries?’
- b. ¿Por qué cree Juan que María llora? (Spanish)
 For what thinks-3SG Juan that María cries
 ‘Why does Juan think that María cries?’

Thus, in (36a), *por qué* (Eng. *why*) may be interpreted as having undergone successive-cyclic movement from the most embedded clause or not, whereas in (36b) it is harder to get a long extraction reading. To my ear, that is essentially correct, but one can still associate *por qué* to *llorar* (Eng. *To cry*) in (36b), if the appropriate context is provided. So, consider (37):

- (37) ¿Por qué cree Juan (y no Pedro) que María llora? (Spanish)
 For what thinks-3SG (and not Pedro) that María cries
 ‘Why does Juan (and not Pedro) think that María cries?’

Uriagereka’s (2002b) analysis predicts that it should be harder to get a long distance reading when both intermediate subjects are preverbal. I agree that it is harder indeed, but still perfectly possible, if the appropriate context is found:

- (38) ¿Por qué Juan cree que Ana dice que María llora? (Spanish)
 For what Juan thinks-3SG that Ana says-3SG that María cries-3SG
 ‘Why does Juan think that Ana says that María cries?’

Uriagereka (2002b) addresses this and similar issues, all of which involve the presence of a DP in SPEC-T in languages with rich agreement (e.g., Basque and Spanish, among some others). The main claim of Uriagereka’s (2002b) analysis is that DPs in SPEC-T ‘close’ a morphological domain into the system (i.e., TP), forcing it to Spell-out and create a barrier. This can be seen in (39), where the overt subject DP *Jonek* in SPEC-T appears to block *wh*-movement:

- (39)
- a. *Ez dakit zer Jonek bidali dion. (Basque)
 Not know-1SG what-ABS Jon-ERG sent 3SG-have-3SG-3SG-if
 ‘I don’t know what Jon has sent’
- b. Ez dakit zer *pro* bidali dion. (Basque)
 Not know-1SG what-ABS sent 3SG-have-3SG-3SG-if
 ‘I don’t know what has sent’
- c. I wonder what John sent.

[from Uriagereka (2002b)]

Thus, although Uriagereka (2002b) and Gallego (2004b) arrived at the same conclusion (i.e., TP is a convergent domain –a *phase*), they did so through different paths. In Uriagereka’s (2002b) proposal, TP is an A-domain, while, for Gallego (2004b), it was crucial for T to be a phase head in NSLs, which is tantamount to saying that it has A’ properties, as suggested by the GB-literature (cf. Barbosa (1995), Diesing (1990), Jaeggli (1982; 1984), Masullo (1992; 1993), Uribe-Etxebarria (1992; 1995), *inter alia*). Let us consider Uriagereka’s (2002b) point in more detail.

Uriagereka (2002b) argues that the problem with the examples in (40) does not follow from absence of T-to-C movement, but from TP being a barrier:

- (40)
- a. *¿Qué libros Inés ha leído? (Spanish)
 What books Inés has-3SG read
 'What books has Inés read?'
- b. *¿Cuándo Inés llegó? (Spanish)
 When Inés arrived-3SG
 'When did Inés arrive?'

At the heart of Uriagereka's (2002b) analysis we find the following claim: rich agreement languages (those with a positive setting of the *pro*-drop parameter) induce a barrier when a lexically overt specifier forces a "morphological repair operation". In other words: in (40), the subject DP *Inés* moves to SPEC-T before the *wh*-phrase does, forcing the system to Spell-out the so far constructed structure (i.e., the TP); as a result, it is rendered out of sight for computational purposes, and nothing can be extracted from it. The account assumes Chomsky's (1995) conception of the EPP, whereby T has a D feature involving *Attract* of another D feature (in the present framework, a [person] feature) of a DP. Once without its D feature, such DP becomes "morphologically incomplete" and needs to move to a position where it can be repaired: SPEC-T. The minute that movement has taken place, a morphological cycle is closed off, and a barrier emerges, but only in rich-agreement languages (otherwise, sentences such as *I don't know what John said* would also be ruled out).

For this picture to be on track, Spanish must have the traditional-EPP so that internal-Merge to SPEC-T (and, consequently, morphological repair) occurs obligatorily. As for when no lexical specifier appears (because *pro* shows up, arguably), Uriagereka (2002b) argues that *pro* is just a feature, and, as such, no movement repair operation is needed. Although interesting, it seems to me that this analysis does not explain why relative clauses do not trigger such a morphological repair. (41b), with a preverbal subject is fine, just like (41a), but it should not, given Uriagereka's (2002b) analysis's logic.

- (41)
- a. El hombre a quien Juan llamó. (cf. *¿A quién Juan llamó?) (Spanish)
 The man to who Juan called-3SG (cf. To who Juan called-3SG)
 'The man who Juan called' (cf. Who did Juan call?)
- b. El hombre a quien llamó Juan. (cf. ¿A quién llamó Juan?) (Spanish)
 The man to who called-3SG Juan (cf. To who called-3SG Juan)
 'The man who Juan called' (cf. Who did Juan call?)

Granted, some process of "domain extension" could be postulated for relative clauses, and that would restore the asymmetry. Such "domain extension" mechanism is actually invoked by Uriagereka (2002b) in order to account for the data in (42)⁴³:

⁴³ Similar facts obtain in Italian, as noted Cardinaletti (2001), following Rizzi (1996):

- (i) ??Tutti si domandano che cosa il direttore ha detto. (Italian)
 All CL wondered-3PL what thing the director has-3SG said
 'Everybody wondered what the director has said'
- (ii) Tutti si domandano che cosa il direttore abbia detto. (Italian)
 All CL wondered-3PL what thing the director has-SUBJ-3SG said
 'Everybody wondered what the director have said'

The same effects are noted by Guasti (1996). Peninsular Spanish does not follow that pattern (however, cf. fn. 34), maybe as a consequence of not having pure interrogative embedded subjunctive-dependent clauses. The closest translation resorts to a modal (cf. (iii)), but things do not improve:

- (iii) *No sé qué yo le diga. (Spanish)
 No know-1SG what I CL-him say-SUBJ-1SG
 'I do not know what I tell him'
- (iv) *No sé qué yo podría decirle. (Spanish)

- (42)
- a. Non sei [_{CP} qué (*ti ou eu) lle enviamos] (Galician)
 Not know-1SG what you or I CL-to-him sent-1PL
 'I do not know what we sent him'
- b. Non sei [_{CP} qué (ti ou eu) lle enviemos] (Galician)
 Not know-1SG what you or I CL-to-him send-SUBJ-1PL
 'I do not know what we could send him'
- [from Uriagereka (2002b)]

But, again, Uriagereka's (2002b) analysis does not seem to be able to explain the data in (43), with *wh*-phrases pied-piping a preposition⁴⁴:

- (43)
- a. (?)¿Con qué compañías Inés no trabajaba? (Spanish)
 With what companies Inés not works-3SG
 'What companies does not Inés work with?'
- b. (?)¿Para qué empresas Inés no trabaja? (Spanish)
 For what companies Inés not works-3SG
 'What companies does not Inés work for?'

Up to now, I have been defending the idea that Pesetsky & Torrego's (2001) claim about English naturally carries over to NSLs (with special attention to Spanish). However, when I wrote my (2003) paper, I soon realized that some facts seem to make English and Spanish differ in sensible ways. In particular, I noticed that Spanish subjects behaved differently, since they are never able to delete C's [uT]. So, have a look at (44), (45) and (46), where it can be seen that, contrary to what happens in English, subjects cannot be used to delete C's [uT], neither by Agree nor internal-Merge:

(44) **Embedded declarative clauses**

- a. Mary said [_{CP} that_[iT]_i C_[uT, EPP] [_{TP} John does not T_i work]]
- b. Mary said [_{CP} John_[uT] C_[uT, EPP] [_{TP} ~~John~~ does not work]]
- c. La Maria va dir [_{CP} que_[iT] C_[uT, EPP] [_{TP} en Joan no treballa]] (Catalan)
 The Maria AUX-3SG to-say that the Joan not work-3SG
 'Maria said that Joan does not work'
- d. *La Maria va dir [_{CP} en Joan_[uT] C_[uT, EPP] [_{TP} ~~en Joan~~ no treballa]] (Catalan)
 The Maria AUX-3SG to-say the Joan not work-3SG
 'Maria said Joan does not work'

(45) **Embedded interrogative clauses**

- a. I don't know [_{CP} what C_[uT, EPP] [_{TP} Mary says ~~what~~]]
- b. *No sé [_{CP} què C_[uT, EPP] [_{TP} la Maria diu ~~què~~]] (Catalan)
 Not know-1SG what the Maria says-3SG
 'I don't know what Mary says'

No know-1SG what I could-1SG to-tell-him
 'I do not know what I could tell him'

⁴⁴ For a more general review of Uriagereka (2002b), cf. Cardinaletti (2001). Facts are complicated in Cardinaletti's (2001) account, though, for the strong-weak subjects asymmetry is introduced, building on proposals with dedicated "subject positions". In her analysis, a given domain is free for extraction if T-to-C movement applies (once in C, V extends the L-related domain), and she argues that Romance Languages do not involve that movement. For reasons of space I cannot go over the specifics of Cardinaletti's (2001) analysis, but the reader may already see that Cardinaletti's (2001) claim is not compatible with what I have defended so far.

- c. No sé [CP què diu_[iT] C_{[ef] [uT, EPP]} [TP la Maria ~~diu~~ què]] (Catalan)
 Not know-1SG what says-3SG the Maria
 'I don't know what Mary says'

(46) **Relative clauses**⁴⁵

- a. The man [CP who C_{[ef] [uT, EPP]} [TP who [_{v*P} who called John]]]
 b. *El hombre [CP quien C_{[ef] [uT, EPP]} [TP ~~quien~~ [_{v*P} ~~quien~~ llamó a Juan]]] (Spanish)
 The man who called-3SG to Juan
 'The man who called Juan'

The fact that subject's [uT] in NSLs cannot remain computationally alive long enough to check C's [uT] also gives us the key to explain the lack of both *that*-trace effects (cf. (49a)) and *that*-deletion (cf. (47b))^{46 47 48}.

(47) **that-trace effects and that-deletion**

- a. [CP Chi_j credi_{[iT]_k} C<sub>[uT, EPP]_[ef] T_k pro [CP t_i chez C_[uT, EPP] [TP t_j T_z ha parlato]]]? (Italian)
 Who think-2SG that AUX-3SG talked
 'Who do you think has talked?'
 b. *En Lluís diu [CP C_[uT, EPP] [TP la Maria no ha vingut]] (Catalan)
 The Lluís say-3SG the Maria not AUX-3SG come
 'Lluís says Maria has not come'</sub>

⁴⁵ In Gallego (2005) I put forward an analysis that accounts for why relative pronouns must be introduced by prepositions in NSLs. As I noted there, this restriction is not found in English, except for infinitival environments, as noted by Pesetsky (1998) and Bhatt (1999):

- (i) A Knife [[with which]_i C^o [PRO to cut the bread t_i]]
 (ii) *A knife [[which]_i C^o [PRO to cut the bread with t_i]] (cf. *A Knife which John cut the bread with*)
 (iii) *The book [[which]_i C^o [PRO to read t_i]]
 (iv) A Knife [Op_i C^o [PRO to cut the bread with t_i]]

[from Bhatt (1999:13)]

The conclusion I reached was that PRO seems to behave as subjects of NSLs generally: they are unable of deleting C's [uT]. This surely has to do with Null Case, but I cannot assess the consequences here.

⁴⁶ As shown by Rizzi (1997) topicalized constituents can ameliorate *that*-trace effects:

- (i) Mary is claiming that ??(for all intents and purposes) John is the mayor of the city.
 (ii) Mary know that ??(books like this) Sue will enjoy reading.

Pesetsky & Torrego (2001) argue that, in those cases, the topicalized phrases form a SPEC of T, which, as a matter of strict c-command, is the closest element to C.

- (iii) [CP C [TP topic [TP T ...]]]

Under their assumptions on closeness, the subject and TP are no longer equidistant to C: only TP counts as maximally close to C, and only that can satisfy C's needs. Also as expected, in configurations like (iii), it is possible to extract a nominative *wh*-phrase regardless of there being a complementizer (i.e., anti-*that*-trace effects):

- (iv) Sue met the man who Mary claims that for all intents and purposes was the mayor of the city.

⁴⁷ French presents a sort of *that*-trace effect that forces the complementizer to be spelled-out as *qui*:

- (i) Qui_i veux-tu que Marie épouse t_i ? (French)
 Who want-you that Marie marries
 'Who do you want Marie to marry?'
 (ii) Qui_i veux-tu [*que/ qui] t_i épouse Jean? (French)
 Who want-you that marrie-3SG Jean
 'Who do you want to marry Jean?'

Pesetsky & Torrego (2001) speculate that *qui* might be the form taken by T when it is the second element attracted by C's [uT]. This phenomenon recalls the *die/da* alternation of West Flemish, and might well be related to the morphological realization of C's ϕ -features. I cannot assess this issue here either.

⁴⁸ Relative clauses do not show *that*-trace effects:

- (i) The man *(that) called Mary.
 (ii) The boy *(that) I think (*that) called Mary.

[from Gallego (2005:12)]

Cf. Gallego (2005) for a possible account of why it is so under Pesetsky & Torrego's (2001; 2004a; 2004b) system.

Gallego's (2004b) solution to these asymmetries capitalized on Uribe-Etxebarria's (1992) analysis of postverbal subjects in Spanish (to the best of my knowledge, the most complete one), by which subject DPs receive case in their first-Merge position (in current terms, SPEC-v*). English, as is well-known, obligatorily raises subject DPs to SPEC-T, where case is supposed to be checked. I first thought that such a pattern called for a difference in terms of phases: if subject DPs in Spanish can receive Case in SPEC-v*, that should mean that T is already present in the v*P phase, so I claimed that TP –and not v*P– was a phase (a claim consistent with Kayne's (1989) idea that VP is L-marked in languages allowing clitic-climbing). The consequence was clear: having been deleted sooner, Case features in NSLs 'die' sooner.

Gallego's (2004) analysis crucially assumed Pesetsky & Torrego's (2001) distinction between being "marked for deletion" and "being deleted": uninterpretable features are "marked for deletion" upon Agree, but they do not "delete" until the phase level is reached, and they can enter checking processes until that moment arrives:

(48) Timing of deletion of uninterpretable features

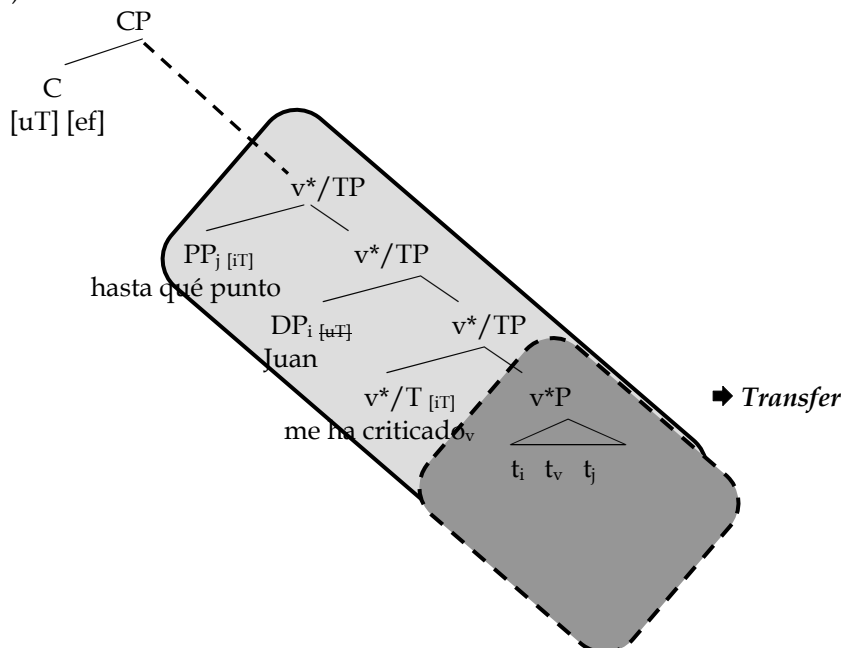
An uninterpretable $[uF]$ marked for deletion within a completed phase Ph is deleted the moment a new head H is merged to Ph .

[from Pesetsky & Torrego (2004a)]

If TP is a phase, then we predict that all movements stop at outer SPECs of v*/T, in order either to yield surface semantic effects or to allow successive-cyclic movement.

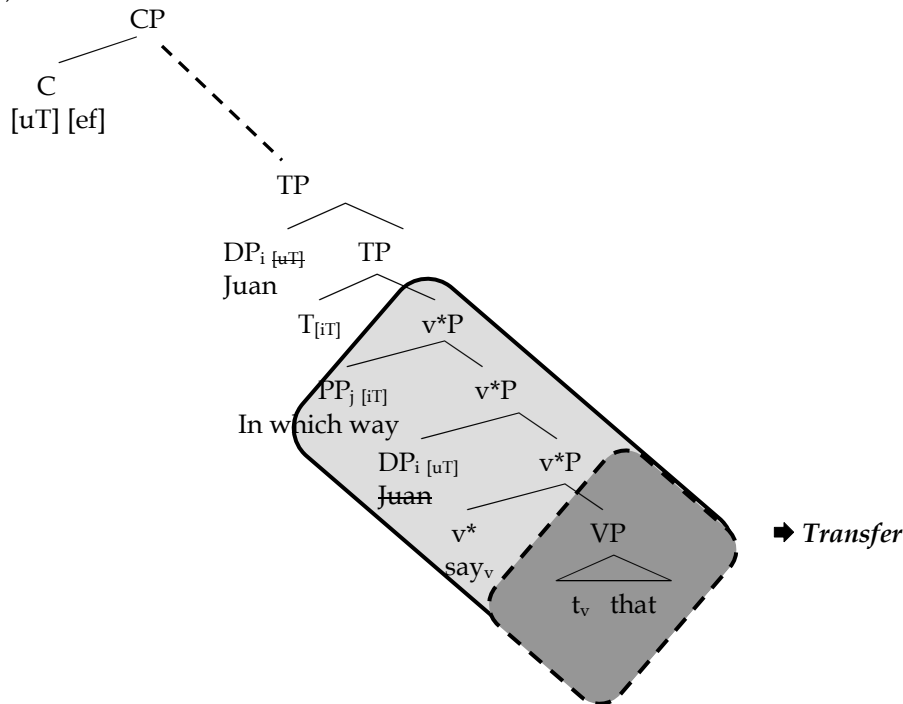
Going back to interrogative clauses, we have not said anything about why phrases pied-piping a preposition (cf. examples in (28), (29), and (31b,c)) can optionally prevent T-to-C movement. Gallego (2004b) argued that prepositions (being a species of T, as Pesetsky & Torrego (2004a) propose) can prevent pure T-to-C movement, because, *wh*-phrases at the phase edge (SPEC-T, in that analysis) are always closer to C than T itself (note, at any rate, that T can still move to C, without intervention effects of the pied-piped preposition, which is expected if evaluation occurs at the CP-phase level; cf. Chomsky (2001)). Keeping in mind what I said in the previous section, we can reformulate Gallego's (2004b) analysis as in (49), with the hybrid label v*/T counting as the phase head.

(49)



In English, a different scenario obtains, and T-to-C Movement cannot be dispensed with, even when prepositions are pied-piped:

(50)



As I said (cf. fn. 17), using an uninterpretable feature to delete another one does not seem natural, but, even from Chomsky's perspective, that should not be a problem, for once valued, uninterpretable features cannot be distinguished from interpretable ones:

"Interpretability of features is determined in the Lexicon, by Universal Grammar we assume, and the distinction must be indicated not only at that stage but throughout the derivation. The natural principle is that the uninterpretable features, and only these, enter the derivation without values, and are distinguished from interpretable features by virtue of this property. Their values are determined by Agree, at which point the features must be deleted from the narrow syntax (or they will be indistinguishable from interpretable features at LF) but left available for the phonology (Since they may have phonetic effects) [...] The operation Spell-Out removes LF-uninterpretable material from the syntactic object L and transfers K to the phonological component [...] Prior to Agree, these are distinguished from interpretable features by lack of specification of value. After application of Agree, the distinction is lost. To operate without reconstructing the derivation, Spell-Out must therefore apply shortly after the uninterpretable features have been assigned values." Chomsky (2001:5) <My emphasis, AJG>

As Pesetsky & Torrego (2004b) argue, the computational system does not care about a features being interpretable or uninterpretable (the SEM component does), what syntax really cares about is whether a feature has a value or not. In this respect, then, Pesetsky & Torrego (2004b) follow Chomsky (2001; 2004) in assuming that uninterpretable features enter syntax without a value, but, once they get a value, they are identical to interpretable ones. If we strictly stick to that reasoning, it is coherent to say that uninterpretable features, once valued, can be used to value other uninterpretable features. However, that possibility has its limits, established by phase boundaries; in particular, the period of time from "valuation" to "removal" has to be

short, indeed, but since in Chomsky's (2005) system all operations (Case assignment as well) are driven by phase heads C and v*, it follows that valued uninterpretable features are not removed until that level, and precisely until that level they can be used for checking purposes. The distinction obviously recalls the "deletion" vs. "erasure" contrast of Chomsky (1995), which only applied in the case of uninterpretable features:

"Understand "deleted" as "invisible at LF but accessible to the computation" [...] Erasure is a stronger form of deletion, eliminating the element entirely so that it is inaccessible to any operation, not just to interpretability at LF [...] The question of erasure, then, arises only for [-Interpretable] feature F, which is erased [...] unless that operation is barred by some property P of F. P should be readily detected, to avoid excessive computational complexity. One such property is parametric variation." Chomsky (1995:280-281)

Under this scenario, an element with uninterpretable features can be used to enter checking processes once it has been freed from uninterpretable morphology, an idea that is interestingly applied to the A/A' asymmetry regarding reconstruction effects by Boeckx (2001), and that could also carry over to the so-called 'visibility condition' of theta-role assignment. Suppose we formalize this as indicated in (51), assuming that having uninterpretable (or 'viral', in Uriagereka's terms) morphology has two consequences: a) it renders an element active and b) it blocks some of its connections with the SEM interface (i.e., gaining scope/surface semantics, etc.). The first consequence is responsible for allowing the relevant element to participate in additional (phase-bounded) checking processes.

(51) Effects of unvalued uninterpretable morphology

An 'active' element α (i.e., an element with its uninterpretable features unvalued) is out-of-sight for both syntactic (valuation) and semantic (reconstruction) effects.

From (51) it follows that once the [uT] feature of a DP is assigned a value (or "marked for deletion"), it can be accessed by SEM and enter additional checking processes within the phase it has been valued.

Nevertheless, there is a crucial asymmetry between Chomsky's and Pesetsky & Torrego's deletion: in Chomsky's system deletion of a valued uninterpretable feature applies if the element that bears such feature is in the Spell-out domain, whereas for Pesetsky & Torrego (2001; 2004a; 2004b) all that matters is whether a new phase has started or not:

"Spell-Out seeks formal features that are uninterpretable but have been assigned values (checked); these are removed from the narrow syntax as the syntactic object is transferred to the phonology." Chomsky (2001:12)

"As discussed elsewhere (Chomsky (2001)), the size of phases is in part determined by uninterpretable features [...] Since these features have no semantic interpretation, they must be deleted before they reach the semantic interface for the derivation to converge. They must therefore be deleted wither before or as a part of Transfer. But these features may have phonetic realization, so they cannot be deleted before transfer to the phonological component. They must therefore be valued at the stage in computation where they are transferred -by definition, at the phase-level, and this must be the same stage for both transfer operations, again supporting the optimal assumption that transfer o both interfaces is at the same stage of derivation." Chomsky (2005:21)

Now one question emerges: what are the Spell-out/Transfer domains? In Chomsky (2001:12-15 & 2004:108), only the "domain" of a phase head is spelled out/transferred, its "residue" or "edge" (i.e., the phase head itself and all its specifiers) being accessible to the next

phase head⁴⁹, as (49) and (50) presuppose. So, in (52), where Z and H are phase heads (say, C and v* respectively), only YP is transferred to the SEM and PHON components at the HP phase level, the edge α and H belonging to the next phase (i.e., ZP).

$$(52) \quad [_{ZP} Z [_{HP} \alpha [H YP]]]$$

Under (52), the *Phase Impenetrability Condition* (cf. Chomsky (2001)) falls into place, given that “the sister of the [phase] head is spelled out obligatorily; the fate of the *edge* –the head and its Specs- is not determined until *later*.” Chomsky (2004:123).

In conclusion, valued uninterpretable features are only removed from the system if they are transferred; if they belong to a phase head or they move to one of its Specs, they cannot be deleted. This is *prima facie* at odds with Pesetsky & Torrego (2001; 2004a), for deletion of a valued uninterpretable feature invariably occurs at the phase that immediately follows the phase in which it has been valued. In what follows, I will assume Pesetsky & Torrego’s (2001; 2004a) take on deletion, for I do not see that it faces any conceptual or empirical problem⁵⁰, and, more importantly, it is the one that can account for the empirical phenomena that I have examined up to this point.

3.3. Phase Heads, T, and Parametric Variation

Let us return to the asymmetry between NSLs and English noted by Gallego (2004b). There are various ways to capture the asymmetries noted in that paper, all we have to make sure is that v*/TP counts as a phase boundary in NSLs. Assuming, with Chomsky (2000) (but *contra* Chomsky (2005)), that *edge features* is what characterizes phase heads (T and V are not endowed with this type of feature, but only with ϕ -features), this can be achieved in two ways: either T inherits both edge and ϕ -features from C (cf. (53)), or else v*’s *edge features* move to T as a consequence of v*-to-T movement (cf. (54)). Whatever the option chosen, the process calls for a parameter:

(53) **Inheritance of edge features (C→T)**

(54) **Inheritance of edge features (v*→T)**

$$\begin{array}{ccc}
 [_{CP} C\phi/[ef] [_{TP} T\phi/[ef] [_{v^*P} \text{Subj } v^* [_{VP} V \text{Obj}]]] & & [_{CP} C [_{v^*/TP} v_j^*/T\phi/[ef] [_{v^*P} \text{Subj } t_j [_{VP} V \text{Obj}]]] \\
 \quad \quad \quad \uparrow & & \quad \quad \quad \uparrow \\
 \quad \quad \quad \text{_____} & & \quad \quad \quad \text{_____}
 \end{array}$$

Adopting Borer’s (1984) thesis that parametric choices are restricted to (functional) Lexical Items⁵¹, we could formulate the following parameter:

(55) **Parameter:** T is endowed with *edge features*.

⁴⁹ Chomsky (2004:108) actually admits that phases can be transferred in full, but only in the case of root clauses.

⁵⁰ Note that, in Chomsky’s (2005) system, ϕ -features generated in the phase heads C and v* can be deleted by *Transfer* without problems, since by that time they have been downloaded to T and V, which properly belong to the Transfer domain. Yet, if T were a phase head, as I claim here, its ϕ -features (inherited from C) could not be deleted, and they would remain in the derivation, being undistinguishable from interpretable features. That could be seen as conceptually problematic (N. Chomsky, p.c.). The reasoning is correct, but this fact needs not be a problem, for we could say that they are going to be deleted at the next Transfer Domain (or even in that very phase, in the case of a root clause), and, even if they remain, they do not appear to be able to induce intervention effects. Moreover, notice that the same scenario obtains at the v*P level, for ϕ -features of v*, even if downloaded to V, end up back in v*, assuming –as seems generally accepted– that there is V-to-v* movement within the v*P phase.

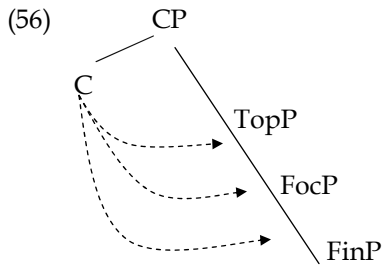
⁵¹ So, I disregard the possibility that parameters be associated to SPEC positions (cf. Bobaljik & Jonas (1996)) or to the X/XP-Movement distinction (cf. Alexiadou & Anagnostopoulou’s (1998) view of the EPP).

If the process is as described in (53), (55) explicitly relates the inheritance device to parametric variation. Chomsky (2005) himself considers this possibility, but he disregards it, suggesting that inheritance is a universal mechanism demanded by Interface Conditions:

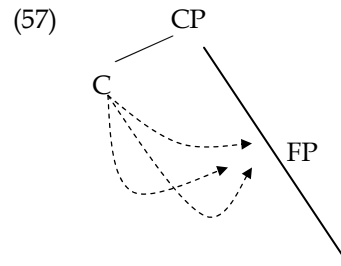
“The device of inheritance establishes the distinction in a simple way, perhaps the simplest way. The mechanism is a narrow violation of NTC. The usual question therefore arises: does it violate SMT? If it does, then the device belongs to UG (perhaps parametrized), lacking a principled explanation. But the crucial role it plays at the C-I interface suggests the usual direction to determine whether it is consistent with SMT though violating NTC. If the C-I interface requires this distinction, then SMT will be satisfied by an optimal device to establish it that violates NTC, and inheritance of features of C by the LI selected by C (namely T) may meet that condition. If so, the violation of NTC still satisfies SMT.” Chomsky (2005:10-11)

(55) distinguishes English from NSLs. It is quite similar to Chomsky’s (2001) parameter about “Object Shift”, but it is simpler, in the sense that it does not rely on assignment of Int(erpretations) at *Border/Edge* positions: it just focus on LIs and their featural endowment. Note, besides, that (55) can actually be obtained in three ways: T can get [ef]s by inheritance from C, by head movement of v^* , or else ‘by default’. The first two options attribute the syntactic prerogative of having edge features to syntax, whereas the latter poses it in the Lexicon. Given Chomsky’s (2001) *Uniformity Principle*, I suppose the latter view is preferable, but either inheritance from C or head movement of v^* is also consistent with the facts, and, furthermore, strengthens the phase status of C and v^* . Let’s assume here, for concreteness, that (53)/(54) does the job. If so, we have to decide which one is to be preferred. The issue is delicate, since, as we will see later, independent factors indicate that v^*P is not a phase in NSLs, suggesting (53) as the winner. Although that possibility is consistent with everything I will say here, it is conceptually problematic, for it seems that we are overloading the C-T chunk of the clause (or that those heads ‘contract’, as Fortuny (2005) suggests), with v^* and v^* -to-T movement playing a minor role. A more elegant conclusion is that C and v^* are phase heads in all languages, as in Chomsky’s (2000; 2001; 2004; 2005), and if we happen to see phase-like properties in T (just like we see ϕ -features) they are a side-effect due to independent factors. What are independent factors? I want to argue that the independent relevant factor is head movement; in particular, a syntactic instance of head movement that re-labels the TP (cf. section § 3.1.). That way, we can say that v^* is the head that drives all the relevant phase operations, although it does so once merged with T.

Let us to back to (55). Notice that a parameter like this has many consequences, one of them, I will argue, is that most of the facts involving what Rizzi (1997) calls the “Left Periphery” might have v^*/T as their Locus. Consider such a cartographic approach for a moment. On minimalist grounds, one has to motivate those hierarchies, and the formal mechanisms that they make use of. A step forward in that direction was, I think, Uriagereka’s (1995) F position, which, broadly speaking, is supposed to encode point-of-view-like effects, being an interface between Syntax and Pragmatics. Endorsing the role played by inheritance, one could assume that when C downloads its ϕ -features to T, it can also spread [ef] in morphologically rich languages. This is a possible source of Cinque’s (1999) and Rizzi’s (1997; 2004a) systems, as noted by Fortuny (2005), who develops a proposal in which C spreads π (i.e., peripheral) and ϕ features, the former giving rise to the so-called cartographies. Assuming that inheritance of [ef] suffices to build up such enriched structure, there are two possible scenarios to consider:



Rizzi (1997; 1999; 2004a)

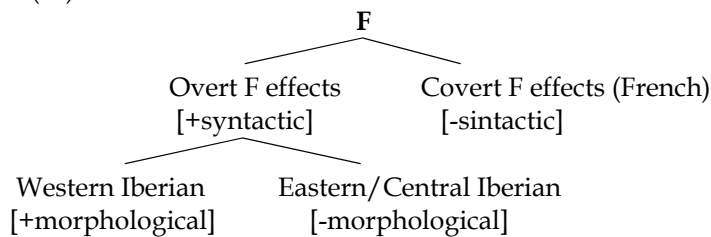


Uriagereka (1995)

As Raposo & Uriagereka (2005) note, (56) has both conceptual and empirical problems. Interestingly, a similar enriched structure has been proposed for the v^*P , with different functional projections hanging around the phase head v^* (cf. Belletti (2001; 2004) and Cinque (1999)). One could rephrase these findings in different ways, but there seems to be a relationship between the possibility of having v^* -to-T movement and the one of having more fronting like properties. Here I would like to go further and claim that the role played by F can be now subsumed by T under (55): if v^*/T is a phase head, it is plausible that its SPECS can give rise to different semantic effects of the surface/edge sort (information/discourse-oriented, following Chomsky (2000; 2001)). Interestingly, Uriagereka's (1995) reasoning about the syntactic and morphological parameters associated to F also falls into place: French and Galician/E.Portuguese occupy the opposite poles of what one might call the *F continuum* (cf. (58)):

"The syntactic parameter expresses whether F is projected in the overt or only the covert component (at LF) [...] In turn, the morphological parameter provides a PF representation for a syntactically active F." Raposo & Uriagereka (2005)

(58) *The F Continuum*



[from Raposo & Uriagereka (2005)]

If French has a negative setting of (55), then we are in business, for it has (in Uriagereka's (1995) system) a very poor F.

Along with (55), I would also like to defend (59):

(59) *The parasitic [ef]- ϕ correlation*

The [ef]-system is parasitic on the richness of the ϕ -system

(59) claims that a T which is richer in ϕ -features has a more powerful [ef]-system (and, by parity of reasoning, it also claims that we do not expect to find a phase head H with [ef] features and a poor ϕ -specification). I think (59) has two advantages: first, it reinforces the idea that uninterpretable ϕ -features are not an imperfection, but part of optimal design (it allows internal-Merge, which, in turn, is related to interface demands); second, it captures the fact that non-finite clauses tend to disallow fronting-like effects (cf. Raposo & Uriagereka (2005)):

- (60)
- a. Luis dice que, los libros_i, ya los_i leyó. (Spanish)
Luis says-3SG that, the books, already CL-them read-3SG
'Luis says that the books he already read'
 - b. Luis dice que CERVEZA ha bebido (y no sidra). (Spanish)
Luis says-3SG that BEER has-3SG drunk (and not cider)
'Luis says that BEER he has drunk (and not cider)'
 - c. Vi a Luis leyendo los libros. (Spanish)
Saw-1SG to Luis reading the books
'I saw Luis reading the books'
- (61)
- a. ??Luis quiere, los libros_i, leerlos_i. (*Luis puede, los libros_i, leerlos_i)⁵²
(Spanish)
Luis wants, the books, to-read-them (*Luis can, the books, to-read-them)
'Luis wants the books to read them'
 - b. *Luis quiere CERVEZA beber (y no sidra). (Spanish)
Luis wants-3SG BEER to-drink (and not cider)
'Luis wants BEER to drink (and not cider)'
 - c. *Vi a Luis, los libros, leyéndolos. (Spanish)
Saw-1SG to Luis, the books, reading-them
'I saw Luis the books reading them'

Under this proposal, T does not need to carry Raposo & Uriagereka's (2005) [+affective] feature (either strong or weak), all we need is for T to be endowed with [ef]-Probes, under (55). But, where do those [ef] come from? In principle, there are two sources: C and v*. As is well known, all NSLs have v*-to-T movement, but not all NSLs display the same exotic peripheral behavior; actually, some NSLs behave, peripheral-wise, more like non-finite clause or morphologically poor languages like English. As Raposo & Uriagereka (2005) argue, in the most conservative NSLs (i.e., E.Portuguese and Galician), F (here, v*/T) can be endowed with ϕ -features, showing hot/bizarre patterns involving overt focus heads, inflected infinitives and a complex pattern of clitic placement. As for languages like Spanish, although it has an active T, it is not as strong as Galician's, but it still allows more fronting than Catalan's^{53 54}, as the contrast in (62) and (63) show:

⁵² I assume that modals involve a raising structure (cf. Solà (2001) and San Martín (2004)).

⁵³ This correlation opens an interesting door. To my knowledge, there is no explanation of why Spanish does not allow (i), if, after all, its T can assign Case by long-distance Agree (cf. section § 6):

- (i) *Parece Juan cantar. (Spanish)
Seems-3SG Juan to-sing
'It seems that Juan sings'

It allows (ii), though:

- (ii) Parece cantar Juan. (Spanish)
Seems-3SG to-sing Juan
'It seems that Juan sings'

Notice that (ii) patterns with some infinitival clauses in which subjects can appear postverbally (cf. Rigau (1995) and Torrego (1998b)):

- (iii) Al llegar María, le dijeron que se fuera. (Spanish)
To-the to-arrive María, CL-her tell-3PL that CL went-3SG
'When María arrived, she was told to leave'
- (iv) Con hacer María eso sería suficiente. (Spanish)
With to-do María that, would-be enough
'If María did that, it would be enough'

A possible explanation is that in these cases the subject remains in SPEC-v*, being unable to move to SPEC-T because T would lack the appropriate [ef] specification. The analysis extends to gerunds and participle clauses in NSLs, and casts

- (62)
- a. Por algo será. (Spanish)
For something will-be-3SG
'It must be for some reason'
 - b. Hable con Inés y poco más he hecho, la verdad. (Spanish)
Talked-3SG with Inés and few more have-1SG done, the truth
'I talked to Inés but I did not do many more things, to be honest'
 - c. ¡Para mí querría yo esos problemas! (Spanish)
For me would-want-1SG those problems
'I wish all I had to worry about was that!'
 - d. Poco dinero es ese, creo yo. (Spanish)
Few money is-3SG that, think-1SG I
'That is not much money, I think'
 - e. Mucha tontería dices. (Spanish)
Much crap say-2SG
'You say a lot of crap'
 - f. ¡En bonito lío me he metido! [from Hernanz (2001)] (Spanish)
In pretty problem CL-me have-1SG got-into
'I am in a really big trouble'
 - g. ¡Buena la has hecho! (Spanish)
Good CL-it have-2SG done
'You have made a big mistake'
 - h. Pues pronto empieza tu hijo. (Spanish)
Then soon starts-3SG your son
'Your soon starts very soon (doing something)'
 - i. Así lo quieres, Así lo tienes. [Mala Rodríguez lyric] (Spanish)
This-way CL-it want-2SG, this-way CL-it have
'So you want it, so you have it'
- (63)
- a. ??/*Per alguna cosa deu ser. (Catalan)
For something will-be-3SG
'It must be for some reason'
 - b. ??/*Vaig parlar amb la Inés i poc més he fet, la veritat. (Catalan)
Talked-3SG with Inés and few more have-1SG done, the truth
'I talked to Inés but I did not do many more things, to be honest'
 - c. ??/*Per a mi voldria jo aquests problemes! (Catalan)
For me would-want-1SG those problems
'I wish all I had to worry about was that!'
 - d. ??/*Pocs diners són aquests, crec jo. (Catalan)
Few money is-3SG that, think-1SG I
'That is not much money, I think'
 - e. ??/*Moltes ximpleries dius. (Catalan)
Many crap say-2SG
'You say a lot of crap'
 - f. *En bonic embolic m'he ficat! (Catalan)

some doubt in the status of PRO, even in control cases, but I put this aside here (cf. Hornstein (2003), Wurmbrand (2005), and references therein)

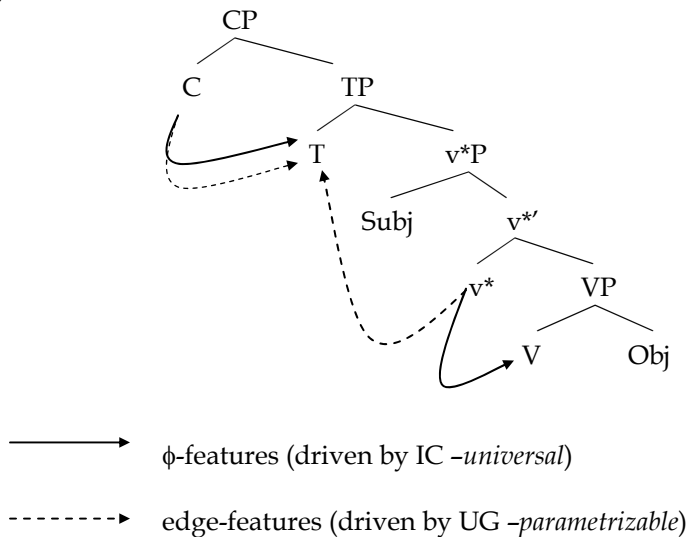
⁵⁴ This analysis naturally carries over to Hernanz's (2001; 2004) work on affective operators, which, as indicated in (62) and (63), are perfectly possible in Spanish, though not in Catalan.

- In pretty problem CL-me-have-1SG got-into
'I am in a really big trouble'
- g. *Bona l'has fet! (cf. L'has fet(a) bona) (Catalan)
Good CL-it-have-2SG done
'You have made a big mistake'
- h. *Doncs aviat comença el teu fill. (Catalan)
Then soon starts-3SG the your son
'Your soon starts very soon (doing something)'
- i. ??/*Així ho vols, així ho tens. (Catalan)
This-way CL-it want-2SG, this-way CL-it have
'So you want it, so you have it'

The examples in (62) do not involve contrastively focused XPs, but a milder type of focus fronting which is common in Spanish. Catalan, as (63) shows, lacks it. If v^* -to-T movement takes place in all these languages, one might defend that the relevant *edge features* related to Uriagereka's (1995) F come from C, by means of inheritance (and not from v^* -to-T movement). The parameter in (55) can still be useful, but, as I said, Chomsky (2005) does not endorse the view that inheritance can feed parametric variation. A satisfactory way out would be to claim that while ϕ -feature inheritance is driven by interface conditions, *edge feature* inheritance is not. This alternative makes sense, for why would the interfaces require that some languages have more fronting-like power? Therefore, the factor responsible for the observed language variation is morphology, or, slightly more precisely, *edge feature* inheritance, which is parasitic on ϕ -features inheritance, as the data with non-finite clauses suggest.

The overall scenario is as in (64), where ϕ -feature inheritance is universal, but edge feature is not:

(64)



If we interpret (64) literally, two conclusions emerge: first, C and v^* are phase heads universally, and, second, T is the locus of parametric variation. As far as I know, this is just a way of implement an old intuition (cf. Diesing (1990), Chomsky (1986), Kayne (1989), Rizzi (1978/1982), Uribe-Etxebarria (1992), etc.) in current terms.

4. Subjunctive Dependents

In this section I would like to explore some extensions of the so far assumed proposal. In particular, I would like to concentrate on the subjunctive/indicative cut with respect to embedded clauses.

As is well-known, subjunctive clauses show a number of asymmetries with respect of indicative ones. The most striking facts belong to Binding theory, where a poorly understood long-distance obviation ensues between matrix and embedded subjects:

- (65)
- a. *La Maria_i lamenta [_{CP} que pro_i tingui tants problemes] (Catalan)
The Maria regrets-3SG that pro have-SUBJ-3SG so-many problems
'Maria regrets that she have so many problems'
 - b. La Maria_i diu [_{CP} que pro_i te molts problemes] (Catalan)
The Maria says-3SG that pro has-3SG many problems
'Maria says that she has many problems'

Facts like these were taken by many scholars (cf. Picallo (1985) and Kempchinsky (1987), *inter alia*) to argue that the binding domain was "extended" in the case of subjunctive dependent clauses so that the subject pronoun fell into the governing category of the matrix subject.

Apart from those binding facts, subjunctive (and some uses of conditional and modal futures, as noted by Torrego (1983; 1984)) allows *que*-deletion in Spanish, a process that is in general barred in this language⁵⁵:

- (66)
- a. Espero [_{CP} llegue bien tu hermano] (Spanish)
Hope-1SG arrives-SUBJ-3SG well your brother
'I hope your brother arrives well'
 - b. Lamento [_{CP} te hayas quedado fuera] (Spanish)
Regret-1SG CL-you have-SUBJ-2SG left out
'I regret you are out'
 - c. Les rogamos [_{CP} se abrochen los cinturones] (Spanish)
CL-you beg-1PL CL fasten-SUBJ-2PL the seat-belts
'We beg you to fasten your seatbelts'

To the best of my knowledge, cases like (66), together with some rare cases I brought up in Gallego (2003) involving relative clauses, are the only environments that systematically allow *que*-deletion in Spanish:

- (67)
- a. Una propuesta [_{CP} que tu padre dice [_{CP} no es en absoluto interesante]] (Spanish)
A proposal that your father says-3SG not is-3SG in absolut interesting
'A proposal that your father says is not good at all'
 - b. Una persona [_{CP} con la que Juan dice [_{CP} se puede trabajar]] (Spanish)
A person with the that Juan says-3SG CL can-3SG to-work
'A person that Juan says one can work with'

⁵⁵ Cf. Giorgi & Pianesi (2004) and Poletto (2001) for exceptional cases of *che*-deletion in Italian, showing the same general properties: it is optional and only licensed by subjunctive. Catalan, as far as I know, under no circumstance allows *que*-deletion.

Compare (67) and (68); as can be drawn from the latter, when no relative movement is at stake, *que* cannot be dropped:

- (68)
- a. *Tu padre dice [_{CP} no es en absoluto interesante esa propuesta] (Spanish)
Your father says not is-3SG in absolut interesting that proposal
'Your father says that proposal is not interesting at all'
 - b. *Juan dice [_{CP} se puede trabajar con esa persona] (Spanish)
Juan says-3SG CL can-3SG to-work with that person
'Juan says one can work with that person'

As Etxepare (1999) notes, the *que*-deletion pattern seems to extend to other movement environments, like *wh*-movement (cf. (69)) and contrastive focus fronting (cf.70)). As is usual in those environments, obligatory inversion must take place:

- (69)
- a. ¿Qué paquetes afirma Correos [_{CP} enviaron sus empleados]? (Spanish)
What packages asserts-3SG Correos sent-3PL its employees
'What packages does Correos assert its employees sent?'
 - b. *¿Qué paquetes afirma Correos [_{CP} sus empleados enviaron]? (Spanish)
What packages asserts-3SG Correos its employees sent-3PL
'What packages does Correos assert its employees sent?'

[from Etxepare (1999:4)]

- (70)
- a. ¡TODO EL VINO DE LA BODEGA asegura [_{CP} bebieron sus amigos]! (Spanish)
ALL THE WINE FROM THE CELLAR assures-3SG drank-3PL his friends
'ALL THE WINE FROM THE CELLAR he assured his friends drank!'
 - b. *¡TODO EL VINO DE LA BODEGA asegura [_{CP} sus amigos bebieron]! (Spanish)
ALL THE WINE FROM THE CELLAR assures-3SG his friends drank-3PL
'ALL THE WINE FROM THE CELLAR he assured his friends drank!'

[from Etxepare (1999:4)]

In Gallego (2003) I did not offer an account for these data (I just noted that they are not parenthetical constructions), but Etxepare (1999) does. In his analysis, only *stance verbs* allow *que*-deletion, since only those verbs "imply the existence of a claim to truth (that is, an assertion) in their finite dependents" Etxepare (1999:11). Building on Uriagereka (1995), Etxepare (1999) capitalizes on the F projection to host a null complementizer, and only stance verbs select for F. According to Etxepare (1999), the analysis predicts the following contrasts:

- (71)
- a. Los paquetes que Correos {afirma/asegura/etc.} [_{CP} sus empleados enviaron] (Spanish)
The packages that Correos {asserts/assures/etc.}-3SG its employees sent-3PL
'The packages that Correos {asserts/assures/etc.} its employees sent'
 - b. *Los paquetes que Correos {contó/interpretó/etc.} [_{CP} sus empleados enviaron] (Spanish)
The packages that Correos {told/interpreted/etc.} its employees sent-3PL
'The packages that Correos {told/interpreted/etc.} its employees sent'

[from Etxepare (1999:10)]

Going back to embedded subjunctive clauses, Gallego (2003) took the fact that preverbal subjects are ruled out in them to argue that, in those cases, there is direct verb movement from T to C, as indicated in (72):

- (72)
- a. Lamento [_{CP} [_T [_{v*-v} piense]_T]_v C_[uT, EPP] [_{TP} T_v [_{v*P} eso_j tu padre [_{VP} t_v t_j]]] (Spanish)
 Regret-1SG think-SUBJ-3SG that your father
 'I regret that your father think that'
- b. *Lamento [_{CP} C_[uT, EPP] [_{TP} tu padre_i piense_v T_[ef] [_{v*P} t_i t_v eso]]] (Spanish)
 Regret-1SG your father thinks-SUBJ-3SG that
 'I regret that your father think that'

That the verb moves in these cases might be supported by adverb placement. This is a highly suspicious test, for we cannot be sure where adjuncts are, but let us nevertheless suppose adverbs like *siempre* (Eng. *always*) are merged somewhere in the v*P's edge and that they can also appear in the TP's edge (a sensible possibility, given their temporal/aspectual nature)⁵⁶:

- (73)
- a. Luis (siempre) canta (siempre). (Spanish)
 Luis always sings-3SG always
 'Luis always sings'
- b. Lamento (??/*siempre) cante (siempre) Luis (siempre). (Spanish)
 Regret-1SG always sings-SUBJ-3SG always Luis always
 'I regret that Luis always sing'

Aware of this and many more asymmetries of the LF sort between indicative and subjunctive dependents, Torrego & Uriagereka (1992) analyzed the former in a paratactic-like fashion, with the subordinate clause being a completely independent chunk getting paratactically related to a hidden nominal, the real complement of indicative-taking verbs:

- (74)
- a. Platón [_{v*P} quiere [_{CP} que Aristóteles lea a Sócrates]] (Spanish)
 Plato wants-3SG that Aristotle reads-SUBJ-3SG to Socrates
 'Plato wants Aristotle to read Socrates'
- b. Platón [_{v*P} dice [_{DP} pro]] [_{CP} que Aristóteles lee a Sócrates] (Spanish)
 Plato says-3SG that Aristotle reads-3SG to Socrates
 'Plato says that Aristotle reads Socrates'

[from Torrego & Uriagereka (1992:7)]

This idea, interestingly enough, goes back to Bello (1847):

⁵⁶ Following Brucart (1994), in Gallego (2003), I also used *siempre* to show that the verb moves to C in interrogative matrix clauses:

- (i) Inés siempre lee a Marías. (Spanish)
 Inés always reads-3SG to Marías
 'Inés always reads Marías'
- (ii) ¿A quié_n_j lee_j siempre Inés t_i t_j? (Spanish)
 To whom reads-3SG always Inés
 'Who(m) does Inés always read?'

The position of the subject (postverbal or preverbal) is irrelevant for *siempre*'s placement: in its most unmarked position, it precedes the verb in declarative clauses, which always undergoes v*-to-T movement. As we see, *siempre* follows the verb in (ii), and not in (i), a fact I took to signal T-to-C movement. Granted, adverb placement is not a conclusive test, but it is not the only test I provided in Gallego (2003).

- (75)
- a. Que la tierra se mueve alrededor del sol es cosa probada. (Spanish)
That the Earth CL moves-3SG around the Sun is thing proved
'That the Earth moves around the Sun is a fact'
 - b. Esto, que la tierra se mueve alrededor del sol, es cosa probada. (Spanish)
This, that the Earth CL moves-3SG around the Sun, is thing proved
'This, namely that the Earth moves around the Sun, is a fact'
- [from Bello (1874:§§316-319)]

Appealing as it may seem, such an analysis has to resort to some specific assumptions in order to account for why *wh*-movement is possible across indicative clauses. In this respect, Torrego & Uriagereka (1992) propose an account that resorts to base-generating the relevant *wh*-phrases in the top-most SPEC-CP with intermediate operators all the way down, working much like resumptive pronouns. Here I will offer an alternative analysis that tries to be consistent with the T-to-C system entertained so far. In order to do that I need to make an *excursus* to consider Pesetsky & Torrego's (2004b) analysis of raising infinitives. To being with, let us recall that, in Chomsky's system, raising infinitives, unlike control ones, are analyzed as lacking the CP:

- (76)
- a. Control structure: [CP ... [TP PRO [v*P ...]]]
 - b. Raising structure: [TP ... [v*P ...]]

Chomsky (2000; 2001) further assumes (77), as a consequence of raising infinitives lacking the CP (cf. fn. 3):

- (77)
- a. C is always ϕ -complete.
 - b. T is ϕ -complete if selected by C, otherwise it is ϕ -defective (and cannot assign Case).

So, for Chomsky (2000; 2001), root T is not able to assign a Case feature to subject DPs because it has not inherited a complete bundle of ϕ -features from C, but just [person] (the default ϕ -specification in Chomsky's system). All of that means that the subject DP of a ϕ -defective T gets forced to get Case from a higher Probe (v* in ECM, T in raising). Here I would like to argue that raising structures do have a CP-layer, although a defective one (as first suggested to me by Jordi Fortuny in a seminar); this does not alter the picture dramatically, rather, it restores an asymmetry. Under this view, we have (78), where I use C* and v* to indicate that phase heads are ϕ -complete:

- (78)
- a. Control structure: [C*P ... C* $_{\phi}$ -comp [TP ... T $_{\phi}$ -comp [v*P ...]]]
 - b. Raising/ECM structure: [CP ... C $_{\phi}$ -def [TP ... T $_{\phi}$ -def [v*P ...]]]

There are two different but ultimately related issues that we must now assess. The first one has to do with the notion of " ϕ -completeness", the second one with the very ϕ -feature inheritance process. For Chomsky (2005), all properties of T (e.g., tense, case, ϕ -features, etc.) do not belong to T itself, but to C, which downloads them to T:

"It seems problematic for T to define a phase boundary along with C, since on the surface it seems to be T, not C, that is the locus of the ϕ -features that are involved in the Nominative-agreement system, and raising of the external argument subject or unaccusative/passive

object to SPEC-T. There is, however, antecedent reason to suspect otherwise, confirmed (as we will see) by empirical phenomena. The antecedent reason is that for T, ϕ -features and Tense appear to be derivative, not inherent: basic tense and also tense-like properties (e.g., irrealis) are determined by C (in which they are inherent: “John left” is past tense whether or not it is embedded) or by the selecting V (also inherent) or perhaps even broader context. In the lexicon, T lacks these features. T manifest the basic tense features if and only if it is selected by C (default agreement aside); if not, it is a raising (or ECM) infinitival, lacking ϕ -features and basic tense [...] when ϕ -features appear morphologically at T without tense (or in participles, etc.), they should therefore be regarded as just a morphological effect of agreement, without significance in the syntactic computation.” Chomsky (2005:10-11)

As I said in section § 1, for Chomsky’s (2005) point to hold without exceptions, all properties from T must come from C. As I will argue below, quantification is a property of T that does not obviously seem to be derived from C⁵⁷.

Let us first address the notion of “ ϕ -completeness”. Pesetsky & Torrego (2004b) have an interesting discussion about the other side of this coin: “ ϕ -defectiveness”.

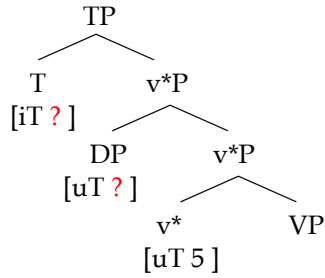
“A ϕ -bundle is defective if it lacks one or more of its features. Chomsky suggests that the features of a defective feature bundle have one special limitation: though they may act as probes when unvalued, participating in Agree (and deleting if they get valued), they may not supply a value to other features as a consequence of Agree. The Tns of a raising infinitival, Chomsky suggests, contains a ϕ -bundle that is defective in just this sense. It is ϕ -incomplete, lacking at least one (or possibly more) ϕ -features. Chomsky (2001) suggests that the only ϕ -feature present in Tense of a raising infinitive is person, and that other features such as number are missing. Person on a raising infinitival Tense is unvalued, acts as a probe, and participates in Agree with a goal that has a person feature. An EPP property triggers pied-piping of the goal to Spec,Tns. Crucially, because of the defectivity of the ϕ -bundle of raising infinitival Tns, no feature of the goal can get valued by such an operation. The unvalued feature of the goal relevant to this discussion is case.” Pesetsky & Torrego (2004b:10)

In their last paper, Pesetsky & Torrego (2004b) introduce an interesting change that has to do with the notions of “valuation” and “interpretability”. For them, verbs come from Lex with valued tense features. This is easy to see in Spanish: if a form like *habló* (Eng. *talked-3SG*) is selected from Lex fully inflected, it is V (and not T) which contains the temporal value [+past]. However, those valued tense features are uninterpretable in the verb itself: that type of information is interpretable only in T. As for T(ense), it comes with an interpretable T feature, but it does not have a value (V has it, if the reasoning is on track). Let us consider now DPs; in Pesetsky & Torrego’s (2004b) system, they have an uninterpretable [uT] feature (formerly, Case) with no value. Putting all the pieces together get the following configuration, where a feature matrix can have the next form: [interpretable - feature - value] or [i/uT 5] (the number value being irrelevant).

With this background information in mind, consider the process described in (79), starting by the initial configuration, with T’s and D’s [T]-feature unvalued:

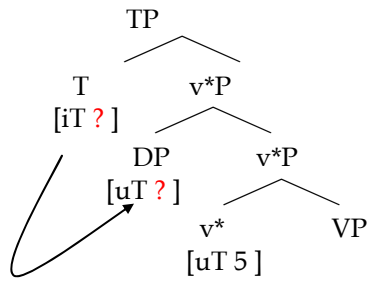
⁵⁷ Moreover, Bhatt (1999) notes that some infinitival constructions seem to lack a CP layer, but they still have a modality flavor. It may turn out that some varieties of what we call “modality” follow from a T selected by a defective C or from a root T. I cannot investigate this possibility in full detail here.

(79a) *T and D unvalued (acting as Probes)*



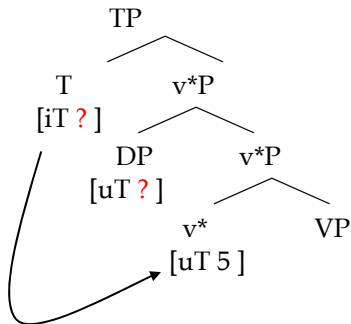
As I said before, Syntax cares about values, not (un)interpretability. Thus, only unvalued features will take care of getting a value –acting as Probes. In (79), T must get a value, and it does so by scanning its c-command domain. It first finds the DP subject, with which it forms a link, but no valuation occurs, since the DP is unvalued as well:

(79b) *Unsuccessful Agree (T, D)*



So, T probes again, finding v*, which can value both T and DP, as we see in (79c) (recall, values are indicated by numbers, so, the value '5' that v* bears can be copied into the subject DP and T).

(79b) *Successful Agree (T, v*)*



Consequently, “Agreement” can naturally be regarded as “Feature Sharing” among the relevant syntactic objects (T, D, and v* in the case at hand; cf. Frampton & Gutmann (2000)):

Note that there are some asymmetries between English raising and Spanish subjunctives. First, in English, valuation occurs because the subject DP raises, but in Spanish no raising occurs: the subject DP stays within the subjunctive CP. Besides that, the key aspect of (82) is that the embedded subject DP gets a value by the T_{OBJECT} head: since the embedded CP is not a phase (in my terms, it is not C* - ϕ -complete), the T_{OBJECT}-Probe can scan into that domain. A second asymmetry concerns the matrix T that values the embedded T_{SUBJECT}⁵⁸: in English raising, it is matrix T_{SUBJECT} that values embedded T_{SUBJECT}, which results in the subject being the same in both clauses. In Spanish subjunctive dependent clauses, however, it is T_{OBJECT} that values embedded T_{SUBJECT}, just like in ECM clauses (bluntly put, it is ‘as if’ the embedded subject DP gets its Case from matrix T_{OBJECT}). The third asymmetry has to do with the categorial status of the embedded clause; for Chomsky (2000; 2001), defective clauses are TPs, but in subjunctive domains we see the subordinating conjunction *que* (Eng. *that*), an evidence I take to signal a CP-layer (albeit a defective one). Note that the T_{OBJECT}-Probe of the matrix clause seeks for a Goal with interpretable ϕ -features, (like T-Probes generally do in Pesetsky & Torrego’s system): I suggest that that Goal is the subject DP, which is connected to the embedded T_{SUBJECT} and C through “Feature Sharing”⁵⁹. For concreteness, suppose embedded T_{SUBJECT} moves to C to satisfy the EPP property of C’s [uT] (being spelled-out as *que*); at that point, we have gained nothing, since no element in the embedded clause has a value. Once in C, embedded T_{SUBJECT} is matched by the matrix T_{OBJECT}-Probe, spreading the value of the T_{OBJECT} head, as depicted in (83):

(83) Platón T[iT 6] quiere T[iT 5] [CP que [uT 5] Aristóteles[uT 5] lea[iT 5] a Sócrates]
 |_____↑_____↑_____↑ Valuation

If this analysis is on track, we are in a position to assess the LF-phenomena that distinguishes indicative from subjunctive dependent clauses noted by Torrego & Uriagereka (1992). As just seen, the need for the embedded syntactic cluster formed by T-DP-v* to get a value delays the application of *Transfer* of the embedded clause, which might then allow Agree to operate within its boundaries (Agree or whatever LF operation is responsible for the phenomena Torrego & Uriagereka (1992) note).

This analysis also provides an explanation for the binding facts get an explanation; actually, we seem to have arrived at the same explanation given by Uriagereka (2002c) for local obviation. In Uriagereka’s (2002c) analysis, binding condition B follows from his *Transparency Condition*.

(84) *Transparency Condition*

In the absence of a more specific indication to proceed otherwise, where FF-bags α and β are grammatically distinct, the speaker confines the range of α ’s context variable differently from the range of β ’s context variable.

[from Uriagereka (2002c:165)]

⁵⁸ I am tacitly assuming that the T head that needs to get a value in subjunctive dependents is T_{SUBJECT}. What about T_{OBJECT}? Here I will be taking it that this head has no bearing on temporal reference of embedded clauses (or ‘temporal anchoring’), just being a sort of aspectual head (cf. Kratzer (1996)) that deals with the internal temporal make-up of the event. More generally, I suppose that T_{OBJECT} always comes from Lex with a value to assign accusative, except when we have an unaccusative structure, in which case we have two possibilities: either T is unvalued, or else it is not even projected in the structure. I leave this matter open.

⁵⁹ I suppose the same idea could be recast in Hiraiwa’s (2001) *Multiple Agree* theory, but I will not explore the details of that possibility here. See section § 7.

Suppose Uriagereka (2002c) is right. If so, we get long-distance-obviation just like we get local obviation: the Case feature of the two DPs are valued by a different T head⁶⁰. Therefore, *Luis* and *lo* are obviate in (85a) just like *Luis* and *pro* are in (85b).

- (85)
- a. *Luis_i lo_i llamó. (Spanish)
Luis CL-him called-3SG
'Luis called him'
 - b. *Luis_i quiere que *pro*_i diga la verdad. (Spanish)
Luis wants that says-SUBJ-3SG the truth
'Luis wants him to tell the truth'

Uriagereka's (2002c) proposal, together with the analysis of subjunctive dependents just put forth, supports the idea that the DPs in obviate contexts get a different interpretation because they are formally different.

What about indicative dependents? I would like to argue that the answer to their behavior can be given without adopting Torrego & Uriagereka's (1992) paratactic analysis. I will instead resort to a Reprojection analysis à la Hornstein & Uriagereka (2002). In particular, suppose that, in both indicative and subjunctive clauses, T raises to C, being spelled-out as *que*. From that movement on, the so far constructed phase can be submitted to Interface Levels or not; we have seen that there is good reason to defend that *Transfer* does not apply in the case of subjunctive dependent CPs: such a CP is "defective", and does not constitute a phase, so it has to wait until its T gets a value from a higher T. What about indicative dependents? Their temporal specification seems to behave as 'true tense': its value never depends on the matrix verb's (and so the facts in (81) fall into place). Consequently, when T reaches the C head in the case of indicative dependents, a phase is completed and so it can be transferred. The difference might be stated as in (86), which basically assumes (78)⁶¹:

- (86)
- a. C* selects T_{φ-complete} (i.e., INDICATIVE T)
 - b. C selects T_{φ-defective} (i.e., SUBJUNCTIVE T)

(86b), in its most strict formulation, predicts that subjunctive T is not endowed with a robust [ef]-endowment, and, accordingly, less fronting-like properties are expected⁶². The prediction, as shown by Torrego & Uriagereka (1992), is borne out:

⁶⁰ This might seem as if the embedded subject gets accusative, contrary to fact. Here I assume, with Pesetsky & Torrego (2001) that Nominative and Accusative are not primitives, but rather labels given to the same element (namely, [uT]) in different positions.

⁶¹ That embedded subjunctive clauses are not phases may be supported by the fact that no *wh*-phrase can land in SPEC-C and remain there (although there is successive cyclic movement through SPEC-C). Actually, I know of no embedded interrogative clause whose T is inflected in the subjunctive mood in Spanish (unless negation forces it: *No me importa qué libros lees* -I don't care what books you read).

⁶² (86) seems to suggest that subjunctive T should not have [ef], but this should be qualified, for subjunctive clauses still allow preverbal subjects, a possibility that follows from T getting v*'s [ef] endowment by means of v*-to-T movement.

- (87)
- a. Aristóteles creía que, en cuanto a la tragedia, debía haber tres unidades. (Spanish)
 Aristotle thought-3SG that, regarding to the Tragedy, must-3SG there-be three units
 ‘Aristotle thought that, as far as Tragedy was concerned, there must be three units’
- b. *Aristóteles quería que, en cuanto a la tragedia, hubiera tres unidades. (Spanish)
 Aristotle wanted that, regarding to the Tragedy, there-were-SUBJ-3SG three units
 ‘Aristotle wanted that, as far as Tragedy was concerned, there were three units’
 [from Torrego & Uriagereka (1992:16)]
- (88)
- a. ¡Juan dijo que muchas cosas había visto! (Spanish)
 Juan said-3SG that many things had-3SG seen
 ‘Juan said that a lot of things he had seen!’
- b. *¡Juan quería que muchas cosas viera! (Spanish)
 Juan wanted that many things see-SUBJ-3SG
 ‘Juan wanted a lot of things for him to see!’
 [from Torrego & Uriagereka (1992:17)]
- (89)
- a. Inés dijo que los libros_i los_i leyó. (Spanish)
 Inés said-3SG that the books CL-them read-3PL
 ‘Inés said that the books he read’
- b. ??/* Inés quería que los_i libros los_i leyera. (Spanish)
 Inés wanted-3SG that the books CL-it read-SUBJ-3SG
 ‘Inés wanted the books for him to read’
- (90)
- a. Juan dijo que francamente el Deportivo ganará la liga. (Spanish)
 Juan said-3SG that frankly the Deportivo will-win-3SG the League
 ‘Juan said that frankly Deportivo will win the League’
- b. *Juan quiere que francamente el Deportivo gane la liga. (Spanish)
 Juan wants-3SG that frankly the Deportivo wins-SUBJ-3SG the League
 ‘Juan wants frankly for the Deportivo to win the League’

As for LF-phenomena (e.g., Neg-raising, NPI’s licensing, QR, *wh*-in situ, etc.) it is possible that they follow from (86) too: if subjunctive CPs are not phases (or at least not strong ones), their domain extends to the main clause, so we expect a stronger syntactic connectivity between embedded subjunctive and matrix clauses. As a matter of fact, this lack of syntactic independence in subjunctive clauses might also explain why some cases of extraction improves with this mood, as can be seen in the examples in (91) and (92)⁶³:

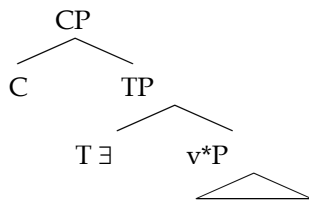
⁶³ Purpose clauses are obviative as well, but it is not so obvious that they can be analyzed in the same way, for they are adjuncts, so the command paths should not exist:

- (i) *Juan_i lo hizo para que pro_i tuviera miedo. (Spanish)
 Juan CL-it did-3SG for that have-SUBJ-3SG fear
 ‘Juan did it for him to be afraid’

- (91)
- a. ¿Qué libros_i le diste a Leticia [_{paraP} para que leyese t_i]? (Spanish)
 What books CL-to-her gave-2SG to Leticia for that read-SUBJ-3SG
 ‘What books did you give Leticia for she to read (them)?’
- b. *¿Qué libros_i le diste a Leticia [_{porqueP} porque leíste t_i]? (Spanish)
 What books CL-to-her gave-2SG to Leticia for that read-2SG
 ‘What books did you give Leticia because you read (them)?’
- (92)
- a. ¿Qué_i estás cansado de [_{CP} que Juan haga t_i]? (Spanish)
 What are-2SG tired of that Juan does-SUBJ-3SG
 ‘What are you tired of Juan doing?’
- b. ??¿Qué_i estás seguro de [_{CP} que Juan hizo t_i]? (Spanish)
 What are-2SG sure of that Juan did-3SG
 ‘What are you sure that Juan did?’

Another possibility (the one I want to suggest for indicative dependents) is that when T reaches C, it forces a Reprojection; if this is the case, we must then give a motivation for it and, furthermore, we must explain why it happens only with indicative dependents. Let us address both issues in turn. I would like to argue that Reprojection works here in the same way it does in the cases of binary quantifiers and negation as discussed by Hornstein & Uriagereka (2002): a binary predicate needs to have their dependents within its projection. What is the predicate in this case? Suppose T is the predicate. I think there is a general consensus in treating T as a binary predicate (cf. Demirdache & Uribe-Etxebarria (2000), following ideas by Stowell and Zagona), but I would like to go even further and claim that T is actually the existential quantifier ranging over events of the neo-Davidsonian system (cf. Herburger (2000))⁶⁴. So, consider something like (93):

(93)



But, what (and where) are ∃’s arguments? In Demirdache & Uribe-Etxebarria’s (2000) account, T selects for two time predicates: the *assertion time* and the *utterance time*, as indicated in (94).

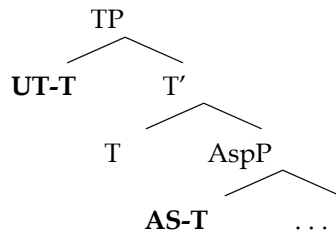
⁶⁴ Cf. Irurtzun (2005) for an alternative proposal. In his analysis, the existential quantifier corresponds to Rizzi’s (1997) Fin. If I am not mistaken, the main argument given by Irurtzun (2005) is that elements occupying the T position can also be focused:

- (i) A: I heard that John is married.
 B: No, he WAS married!

[from Irurtzun (2005:19)]

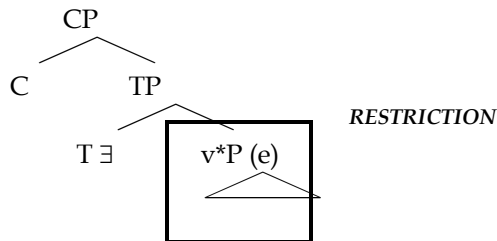
Irurtzun’s (2005) point is well-placed, but I think that the analysis that is generally assumed for auxiliary verbs like *was* might be modified. Following Mateu (2002), one might try to say that *was* heads its own unaccusative verbal phrase. This move, actually, should extend to other modals and auxiliaries, which might be treated as heading raising structures.

(94)



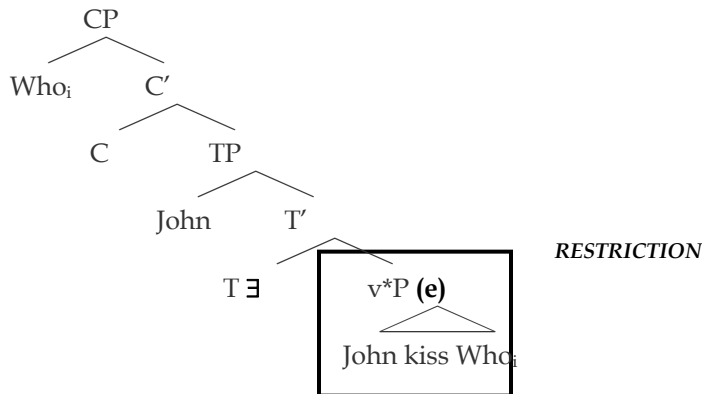
Although sympathetic to this approach, I will assume that T is a *bona fide* quantifier, selecting for a restriction and a scope⁶⁵. Therefore, I assume (95):

(95)



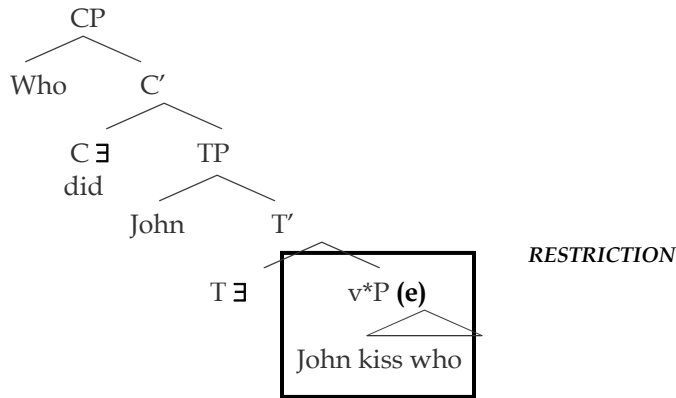
As the reader may see, in (95), ∃ does not have the scope argument. I want to put forward that the scope is obtained by means of T-to-C movement. When in C, T (that is, ∃) has scope over the full clause structure, being able to c-command any DP that has escaped the v*P:

(96) **Prior to T-to-C movement**

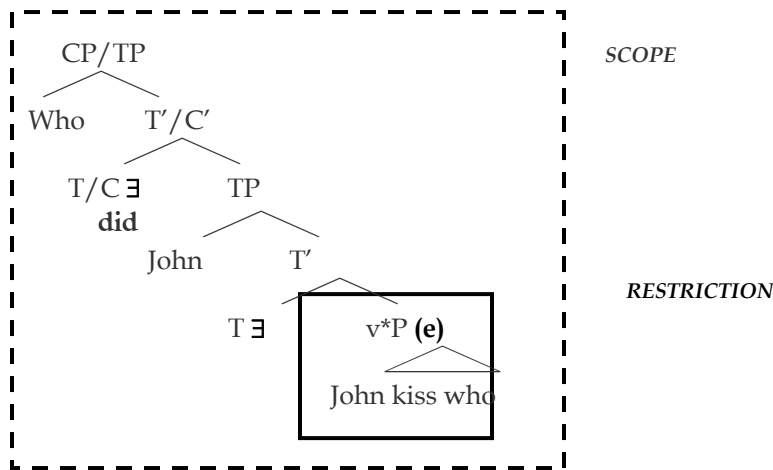


⁶⁵ Cf. Higginbotham (1985) and Kratzer (1996) for similar ideas, as Aritz Irurtzun (p.c.) makes me note.

(97) T-to-C movement



(98) Reprojection of T



Interestingly, in Chomsky (1986:37) it is noted that tensed TPs create barriers for movement. So, Chomsky (1986) points out that, for some speakers, (99a,b) are worse than (99c,d) (I do not use any symbol to indicate deviance, since Chomsky (2986) does not use them either):

(99)

- a. What_i did you wonder [_{CP} to whom_j [_{TP} John gave t_i t_j]]?
- b. To whom_j did you wonder [_{CP} what_i [_{TP} John gave t_i t_j]]?
- c. What_i did you wonder [_{CP} to whom_j [_{TP} John gave t_i t_j]]?
- d. To whom_j did you wonder [_{CP} what_i [_{TP} John gave t_i t_j]]?

[from Chomsky (1986:36)]

A similar fact is pointed out by Hornstein & Uriagereka (2002), concerning negation, which also receives a binary treatment under Laka's (1990) Σ:

- (100)
- a. ¿Qué_i no crees [_{CP} que sea fácil t_i]? (Spanish)
 What not think-2SG that is-SUBJ-3SG easy
 ‘What don’t you think be easy?’
- b. ?/?¿Qué_i no crees [_{C*P} que es fácil t_i]? (Spanish)
 What not think-2SG that is-SUBJ-3SG easy
 ‘What don’t you think that is easy?’
- [from Hornstein & Uriagereka (2002:115)]

- (101)
- a. ¿Por qué_i no crees [_{CP} que sean fáciles las matemáticas t_i]? (Spanish)
 For what not think-2SG that are-SUBJ-3PL easy the mathematics
 ‘Why don’t you think maths be easy?’
- b. ??/*¿Por qué_i no crees [_{C*P} que son fáciles las matemáticas t_i]? (Spanish)
 For what not think-2SG that are-3PL easy the mathematics
 ‘Why don’t you think maths are easy?’
- [from Hornstein & Uriagereka (2002:116)]

The question that we must try to answer is: if T has to reproject in order to get their arguments, why doesn’t reprojection apply in the case of subjunctive T? The answer lies in the (purely formal) need for embedded T to get a value from matrix’s T. That blocks (or, more accurately, ‘postpones’) Reprojection⁶⁶. This conclusion is compatible with Chomsky’s (1986) final conclusion:

“Rizzi’s work suggest a further a further parametric difference between English and Italian, though in the English case, at least, there seems to be considerable variation among speakers [...] Suppose that the parameter involved in Rizzi’s material relates to the choice of IP vs. CP: that is, in the variety of English under consideration the “extra barrier” is tensed IP, and in Italian it is tensed CP. Choice of tensed CP rather than tensed IP as the value of the parameter adds no barrier in [(99)] [...] It may be that the parametric variation involves not the distinction tense vs. infinitive but the distinction indicative vs. infinitive-subjunctive, or perhaps some factor involving nonrealized subject [...] It seems that the major properties of wh-movement as discussed by Rizzi and others can be accommodated in terms of factors involving the clausal system CP, IP, with certain low-level parameters, though various questions remain.” Chomsky (1986:37-39) <My emphasis, AJG>

For the purposes of this section, we can stop here. In the next section, I will explore some consequences of T being a phase head in NSLs. In particular, I will concentrate on interpretations arising at what Chomsky calls phase *edges*.

⁶⁶ For a minor qualification of this account, cf. next section.

5. Edge Effects

Let us start this section by considering the parameter of (55), repeated here as (102), my main claim in this paper:

(102) *Parameter*: T is endowed with *edge features*.

If (102) is true in, say, Spanish, and if Chomsky's (2000; 2001; 2004; 2005) system is right, then we arrive at the following scenario: C*, T and v* are phase heads in languages like Spanish, unless T acts as a phase only derivatively, as I have suggested (cf. section § 3.1.). Notice, importantly, that I have assumed here that the main trait of phase heads follow from the fact that only these heads have [ef] and that –crucially– the use of [ef] is optional.

The literature on Spanish has pervasively shown that the SPEC-T or SPEC-INFL position has both A and A' properties (cf. Camacho (2005), Masullo (1992; 1993), Uribe-Etxebarria (1992), *inter alia*), something that is straightforward from my proposal: the A'-properties come from v*, while the A-properties do so from T (that is, T alone only has A-properties, like in English). That v*/T has A-properties (i.e., those related to ϕ -features by Chomsky (2005)) can be shown by the fact that preverbal subjects control (cf. (103a)) and bind (cf. (103b)).

(103)

- a. Juan_i quiere PRO_i salir con Lucía. (Spanish)
Juan wants-3SG to-go-out with Lucía
'Juan wants to go out with Lucía'
- b. Juan_i se afeita a sí mismo_i. (Spanish)
Juan CL shaves-3SG to self same
'Juan shaves himself'

What kind of evidence do we have to test that v*/T has A'-properties? In Gallego (2004b) I explored some phenomena showing that preverbal subjects in Spanish are not, strictly speaking, *external topics* (at least not in the sense direct objects are, involving Clitic Left Dislocation; cf. Cinque (1991)). To begin with, some DPs cannot be external topics, but anyway they can be preverbal subjects (or *internal topics*):

(104)

- a. Ningún jugador del Real Madrid merece lo que gana. (Spanish)
No player-of-the Real Madrid deserves-3SG the that wins-3SG
'No Real Madrid player deserves what he earns'
- b. *Ningún jugador del Real Madrid_i t_i merece lo que gana. (Spanish)
No player-of-the Real Madrid, deserves-3SG the that wins-3SG
'No Real Madrid player, he deserves what he earns'

In this respect, Gallego (2004b) departed from Ordóñez & Treviño (1999), who identified preverbal subjects with Clitic Left Dislocated Objects. Thus, for these authors, the preverbal elements in (105) occupy the same Left Dislocated position (SPEC-Top, in their analysis)⁶⁷:

⁶⁷ This analysis shares some aspects with Rosselló's (2000) in that the preverbal DP is not an argument. Rosselló (2000), however, argues that the preverbal subject is directly generated in SPEC-T, with an argumental *pro* in SPEC-v*. Her analysis does not clarify how preverbal subjects receive Case and theta-role, nor how they are related to the v*P internal *pro*.

- (105)
- a. Juan le dio las llaves a Pedro. (Spanish)
 Juan CL-him gave-3SG the keys to Pedro
 'Juan gave the keys to Pedro'
 - b. Las llaves_i, se las_i dio Juan a Pedro. (Spanish)
 The keys, CL-him CL-them gave-3SG to Pedro
 'The keys Juan gave to Pedro'
 - c. A Pedro_i, le_i dio Juan las llaves. (Spanish)
 To Pedro, CL-him gave-3SG the keys
 'To Pedro Juan gave the keys'

[from Ordóñez & Treviño (1999:40)]

There are some similarities between them, but it seems to me that one cannot establish a full parallelism between objects and subjects in preverbal position. Many aspects change: comma intonation, specificity/definiteness restrictions like the one in (104)⁶⁸, clitics, etc. Building on Esther Torrego's insight about clitic doubling and Baker's (1995) study on polysynthetic languages, Ordóñez & Treviño (1999) also argue that both subjects and objects project a doubling structure. In the case of subjects, they crucially assume that the clitic is encoded in the agreement morphology of the verb. Furthermore, such an agreement morphology is the element that receives a Case value and a theta-role, being the true argument. Putting technical details aside, the account raises one general consideration about doubling: do we always have a doubling structure, even if there is no overt clitic? Ordóñez & Treviño (1999) suppose so, considering Spanish as a polysynthetic language. All other things being equal, I would agree with such conclusion, but I think things are not equal: clitics may or may not appear, and their presence tends to have syntactic and semantic consequences (cf. Uriagereka (2001)), so one must not generalize their presence. Moreover, it is not all that clear that subject and object clitics can be treated the same way: accusative and dative clitics can be regarded as ϕ -elements, but we do not seem to have true overt subject clitics (apart from *se*, arguably; cf. Raposo & Uriagereka (1996))

There is more evidence suggesting that preverbal subjects are not Clitic Left Dislocated. For one thing, they can be used to answer a question (cf. (106a)), which is impossible with subjects, when they are external topics (cf. (106b)):

⁶⁸ Ordóñez & Treviño (1999:52 fn. 16) notice this contrast, which was first noted by Rizzi (1986), but they attribute it to the fact that negative quantifiers are incompatible with accusative clitics (cf. (i)), not with dative ones (cf. (ii)):

- (i) *Dicen que nada lo temes. (Spanish)
 Say-3PL that nothing CL-it fear-2SG
 'They say that you fear nothing'
- (ii) Dicen que a nadie le tienes miedo. (Spanish)
 Say-3PL that to nobody CL-him have-2SG fear
 'They say you fear nobody'

The presence of the clitic in (i) is surely related to the fact that indirect objects are generally doubled, contrary to what happens with direct objects, whose doubling is quite limited, at least in Peninsular Spanish. Furthermore, unlike Ordóñez & Treviño (1999), I find the word order in (i) as marked, preferring (ii) instead:

- (iii) Dicen que no le tienes miedo a nadie. (Spanish)
 Say-3PL that not CL-him have-2SG fear to nobody
 'They say you fear nobody'

In any case, note crucially that they do not discuss cases like the ones in (100), which does not involve an object, but a subject, for which no incompatibility with regards to clitics can be invoked.

- (106)
- a. A: ¿Qué ha pasado? (Spanish)
 What has-3SG happened
 ‘What happened?’
- B: (Que) El Real Madrid ha ganado la Champions. (Spanish)
 That The Real Madrid has-3SG won the Champions
 ‘Real Madrid has won the Champions’
- b. A: ¿Qué ha pasado? (Spanish)
 What has-3SG happened
 ‘What happened?’
- B: #El Real Madrid, ha ganado la Champions⁶⁹.
 (Spanish)
 The Real Madrid, has-3SG won the Champions
 ‘Real Madrid, it has won the Champions’

Internal topics marginally allow extraction (cf. (107a); cf. section § 8), but Clitic Left Dislocated ones cannot, mainly because they are normally specific (cf. (107b)):

- (107)
- a. *(?)¿De qué escritor_i dices que [muchos libros t_i]_j han sido premiados t_j? (Spanish)
 Of what writer say-2SG that many books have-3PL been awarded
 ‘Of what writer do you say that many books have been awarded?’
- b. *¿De qué escritor_i dices que, [los libros t_i]_j, t_j los has leído t_j? (Spanish)
 Of what writer say-2SG that the books have-3SG been awarded
 ‘Of what writer do you say that the books have been awarded?’

As just said, (107b)’s severe deviance is due to an additional factor of Clitic Left Dislocated DPs: definiteness/specificity. If the Clitic Left dislocated Topic is not specific (as in Catalan, which can resort to the partitive clitic *en*), sub-extraction does not improve, however, as Carme Picallo notes.

- (108)
- a. *De quin escriptor_i dius que [llibres t_i]_j ja no en vols t_j? (Catalan)
 Of what writer say-2SG that books already not CL-of them want-2SG
 ‘Of what writer do you say that books you do not want any more?’
- b. *De quin escriptor_i diu la Maria que [novel.les t_i]_j ja no en llegeix t_j? (Catalan)
 Of what writer says-3SG the Maria that novels already not CL-of them reads-3SG
 ‘Of what writer does Mary say that novels she does not read any more?’

More things: if T is indeed a phase head, we expect for DPs to land in its outer SPECs in order to yield successive cyclicity or surface semantics, according to Chomsky’s (2001) principle about Interpretation happening at the phonological border of phases. This is expressed in (109), which is stated by Chomsky (2001) when considering “Object Shift” (OS).

⁶⁹ Things seem to improve if we answer by using a quotative construction:

- (i) A: ¿Qué ha pasado? (Spanish)
 What has-3SG happened
 ‘What happened?’
- B: Nada... El Real Madrid, que ha ganado la Champions. (Spanish)
 Nothing... The Real Madrid, that has-3SG won the Champions
 ‘Nothing... Real Madrid has won the Champions’

Even though (i) is better, note that the DP is still an external topic, as suggested by the comma intonation.

(109) *Optionality of Operations*

Optional operations can apply only if they have an effect on the outcome: in the present case, v^* may be assigned an EPP-feature to permit successive-cyclic \bar{A} -movement or Int (under OS).

[from Chomsky (2001:34)]

(110) The EPP position of a phase *Ph* is assigned Int.

[from Chomsky (2001:33)]

Chomsky (2001) applied both (109) and (110) to v^* in order to account for “Object Shift”. Gallego (2004b) did the same, but he applied it to T. For objects, the relevant interpretation has to do with specificity; what is the “Interpretation” for preverbal subjects? Given the facts in (109) and (110), Gallego (2004b) concluded that preverbal subjects receive a topic or categorical-like interpretation (cf. Belletti (2004), Raposo & Uriagereka (2002), Uriagereka (2002d), *inter alia*), involving a species of “Subject Shift”⁷⁰. This can be seen in (111) and (112): when the subject is preverbal it is interpreted as a topic; when it is preverbal, as a focus.

(111)

- a. ¿Quién se ha ido? (Spanish)
Who CL has-3SG left
'Who has left?'
- b. #Juan se ha ido. (Spanish)
Juan CL has-3SG left
'Juan (has left)'
- c. (Se ha ido) Juan (Spanish)
CL has-3SG Juan
'(It was) Juan'

(112)

- a. María canta. (= María is a singer) (Spanish)
María sings-3SG
'María sings'
- b. Canta María. (= María is singing / It is María who sings... and not Ana) (Spanish)
Sings-3SG María
'María sings'

⁷⁰ Chomsky (2001) actually suggests that movement to SPEC-T should also yield some interpretive effects, even in English, but that this has been obscured by the EPP (Cf. Rizzi (2004b) as well); see section § 8:

“Consider first the semantic properties Int of the object Obj that undergoes OS [...] These are best understood as properties of the resulting configuration, as in the case of semantic properties of the resulting configuration, as in the case of semantic properties associated with raising of subject to [Spec, T], which may well be related to those of OS constructions [...] We assume that Int is assigned to the peripheral configuration universally, adopting (57), probably a subcase of a more general principle governing peripheral non- θ (EPP) positions including [Spec, T] –a traditional idea, still somewhat obscure.” Chomsky (2001:32-33).

In this respect, Rosselló (2000:109) notes that subjects are interpreted differently in existential constructions, attributing the contrast to Levin & Rappaport (1995), who, in turn, attribute it to Kirsner (1973):

- (i) Three men remained in the room.
- (ii) There remained three men in the room.

According to Rosselló (2000): “[i(ii)] cannot be interpreted agentively, i.e., in the sense that three men decided to remain. In [(i)], instead, two interpretations are available: both the merely quantificational interpretation (“There were three men left in the room’) and the agentive one (“Three men stayed in the room’)”

Additional evidence in favor of the existence of A'-Probes on T has to do with preverbal quantified subjects, as shown by Uribe-Etxebarria (1992:462-465). In her paper, she notes that preverbal distributive subjects like *cada senador* (Eng. *each senator*) impose a rigid scope, barring inverse scope of the *wh*-object. So, (113 A) cannot receive a pair-list answer:

- (113)
- A: ¿A quién_z dices [CP que [TP cada senador_i amaba_j [_{v*P} t_i t_j t_z]]]? (Spanish)
 To who say-2SG that each senator loved-3SG
 'Who do you say that each senator loved?'
- ✓B: Cada senador amaba a María. (Spanish)
 Each senator loved-3SG to María
 'Each senator loved María'
- ×B': El senador Smith amaba a María, el senador Brown amaba a Inés, etc. (Spanish)
 The senator Smith loved-3SG to María, the senator Brown loved-3SG to Inés
 'Senator Smith loved María, senator Brown loved Inés, etc.'

Postverbal distributive subjects, on the contrary, allow both readings:

- (114)
- A: ¿A quién_z dices [CP que [TP amaba_i [_{v*P} cada senador t_i t_z]]]? (Spanish)
 To who say-2SG that loved-3SG each senator
 'Who do you say that each senator loved?'
- ✓B: Cada senador amaba a María. (Spanish)
 Each senator loved-3SG to María
 'Each senator loved María'
- ✓B': El senador Smith amaba a María, el senador Brown amaba a Inés, etc. (Spanish)
 The senator Smith loved-3SG to María, the senator Brown loved-3SG to Inés
 'Senator Smith loved María, senator Brown loved Inés, etc.'

Uribe-Etxebarria (1992) took those facts to indicate that *wh*-objects cannot have scope over preverbal quantified subjects. How do we derive such readings?⁷¹ The pair-list B' reading follows from the *wh*-object undergoing successive cyclic movement through SPEC-T, scoping over the subject in SPEC-v* (additional evidence for v*/T as a phase/escape hatch). The rigid-scope B reading could be obtained by raising postverbal subject to SPEC-T (the usual landing site for QR) at LF. In the case of preverbal subjects, *wh*-objects cannot have wide scope because subjects are already in a scope-taking position. Therefore, one might say that preverbal subjects obey a "freezing effect" in terms of scope (cf. Boeckx (2001), Bošković (2005), and Rizzi (2004b), *inter alia*).

Importantly, English preverbal quantified subjects do not show the restrictions of Spanish, which follows from (55/102):

- (115)
- A: Who do you think everyone saw at the rally?
 ✓B: It is John that everyone saw at the rally.
 ✓B': Susan saw Peter, Mary saw Eddie, Julia saw John, etc.

As noted by Uribe-Etxebarria (1992), another trait of preverbal subjects is that they also give rise to presuppositional readings. As Uribe-Etxebarria (1992) notes, (116b) is neutral with respect to the truth value of the complement CP, but not (116a):

⁷¹ Uribe-Etxebarria (1992) offers a different account, suggesting that postverbal subjects can raise to the main clause at LF.

(116)

- a. Los periódicos no han publicado que la gente ha comprado máscaras de gas. (Spanish)
The newspapers not have-3Pl published that the people has-3SG bought masks of gas
Newspapers have not published that people have bought gas masks'
- b. Los periódicos no han publicado que ha comprado la gente máscaras de gas. (Spanish)
The newspapers not have-3Pl published that has-3SG bought the people masks of gas
Newspapers have not published that people have bought gas masks'
[from Uribe-Etxebarria (1992:473)]

In sum, there seems to be good evidence that T (or, slightly more precisely, the complex head v^*/T) qualifies as a strong phase head NSLs. In Uribe-Etxebarria's (1992) words:

"There seems to be a quite general agreement with respect to the fact that subjects can only be Case marked nominative in SPEC/IP in English; following the line of reasoning sketched above, the SPEC/IP will behave as an A-position in English. On the other hand, when the properties of this position in Spanish are considered, the same does not seem to hold since, as we have seen in section 1, this language presents instances in which the subject does not move to SPEC/IP to get Case and remains in its base-generated position within VP. Since those sentences are grammatical, an immediate conclusion is that the subject NP can receive Case and comply with the Visibility Condition in its base-generated position, which suggests that SPEC/IP will behave as an A'-position in Spanish [...] If, as suggested, SPEC/IP behaves as an A'-position in Spanish, movement to this position will count as relevant for those elements that need to move for scope reasons; that is, SPEC/IP in Spanish will be a position from which scope can be taken, while it will not in English. Suppose that once an element takes scope at S-structure this scope cannot be changed at LF." Uribe-Etxebarria (1992:466-467)

These facts are compatible with the idea that the role played by the phase head v^* is 'pushed up' to T when v^* -to-T movement takes place. Note that there are two strong predictions, once v^* -to-T movement has taken place: first of all, the beheaded v^*P should not be a phase domain any longer, and, secondly, the Case/T-feature of subject DPs in NSLs must die sooner than the one of English's. If what I have argued is correct, the second prediction is borne out: subject DPs in NSLs cannot use their T feature to value other instances of the same feature because they have reached the phase level, and such feature must be "expunged" when *Transfer* applies. This analysis explains why *that*-trace effects do not arise in NSLs⁷²: a DP can move from SPEC-T to SPEC-C without triggering *that*-trace effects because its T-feature has already been rendered inactive (or deleted), having no unfinished business with C's [uT]. As for the first prediction, evidence from subextraction, intervention effects, and reconstruction (cf. sections §§ 6 and 8) suggest that v^*P does not behave as a phase in NSLs.

All of this, moreover, is coherent with Cecchetto (2000), who argues that Clitic Left Dislocated objects A-move to a position between preverbal and postverbal subjects. In particular, Cecchetto (2000) points out the following data, in which the DP contained within the dislocated subject can be bound by a postverbal subject, but not by a preverbal one⁷³.

⁷² This analysis differs from Rizzi's (1982), where *that*-trace effects were avoided by extraction from a postverbal adjoined position.

⁷³ Cecchetto (2000) uses *pro* in the case of preverbal strong pronominal subjects, and not *lui* (Eng. *he*). As he shows, it is not impossible for *lui* to bind from a preverbal position, arguably because strong pronouns involve a more complex structure than their English counterparts. Essentially the same fact is noted by Chomsky (1995), who, following a suggestion by Esther Torrego, notes that Romance strong pronouns do not incorporate because they have a more complex structure than determiner clitics. Cf. Rigau (1987; 1988) on this issue too.

- (117)
- a. *L'opera prima di uno scrittore, pro la scrive sempre (volentieri). (Italian)
 The first work of one writer, (he) CL-it writes-3SG always with-pleasure
 'The first work of a writer, he always writes it with pleasure'
- b. L'opera prima di uno scrittore, la scrive sempre lui. (Italian)
 The first work of one writer, CL-it writes-3SG always he
 'The first work of a writer, he always writes it with pleasure'
- [from Cecchetto (2000:96-97)]

One last matter must be assessed: how are the interpretive effects of preverbal and postverbal subjects captured? In the literature I am familiar with there seems to be a general agreement in regarding preverbal subjects as 'topics' and postverbal ones as 'foci'. As I said, this might need qualification, since preverbal subjects and Clitic Left Dislocated subjects do not precisely behave on a par⁷⁴. In principle, two technical possibilities come to my mind: the first one would be to try to combine Raposo & Uriagereka's (2002) proposal with a quantificational treatment of the existential quantifier of sentences (cf. Herburger (2000)), and that is precisely what Gallego (2004b) suggested: the topic-like status of preverbal subjects was quite straightforward, since in those cases, the context variable of the subject DP grounds (i.e., c-commands) that of the predicate. A completely different story goes in the case of postverbal subjects; in those cases, Gallego (2004b) tentatively suggested, in the spirit if not the letter of Torrego (1989), that a null indexical with the rough import of NOW or HERE is merged in SPEC-T, from where its context variable would be able to ground the one of the subject, forcing a thetic reading. If tenable at all, Gallego's (2004b) proposal is risky in that it raises the pervasive EPP problem for languages that do not have to occupy the SPEC-T position obligatorily. Such an analysis, although theoretically appealing, seems dubious to me now, as there is weak (or null) evidence supporting it: even if it is claimed that a null indexical is in SPEC-T position, we would still have to say why a language like English does not have that possibility^{75 76}. In a nutshell, the EPP has to do with the obligation of filling SPEC-T overtly, period, and that is not the case of NSLs.

The other possibility that comes to my mind is to consider Chomsky's (2001) proposal about *edge* positions. Recall that in his proposal, what he calls "edge semantics" might arise either in EPP or in non-EPP positions, depending on whether we have trivial or non-trivial chains: if the latter case obtains, the head of the chain (the one created by an [ef]) is assigned an Interpretation; if no movement has taken place, the trivial chain receives both its theta-role and surface semantic role. In particular, Chomsky (2001) puts forward (117a) and (117b) as invariant principles of UG, and (117c) as the parameter that distinguish OS from non-OS languages:

⁷⁴ The same should carry over to foci, but we further have the distinction between contrastive and non-contrastive focus (cf. Belletti (2004) and Irurtzun (2003)), which I will not address here.

⁷⁵ Things are different in the case of argumental *pro*, because we can recover that information from morphology, but nothing of that sort applies to adverbials, even if we assume that they have a [person] feature, like English *there*

⁷⁶ See Ortega-Santos (2005) for a similar conclusion. His account, though, is not fully compatible with mine, for he defends the idea that postverbal subjects are derived from non-trivial chains in which only a lower copy is pronounced. In his account, we always have a copy of the subject in SPEC-T -Spanish qualifying as an EPP language- but that copy gets deleted due to an informational-prosodic constraint that requires new information elements to be placed in a sentence final position). Ortega-Santos (2005) further argues that just like elimination of formal features favors deleting of all but the highest copy of a chain (cf. Nunes (2001; 2004)), focus assignment can play a similar role. In his proposal, the highest copy is always needed to satisfy the EPP, but, as just said, there is weak (or null) empirical evidence for claim, and if the EPP cannot be invoked, Ortega-Santos's (2005) analysis becomes fragile: why does the subject move if it is the lowest copy that is going to be pronounced? We could have the same result in a more economical way: without movement.

(118)

- a. v^* is assigned an EPP-feature only if that has an effect on the outcome.
- b. The EPP position of v^* is assigned Int.
- c. At the phonological border of v^*P , XP is assigned Int'.

[from Chomsky (2001:35)]

Note that (118c) and the slight modification of (118b) proposed by Gallego (2004b) – repeated here as (119)– would be enough in order to explain why postverbal and preverbal subjects get an interpretation:

(119) The EPP position of T is assigned Int.

[from Gallego (2004b)]

In present terms, (119) should be reformulated as in (120):

(120) The configuration created by an [ef]-Probe receives Int.

In the case of preverbal subjects, their topic-reading follows from the fact that they occupy an [ef]-driven position (namely, SPEC-T). Postverbal subjects run the same fate, but in their case (118c) is the relevant factor: since they occupy the phonological border of v^*P , they receive “an Interpretation”.

The sketched analysis is tempting and seems to be consistent with Belletti’s (2004) extensions of the Left Peripheric approach to v^*P internal positions. The only objection one might pose to this view is that the label “Interpretation” is too generous: it does not specify whether Int corresponds to focus, topic or any other informational/semantic notion. A more interesting possibility (though one that has to face some problems too) is the one explored in the previous section, involving an extension of Herburger’s (2000) theory, coupled with the claim that T is the existential quantifier over events. Consider the syntactic output of preverbal and postverbal subjects under what I have argued (irrelevant details omitted):

(121)

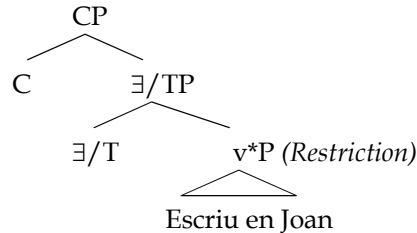
- a. Escriu en Joan. (Catalan)
Writes-3SG the Joan
'Joan writes'
- b. En Joan escriu. (Catalan)
The Joan writes-3SG
'Joan writes'

Here I will basically follow Irurtzun (2005), who, building on Hornstein & Uriagereka’s (2002) *Reprojection*, puts forward an interesting syntactic approach to focus structure⁷⁷. In Irurtzun’s (2005) approach, Rizzi’s (1997) Fin° contains the existential binary quantifier over events (i.e., \exists). In his analysis, thus, as a first derivational step, Fin°/\exists takes its first argument (the TP, its *Restriction*), and later on moves to a position from which it can get its second argument (in Irurtzun’s (2005) proposal, TopP, the *Nuclear Scope*). I will endorse the basics of this approach, but, as I said, I take \exists to be encoded in T, not Fin° ; this assumption, together with my following of Pesetsky & Torrego’s (2001) system, naturally motivates the movement of the existential quantifier to get its second argument: under my approach (but not under Irurtzun’s (2005)) this

⁷⁷ Irurtzun (2005) departs from Herburger (2000) in that, for him, the *Focal Mapping* does not give \exists its restriction, but rather its nuclear scope.

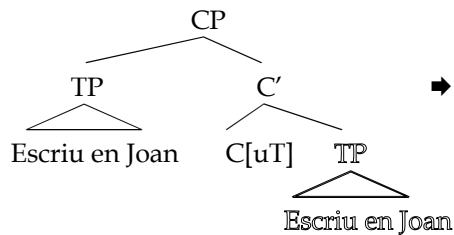
movement is triggered by formal needs, not semantic ones (granted, since it is just another instance of T-to-C movement). Note, however, that this case of T-to-C movement does not involve a head, but rather must remove the whole TP (containing the v*P) at LF, merging it as a SPEC-C⁷⁸.

(122) *T* (\exists) Merges with *v**P (Restriction)

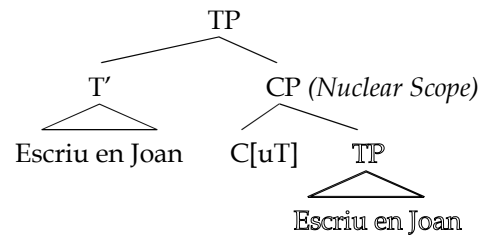


(123)

a. *Covert TP Movement to C*



b. *Covert Reprojection of CP*



Once in SPEC-C, TP forces a Reprojection, as depicted in (123), with the consequence of T obtaining its second argument (the nuclear scope). Although Irurtzun (2005) does not explain the details of final process, there must be an additional operation that voids the interpretation of the moved TP (FinP, in his analysis), since we do not want to have the material it contains in the nuclear scope, but just in the restriction. A possible way to go about that is to assume that TP movement has A properties, so that, for whatever reason, reconstruction is impossible (cf. Boeckx (2001))⁷⁹; but even if that possibility is feasible, as things stand in (123), we do not get the desired result: we want the focused subject *en Joan* to be the only element in the nuclear scope, but if this whole constituent does not reconstruct, we are in trouble. A possible solution would imply movement of the subject to SPEC-Foc, as Irurtzun (2005) does, but there seems to be phonological evidence that the subject must be deeply embedded in the structure, undergoing no movement whatsoever. Another possibility would be to stipulate (surely not 'explain') that reconstruction is optional, and that it must occur to have an 'effect on the outcome'. I leave this matter unsettled.

⁷⁸ Note, incidentally, that the same logic (i.e., LF phrasal movement of TP to C) could apply in the case of indicative dependents. Since either process achieves the desired results, I will not investigate here which one is to be preferred.

⁷⁹ The connections between this T-to-C movement analysis, its a-properties, and Hornstein's (1999) account of QR are obvious.

6. Intervention Effects and v*-to-T Movement

Now I would like to concentrate on the activity “condition” of Chomsky (2000; 2001; 2004; 2005), which has an important bearing on the so-called intervention effects, and –as I noted before (cf. sections §§ 2 and 4)- in restricting some interpretive operations (e.g., reconstruction, edge-semantics, etc.; cf. Boeckx (2001)).

Let us start by spelling-out the specifics of the operation Agree. In Chomsky’s (2000; 2001; 2004; 2005) system, this operation has a very concrete mechanics, schematized in (124):

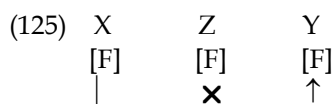
(124)

- a. Probe a Goal must be both “active” for Agree to apply.
- b. Probe and Goal must “Match” (i.e., their features must be identical, regardless of the value).
- c. Goal must be in the c-command domain of Probe.
- d. Probe must be ϕ -complete to value (and delete) the uninterpretable features of Goal, which then becomes inactive; otherwise, with a ϕ -defective Probe, Goal remains active, and can be matched again by a higher Probe.

Consider first the notion of being ‘active’. In the current system, a Goal is active when it contains uninterpretable morphology that has not been assigned a value. Consider next the notion of ‘intervention’, relevant to Agree processes. Intervention effects have been widely studied, being related to the *Relativized Minimality* system of Rizzi (1990; 2004a). Intuitively, the idea is quite easy: whenever a syntactic object Z with a feature F appears in the command path between Y and X (both with the same feature F), Z blocks the relation Agree (Y, X):

“Let us say that the uninterpretable features of P and K render their relevant subparts *active*, so that matching leads to agreement. Locality conditions yield an intervention effect if probe P matches either inactive K that is closer to P than matching M, barring Agree (P, M).” Chomsky (2001:4)

Graphically:



[from Rizzi (2004a:10)]

While in Rizzi (1990; 2004a) intervention appears with different types of elements and features (e.g., *wh-*, topic, focus, etc.), Chomsky (2005) has restricted it to the case of ϕ -features⁸⁰. A typical case of intervention discussed by Chomsky (2000; 2001; 2005) is the one created by DPs which have already been assigned a Case value but block Agree between a Probe and a Goal. Importantly, note that even though the Case of those DPs has been assigned –and so it cannot move any further (being “frozen in place”, cf. Chomsky (2000:123))- their ϕ -features always remain active, and that is what matters for intervention, since the Probe seeks the closest Goal

⁸⁰ A potential problem for Chomsky’s (2001) Agree has to do with participial constructions, as noted by Frampton & Gutmann (2000). The pitfall is avoided by Hiraiwa’s (2001) *Multiple Agree*, which allows a unique Probe to Agree with different matching Goals. Although this works for participial constructions, it has problems whenever the offending intervening Goal has been already valued and left inactive by a different Probe. This is the case of “Object Shift”, for instance.

If Equidistance held in English, (130) should not be bad. Generalizing this reasoning, Chomsky (2001) concludes that Equidistance can be dispensed with, and that Probes can only match elements at the *phonological edge* of a category:

(131) *Equidistance Principle* (version 2)

The phonological edge of HP is accessible to probe P.

[Chomsky (2001:28)]

The immediate question is why do OS languages like Icelandic (but not English/Romance) allow such an output like (130), once the Equidistance Principle has been dismissed in favour of a phase-evaluation of Chomsky's (1995) *Minimal Link Condition*? Chomsky (2001) considers two alternatives:

(132)

- (a) In OS languages, T is 'richer' and can engage a deeper search (ignoring interventors in its way down).
- (b) OS languages have a phonological rule that raises shifted objects to a higher position from which they become syntactically 'out of sight'.

Chomsky (2001) defends (132b), given that (132a) would imply undesired crosslinguistic variation. As for the phonological rule in (132b), it refers to the operation mentioned in Chomsky (2001) when exploring intransitive constructions like the following ones in (133), in which the order [VO] seems to be barred in English (in those cases, the object has to move to the vP edge obligatorily). Chomsky (2001) calls that operation *Thematization/Extraction* (Th/Ex), claiming that it must be triggered by the phonological component, since it does not yield interpretive effects (i.e., specificity, old/new information, etc.):

(133)

- a. *There came several angry men into the room.
- b. *There arrived a strange package in the mail.
- c. *There was placed a large book on the table.

[from Chomsky (2001:20)]

"It seems, then, that English bars surface structures of the form [V-O], where the construction is unaccusative/passive. In such cases, DO is extracted to the edge of the construction by an obligatory thematization/extraction rule Th/Ex. The operation is reminiscent of normal displacement of subject and of object, both to edges positions, but it differs in not yielding the usual surface-semantic effects (specificity, etc.)." Chomsky (2001:20)

Exploring the consequences of such an operation, Chomsky (2001) argues that, once applied, Th/Ex renders the displaced object opaque for computation: neither Agree nor internal-Merge can target it or any of its subparts (cf. Chomsky (2001:21-26) for much relevant discussion).

Let us now return to OS, keeping in mind that the configuration it yields should cause a derivational crash (unless the object undergoes *wh*-movement at the CP phase). As I said, for the operation to go through in Icelandic, this language must resort to an A'-Movement or Disl(ocation) rule similar to English Th/Ex removing the object from syntax (otherwise the shifted object would always prevent Agree (T, Subj)). Chomsky (2001:30) further notes, building on Holmberg's findings, that shifted pronouns do not remain at the edge of v*P in Mainland Scandinavian, being presumably affected by Disl.

Consider now the case of a Romance language like Spanish, whose declarative transitive sentences can have the VOS order:

- (134)
- a. Compró el coche María. (Spanish)
 Bought-3SG the car María
 ‘María bought the car’
- b. Rompió el vaso Pablo. (Spanish)
 Broke-3SG the glass Pablo
 ‘Pablo broke the glass’

As a matter of pure logic, there are two plausible possibilities to generate the VOS order: VP-topicalization (cf. (135a)) or scrambling of the object to an outer SPEC- v^* (cf. (135b)):

- (135)
- a. $[_{CP} C [_{TP} T [_{v^*P} [_{VP} Compró\ el\ coche]_i [_{v^*P} María\ t_i]]]]$ VP-TOPICALIZATION (Spanish)
- b. $[_{CP} C [_{TP} Compró_i [_{v^*P} el\ coche_j [_{v^*P} María [_{VP} t_i t_j]]]]]$ OBJECT SCRAMBLING (Spanish)

Here, I will follow Ordóñez (1998a) in assuming that the word order in (134) is derived by moving the object to a position c-commanding the subject, and not by right adjoining the subject, as in Rizzi (1982)⁸³, nor by topicalizing the VP. As we will see shortly, empirical evidence suggests that this is indeed the case. Let us suppose that the relevant SPEC position of Ordóñez’s (1998a) analysis is, in current terms, an outer SPEC- v^* (presumably created by the ϕ -features of v^* , given the A-nature of the process). Suppose, moreover, that the object has been assigned Case in its way up by Agree.

- (136)
- a. $[_{CP} C [_{TP} Compró_i [_{v^*P} el\ coche_j [_{v^*P} María [_{VP} t_i t_j]]]]]$ (Spanish)
- b. $[_{CP} C [_{TP} Rompió_i [_{v^*P} el\ vaso_j [_{v^*P} Pablo [_{VP} t_i t_j]]]]]$ (Spanish)

Let us consider some empirical evidence suggesting that Ordóñez’s (1998a) analysis is the correct one. First of all, it must be noted that VP-topicalization (e.g., *Kiss Mary, John did*) is an operation that, just like VP ellipsis (cf. Depiante (2001a; 2001b)), is not attested in Spanish, so postulating it in the case at hand seems stipulative. Second, and more importantly, if VP-topicalization did apply, then we predict that there is no c-command relation between neither the verb or the object and the subject. NPI’s licensing and binding facts (cf. Ordóñez (1998a) for further evidence) indicate otherwise. So, in (137), the NPI subject *nadie* (Eng. *nobody*) is licensed by negation, which forms a cluster with the verb:

- (137) No leyó el periódico nadie. (Spanish)
 Not read-3SG the newspaper nobody
 ‘Nobody read the newspaper’

Consider next binding. In (138a), the QP *cada coche* (Eng. *each car*) bounds the pronominal determiner *su* (Eng. *its*) within the DP *su propietario* (Eng. *its owner*) a possibility excluded in the SVO and VSO orders. The same process of variable binding takes place in (138b). In (138c), the name *Pablo* triggers a Principle C effect if the object precedes the subject, but not in the VOS order⁸⁴.

⁸³ Under Rizzi’s (1982) analysis the rightmost subject should be considered a case of extraposition (or afterthought; cf. Chomsky (2004)). The fact that it bears the main accent provides independent evidence that it has remained in situ, being the most deeply embedded element (cf. Cinque (1993)).

⁸⁴ Another test that could be used is adjunct placement. If the VP has undergone topicalization it could have pied-piped all the adjuncts it contained, as in (i):

(i) $[_{v^*P} [_{VP} Leyó\ su\ discurso\ rápidamente]_i [_{v^*P} Ana\ t_i]]$ (Spanish)

- (138)
- a. Recogió cada coche_i su_i propietario. (cf. *Su_i propietario recogió cada coche_i) (Spanish)
Picked-up-3SG each car its owner Its owner picked-up-3SG each car
'Its owner picked each care up'
 - b. No regañó a ningún niño_i su_i madre. (cf. *Su_i madre no regañó a ningún niño_i) (Spanish)
Not scolded to no child his mother
'His mother did not scold any child'
 - c. *Lo_i vieron (a él_i) los amigos de Pablo_i.(cf. Los amigos de Pablo_i lo_i vieron (a él_i)) (Spanish)
CL-him saw-3PL (to him) the friends of Pablo
'Pablo's friends saw him'

It must be pointed out, nevertheless, that in these cases the shifted object need not be specific, but it tends to belong to the old information part of the sentence (its 'aboutness'; Herburger (2000) and Irurtzun (2003; 2005)). So, a sentence like (134a) is perfect as an answer to (139), with *María* as the focus:

- (139) ¿Quién compró el coche? (Spanish)
Who bought-3SG the car
'Who bought the car?'

With these observations as background, let us go back to (134), assuming, for the sake of discussion, that v*P and not v*/TP is a phase (precisely as in Chomsky's (2000; 2001; 2004; 2005) system). Assuming that v*'s ϕ -features have both assigned accusative case and scrambled the object to an outer SPEC-v* at the same time, the problem shows up when the CP phase starts, since when the ϕ -Probe of T (inherited from C) scans its c-command domain looking for its natural Goal –the subject DP-, it finds another DP first: the object DP. Unless something has gone unnoticed, the logic of all we have seen predicts an intervention effect, contrary to fact. The problem would not arise under the VP-topicalization analysis, but it does under Ordóñez's (1998a), which I have assumed⁸⁵:

Read-3SG her speech rapidly Ana
'Ana read her speech rapidly'

Be this as it may, note that a sequence in which the adjunct has remained behind is not out (although perhaps is not so natural, presumably because there are two foci: the postverbal subject and the adjunct itself):

- (ii) [_{VP} [_{VP} Leyó su discurso]_i [_{VP} Ana t_i rápidamente]] (Spanish)
Read-3SG her speech Ana rapidly
'Ana read her speech rapidly'

Moreover, both examples in (i) and (ii) could be accommodated to an analysis along the lines of Ordóñez (1998a) under Chomsky's (2004) analysis of adjuncts.

⁸⁵ I assume that the VOS order cannot be generated as in (i) either, with the V raising to C, and the object in SPEC-T:

- (i) [_{CP} Compró_i; C [_{TP} el coche_j; T [_{VP} María [_{VP} t_i t_j]]]] (Spanish)
Bought-3SG the car María
'María bought the car'

If (i) is the correct structure, intervention would not emerge, just like in the case of VP-topicalization. Independent phenomena like adverb placement suggest that (i) is indeed wrong. Assuming that the adverb *siempre* (Eng. *always*) appears normally adjoined to TP, (i) predicts, that the V in C must precede *siempre*, contrary to fact:

- (ii) Siempre hace la comida Ana. (Spanish)
Always makes-3SG the food Ana
'Ana always cooks'
- (iii) ??Hace siempre la comida Ana. (Spanish)
Makes-3SG always the food Ana
'Ana always cooks'

Moreover, (i) predicts that the verb should block the presence of *que*, the Spanish counterpart to English *that*, in embedded clauses. (unless one assumes an alternative possibility under Rizzi's (1997) CP-split hypothesis). As (iv) shows, this is not borne out:

- (iv) Juan dice que compró el coche María. (Spanish)
Juan says-3SG that bought-3SG the car María

- (140)
- a. [CP C[ef] [TP compró_i T[uφ] [_{v*P} el coche_j[iφ] [_{v*P} María[iφ] [VP t_i t_j]]]] (Spanish)
- b. [CP C[ef] [TP rompió_i T[uφ] [_{v*P} el vaso_j[iφ] [_{v*P} Pablo[iφ] [VP t_i t_j]]]] (Spanish)

The examples in (140) should be as degraded as those of (141), studied by Torrego (2002), where the experiencer clitic blocks raising of the embedded subject:

- (141)
- a. Me parece que Celia tiene problemas. (Spanish)
 CL-me seems-3SG that Celia has-3SG problems
 ‘It seems to me that Celia has problems’
- b. Celia (*me) parece tener problemas. (Spanish)
 Celia CL-me seems-3SG to-have problems
 ‘Celia seems to me to have problems’
- c. La Celia (*em) sembla tenir problemes. (Catalan)
 The Celia CL-me seems-3SG to-have problems
 ‘Celia seems to me to have problems’

There is one way out, though: if what Chomsky (2001) argues is on track, the shifted object could have undergone the additional Th/Ex operation, just like in Icelandic. This, however, is unlikely, for different reasons. First, the movement of the object seems to obey A-properties, being a scrambling-like operation. Second, subextraction from the shifted object is possible (cf. (142)), and it should not, under the assumption that Th/Ex renders elements invisible to syntactic operations:

- (142) ¿De qué autor_i ha leído [muchas novelas t_i] Rebeca? (Spanish)
 Of what author has-3SG read many novels Rebeca
 ‘Of what author has Rebeca read many novels?’

On comparative grounds, we must note that phonological movements do render an element opaque, as Chomsky’s (2001; 2004) analysis predicts. This should hold in cases of extraposition, under the assumption that this operation falls within the PHON component (cf. Chomsky (2004)). (143), therefore, is correctly predicted to be out:

- (143) *¿De qué universidad_i ha visto Juan [el coche t_j] ayer [de los estudiantes t_i]? (Spanish)
 Of what university has-3SG seen Juan the car yesterday of the students
 ‘Of what university has Juan seen the car yesterday of the students?’

(143) shows that operations of the Th/Ex sort block subextraction (if that is indeed the correct analysis of extraposition, involving a sort of afterthought; cf. Chomsky (2004)): when the PF branch has moved the PP *de los estudiantes de qué universidad* (Eng. *of the students of what university*) nothing within that phrase can be extracted again. As for (142), and despite initial appearances, it does not lead us to assume that subextraction of *de qué autor* takes place from the outer SPEC-*v** *a fortiori*, since, after all, *v**’s [ef]-Probe could do that job from the base position of

‘Juan says that María bought the car’

(146) [_{CP} C [_{v*/TP} v_i*/T [_{v*P} Subj t_i [_{VP} V Obj]]]]]

In (145) we have an intervention configuration right from the beginning, that seems to be the key. In (146), on the other hand, we start with no blocking factor, so we could suppose that both nominative and accusative are assigned within the v*/TP phase, and, in passing, the object moves to outer SPEC-v*. Crucially, the verb must move for this phase extension to be operative, as (145)-(146)-(147) shows:

- (147)
- a. * [_{CP} C [_{TP} T [_{v*P} el coche_j [_{v*P} María compró t_j]]]] (Spanish)
 - b. [_{CP} C [_{TP} T [_{v*P} María v* [_{VP} compró el coche]]]] (Spanish)

Supposing that T and v* operate simultaneously, T and v* assign nominative and accusative Case at the same time, with v* moving to T and forcing movement of the object to outer SPEC-v* along the way. One immediate prediction of this analysis is that these operations are only allowed if the verb moves. So, we should try to find a structure in which the verb remains v*P internally in Spanish. One such possibility are auxiliary structures. Consider, to be precise, copulative structures with *estar* (Eng. *to be*)^{87,88}. As the contrast in (148) shows, the prediction is borne out, assuming that the main verb (i.e., *leyendo*) remains in v*⁸⁹:

- (148)
- a. (Ayer) Estaba Juan leyendo un libro. (Spanish)
(Yesterday) Was-3SG Juan reading a book
'Yesterday, Juan was reading a book'
 - b. *(Ayer) Estaba un libro Juan leyendo. (Spanish)
(Yesterday) Was-3SG a book Juan reading
'Yesterday, Juan was reading a book'

Another possible candidate to test this prediction is Spanish causative structures (cf. Torrego (1998a) and Treviño (1994), *inter alia*). Suppose we analyze them as in (149), with the causative verb *-hacer*, in Spanish- selecting a v*P⁹⁰:

⁸⁷ Due to reasons that I do not understand, *estar* (Eng. *to be*) is the best auxiliary verb in getting the order AUX S V O in Spanish (or, at least, it is the better one to my ear; I think that *Debería Juan leer los libros* -Should Juan read the books- is also good, but I have not tested the different possibilities systematically). I am sure, nevertheless, that *ser* (Eng. *to be*), *haber* (Eng. *to have*) and modals like *poder* (Eng. *can/may*) or *deber* (Eng. *must*) do not successfully allow such pattern, which is a necessary condition to test the movement of the object.

⁸⁸ I am assuming the mainstream analysis of auxiliaries, placing *estar* in T. It could be argued that *estar*, like other modals, involve a raising structure, and, accordingly, that the subject placed between *estar* and the lexical verb is placed in SPEC-T. This is not possible, given that no nonfinite form accepts preverbal subjects in Spanish. Notice, therefore, the minimal pair in (ii) and (iii):

- (i) Ayer estaba Juan diciendo lo que vio. (Spanish)
Yesterday was-3SG Juan saying it that saw-3SG
'Yesterday, Juan was saying what he saw'
- (ii) *Juan diciendo lo que vio, María sería puesta en libertad. (Spanish)
Juan saying it that saw-3SG, María would-be-3SG in freedom
'If Juan said what he saw, María would be released'
- (iii) Diciendo Juan lo que vio, María sería puesta en libertad. (Spanish)
Saying Juan it that saw-3SG, María would-be-3SG in freedom
'If Juan said what he saw, María would be released'

⁸⁹ It would be interesting to see whether a structure in which the verb remains in v* allows VP-ellipsis in Spanish, an operation that is barred. Depiante (2001a) observes that verbs that trigger restructuring (which are good candidates to test this) do not allow VP-ellipsis, but a different type of anaphora: null complement anaphora.

⁹⁰ If causative structures like (149) are to receive the analysis of (i), all that needs to be said is that in order for v*-to-T movement to extend a phase, the T has to be ϕ -complete, in Chomsky's (2001) sense:

- (i) [_{CP} ... [_{TP} ... [_{v*P} make [_{TP} ... [_{v*P} ...]]]]]]

(149) [_{CP} C [_{TP} T [_{v*P} Subj *hacer* v* [_{v*P} Subj v* [_{VP} V Obj]]]]]

Consider now (150), where I use binding data to control that the object has really undergone scrambling.

(150)

- a. [_{CP} C [_{TP} T [_{v*P} Juan hizo [_{v*P} a su dueño [_{VP} recoger cada coche]]]]]] (Spanish)
 Juan made to its owner to-pick-up each car
 'Juan made its owner pick up each car'
- b. *[[_{CP} C [_{TP} T [_{v*P} Juan hizo [_{v*P} cada coche_j [_{v*P} a su dueño [_{VP} recoger t_j]]]]]]]] (Spanish)
 Juan made each car to its owner to-pick-up
 'Juan made its owner pick up each car'
- c. [_{CP} C [_{TP} T [_{v*P} Juan hizo recoger_i [_{v*P} cada coche_j [_{v*P} a su dueño [_{VP} t_i t_j]]]]]]]] (Spanish)
 Juan made pick-up each car to its owner
 'Juan made its owner pick up each car'

(150a) is fine without a bound variable reading, but (150b) is not, with the object in an outer SPEC-v*, since matrix v* cannot assign accusative Case to the subject DP *a su dueño* (Eng., *its owner*). Note also that (150c) is good due to the movement of the verb to a higher position⁹¹.

As we will see in the next section, movement of v* also eliminates Huang's (1982) Subject Condition in the case of postverbal subjects. Note that, if the main verb does not raise, subextraction from within the subject is deviant⁹²:

(151)

- a. ??¿De qué universidad_i estaban [los estudiantes t_i] leyendo un libro? (Spanish)
 Of what university were-3PL the students reading a book
 'What university were the students of reading a book?'
- b. ¿De qué universidad_i estaban leyendo (un libro) [los estudiantes t_i] (?un libro)?(Spanish)
 Of what university were-3PL reading (a book) the students (a book)
 'What university were the students of reading a book?'

The proposal is risky, for many operations are said to occur in one fell swoop, but perhaps the main technical drawback has to do with nominative Case assignment: in (134), T must be already present in the derivational workspace for the whole analysis to be possible. Moreover, one would have to assume that T's ϕ -features have been inherited by some previous operation (perhaps in the Numeration, if we still resort to that notion). Note, in addition, that this account argues that two heads (in the case at hand, v* and T) can perform operations in parallel if they belong to the same phase domain⁹³. This is assumed in the case of C and T by Chomsky (2005), and here I have pushed the same logic in the case of T and v*. Suppose we state that as in (152):

⁹¹ It is actually orthogonal what that position turns out to be, what matters is that the verb has escaped the v*P, extending the phase boundary. The same is true in the case of auxiliaries (cf. (151b)):

(i) Estaba leyendo un libro Juan. (Spanish)
 Was-3SG reading a book Juan
 'Juan was reading a book'

⁹² I am assuming that, in (147b), the main verb *leyendo* has raised from v* to a higher position. One possibility is that it right amalgamates to the auxiliary *estaban* or moves to a close enough position. I leave the precise analysis open.

⁹³ In a series of papers, Sigurðsson (2000; 2003; 2004) has put forward a similar idea. In his analysis, in order to assign nominative and accusative case we do not need T and v*, but just a powerful enough v*P. As the reader may see, under Sigurðsson (2000; 2003; 2004), both structural cases are also assigned within the first strong phase.

(152) *Condition on Parallel Operations*

Heads can operate in parallel if they belong to the same phase.

According to my proposal, (152) holds for v^* and T only if v^* moves to T in NSLs. A further consequence is, as I said, that v^*P loses its phase status when it loses its head. This is coherent with the facts concerning object movement to SPEC- v^* , an instance of A-Movement, we have assumed, a conclusion also supported by Cecchetto (2000), who argues that, in Clitic Left Dislocation structures, objects A-move to a position c-commanding the postverbal subject but c-commanded by preverbal ones before reaching the left periphery of the clause. If the DP in outer SPEC- v^* has been raised by an A-Probe, we expect reconstruction asymmetries with regard to postverbal and preverbal subjects. Some evidence of that sort is presented by Cecchetto (2000). Consider some additional data from variable binding and binding (cf. (153)) within a relative clause (cf. (154)). The judgements are subtle, but enough to prove our thesis.

(153)

- a. A su_i padre, todo hijo_i le obedece. (Spanish)
To his father, every son CL-him obeys
'His father, every son obeys'
- b. ??/*A su_i padre, le obedece todo hijo_i. (Spanish)
To his father, CL-him obeys every son
'His father, every son obeys'

(154)

- a. Los libros que pro le_i regalaste, Juan_i los ha vendido. (Spanish)
The books that (you) CL-him gave-2SG, Juan CL-them has-3SG sold
'The books that you gave to him, Juan has sold them'
- b. ??/*Los libros que pro le_i regalaste, los ha vendido Juan_i. (Spanish)
The books that (you) CL-him gave-2SG, CL-them has-3SG sold Juan
'The books that you gave to him, Juan has sold them'

Still another observation is in order, before closing this section. Here I have considered the VOS pattern, but nothing has been said about the closely related VSO order. As noted by many scholars (cf. Belletti (2004), Picallo (1998), Ordóñez (1998b) and Solà (1992)), such linear order is degraded in Romance languages like Catalan and Italian (it is impossible in French, but not in Galician, European Portuguese, and Spanish):

(155)

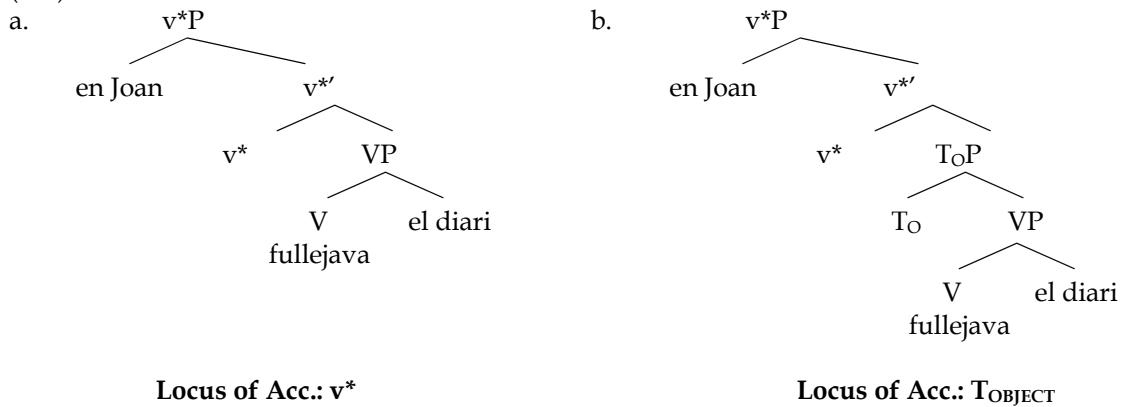
- a. ??/*Fullejava en Joan el diari. (Catalan)
Browse-3SG the Joan the newspaper
'Joan was browsing the newspaper'
- b. *Ha comprato Maria il giornale. (Italian)
Has-3SG bought Maria the newspaper
'Maria bought the newspaper'

[from Picallo (1998) and Belletti (2004)]

Belletti (2004) argues that the ungrammaticality effect in (155) is due to Relativized Minimality (i.e., intervention effects): the object DP cannot check its Case because the subject interferes. Obviously, if that route is taken, one must explain why languages like Spanish, Greek and Romanian do not have such restriction. Belletti (2004) is aware of that, and suggests two possible explanations: languages of the Spanish type either a) have an additional position for postverbal-subjects (higher than the one in the VOS order) so that no intervention occurs, or b) use an extra way of assigning Case to the object internally to the VP. The second alternative is not

adopted by Belletti (2004), but she associates it to having direct object marking and clitic doubling (cf. Torrego (1995; 1998a; 1999)). This latter possibility is endorsed by Alexiadou & Anagnostopoulou (2001), who claim that verbal agreement is a clitic in such languages (cf. Ordóñez & Treviño (1999)) and that once the clitic of subject DPs has raised to T, it receives its Case specification. Note that, even if feasible, Alexiadou & Anagnostopoulou's (2001) analysis speaks about the licensing of subjects, not objects, in VSO patterns, so we must find a different solution⁹⁴. Descriptively speaking, Catalan and Italian seem to prefer object raising to outer SPEC- v^* to Agree (v^* , Obj) (or Agree (T_{OBJECT} , Obj), under Pesetsky & Torrego's (2004a) system). Regardless of which head assigns Accusative Case (v^* or T_{O}), subjects cannot block Agree, since they never interfere the relevant command-path (*contra* Belletti (2004)), as (156) shows.

(156)



Ordóñez (2005) has recently assessed this issue, convincingly arguing that in order to generate VSO structures, Spanish allows subjects to move to an additional position, higher than SPEC- v^* and crucially inaccessible to both Italian and Catalan. Under minimalist assumptions, we could recast “having an additional subject position” as having a ‘richer’ v^* (a v^* capable of generating more outer SPECs). Note that the picture that emerges provides symmetry: just like Spanish has more fronting possibilities in the CP phase than Catalan (cf. section § 3.3.), the same seems to be happening in the v^*/TP domain.

The goal of this section has been to show that there is independent evidence suggesting that T counts as a phase head in NSLs as a result of v^* -to-T movement. I have concentrated on structures that display more syntactic complexity than the one showed in the previous section; in particular, I have considered sentences with a VOS order, which, following Ordóñez (1998a), I have taken to involve an instance of A-Movement (scrambling) to an outer SPEC of v^* . As I have argued, this shifted object needs not receive a specific reading (although it can), but it clearly feeds an interpretation in which it belongs to the aboutness of the sentence, in the sense of Herburger (2000). The problem of this VOS order in NSLs for Chomsky's (2001; 2005) system is that, *ceteris paribus*, these shifted objects should block Agree between T and postverbal subjects; consequently, the picture that emerges is that all operations (i.e., internal-Merge of object DP to outer SPEC- v^* , Agree (v^* , Obj) and Agree (T, Subj)) cannot apply in different phases: they must apply within the same phase (i.e., v^*/TP), or else the derivation is predicted to crash. Note that this bizarre derivation is not necessarily countercyclic; were that the case and nominative Case should be assigned before object raising, and what I am saying is that they operate “in parallel” (cf. Chomsky (2005)). If the analysis is correct, we have found evidence in favour of treating some instances of head movement as non phonological.

⁹⁴ Furthermore, such an account forces us to blindly project a doubling structure even if no clitic appears (cf. section § 3), not to mention that Catalan resorts to clitic doubling structures similar to those of Peninsular Spanish –and, to make things more difficult, as far as I know Catalan has a richer system of clitics than that of Spanish

7. The EPP

In this section I want to briefly assess the status of what we may call the “original EPP” (i.e., the requirement for languages like English to overtly fill SPEC-T), a phenomenon for which there seems to be no principled explanation. I want dwell in this matter since, if what I have put forward in this paper is correct, then under the optionality of the EPP in phase heads (cf. Chomsky (2000)), it follows that NSLs lack the EPP (or, more precisely, it is optional for them).

Since I want to keep the discussion to a manageable length, I will not consider the different proposals trying to reduce the EPP to independent factors (cf. Boeckx (2003b), Bošković (2002), Castillo, Drury & Grohmann (2000), *inter alia*), concentrating instead in the proposal by Alexiadou & Anagnostopoulou (1998), which seems to have received much attention in the recent literature.

To begin with, let us review the chronological history of this grammatical phenomenon, drawing the line between the EPP as a *principle* or as a *feature*.

(157)

- a. The EPP as a *principle*: all sentences must have a subject in SPEC-T (i.e., SPEC-T must always be filled) [cf. Chomsky (1981)]
- b. The EPP as a *feature*:
 - b.1. Phase heads C and v^* have optional “EPP-features” in order to create (extra) SPECS; in T the EPP is obligatory. [cf. Chomsky (2000)]
 - b.2. Phase heads have *edge features* and ϕ -features⁹⁵. [cf. Chomsky (2005)]
 - b.3. *Edge features* may percolate to T in English. [cf. suggestion by Chomsky (2005: 23)]

The statements of (157) are quite different; consider each of them step by step. If (157a) is what counts, then NSLs do not have the original EPP because SPEC-T does not need to be occupied by anything overtly. A possible way of meeting (157a) is invoking covert expletives/locatives (cf. Goodall (2000), Ortega-Santos (2005), Rizzi (1982), and Torrego (1989), *inter alia*). Such a possibility has been questioned by Alexiadou & Anagnostopoulou (1998) and Rosselló (2000), since NSLs do not show the definiteness restrictions of the kind of languages resorting to true expletives do. In more recent accounts, this proposal has been slightly modified following ideas of Zubizarreta (1998) that originally go back to Torrego (1989) by claiming that some (but not all) Romance languages allow a different type of null expletives (a sort of indexical). So, Torrego (1989) correctly noted that sentences with unergative verbs and postverbal subjects yield mild deviance if there is no preverbal indexical:

(158)

- a. ??(Aquí) Anidan palomas. (Spanish)
Here nest-3PL pigeons
'Pigeons nest (here)'
- b. ??(Aquí) Corren chicos. (Spanish)
Here run-3PL boys
'Boys run (here)'

⁹⁵ But remember: edge features are understood as a way of capturing ‘recursion’, so I suppose not only phase heads (C and v^*) have this feature. The key, as in Chomsky (2000), would be that only these heads have edge features as an option, as I have assumed in this paper.

- c. ??(Aquí) Caminan mujeres. (Spanish)
 Here walk-3Pl women
 'Women walk (here)'

The same idea has been extended to examples like the ones in (159) (cf. Gallego (2004b), for instance), which –I agree– are odd unless used contextually:

- (159)
- a. Se corta el pelo. (Spanish)
 CL cuts-3SG the hair
 'Hair gets cut (here)'
- b. Se lava la ropa. (Spanish)
 CL washes-3SG the clothes
 'Clothes get washed (here)'
- c. Silencio, se rueda. (Spanish)
 Silence, CL shoot-3SG
 'Silence, we are shooting (here)'

A completely different situation arises in Galician, which, as noted by Uriagereka (2005a), displays a *bona fide* expletive: *el*. Such an expletive can agree with its associate (*duas cuxas* in (160b)), can be used to inducethetic interpretations (cf. (161)) and to clash with categorical ones (cf. (162)), but, crucially, it does not trigger definiteness effects (cf. (163)), which makes it different from expletives of the *there*-type. For the punch line, *el* is optional, as pointed out by Uriagereka (2005a) himself:

- (160)
- a. El chove. (Galician)
 EL rains
 'It rains'
- b. El nasceron duas cuxas na granxa. (Galician)
 EL were-born-3PL two calves in-the farm
 'There were born two calves in the farm'

[Uriagereka (2005a:1)]

- (161)
- A: Que foi? (Galician)
 What was-3SG
 'What happened?'
- B: (El) morreu a Xubenca, pobriña.
 EL died-3SG the Xubenca, poor thing
 'There died the Xubenca, poor thing.'
- B': # A Xubenca morreu, pobriña.
 The Xubenca died-3SG, poor thing
 'The Xubenca died, poor thing.'

[Uriagereka (2005a:3)]

- (162)
- A: Que lle pasou á Xubenca? (Galician)
 What CL-to-her happened-3SG to-the Xubenca
 'What happened to Xubenca?'
- B: A Xubenca morreu, pobriña.
 The Xubenca died-3SG, poor thing

'The Xubenca died, poor thing.'

B': #El morreu a Xubenca, pobriña.
EL died-3SG the Xubenca poor thing
'There died the Xubenca, poor thing.'

[Uriagereka (2005a:3)]

- (163) O enano do castelo [...] fíxome faguer a manioobra de pechalo (Galician)
The dwarf of-the castle made-me do the maneuver of locking-the
cesto sin botarlle unha ollada, i el quedóu contento [o enano ...]
basket without giving.it a look, and EL remained happy the dwarf
'The castle's dwarf made me undergo the locking of the basket without giving it a good
look, and there remained the dwarf happy' (Lit.) M

[Uriagereka (2005a:2)]

In sum, for an expletive analysis to go through in NSLs we need to make two crucial assumptions: a) that NSLs display a different locative-like type of expletives, and b) that these expletives may be null. The first assumption is suspicious in itself, for it forces us to hold a strong correlation between locatives and expletives (cf. Moro (1997)) that behave in a rather different fashion crosslinguistically. As for the second assumption, it cannot be maintained, for otherwise the parallelism we want to establish with English's EPP is lost: English must always spell-out the expletive, contrary to NSLs. One might still defend that the expletive is somehow recovered by verbal agreement, but do adverbials really agree with the verb in the first place? Data indicate that it is always the postverbal subject that agrees with the verb, even in person features (but see section § 8, for interesting agreement patterns with postverbal subjects, noted by Uriagereka (2004)):

- (164)
- a. Cantó {un chico/*muchos chicos} (Spanish)
Sang-3SG a boy/many boys
'{A boy/Many boys} sang'
 - b. Han cantado {*un hombre/muchos hombres} (Spanish)
Have-3PL sung {a man/many men}
'{A man/Many men} have sung'

As for the deviance in (158) (and (159), unless uttered in a relevant context), it could well be due to informational requirements, like the ones noted by Larson (2004) in the case of middle sentences in English:

- (165)
- a. These flowers grow ?/*(quickly/in sandy soil).
 - b. Ballerinas dance ?/*(beautifully).
 - c. Bread cuts ?/*(easily)

[from Larson (2004:8)]

If we turn our attention to (157b), not taking the EPP as a principle, then it is worth asking whether it is a *bona fide feature* or a *property of a feature* (i.e., like the "EPP property" of Pesetsky & Torrego (2001)). Chomsky (1995) assumes the former, associating the EPP to a [D] feature of T, which, in present terms, translates into [person] (cf. Chomsky (2001:7)). That the EPP is associated with [person] is further endorsed by Boeckx (2003b), who argues that this feature

must be checked very locally (specifically, in a SPEC-head configuration); this is consistent with the fact that long-distance Agree never involves [person], but, as far as I can see, it does not explain why things must be that way⁹⁶. In Chomsky (2005), this has been modified, since the EPP is no longer associated with [person], and, furthermore, it has been called *edge feature*. The other possibility (namely, that the EPP is just a property of a feature) is what Chomsky (2005) entertains in the case of subject and object raising to SPEC-T and SPEC-V respectively⁹⁷.

An idea about the EPP compatible with Chomsky's has been endorsed by Alexiadou & Anagnostopoulou (1998), who propose to parametrize languages depending on whether they check the EPP by moving either a phrase or a head.

"Capitalizing on a central intuition in the GB literature about NSLs, namely that they have (pro)nominal agreement (cf. Taraldsen 1978, Rizzi 1982, Chomsky 1981, Safir 1985, among others), we propose that verbal agreement morphology in these languages includes a nominal element ([+D, +interpretable phi-features, potentially +Case]; cf. also Alexiadou and Anagnostopoulou 1997c). This means that the verbal agreement affixes in, for instance, the Greek paradigm (38b) have exactly the same status as the pronouns in the English paradigm in (38a). [...] By hypothesis, EPP-checking is D-feature checking in a non-substantive category by a [nominal] lexical category. Assuming that verbal agreement has the categorial status of a pronoun in pro-drop languages, V-raising checks the EPP feature the same way XP-raising does in non-pro-drop languages." Alexiadou & Anagnostopoulou (1998:516-517)

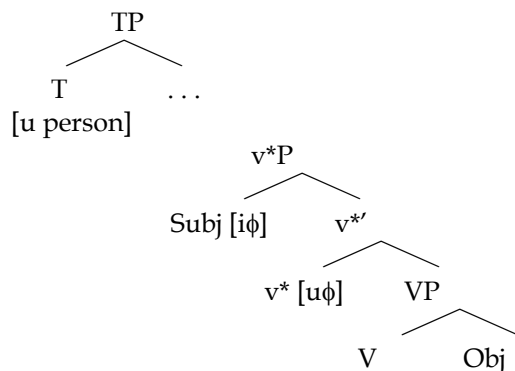
That a parameter must capitalize in the XP vs. X^o distinction is not conceptually obvious, and different authors have not endorsed this view: in Picallo (1998), where the EPP is eliminated from NSLs, it is argued that only lexical entries (more to the point, their categorial feature, and not their optional ϕ -features), are able to satisfy the EPP; Rosselló (2000) points out another inconsistency with Alexiadou & Anagnostopoulou's (1998) account: ϕ -features are uninterpretable in the verb, and hence unable to check the EPP; if they were they regarded as interpretable, those features themselves would count as a *bona fide* pronoun, that is, as a true argument (which is actually Alexiadou & Anagnostopoulou's (1998) point). I think Rosselló (2000) is right: even though ϕ -features of the verb can indeed engage computational operations of the Agree sort (contrary to what was assumed in Chomsky (1995), which is the framework of Rosselló's (2000) approach), this is not to say that they are arguments. Nonetheless, the problems noted by both Rosselló (2000) and Picallo (1998) can be qualified under present assumptions: Picallo's (1998) point would not be a pitfall the minute categorial specifications (e.g., N, A, D, etc.) are replaced by one of the verb's ϕ -features (as Chomsky (2001) does, taking [person] as the current substitute for D labels). *Mutatis mutandis*, the same could be said for Rosselló's (2000) argument, given that the [D]/[person] feature of T may in principle be checked by the ϕ -features of the verb unproblematically in the present system (but see below): those are uninterpretable at the beginning of the derivation, but once valued, such a distinction is lost, and they can be used to check T's [person] (cf. Chomsky (2001)).

So far, then, Alexiadou & Anagnostopoulou's (1998) proposal, even if conceptually dubious, does not seem to face important problems. Let us suppose then that the morphological features of the verb can indeed check the EPP by head movement. Obviously, we should include the subject DP in that picture too, since both bundles of ϕ -features constitute potential candidates to value T's [person]. Consider the resulting scenario, graphically (and, for the sake of the discussion, put aside whether head movement falls into the PHON component –if true, a further potential complication for Alexiadou & Anagnostopoulou (1998); cf. section § 3.1.):

⁹⁶ One might wonder whether this requirement has to do with [person] being a pragmatic or contextual feature, hence requiring Merge of the relevant element with T to yield a surface semantics effect (cf. fn. 70).

⁹⁷ Actually, Chomsky's (2005) presentation is not clear in this respect, for he first associates subject raising to SPEC-T with T's ϕ -Probe, and, at the end, he speculates that this very operation might be related to [ef] being inherited by T.

(166)



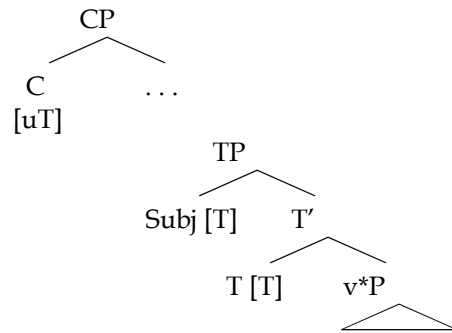
In (166) the uninterpretable person feature (i.e., [u person]) of T needs to get a value, so it acts as a Probe. Two potential Goals are available at the edge of the v*P phase: Subj's and v*'s. The first element has a bundle of ϕ -features that are interpretable from the very start of the derivation. What about those of v*? Arguably, they have been valued by those of the Object in the operation of accusative Case assignment⁹⁸, but do they remain in v* by the end of the v*P phase, or are they 'erased'? Under Chomsky (2005) system, they must have been erased, since they have been downloaded to V, which belongs to the Spell-out domain of v* (and note that even if we follow Pesetsky & Torrego's (2001) conception of deletion –which is different from Chomsky's – cf. section § 3.2.–, the same result obtains). Let us suppose, nonetheless, that v*'s ϕ -features have not been deleted: if that was the case (something that, in principle, is possible, for v*P is not a phase in NSLs), locality problems would arise, since the subject DP is always closer to T than v* (assuming that they are not equidistant, cf. Chomsky (2001)). The only way out would be to suppose that v*-to-T movement takes place prior to T's ϕ -features probing (or at the same time), valuing T's [person]. If that was the indeed the case, and evaluation takes place at the v*/TP level, then Alexiadou & Anagnostopoulou's (1998) proposal could be basically maintained, for the subject DP, even if it has remained in situ, wouldn't block Agree (T, v*). The main problem for that operation, though, is that it must assume that the ϕ -features of T and v* can match, and that, as we have assumed, is not possible: even if a complex verbal head can show both object and subject agreement morphology (as in Basque), this does not prove that those features have established Agree (actually, it indicates that they cannot, for then only sentences whose objects and subjects had the same ϕ -specification would be generated; in other words, it would be impossible to generate a sentence like *I love Beyoncé*).

The reader might have realized that the structure in (166) instantiates a familiar configuration in which a head needs to check a feature by using something which belongs to its sister projection: either the specifier or the head of the head projection itself can satisfy that need. The same configuration is investigated in Pesetsky & Torrego (2001), given that the same structure arises when C's [uT] has to be checked; as was said in section § 2, in that case, C can trigger movement of the DP in SPEC-T (i.e., the subject) or attract T itself (spelling it out as *that*, *do* or *for*)⁹⁹:

⁹⁸ Chomsky (2005) is not specific on whether the ϕ -features of v* and C are compatible, or they must be associated with Obj and Subj respectively. The latter possibility is incompatible with Pesetsky & Torrego (2004b), who assume that the ϕ -features of T, v* and V are the same.

⁹⁹ A further possibility is that C's [uT] is not endowed with the EPP property so that Agree alone suffices.

(167)



Pesetsky & Torrego (2001) assume that, given the configuration in (167), TP and T are equidistant to C, since, for them, closeness is measured by c-command, not node counting:

(168) **Closeness**

Y is closer to K than X if K c-commands Y and Y c-commands X.

[from Pesetsky & Torrego (2001)]

If (168) holds, TP and T are indeed equidistant, since domination is not a case of c-command (TP dominates T, and all its SPECs). In Pesetsky & Torrego's (2001) system, even when SPEC-T and T compete for checking C's [uT], as in (167), the scenario is not problematic because it is not SPEC-T and T that compete, but actually SPEC-T and TP, which, under (161), are equidistant. For Chomsky (2000; 2001; 2004; 2005), though, things are different: a Probe can only agree with an element at the edge of the previous phase, and this does not include the maximal projection, but only its head and (multiple) specifiers. So, in (167), if Subj does not move, it would always block Agree (C, T). Happily, we know that there are cases in which a Probe can agree with more than one Goal, a typical case being participial constructions. Hiraiwa's (2001) *Multiple Agree* offers a solution for cases like (167), since C could simultaneously Probe Subj and T, triggering (or not) the internal-Merge of one of them¹⁰⁰:

(169) *Multiple Agree/Move*¹⁰¹

Multiple Agree (multiple feature checking) with a single probe is a single simultaneous syntactic operation; Agree applies to all the matched goals at the same derivational point derivationally simultaneously. Multiple Move (movement of multiple goals into multiple specifiers of the same probe H) is also a single simultaneous syntactic operation that applies to all the agreed goals.

[from Hiraiwa (2001:69-70)]

The only problem for Hiraiwa's (2001) *Multiple Agree* emerges when one of the simultaneous Goals has already been rendered inactive by a different previous Probe. In the case at hand this could be a true problem, for Subj has already been Probed by T before being Probed by C; however, since all the operations take place within the same phase (in English, CP), and evaluation takes place at the CP level, this is not a problem¹⁰².

¹⁰⁰ Cf. Pesetsky & Torrego (2004b) for a similar view, based on Frampton & Gutmann's (2000) *Feature Sharing*.

¹⁰¹ Hiraiwa (2001) extends Multiple Agree to Multiple Move in order to derive Richard's (1997) *tucking-in*. Importantly, Hiraiwa (to appear) discards the possibility of Multiple external-Merge.

¹⁰² The problem is even less important in a system like Chomsky's (2005), where T acts as a Probe derivatively from C.

But what about the EPP? In this section I have tried to argue that it is difficult to maintain Alexiadou & Anagnostopoulou's (1998) technical proposal, given current assumptions about ϕ -feature matching. In their approach, it is claimed that unless a head movement version of the EPP checking is adopted, there is no way of relating the Null Subject Parameter and the possibility of having postverbal subjects. I disagree. With them, I consider as plausible the idea that rich agreement in the verb can license an argumental *pro* (though see Uriagereka (2002b) for a different view on *pro*), but this licensing should not be blindly related to v*-to-T movement *per se* (French apparently has this movement, yet it lacks the main properties of NSLs, not being *pro*-drop, which forces Alexiadou & Anagnostopoulou (1998) to add further qualifications; cf. section § 9). Moreover, if head movement is not syntactic, then Alexiadou & Anagnostopoulou's (1998) parameter seems to me to be virtually unformulable (why should parameters care about phonology affairs if parameter setting boils down to the featural endowment of LIs - morphology-?).

Indirect evidence, however, suggests that T does always merge something as its SPEC, even in Null Subject Languages. To begin with, we need to recall the basics of Torrego's (2002) analysis of raising verbs; as she notes, experiencer clitics block Agree between matrix T and the embedded subject:

(170)

- a. Juan_i parece [_{TP} t_i leer mucho] (Spanish)
 Juan seem-3SG to-read much
 'Juan seems to read a lot'
- b. *Juan_i me parece [_{TP} t_i leer mucho] (Spanish)
 Juan CL-to-me seem-3SG to-read much
 'Juan seems to me to read a lot'

As Esther Torrego (p.c.) has pointed out to me, it must be the case that a null counterpart of *it* (call it *pro_{it}*) undergoes external-Merge with T in cases like (171), for there is no other way of accounting for the intervention effect (if there was no *pro_{it}*, intervention would not arise)^{103 104}.

(171)

- a. Parece [_{TP} *pro_{it}* llover] (Spanish)
 Seem-3SG to-rain
 'It seems to be raining'
- b. *Me parece [_{TP} *pro_{it}* llover] (Spanish)
 CL-to-me seem-3SG to-rain
 'It seems to me to be raining'

Note, however, that (171) does not show that matrix T must merge something as its SPEC: it just shows that Agree is barred, period. Interestingly for my purposes, more indirect evidence, this time from Cecchetto (2000), indicates that matrix T does satisfy the EPP by means of a *bona fide* SPEC; in particular, in his analysis of Clitic Left Dislocation, Cecchetto (2000) convincingly argues that these dependents reconstruct into a position below postverbal subjects, but above postverbal ones (in an outer-SPEC-v*, I have assumed). This is shown by (172), which indicates that the subject DP, *Juan*, can bind the clitic pronoun *le* only when in preverbal position.

¹⁰³ Notice, importantly, that this datum suggests that a null *pro* is needed even when it plays no *bona fide* thematic role. Cf. Holmberg (2005) for a more fine grained classification of *pro* in Null Subject Languages.

¹⁰⁴ The same conclusion can be drawn from (i), which presumably involves a null counterpart of *there* (i.e., *pro_{there}*). In this case, the problem is that *Me* blocks Agree between matrix T and *pro_{there}*.

(i) (*Me) parecen [_{TP} *pro* haber sido arrestados muchos hombres] (Spanish)
 CL-to-me seem-3PL to-have been arrested many men
 'There seem many man to have been arrested'

(172)

- a. [CP [Los libros que le_z diste]_j, [TP Juan_z no los_j ha leído [_{v*P} t_j [_{v*P} t_z t_j]]]] (Spanish)
The books that CL-to-him gave-2SG Juan not CL-them have-3SG read
'The books you gave him, Juan has not read them'
- b. *[CP [Los libros que le_z diste]_j, [TP no los_j ha leído [_{v*P} t_j [_{v*P} Juan_z t_j]]]] (Spanish)
The books that CL-to-him gave-2SG not CL-them have-3SG read Juan
'The books you gave him, Juan has not read them'

Crucially, under Cecchetto's (2000) analysis, the Principle-C effect in (173) must be taken to indicate that the covert subject (arguably an argumental little *pro*) has undergone internal-Merge from SPEC-*v** to SPEC-T, checking the EPP¹⁰⁵.

- (173) *[Los libros de María]_i, *pro*_j los_i ha leído. (Spanish)
The books of María, CL-them have-3SG read
'María's books, she has read them'

But even if this conclusion is correct, one would like to know why the EPP is (as it seems) universal. A possibility that seems coherent can be drawn from the very nature of T. Much recent research (cf. Demirdache & Uribe-Etxebarria (2000), Hale & Keyser (2002), Pesetsky & Torrego (2004a), Svenonius (2004), *inter alia*) has shown that tense heads and prepositions belong to the same syntactic species, their more remarkable property that of being a birrelational predicate; so, if T is really a species of P, it should come as no surprise that it needs to fill in its SPEC. Given that this requirement is something imposed by the SEM component, it is independent from parameters by definition, and hence universal¹⁰⁶.

¹⁰⁵ If correct, this provides evidence against Picallo (1998), who argues that a null *pro* cannot be postulated because it has no effect on the interface components. This must be qualified, though: it is true that *pro* has no PF effect, but it does feed the LF component (a claim also made by Belletti (2004)), given the binding facts. Note, in any event, that the movement from SPEC-*v** to SPEC-T is completely formal, being blind to any semantic motivation (that is, *pro* does not move for binding reasons).

¹⁰⁶ The issue is much more complex than this, and I have nothing to say about many related issues; so, for instance, in this paper I do not say anything about the obvious connection that the EPP shares with the A/A' distinction and the mechanics of successive cyclic movement (e.g., does it always target every projection? Or just in the case of A' movement?). Cf. Abels (2003), Boeckx (2001), Chomsky (2001; 2005), Takahashi (1994), and references therein.

8. Subextraction

In this section I would like to consider some issues related to Huang's (1982) CED effects that seem to reinforce that v^*/TP is a phase in NSLs. I will be reviewing some data concerning two positions from which subextraction has been said to be (im)possible: SPEC-T (or SPEC- v^* , depending on the analysis) and SPEC-C. I will argue that there are two possible explanations for why subextraction from subjects is impossible in English: either because it takes place from a phase *edge*, or else because it does so from a position in which the DP as already been deactivated (its Case having been assigned). As for NSLs, I will try to defend the idea that subextraction from subjects is generally possible if these occupy a postverbal position, since SPEC- v^* is not a phase *edge* in those languages. If what I argue here is right, the prediction is that subextraction from subjects in SPEC- v^*/T (i.e., preverbal subjects) must be impossible; as I will show, although not completely impossible, subextraction from SPEC- v^*/T is much worse than the one from SPEC- v^* . As for subextraction from SPEC-C, I will explore the data pointed out by Torrego (1985), trying to show that negation plays a non-minor role in allowing subextraction: if negation is dropped, subextraction yields deviance even in Spanish, which is good news, for we do not expect 'big time' crosslinguistic differences when it comes to subextraction from SPEC-C (although we do in the case of subjects, hopefully due to the parameter explored in these pages).

8.1. Subextraction from SPEC-T (or SPEC- v^*)

As is well known since Huang (1982), subjects and adjuncts behave as strong islands for extraction, a problem that was first explained in terms of government, an unavailable device within the present framework. Recently, some minimalist proposals have been put forward to show that the so-called Subject Condition can follow from considerations of PF convergence (due to Kayne's (1994) LCA; cf. Uriagereka (2002a)) or chain uniformity (cf. Boeckx (2003a), Ormazábal, Uriagereka & Uribe-Etxebarria (1994), Stepanov (2001), and Takahashi (1994)). Before getting started, it is worth noting the fact that while some languages seem to be able to avoid the subject condition, no known language seem to allow generalized extraction out of an adjunct (cf. Stepanov (2001)), unless very particular factors (like parasitic gaps or mood inflection) enter the picture. Things being so, one might wonder what makes subjects and adjuncts similar (so that they are opaque domains), and, at the same time, what makes them different (so that some languages allow extraction out of subjects). In the context of the present discussion it is interesting to step back for a moment, and consider Chomsky's (2005) ideas about labels, since they will be relevant for this matter.

The mainstream idea about Merge is that it is an operation with an output: a *label*. The label should optimally encode the nature of the resulting syntactic object, and, moreover, it seems to be a good way of identifying Probes and Goals. Due to both theory-internal and interface driven reasons, Chomsky (1995) argued that whenever α and β merge, one of the two elements must provide the label of the operation. Things seem to be easy in the case of internal-Merge, since it is problematic for the moved element (if it is an XP) to project (cf. Chomsky (1995); for an alternative view cf. Hornstein & Uriagereka (2002)). A more difficult case is external-Merge, for which three scenarios can be considered:

(174)

- a. external-Merge of {X, Y}
- b. external-Merge of {X, YP}
- c. external-Merge of {XP, YP}

Building on *X'-Theory's* results, Chomsky (2005) suggests that (174b) can follow from the algorithm in (175), arguably traceable to the Agree-like nature of external-Merge (theta-role assignmen/discharge, selection, etc.; cf. Chomsky (2000)):

(175) In {H, α }, H an LL, H is the label.

[from Chomsky (2005:11)]

As for (174a) and (174c), Chomsky (2005) seems to argue that, in principle, no label can be *a priori* determined. (170a) is the logical first step of every single derivation (putting aside head movement), and (174c) probably instantiates small clauses and the merger of external arguments within *v**P as Chomsky (2005) suggests. It seems intuitively correct to say that those are instantiations of predicative structures, and it seems to me natural to add a third case: adjuncts¹⁰⁷. As a result, we get the following scenario: small clauses, merger of external arguments and merger of adjuncts constitute examples of the predication pattern in (174c). Interestingly, Uriagereka (in progress) has considered these cases in the light of what he calls Markovian syntax.

Putting small clauses to the side¹⁰⁸, the result we get is that both adjuncts and subjects are merged in the same way, and this is good news. Chomsky (2005), specifically, argues that {XP, YP} structures are “unstable”, not projecting a label (cf. Chametzky (2000) and Uriagereka (2003) for related ideas). Can we relate that to Huang’s (1982) effects? Although it is tempting to proceed so, at least two problems arise at this point, as noted: a) some languages allow subject extraction (in the case of accusative *v**P, when subjects are complex specifiers), and b) small clauses, although involving (174c), also allow extraction out of their subjects, even in English. Consider those two possibilities in (176a) and (176b), the latter taken from Uriagereka (2004):

(176)

- a. ¿De qué equipo_i han agredido_i al árbitro [[muchos/todos los] jugadores t_i] t_j? (Spanish)
Of what team have-3PL hit to-the referee {many/all the} players
'Of what team have {many/all the} players hit the referee?'
- b. Which artists_i did you find [[works by t_i] offensive] ? [from Uriagereka (2004:11)]

It is difficult to test extraction out of small clauses subjects in Spanish, since they tend to be introduced by the Case marker *a*, which seems to render DPs opaque for subextraction purposes. So, to my ear, (177a) is better than (177b):

(177)

- a. (?)¿De qué escritor_i viste [[muchos libros t_i] encima de la mesa]? (Spanish)
Of what writer saw-2SG many books over of the table
'Of what writer did you see many books on the table?'
- b. ??/(*)¿De qué universidad_i viste [[a muchos estudiantes t_i] en la reunión]? (Spanish)
Of what university saw-2SG to many students in the meeting
'Of what university did you see many students in the meeting?'

The data in (177), coupled with the examples of (178a,b), suggest that *a* blocks extraction more generally, yielding severe deviance when such a preposition introduces indirect objects (the case of (178c)), which always require it. One might take those facts to indicate that indirect objects are always in a SPEC position of a functional-inflectional head, an analysis which is consistent with Torrego’s (1998a) and Leonetti’s (2004) analyses of marked direct objects as being in an topic position internal to the *v**P. But this is unlikely to be so, given the facts noted in section § 6 (recall,

¹⁰⁷ As far as I can see, this claim would be consistent with the idea that adjunction is needed for predicate composition (cf. Chomsky (2004)).

¹⁰⁸ Cf. Moro (2000) for the idea that some SCs (what he dubs *bare Small Clauses*) do not create labels.

even scrambled objects allow subextraction). The conclusion, therefore, is that *a* renders the DP opaque (or ‘inactive’, using Chomky’s terminology).

(178)

- a. ??/*¿De qué universidad_i viste [a muchos jugadores t_i]? (Spanish)
Of what university saw-2SG to many players
‘Of what university did you see many players?’
- b. ¿De qué universidad_i viste [muchos estudiantes t_i]? (Spanish)
Of what university saw-2SG many students
‘Of what university did you see many students?’
- c. *¿De qué universidad_i le diste los libros [a los estudiantes t_i]? (Spanish)
Of what university CL-them gave-2SG the books to the students
‘Of what university did you give the books to the students?’

Actually, the result of subextraction does not exclusively depend on the preposition, but also on the affectedness of the object, as noted by Torrego (1998a):

(179)

- a. El chico del que he visto varias hermanas ayer. (Spanish)
The boy of-the that have-1SG seen various sisters yesterday
‘The boy of whom I have seen many sisters yesterday’
- b. ?El chico del que he visto a varias hermanas ayer. (Spanish)
The boy of-the that have-1SG to various sisters yesterday
‘The boy of whom I have seen many sisters yesterday’
- c. *El chico del que han acusado a una hermana. (Spanish)
The boy of-the that have-3PL accused to a sister
‘The boy of whom they have accused a sister’

[from Torrego (1998a:37-38)]

But let us go back to subjects. We must try to find out why subjects allow subextraction under certain circumstances, contrary to adjuncts. A possibility that suggests itself is agreement, which is what logically makes subjects and adjuncts differ from one another. Roughly put, perhaps agreement ‘reintegrates’ subjects into the derivational workspace (by means of labelling, presumably) so that subextraction be possible. This fits with Uriagereka’s (2002a) MSO system: subjects (and not objects) overtly agree because agreement is used as a ‘pointer’ to glue two disconnected syntactic cascades together. As Uriagereka (2002a; 2002d) argues, this address-technique is pervasive in languages showing rich Case/Agreement systems, which, in his terms, resort to a variant of Spell-out that is ‘radical’, subjects being directly sent to performance (and thus abandoning the derivational workspace). As for languages like English, they employ a Spell-out which is conservative, which means that, although their complex specifiers flatten and become frozen for syntactic purposes, they do not abandon the derivation. I will return to Uriagereka’s (2002a; 2002d) system later on, evaluating whether it can account for some subextraction facts. Let us now consider subextraction from subjects, which, as (180) shows, seems to be possible even in English:

(180) [_{CP} Of which car_i was [_{TP} [the (driver, picture) t_i]_j [_{v*P} awarded t_j a prize]]]?

[from Chomsky (2005:14)]

Importantly, the subject of (180) is a derived one, being base generated as an object. What Chomsky (2005) suggests is that, in (180), subextraction always targets the base position (unproblematically, since unaccusatives/passives are not phases and, therefore, the PIC becomes irrelevant). More generally, Chomsky (2005) claims that the problem with subextraction is not

related to the derived position of subjects (namely, SPEC-T; *contra* Boeckx (2003a), Ormazábal, Uriagereka & Uribe-Etxebarria (1994), Stepanov (2001), and Takahashi (1994)), but to SPEC-v*, for otherwise, the contrast in (181) would not receive an explanation:

(181)

- a. * $[_{CP} \text{ Of which car}_i \text{ did } [_{TP} \text{ [the (driver, picture) } t_i]_j \text{ } [_{v^*P} t_j \text{ cause a scandal}]]]$?
- b. $[_{CP} \text{ Of which car}_i \text{ was } [_{TP} \text{ [the (driver, picture) } t_i]_j \text{ awarded } t_j \text{ a prize}] ?$

[from Chomsky (2005:14)]

(181) appears to reinforce the idea that both A and A' movements are triggered by the same head (i.e., C, the phase head), but, as I noted in section § 1, this is not obligatorily true: what (181) does suggest is that A and A' movements apply "in parallel", but not that they are triggered by the same head. A virtually identical result obtains if T and C act as different Probes simultaneously, a conclusion Chomsky (2005) accepts as well, with the proviso that T is a Probe "by inheritance".

The important question, in any event, is what blocks subextraction from SPEC-v*. Here is Chomsky's (2005) suggestion:

"It remains to explain why the probe for *wh*-movement cannot readily access the *wh*-phrase within the external argument of α . That could reduce to a locality condition: *which* in α is embedded in the lower phase, which has already been passed in the derivation. We know that the external argument itself can be accessed in the next higher phase, but there is a cost to extracting something embedded in it." Chomsky (2005:14)

Note that the problem is not just "being in a SPEC position", but rather "being in a SPEC position of a phase head". The minimal pair in (182b,c) confirms that observation, since they show subextractions taking place from SPEC positions that are not phase edges (I use boldface to indicate the copy from which subextraction takes place):

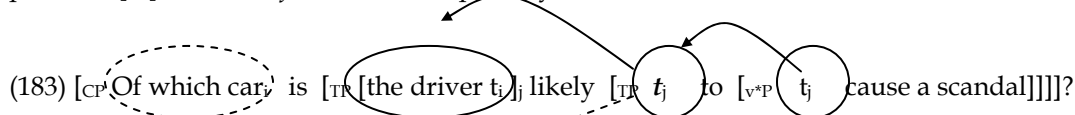
(182)

- a. * $[_{CP} \text{ Of which car}_i \text{ did } [_{TP} \text{ [the driver } t_i]_j \text{ } [_{v^*P} t_j \text{ cause a scandal}]]]$?
- b. $[_{CP} \text{ Of which car}_i \text{ is } [_{TP} \text{ [the driver } t_i]_j \text{ likely } [_{TP} t_j \text{ to } [_{v^*P} t_j \text{ cause a scandal}]]]]?$ Raising
- c. $[_{CP} \text{ Of which car}_i \text{ did they believe } [_{TP} \text{ [the driver } t_i]_j \text{ } [_{TP} t_j \text{ to } [_{v^*P} t_j \text{ have caused a scandal}]]]]?$ ECM

[from Chomsky (2005:20)]

In (182b,c) extraction of *Of which car* must have happened from a SPEC position other than the initial one (SPEC-v*, a phase edge). The question is: from which one? Chomsky (2005) argues that subextraction occurs from a SPEC-T in which the phrase *the driver of which car* has not been rendered inactive yet (that is, a position in which that DP has not received Case), with operations triggered by [ef] and ϕ -features interweaving.

Consider the case of (178b) in detail, repeated below as (183). In that example, ϕ -features of matrix T raise *the driver of which car* cyclically, and, when that DP reaches the first SPEC-T position, [ef] extracts *Of which car*. Graphically:



— A-Movement (ϕ -features are the Probe)

- - - A'-Movement ([ef] is the Probe)

The possibility of deriving (178b) as indicated in (179) follows as well if Chomsky's (2000; 2001; 2004; 2005) activity condition is correct: while active, DP can be affected by syntactic operations like subextraction. This correctly predicts that, in a clause with a ϕ -complete T, a DP in SPEC-T will always block subextraction, for once in that SPEC, it is inactive.

A similar conclusion can be reached for (178c), with the reinforced conclusion that objects must raise to SPEC-V for Case assignment in ECM structures:

"It must be, then, that "of which car" is raised from an intermediate position, SPEC-T of the ECM infinitival, before it reaches SPEC-V, a position analogous to SPEC-T in the matrix clause. In SPEC-T and SPEC-V, all features are valued in the completed A-chain, and its head is invisible, as we have seen." Chomsky (2005:20)

So far, then, we know of two phenomena that bar subextraction out of subjects: a) the activity condition, and b) being in SPEC- v^* (a phase *edge*). It seems to me very plausible that the activity condition has to do with Uriagereka's (2002a; 2002d) insight about Spell-out: specifiers (i.e., independently assembled cascades) tend to agree with the T head in the derivational spine because it is the way the system is able to track them. Notice that what counts, regardless of overt agreement languages, is that specifiers are disconnected, and, therefore, unreachable for subextraction purposes. This conclusion is pushed to its limits in Uriagereka (2004), where all true specifiers become a syntactic head before undergoing Merge (either internal or external). Although extremely appealing, Uriagereka's (2002a; 2004) proposal is obviously threatened by the data where specifiers allow subextraction (cf. (176b), (177a), and (182b,c)). In order to account for those cases, Uriagereka (2004) argues that we do not have specifiers but a sort of adjoined phrases instead, an analysis he extends to all external arguments (which are analyzed as adjuncts to the v^*P in his paper) and subjects of small clauses (following Stowell's (1981) analysis). Uriagereka's (2004) distinction between specifiers and adjuncts is not completely clear; I have no problems in accepting that, say, small clause subjects allow extraction, but if one assumes a theory like Hale & Keyser's (2002) or Mateu's (2002), they must be a specifier. External arguments should run the same fate, but, as we have seen, they do not allow subextraction. It is possible that both cases illustrate the {XP, YP} pattern noted in Chomsky (2005), and that the resulting label is the key factor (if there is no label for such a structure, we *a priori* do not know which phrase is going to be a specifier nor which one is going to be a complement, as noted by Cedric Boeckx – Masaya Yoshida p.c.). Whatever the final answer, it must be noted that Chomsky's (2005) analysis seem to correctly predict these facts: extraction from small clause subjects is possible because they –specifiers as they are– do not belong to a phase.

More examples reinforce these conclusions. Consider them briefly. (184), (185a,c) and (186a) are as expected, since, even if those subjects are complex specifiers, they belong to an unaccusative vP (i.e., a weak phase). (186b) is also expected, since the DP *poster of which candidate* has moved to a position that renders it inactive¹⁰⁹.

(184) [_{CP} Who_i was [_{TP} there [_{vP} [a picture of t_i] in the hall]]] ? [from Stepanov (2001)]

(185)

- a. A man [_{CP} who_i [_{TP} [pictures of t_i]_j are [_{vP} t_j on the table]]]
 - b. A book_i [_{CP} that [_{TP} [_{CP} reading t_i] would be fun]]
 - c. He is the person [_{CP} of whom_i [_{TP} [pictures t_i]_j are [_{vP} t_j on the table]]]
- [from Chomsky (1986:31-32)]

¹⁰⁹ Uriagereka (2004:18) notes the puzzle the minimal pair in (i) and (ii) poses. If we apply Chomsky's (2005) ideas, then these two fall into place: subextraction is better in (i) because *which artists* is accessed in the SPEC-T_{def} position, prior to its raising to SPEC-V.

- (i) ??? Which artists_i did you find [works by t_i] to be offensive?
- (ii) ?* Which artists_i did you find (that) [works by t_i] are offensive?

(186)

- a. [CP Which candidate_i were [TP there [vP [posters of t_i] all over the town]]]?
- b. *[CP Which candidate_i were [TP [posters of t_i]_j [vP t_j all over the town]]]?

[from Lasnik & Park (2003:651)]

A real potential problem for Chomsky's (2005) account comes from the sentences in (187), taken from Lasnik & Park (2003)¹¹⁰. All other things being equal, it would appear that it is the *by*-phrase that causes the problem:

(187)

- a. ?*Of whom_i were [pictures of t_i] taken by Mary yesterday?
- b. ?*Of whom_i was [a biography t_i] published by Abby?
- c. ?*Of which_i room was [a key t_i] found by John?

Basically the same point is noted by Johnson (2003). The interesting examples are the ones in (188), from Johnson (2003):

(188)

- a. [CP Who_i did [TP Mary [v*P buy [a picture of t_i]]]]]?
- b. *[CP Who_i was [TP [a picture of t_i]_j [vP taken t_j by Mary]]]]]?
- c. ?[CP Of whom_i was [TP [a picture t_i]_j [vP taken t_j]]]]?

(188a) has no peculiar property, it just shows subextraction out of an object DP. The exotic thing about (188b) and (188c) is that in both cases subextraction should be possible from the base position, since we have a vP (again, a weak phase, according to Chomsky (2001)); but the contrast between them is extremely surprising: why should subextraction improve when there is pied-piping of the preposition or the *by*-phrase disappears? Johnson (2003) argues that (188b) is out because subextraction takes place from a derived position, whereas (188c) is better because of the object status of the DP *a picture of whom*. That is unlikely to be the reason, for in both cases the DP at stake is the object of *take*. The key might reduce to pied-piping, as pointed out by Chomsky (1986), who argues that pied-piping seems to improve subextractions. Chomsky (1986) concentrates in the examples in (189), attributing to Kuno the observation that the pied-piping case (cf. (189b)) is better:

(189)

- a. The man [CP who_i [TP [pictures of t_i]_j [vP t_j are on the table]]]
- b. The man [CP of whom_i [TP [pictures of t_i]_j [vP t_j are on the table]]]

[from Chomsky (1986:31-32)]

¹¹⁰ Cf. Broeckhuis (2005), who also argues against Chomsky's (2005) analysis of the Subject Condition. His main objection has to do with the nature of the extracted *of*-XP phrases, which -Broeckhuis argues- are not really extracted from within the subject DP, being a species of adverbial constituent directly generated in SPEC-C (an "aboutness" phrase). I cannot go into the details of Broeckhuis's (2005) arguments, but I will assume that *of*-phrases of the sort considered by Chomsky (2005) are real arguments generated internally to the subject. Of course, a completely different story goes about *in/on*-XP or *from*-XP phrases, which I take to be genuine adjuncts, as noted by Lasnik & Park (2003). Note that even extraction from objects is impossible when those prepositions are used:

- (i) Of whom_i did you read [a biography t_i]?
- (ii) *On which table_i did you read [books t_i]?
- (iii) *From which city_i did you meet [men t_i]?

[from Lasnik & Park (2003:653)]

Furthermore, Broeckhuis (2005) concentrates on Dutch topicalization, which may involve factors different from the ones displayed by Chomsky's (2005) data.

Chomsky (1986:32) tentatively suggests that the contrast might be due to the fact that PP-extrapolation applies prior to *wh*-movement, which amounts to saying that no rule can apply to the same syntactic object twice (cf. Chomsky (1964))¹¹¹. One can think of problems for an extrapolation-based account. First, notice that if possible, it would be at odds with the facts noted in Chomsky (2001; 2004) about the impossibility of applying any operation to constituents that have undergone a phonological operation. Second, as noted by Johnson (1985), PP-extrapolation from subject position is only possible with unaccusative verbs, that is, in current terms, from subject DPs that are not in the edge of a phase (actually, note that all the examples of PP-extrapolation by Hirata (1997) involve unaccusative verbs):

- (190)
- a. *A man met me from Nuie.
 - b. *A man screamed from Nuie.
 - c. Men appeared from Tanzania.

[from Johnson (1985:109-111)]

In sum, subextraction out of subjects seems to be blocked if the subject is generated as a specifier of a phase head, being generally possible if such a specifier does not belong to a phase (either because it started its derivational life as a small clause subject, because it is a derived subject, or else because it is a SPEC-T ϕ -defective). Nonetheless, we have two puzzles to account for: the one with subextraction from subjects in relative clauses and the one with subextraction from derived subjects in passives. Both are repeated in (191) and (192):

- (191)
- a. This is the car [_{CP} which_i [_{TP} [the driver of t_i]_j [_{v*P} t_j caused a scandal]]]
 - b. ??This is the car [_{CP} of which_i [_{TP} [the driver t_i]_j [_{v*P} t_j caused a scandal]]]

- (192)
- a. *[_{CP} Who_i was [_{TP} [a picture of t_i]_j [_{vP} taken t_j]]]?
 - b. [_{CP} Of whom_i was [_{TP} [a picture t_i]_j [_{vP} taken t_j (?*by Mary)]]]]?

(191) might be explained if, for whatever reason, relatives are not phases (perhaps because, derivationally, they need more structure). As for (192), the problems seem to follow from pied-piping (cf. (188) too) and the presence of the *by*-phrase (cf. (187) too).

¹¹¹ Hirata (1997) explores that possibility seriously, suggesting a derivation as roughly indicated in (i), (ii), and (iii), assuming that extrapolation moves elements to the right:

- (i) The man [_{CP} [pictures of whom] are on the table]
- (ii) The man [_{CP} [pictures t_i] are on the table of whom_i]
- (iii) The man [_{CP} of whom_i [pictures t_i] are on the table t_j]

At the end, though, Hirata (1997) dismisses Chomsky's (1986) solution by noting that some impossible cases of extrapolation can undergo perfect relativization:

- (iv) *[Some members t_i] play only tennis of this club_i .
- (v) This is the club [of which_i [some members t_i] play only tennis]

[from Hirata (1997:344)]

Hirata (1997), thus, concludes that the derivation of relatives like the ones in (v) are derived à la Kitahara (1994), with the *wh*-phrase moving first to the edge of the subject DP, from where it will pied-pipe the whole DP:

- (vi) The man [_{CP} [_{TP} [pictures of whom] are on the table]]
- (vii) The man [_{CP} [_{TP} [of whom_i [pictures t_i]]] are on the table]]
- (viii) The man [_{CP} [of whom [pictures of t]_j [_{TP} t_j are on the table]]]

8.2. Chomsky's "Activity Condition" and Agreement

Consider again the other factor blocking subextraction out of subjects, apart from being in a phase edge: agreement. In Boeckx (2003a), where it is assumed that the problem with subextraction is related to SPEC-T, it is argued that agreement renders the subject DP opaque, barring subextraction. Such a possibility fits with the activity-based account, but still fails to explain why subextraction from SPEC-v* is impossible in English, given that in that position the DP is still active¹¹². Let us focus on this possibility, investigating whether agreement does indeed render a DP opaque/inactive.

As noted by Uriagereka (1988/2004), subextraction from subjects in Spanish is better with unaccusatives than from (in)transitives:

- (193)
- a. $\zeta_{[CP \text{ De qué artistas}_i \text{ han llegado}_z \text{ [TP ya } t_z \text{ [vP } t_z \text{ [las obras } t_i \text{]]]}]}$? (Spanish)
 Of what artists have-3PL arrived already the works
 'Which artists have the works of arrived?'
- b. $??\zeta_{[CP \text{ De qué artistas}_i \text{ han herido}_z \text{ [TP} t_z \text{ [v*P tu sensibilidad}_j \text{ [v*P [las obras } t_i \text{] } t_z \text{ } t_j \text{]]]}]}$? (Spanish)
 Of what artists have-3PL hurt your sensitivity the works
 'Which artists have the works of hurt your sensitivity?'
- [from Uriagereka (2004:9)]

(193a) is natural, if subjects of unaccusatives are accessed in their base position. Compare now (193b), repeated as (194a), vis-à-vis (194b):

- (194)
- a. $??\zeta_{[CP \text{ De qué artistas}_i \text{ han herido}_z \text{ [TP} t_z \text{ [v*P tu sensibilidad}_j \text{ [v*P [las obras } t_i \text{] } t_z \text{ } t_j \text{]]]}]}$? (Spanish)
 Of what artists have-3PL hurt your sensitivity the works
 'Which artists have the works by hurt your sensitivity?'
- b. $*\zeta_{[CP \text{ De qué artistas}_i \text{ han herido}_z \text{ [TP [las obras } t_i \text{] } t_z \text{ [v*P } t_j \text{ } t_z \text{ tu sensibilidad}_j \text{]]]}]}$? (Spanish)
 Of what artists have-3PL hurt the works your sensitivity
 'Which artists have the works by hurt your sensitivity?'

(194) indicates that subextraction from preverbal subjects is much worse than subextraction from postverbal ones. The same point is noted by Uriagereka (2004) in (195): extraction from postverbal position is preferred (in this case, the contrast is much more clear).

- (195) Spanish
- a. $\zeta_{\text{De qué conferenciantes}_i \text{ te parece [CP que [TP me van a impresionar [v*P [las propuestas } t_i \text{]]]}]}$?
 Of what speakers CL-to-you seems-3SG that me go to impress the proposals
 'Which speakers does it seem to you that the proposals by will impress me?'
- b. $??/*\zeta_{\text{De qué conferenciantes}_i \text{ te parece [CP que [TP [las propuestas } t_i \text{] } t_j \text{ me van a impresionar [v*P } t_j \text{]]]}]}$?
 Of what speakers CL-to-you seems-3SG that the proposals me go to impress
 'Which speakers does it seem to you that the proposals by will impress me?'
- [from Uriagereka (2004:10)]

¹¹² Boeckx's (2003a) analysis could also account for subextraction out of subjects in existential constructions, since the element from which subextraction occurs (the 'associate') does not establish full Agree with T, as Masaya Yoshida (p.c.) notes.

(196) and (197) make the same point¹¹³ (in the following examples I simplify the representation, not indicating the traces created by clitic and verb movement):

(196) Spanish

- a. ??¿De qué escritor_i dice María [_{CP} que [_{TP}[muchas novelas t_i]] la han impresionado [_{v*P} t_j]]]]?
 Of what writer says-3SG María that many novels CL-her have-3PL impressed
 ‘Of what writer does María say that many novels have impressed her?’
- b. ¿De qué escritor_i dice María [_{CP} que [_{TP} la han impresionado [_{v*P} [muchas novelas t_i]]]]]?
 Of what writer says-3SG María that CL-her have-3PL impressed many novels
 ‘Of what writer does María say that many novels have impressed her?’

(197) Spanish

- a. ??¿De qué universidad_i dice la prensa [_{CP}que[_{TP}[muchos estudiantes t_i]] han protestado [_{v*P} t_j]]]]?
 Of what university says-3SG the press that many students have-3PL protested
 ‘Of what university does the media say that many students have protested?’
- b. ¿De qué universidad_i dice la prensa [_{CP} que [_{TP} han protestado [_{v*P} [muchos estudiantes t_i]]]]]?
 Of what university says-3SG the press that have-3PL protested many students
 ‘Of what university does the media say that many students have protested?’

For unknown reasons (perhaps stronger agreement in the CP phase –or a more powerful F projection, in Uriagereka’s (1995) terms), the judgements seem to be milder in Galician (cf. (198) and (199)):

(198) Galician

- a. ¿De qué universidade_i di a prensa [_{CP} que [_{TP} [moitos estudantes t_i]] protestaron [_{v*P} t_j]]]]?
 Of what university says-3SG the press that many students have-3PL protested
 ‘Of what university does the media say that many students have protested?’
- b. ¿De qué universidade_i di a prensa [_{CP} que [_{TP} protestaron [_{v*P} [moitos estudantes t_i]]]]]?
 Of what university says-3SG the press that have-3PL protested many students
 ‘Of what university does the media say that many students have protested?’

(199) Galician

- a. ¿De qué escritor_i di María [_{CP} que [_{TP} [moitas novelas t_i]] a impresionaron [_{v*P} t_j]]]]?
 Of what writer says-3SG María that many novels CL-her have-3PL impressed
 ‘Of what writer does María say that many novels have impressed her?’
- b. ¿De qué escritor_i di María [_{CP} que [_{TP} a impresionaron [_{v*P} [moitas novelas t_i]]]]]?
 Of what writer says-3SG María that CL-her have-3PL impressed many novels
 ‘Of what writer does María say that many novels have impressed her?’

Interestingly enough, these types of subextractions are fully out in French (cf. (200)), as expected from the parameter in (57) and the *F continuum*:

¹¹³ As noted by Chomsky (2005:14 fn 39), the choice of the flavor of v* may have an effect on the judgements. So, note that Uriagereka’s (2004) examples in (195) use a psych-verb, and mine (cf. (196) and (197)) use both psych and unergative ones. I will avoid introducing verbs with explicit direct objects as much as I can, since those may add additional problems.

(200) French

- a. *De quel écrivain_i est-ce que John a dit [_{CP}que [_{TP}[beaucoup de livres t_i] l'ont impressionné t_j]]]?
Of which writer is-3SG CE that John has-3SG said that many of books CL-him have-3PL imp.
'Of what writer does John say that many novels have impressed him?'
- b. *De quelle équipe_i est-ce que John a dit [_{CP}que [_{TP}[beaucoup de joueurs t_i]] ont accusé t_j l'arbitre?
Of which team is-3SG CE that John has-3SG said that many of players have-3PL accused the ref.
'Of what team has John said that many players have accused the referee?'
- c. *De quelle équipe_i est-ce que John a dit [_{CP} qu'ont accusé [_{v*P} l'arbitre_j [beaucoup de joueurs t_i] t_j]]?
Of which team is-3SG CE John has-3SG said that accused-3PL the referee many of players?
'Of what team has John said that many players have accused the referee?'

Actually, French seems to respect the Subject Condition in all environments except for *dont*-relative sentences (Valérie Gautier, p.c.; cf. Tellier (1990)). (201) support this claim:

(201) French

- a. *[_{CP} De quel écrivain_i est-ce que [_{TP} [beaucoup de romans t_i]] ont causé [_{v*P} t_j un scandale]]]
Of which writer is-3SG CE that many of novels have-3PL caused a scandal
'Which writer did many novels by cause a scandal?'
- b. *[_{CP} De quelle université_i est-ce que [_{TP} [beaucoup d'étudiants t_i]] ont manifesté [_{v*P} t_j]]]?
Of which university is-3SG CE that many of-students have-3PL protested
'Of which university have many students protested?'

Compare (201) with (202)¹¹⁴:

(202)

- a. ??¿ [_{CP} De qué universidad_i causaron [_{TP} [los estudiantes t_i]] [_{v*P} t_j problemas]]]? (Spanish)
Of what university caused-3PL the students problems
'Of what university did the students cause problems?'
- b. ¿ [_{CP} De qué universidad_i causaron [_{TP} [_{v*P} problemas_j] [_{v*P} [los estudiantes t_i]] t_j]]]]? (Spanish)
Of what university caused problems the students
'Of what university did the students cause problems?'
- c. ¿ [_{CP} De qué equipo_i protestaron [_{TP} [_{v*P} los jugadores t_i]]]]]? (Spanish)
Of what team protested-3PL the players
'Of what team did the players protested?'

Assuming, as seems reasonable, that postverbal subjects are in SPEC-v* and preverbal ones in SPEC-v*/T, this evidence reinforces the conclusion of preceding sections: v*P is not a phase in NSLs, but its extension v*/TP is instead. Even if this is correct, I would like to highlight that subextraction out of SPEC-v*/T is not totally excluded (cf. the Galician facts in (198) and (199)), although it is admittedly much worse than that from SPEC-v*. There is a contrast, thus, between phase edges in NSLs and English. The contrast might have something to do with agreement, the facts noted regarding the activity condition, and the Spell-out procedures put forward by Uriagereka (2002a; 2002d). It is possible that his system can explain why extraction is possible even from SPEC-T: rich morphology can probably override the activity condition so that

¹¹⁴ It could be assumed that in (202b) *causaron problemas* has undergone a process of reanalysis or incorporation. If that is correct, then the object does not have to be analyzed as I assume (that is, as a *bona fide* object). As for (202c), as I said before (cf. fn. 36), there is in principle no reason to assume that the subject is not *in situ*, so I will assume so. A test that confirms this is the distribution of the adverb *siempre* (Eng. *always*), which tends to follow the subject in normal declarative clauses, when it is preverbal:

- (i) ¿ [_{CP} De qué equipo_i protestaron [_{TP} siempre [_{v*P} los jugadores t_i]] (??siempre)]]? (Spanish)
Of what team protested-3PL always the players always
'Of which team did the players always protested?'

specifiers, although inactive, are syntactically reachable, due to overt agreement. This reasoning, however, is contradictory in itself.

An alternative solution to the facts concerning not impossible subextraction from SPEC- v^*/T runs as follows: once the subject DP has been merged in SPEC- v^* , the verb raises to T, with which it amalgamates; right after that, T's ϕ -Probe assign nominative, and, in parallel, v^* 's [ef]-Probe subextracts the *wh*-phrase. The process is less problematic in Galician (and presumably in European Portuguese as well) if, for whatever reason, it has a morphologically richer v^* . In any event, the data from (198) to (201) strongly indicate that the whole process is sensitive to the *F continuum*: it seems as a richer v^* has additional subextraction properties. Notice, finally, that a process like the one just indicated is unavailable for English, since external arguments merge with a phase head from the very first step of the derivation (i.e., v^*), and even if v^* has [ef] in that language (as is assumed in this framework), those [ef] they cannot extract something from within their own specifier (a higher Probe would always be needed to do that job –namely, C^*).

Going back to the main discussion of this subsection, I think one could use the distinction regarding subextraction between preverbal and postverbal positions to argue that Boeckx's (2003a) treatment is not to be abandoned: Spanish agreement makes a distinction between preverbal and postverbal subjects, as pointed out by Uriagereka (2004):

(203)

- a. {Han/ha} llegado tu padre y tu hermano. (Spanish)
 Have-3PL/Has-3SG arrived your father and your brother
 'Your father and your brother have arrived'
- b. Tu padre y tu hermano {han/*ha} llegado. (Spanish)
 Your father and your brother have-3PL/has-3SG arrived
 'Your father and your brother have arrived'

[from Uriagereka (2004:19)]

As can be seen, if the plural subject is postverbal, default 3SG agreement can obtain, but not when the subject is preverbal. I would like to relate this fact to the deviance in the case of subextraction from preverbal subjects in Spanish. The picture seems to extend to agreeing objects. So, Uriagereka (2004) notes that agreeing objects always preclude subextraction in Basque:

- (204) *Noren_i ikusi ditu [t_i argazkiak] Jonek? (Basque)
 Who-gen see 3SG/Obj-aux-3SG/Subj pictures-ABS Jon-ERG
 'Of whom has Jon seen pictures?'

[from Uriagereka (2004:18)]

Uriagereka (2004) notes that the auxiliary *ditu* overtly agrees with the object, rendering it opaque, a fact he takes to indicate that the object has moved to SPEC- v^* . Nothing similar can be found in Spanish, for it does not seem to matter whether the object has moved to SPEC- v^* (as it presumably has in (205a)) or not (putting specificity islands aside, of course):

(205)

- a. ¿De qué jugador_i compró [_{v*P} [una camiseta t_i]]_j [_{v*P} Leticia [_{VP} t_j]]]? (Spanish)
 Of what player bought-3SG a shirt Leticia
 'Of what player did Leticia buy a T-shirt?'
- b. ¿De qué jugador_i compró [_{v*P} Leticia [_{VP} [una camiseta t_i]]]? (Spanish)
 Of what player bought-3SG Leticia a shirt
 'Of what player did Leticia buy a T-shirt?'

Obviously, as I said in section § 6, in both examples of (205), the *wh*-phrase could have been extracted by the base position once *v** has moved to T; so, what blocks subextraction out of objects in Spanish is the presence of the case marker *a*, which seems to render it inactive.

As it turns out, the case with Spanish clausal subjects is not much different. In Spanish, clauses can be introduced by a definite article, but there seems to be a strong preference for having it when the clause is in preverbal position. One could take that as additional evidence for richer agreement in preverbal position¹¹⁵.

- (206)
- a. (El) que leas tanto es sorprendente. (Spanish)
The that read-SUBJ-2SG so-much is surprising
'That you read so much is surprising'
 - b. Es sorprendente (??el) que leas tanto. (Spanish)
Is-3SG surprising the that read-SUBJ-2SG so-much
'It is surprising that you read so much'

This article introduces clauses when they are subjects, not objects, with the only exception of factive verbs, as the example in (207) indicates:

- (207)
- a. María dijo (*el) que había viajado a Boston. (Spanish)
María said-3SG the that had-3SG travelled to Boston
'María said that she had travelled to Boston'
 - b. María lamenta (el) que hayas viajado a Boston. (Spanish)
María regrets-3SG the that have-SUBJ-2SG travelled to Boston
'María regrets that you have travelled to Boston'

The logic tells us that presence of the article cannot be innocuous, and actually it is not. Consider (208), which illustrates the both possibilities: the subject clause is either preverbal or postverbal, only the former having the possibility of showing the article.

- (208)
- a. (El) que Juan haya leído esos libros es sorprendente. (Spanish)
The that Juan has-SUBJ-3SG those books is-3SG surprising
'For John to have read those books is surprising'
 - b. Es sorprendente (??el) que Juan haya leído esos libros. (Spanish)
Is-3SG surprising that Juan has-SUBJ-3SG those books
'It is surprising for John to have read those books'
- As (205) shows, only the postverbal clause allows extraction:

¹¹⁵ Moreover, note that although clausal subjects can or cannot be introduced by a definite article, as in (i) and (ii), respectively :

- (i) El que trabajes poco no me gusta. (Spanish)
The that work-SUBJ-2SG a-little not CL-me likes-3SG
'I don't like that you work a little'
- (ii) Que trabajes poco no me gusta. (Spanish)
That work-SUBJ-2SG a-little not CL-me likes-3SG
'I don't like that you work a little'

When they are inflected in indicative (an option which depends on the selecting predicate), the article is out :

- (iii) Que Ana trabaja es obvio. (Spanish)
That Ana works-3SG is-3SG obvious
'That Ana works is obvious'
- (iv) *El que Ana trabaja es obvio. (Spanish)
The that Ana works-3SG is-3SG obvious
'That Ana works is obvious'

- (209)
- a. *¿Qué libros_i [_{CP} que haya leído Juan t_i] es sorprendente? (Spanish)
What books that have-SUBJ-3SG read Juan is-3SG surprising
'What books it is surprising for Juan to have read them?'
 - b. ¿Qué libros_i es sorprendente [_{CP} que haya leído Juan t_i]? (Spanish)
What books is-3SG surprising that have-SUBJ-3SG read Juan
'What books it is surprising for Juan to have read them?'

Interestingly, postverbal clauses also block extraction if the article appears:

- (210)
- a. ¿Qué libros_i es sorprendente [_{CP} que haya leído Juan t_i]? (Spanish)
What books is-3SG surprising that have-SUBJ-3SG read Juan
'What books it is surprising for Juan to have read them?'
 - b. *¿Qué libros_i es sorprendente [_{CP} el que haya leído Juan t_i]? (Spanish)
What books is-3SG surprising that have-SUBJ-3SG read Juan
'What books it is surprising for Juan to have read them?'

8.3. Subextraction from SPEC-C

So far nothing has been said about subextraction from SPEC-C. Let us assess this operation in what follows, given that, under Chomsky's (2005) proposal, subextraction from *wh*-phrases in SPEC-C should be as bad as subextraction from SPEC-v*, for that position also constitutes a phase *edge* (actually, note that the operations that will be considered in this section can be ruled out on independent grounds, since all of them constitute a violation of the A-over-A Principle).

To begin with, consider the examples in (211) –one of them taken from Johnson (2003):

- (211)
- a. *Who_i did you say [_{CP} [which picture of t_i]_j Mary bought t_j]? [from Johnson (2003:188)]
 - b. ??/*Of whom_i did Mary ask [_{CP} [which picture t_i]_j t_j caused a scandal]?
 - c. ??Of which director_i don't you know [_{CP} [which movies t_i]_j t_j received an Oscar]?
 - d. ??Of which students_i did you ask [_{CP} [which picture t_i]_j t_j caused a scandal]?

As the data in (211) reveal, Chomsky's (2005) analysis seems to make the right predictions. More evidence supporting this conclusion comes from Lasnik & Saito (1992), who, interestingly enough, pointed out that subextraction improves when D-linked *wh*-phrases are used (cf. (212c,d)):

- (212)
- a. ??Who_i do you wonder [_{CP} [which picture of t_i]_j Mary bought t_j]?
 - b. ??Who_i do you wonder [_{CP} [which picture of t_i]_j t_j is on sale]?
 - c. ?Which athletes_i do you wonder [_{CP} [which pictures of t_i]_j Mary bought t_j]
 - d. ?Which athletes_i do you wonder [_{CP} [which pictures of t_i]_j t_j are on sale]
- [from Lasnik & Saito (1992:102 & 111)]

Thus, according to (211) and (212), Chomsky's (2005) proposal about phase *edges* seems to be on track: subextraction from SPEC-v* and SPEC-C is almost barred. However, some data noted by an unpublished manuscript by Esther Torrego (Torrego (1985)) cast doubt on that conclusion, at least as far as Spanish is concerned. The traditional minimal pair, pointed out by Chomsky (1986; 1995), is the one in (213):

(213) Spanish

- a. *Esta es la autora [CP [de la que]_i [TP [varias traducciones t_i]_j han ganado [v^{3P} t_j premios internacionales]]]
This is-3SG the author of the which several translations have-3PL won awards international
'This is the author whom several translations by have won international awards'
- b. ¿De qué autora_i no sabes [CP [qué traducciones t_i]_j [v^{3P} t_j están a la venta]]?
Of what author not know-2SG you which translations are-3PL to the sale
'Which author don't you know which translations by are on sale?'

[from Chomsky (1986:26)]

In Chomsky (1986) it was argued that the unexpected successful subextraction of (209b) was due to the possibility for the verb *saber* (Eng. *to know*) to L-mark the SPEC position of the embedded CP. Later on, in the middle 90s, Ormazábal, Uriagereka & Uribe-Etxebarria (1994) reassessed Torrego's (1985) data in Chain Uniformity terms: in their analysis, they suggested that (214a) is out because subextraction occurs from a link of a uniform A-chain¹¹⁶; as for (209b) they argued that Chain Uniformity was not affected, since subextraction affects the A'-link of an already non-uniform chain. However appealing the latter account might be, it must be noted that, if all chains are uniform, as Chomsky (2005) suggests, this type of explanation cannot be invoked.

In recent work, Juan Uriagereka has investigated these facts again. In his analysis, he claims that structures like (213b) are structurally ambiguous, for the *wh*-phrase *qué traducciones* (Eng. *which translations*) can be analyzed as a sort of adjunct (and not a true SPEC), a technical solution that, given his modified *Multiple Spell-out* system, avoids the Spell-out of the *wh*-phrase so that subextraction is still possible. In order to see the logic of Uriagereka's (2004) proposal, consider the structures in (214):

(214)

- a. Ya sé qué novelas de Javier Marías están a la venta. (Spanish)
Now know-1SG what novels by JM are-3PL to the sale
'I already know what novels by JM are on sale'
- b. Ya sé las novelas de Javier Marías que están a la venta. (Spanish)
Now know-1SG the novels by JM that are-3PL to the sale
'I already know the novels by JM that are on sale'

According to Uriagereka's (2004) logic, (214a) can yield both *de re* and *de dicto* readings, being hence structurally ambiguous between a true selected embedded *wh*-question and a species of embedded clause with a topicalized *wh*-phrase. Such difference perhaps becomes more

¹¹⁶ My own judgements are instable in this case. So, I would say that (214a) is just ?? (actually, this is precisely the original judgement given by Esther Torrego herself). My proposal predicts that, if the subject appears postverbally, subextraction should improve, and it does, as (ii) shows (in order to avoid additional complexity, in (ii) I use a structure in which the subject is the rightmost element, but even if it appears between the verb and the object, there is an improvement with respect to (i) -that is what is important):

- (i) ??Esta es la autora [CP [de la que]_i [TP [varias traducciones t_i]_j [v^{3P} t_j han ganado premios inter.]]] (Spanish)
This is-3SG the author of the that several translations have-3PL won international awards
'This is the author by whom several translations have won international awards'
- (ii) ?Esta es la autora [CP [de la que]_i [TP han ganado [v^{3P} premios inter._j [v^{3P} [varias traducciones t_i t_j]]]]] (Spanish)
This is-3SG the author of the that have-3PL won international awards several translations
'This is the author by whom several translations have won international awards'

Note, moreover, that the contrast with (iii) is even sharper, probably because *si* (Eng. *whether*) creates a weak island effect:

- (iii) ??/*¿De qué autora_i no sabes [CP si [las traducciones t_i]_j [v^{3P} t_j están a la venta]]? (Spanish)
Of what author not know-32SG you which translations are on sale
'Which author don't you know which translations by are on sale?'

conspicuous in (215): under the *de re* reading, the speaker can go on and point out which novels are on sale (since he has the specific novels in mind).

(215) Spanish

- a. Ana dijo qué novelas de Javier Marías habían ganado un premio: *Corazón tan blanco, Cuando fui mortal*, etc.
 Ana said-3SG what novels by JM had-3SG won a prize: Heart so white, When was-1SG mortal, etc.
 ‘Ana said which novels by JM had won a prize: *Heart so white, When I was mortal*, etc.’
- b. Ana dijo que qué novelas de Javier Marías habían ganado un premio. Pero eso no es lo que yo quería saber.
 Ana said-3SG what novels by JM had-3SG won a prize. But that not is-3SG the that I wanted-1SG to-know
 ‘Ana said which novels by JM had won a prize. But that is not what I wanted to know’

Only in (215a) the expression is “object-centered” (to use Uriagereka’s (2004) terms), and the *wh*-phrase *qué novelas de Javier Marías* (Eng. *which novels by Javier Marías*) can receive a *de re* reading. In (215b), on the other hand, the expression is “thought-centered”, as the pronoun *eso* (Eng. *that*), which refers to the whole clause, indicates; consequently, only a *de dicto* reading is available.

Importantly, adding the complementizer *que* (Eng. *that*) before the *wh*-phrase only allows the *de dicto* interpretation of the embedded CP, as Raquel González (p.c.) tells me; in fact, when we use *que, decir* (Eng. *to say*) has the interpretation of *preguntar* (Eng. *to ask*):

(216)

- a. Ana dijo qué novelas de Javier Marías habían ganado un premio. [ambiguous] (Spanish)
 Ana said-3SG what novels by JM had-3SG won a prize.
 ‘Ana said which novels by JM had won a prize’
- b. Ana dijo que qué novelas de Javier Marías habían ganado un premio. [only *de dicto*] (Spanish)
 Ana said-3SG what novels by JM had-3SG won a prize.
 ‘Ana asked which novels by JM had won a prize’

Interestingly for my purposes, trying to subextract from (216b) yields deviance:

- (217) ??/*¿De qué escritor_i dijo Ana [CP que [qué novelas t_i] habían ganado un premio] (Spanish)
 Of what writer said-3SG Ana that what novels had-3SG won a prize.
 ‘Which writer did Ana ask which novels by had won a prize?’

But let us go back to (214), and, in particular, to the (214b) case, which Uriagereka (2004) attributes to Campos (1990) and treats as a sort of CP with a topicalized DP¹¹⁷. According to

¹¹⁷ Cf. Bruccart (1993; 1995) for a similar analysis, and more related intriguing issues. I cannot offer a precise analysis of the structure in (215b), but I suspect that it could be analyzed under Kayne’s (1994) raising analysis of relative clauses. Uriagereka (2004) dismisses the possibility of analyzing (215b) as a relative clause because a true relative pronoun like *el cual* (Eng. *the which*) cannot replace *que*; I agree, but that is not a good test, since it follows from a more general restriction about overt relative pronouns in Romance languages: they are possible only if introduced by a preposition (cf. Bruccart (1992) and Gallego (2005)):

- (i) La chica {que/*la cual} te gusta. (Spanish)
 The girl that/the which CL-you likes-3SG
 ‘The girl {that/who} you like’
- (ii) La chica con la {que/cual} sales. (Spanish)
 Another problem for a relative analysis of (215b) comes, I guess, from the fact that the CP-chunk cannot be eliminated:
- (iii) Ya sé las novelas de Javier Marías *(que están a la venta). (Spanish)
 Now know-1SG the novels by JM that are-3PL to the sale
 ‘I already know the novels by JM that are on sale’

(iii) is misleading, though. In (iv) it can be seen that therea are some relative clauses that cannot be dropped:

- (iv) I miss the Barcelona *(that I knew when I was a child).

Uriagereka (2004), (214b) can only have the *de re* reading, so, building on this contrast, he argues that (214a) can receive a double analysis, depending on whether the *wh*-phrase is a true interrogative *wh*-phrase (forcing a *de dicto* reading) or a topicalized *wh*-phrase (forcing the *de re* one, just like the one of Campos's (1990) example). What we now want to find out is what the difference between being a "true SPEC" and an "adjunct SPEC" is? In Uriagereka's (2004) MSO system, only true SPECs flatten and become frozen units, which predicts that adjoined ones may still allow subextraction. As we see in (218), the prediction is correct under the assumption that the topicalized DP *las traducciones* (Eng. *the translations*) is adjoined somewhere in the CP, crucially without qualifying as a SPEC:

- (218) ¿De qué autora_i no sabes [CP [las traducciones t_i]_j t_j que están a la venta] (Spanish)
 Of what author not know-2SG what translations are-3PL at the sale
 'Which author don't you know the translations by that are on sale'

Eventually, thus, Uriagereka (2004) ends up concluding that Torrego's (1985) examples in which subextraction is possible are to be analyzed with the *wh*-element as a topicalized phrase that has a *de re* interpretation, as (219) indicate (notice that, for Uriagereka (2004), it is the stranded/intermediate *wh*-phrase *qué traducciones* that receives the *de re* reading):

- (219) ¿De qué autora_i no sabes [CP [qué traducciones t_i]_j t_j están a la venta ... (Spanish)
 Of what author not know-2SG what translations are-3PL at the sale
 'Of what author don't you know what translations are on sale...
 ... # y de hecho dudas que haya ninguna?
 and of fact doubt-2SG that there-is-SUBJ-3SG none
 ... and actually you doubt that there is any?'

[from Uriagereka (2004:29)]

In (219), the *de dicto* reading (the one in which the speaker does not have in mind some specific novels whose existence is presupposed) is forced by the added comment, and subextraction is worse. Uriagereka (2004) takes this fact to suggest that the cases in which subextraction is possible, the *wh*-phrase is not a specifier.

I agree with Uriagereka's (2004) intuition about the *de re* / *de dicto* contrast, but I do not think we need to analyze those *de re wh*-phrase as topics (that would be problematic, assuming that they also have to satisfy their interrogative role, something that would be at odds with the fact that there are "freezing effects" governing the distribution of A'elements; cf. Rizzi (2004a) and Bošković (2005)). The key factor for me in forcing the presuppositional/D-linked/*de re* reading is the negative part of the expression *no saber*, the one used by Esther Torrego; as far as I know, this has gone unnoticed in all analysis of Torrego's (1985) original data I am familiar with. Therefore, to my ear, examples without negation seem to me to be seriously degraded. To test this, consider the examples in (220) and (221), where, following Uriagereka's (2004) strategy, I use added comments to induce a *de re* or *de dicto* reading of the embedded CP:

(220) Spanish

- a. ??/*¿De qué autora_i sabes [CP [qué traducciones t_i]_j [v_{VP} t_j están a la venta]]? (...y no se lo dijiste a Ana)
 Of what author know-2SG you which translations are-3PL on sale (...and not CL CL-it said-2SG to Ana)
 'Which author do you know which translations by are on sale? (...and you did not say that to Ana)
 b. ¿De qué autora_i no sabes [CP[qué traducciones t_i]_j[v_{VP} t_j están a la venta]]? (...y no se lo dijiste a Ana)

My own take is that the problem with (iv) has to do with the difficulty in interpreting the DP *the Barcelona* as a sort of concealed question; after all, there is no problem of doing that in (v):

- (v) Ya sé tu número de teléfono. (Spanish)
 Now know-1SG your number of telephone
 'I know your telephone number'

Of what author know-2SG you which translations are-3PL on sale (...and not CL CL-it said-2SG to Ana)
 'Which author do you know which translations by are on sale? (...and you did not say that to Ana)'

(221)

- a. ¿De qué autora_i sabes [_{CP} [qué traducciones t_i]_j [_{v*P} t_j están a la venta]]? (...pero no querías leerlas)
 Of what author know-2SG you what translations are on sale (...but not would-like-2SG to read-them)
 'Which author do you know which translations by are on sale? (...but you would not like to read them)'
 b. ¿De qué autora_i no sabes [_{CP} [qué traducciones t_i]_j [_{v*P} t_j están a la venta]]? (...y no querías leerlas)
 Of what author know-2SG you what translations are on sale (...and not would-like-2SG to read-them)
 'Which author do you know which translations by are on sale? (...and you would not like to read them)'

(222) and (223) make the same point, assuming that the *wh*-phrase in the embedded CP does not receive a *de re* (*cardinal*, in this case) reading ^{118 119}:

(222) Spanish

- a. ??/*¿De qué escritor_i ha preguntado María [_{CP} [cuántas novelas t_i]_j t_j han tenido éxito]?
 Of what writer has-3SG asked María how-many novels have-3PL had success
 'Of what writer has María asked how many novels have succeeded?'
 b. ¿De qué escritor_i no ha preguntado María [_{CP} [cuántas novelas t_i]_j t_j han tenido éxito]?
 Of what writer not has-3SG asked María how-many novels have-3PL had success
 'Of what writer hasn't María asked how many novels have succeeded?'

(223) Spanish

- a. ??/*¿De qué director_i ha dicho María [_{CP} [cuántas películas t_i]_j t_j han ganado un Óscar]?
 Of what director has-3SG said María how-many films have-3PL won an Oscar
 'Of what director has María said how many films have won an Oscar?'
 b. ¿De qué director_i no ha dicho María [_{CP} [cuántas películas t_i]_j t_j han ganado un Óscar]?
 Of what director not has-3SG said María how-many films have-3PL won an Oscar
 'Of what director hasn't María said how many films have won an Oscar?'

Note that negation is also the only way in which one can save a long distance extraction of an adjunct (cf. Rizzi (1991)):

(224)

- a. ¿Cómo_i no dijo Luis qué libros_i leyó Ana t_i t_j? (Spanish)
 How not said-3SG Luis what books read-3SG Ana
 'How didn't Luis say what books Ana read?'
 b. ¿Qué libros_i no dijo Luis cómo_i leyó Ana t_i t_j? (Spanish)
 What books not said-3SG Luis how read-3SG Ana
 'What books didn't Luis say how Ana read?'

¹¹⁸ In (233) I use the verb *decir* (Eng. *to say*) to introduce the embedded interrogative sentence (actually, it is an embedded completive sentence with interrogative format). Following Bosque (1982) I take *decir* as a verb selecting embedded interrogative questions. Esther Torrego (p.c.) notes that only *preguntarse* (Eng. *to wonder*) and *no saber* (Eng. *not to know*) should be used to make these tests properly, since those are the verbs that only select embedded interrogative clauses. I think *preguntarse* should not be used, since, being a pure non-bridge verb, it adds additional complications. As for *no saber* –which, strictly speaking, is not a verb-, I also think it should not be used, because it introduces the relevant factor that makes subextraction improve: negation.

¹¹⁹ The analysis predicts that (i) and (ii) should not be seriously degraded, even if negation is not used. Assuming that the pronominal adjective *famosa* forces a specific reading of the *wh*-phrase *qué famosa autora* (cf. Bosque (2001)), and the partitive structure headed by *cuál* forces a specific interpretation as well. To my ear, (i) and (ii) are quite good:

- (i) (?)¿De qué famosa autora_i preguntó Juan [_{CP} [qué traducciones t_i]_j t_j están a la venta]? (Spanish)
 Of what famous author asked-3SG Juan what translations are-3PL to the sale
 'Which famous author did Juan ask which translations by are on sale?'
 (ii) (?)¿De cuál de aquellas autoras_i preguntó Juan [_{CP} [qué traducciones t_i]_j t_j están a la venta]? (Spanish)
 Of which of those authors asked-3SG Juan what translations are-3PL to the sale
 'Which one of those authors did Juan ask which translations by are on sale?'

As Rizzi (1991) noted, (224b) is good, with long extraction of an argument, which –in his analysis– bears a referential index that allows a binding strategy to properly govern its trace. (224a) is –I agree with Rizzi (1991)– out. But note that there is still a way of saving (224a): if there is a previous context in which Luis said that Ana read some books in many different ways (say, *slowly, gracefully, standing*, etc.), then one can come up and ask (224a) if he/she wants to find out what the specific way(s) in which Luis did not say Ana read some books is.

Now, one important issue remains to be addressed: which one of the two *wh*-phrases is the one that receives the *de re* reading? According to my own judgements, there is a strong preference for the first one (that is, the one that ends up in the matrix SPEC-C) to be interpreted presuppositionally. So, the rough interpretation of Torrego’s (1985) original example, repeated in (225a), would be as in (225b):

(225)

- a. ¿De qué autora_i no sabes [_{CP} [qué traducciones t_i]_j t_j están a la venta]? (Spanish)
 Of what author not know-2SG what translations are-3PL to the sale
 ‘Of what author don’t you know what translated books are on sale?’
- b. $\exists x, x = \text{author, for what } x \text{ you do not know that } y, y = \text{translations of } x, \text{ are on sale.}$

The intuition I am trying to capture in (225b) is that the *wh*-phrase *qué autora* (Egn. *which author*) has wide scope over the main clause, being presupposed, with the restriction *autora* not undergoing downstairs reconstruction (cf. Fox (2002), Heycock (1995), *inter alia*). So, for me, it is this *wh*-phrase, and not the embedded one (i.e., *qué traducciones*) that is preferably presupposed (for Uriagereka (2004) it is the embedded one that receives the presuppositional reading). If this is so, we expect that (225a), repeated below as (226a), is interpreted as a *simple matrix question*, and not as a *multiple matrix question*¹²⁰, with (226b) as its answer. Were it multiple, then the speaker could answer as in (226c) (actually, I think Uriagereka (2004) is right, and (226c) is a possible answer; all we have to do is force a *de re* reading of the stranded *wh*-phrase *qué traducciones* too, but, as just said, in that case we would have a sort of disguised matrix multiple question):

(226) Spanish

- a. ¿De qué autora_i no sabes [_{CP} [qué traducciones t_i]_j t_j están a la venta]?
 Of what author not know-2SG what translations are-3PL to the sale
 ‘Of what author don’t you know what translated books are on sale?’
- b. No sé qué traducciones de Ana María Matute están a la venta.
 Not know-1SG what translations of AMM are-3PL to the sale
 ‘I do not know what translations of AMM are on sale’
- c. No sé si, de Ana María Matute, están a la venta *Celebration in the Northwest y The Lost Children*.
 Not know-1SG whether, of AMM, are-3PL to the sale CitN and TLC.
 ‘I do not know whether, of AMM, the translations CitN and TLC are on sale’

But focus on (226c), since it gives us the key for understanding the main problem with Torrego’s (1985) data: in all the previous examples, one must be careful in not relating the *wh*-phrase occupying the matrix SPEC-C to the main verb, something that is possible with most (if not all the) verbs I used (e.g., *preguntar, decir, saber*). In other words, all these verbs allow the structure “X Verb Z *de* Y”, as in *Juan sabe eso de Ana* (Eng. *Juan knows that about Ana*) where X and *de* Y do not form a constituent; note that if we interpret the *wh*-phrase that way, there is no *bona fide* subextraction: actually, we would be having the aboutness-reading that we are trying to

¹²⁰ The LF representation of the matrix multiple question-version would be as in (i), putting aside whether one of the *wh*-phrases (or both) gets a presuppositional reading:

(i) for what $x, x = \text{author, for what } y, y = \text{translations, you do not know that } y \text{ of } x \text{ are on sale}$

avoid (a typical *filler-gap* issue, I suspect, for we try to relate the *wh*-phrase to the first downstairs verb we find).

We should, then, use a structure that does not favor that aboutness-reading; consider the structure in (227), where we have an indirect interrogative clause which is the subject of *ser importante* (Eng. *to be important*):

- (227) (Para entrar en este club) es crucial [_{CP} qué libros de Borges ha leído uno] (Spanish)
 For to-enter in this club is-3SG crucial what books of Borges has-3SG read one
 'In order to enter into this club it is crucial which books by Borges one has read'

Now consider (228):

- (228) $?(?)_i$ ¿De qué escritor_i es crucial [_{CP} [qué libros t_i] ha leído uno]? (Spanish)
 Of what writer is-3SG crucial what books has-3SG read one
 'Which writer is it crucial which books by one has read?'

Again, (228), even if not perfect, still allows the possibility for *de qué escritor* (Eng. *of which writer*) to receive the unwanted aboutness reading. Let us, then, try to find more conclusive tests; consider the next examples, which contain binding elements that force the reconstruction of the restriction of the *wh*-phrase in matrix SPEC-C into the embedded clause (hence, barring the possibility of interpreting it as an aboutness phrase):

- (229) $??/*_i$ ¿[De qué hijo suyo_i]_i sabes [_{CP} [qué novelas t_i] ha leído Ana_i]? (Spanish)
 Of what son hers know-2SG what novels has-3SG read Ana
 'Which son of hers do you know which novels by Ana has read?'
- (230) $*_i$ ¿De qué fotografías de sí misma_i sabes [_{CP} [qué habladurías t_i] ha oído María]? (Spanish)
 Of what photographs of CL-self know-2SG what gossip has-3SG heard María
 'Of which photographs of herself do you know which nasty comments María has heard?'

These sentences are out, as expected ((229) is not as bad as (230), arguably because the relevant interpretive relation between the possessive determiner *suyo* *-hers-* and *Ana* can marginally obtain even if there is no c-command). Note that the non-complex versions of (229) and (230) are fine (cf. (231) and (232)), so the problem must really have to do with the fact that the restriction of the *wh*-phrase in matrix SPEC-C, having to reconstruct, cannot feed the presuppositional/aboutness reading that blurs the picture¹²¹:

- (231) ¿De qué hijo suyo ha leído novelas Ana? (Spanish)
 Of what son hers has-3SG read novels Sns
 'Which son of hers has Ana read novels by?'
- (232) ¿De qué fotografías de sí misma ha oído habladurías María? (Spanish)
 Of what photographs of CL-self has-3SG heard gossip María
 'Of which photographs of herself has María heard nasty comments?'

Another test to make sure that we avoid the aboutness reading (Leticia Pablos, p.c.) involves already having an aboutness phrase in the main sentence, as (229) shows (note that the

¹²¹ The same is trivially true in the case of the declarative versions of (231) and (232):

- (i) Ana ha leído novelas de su hijo Pablo. (Spanish)
 Ana has-3SG read novels of her son Pablo.
 'Ana has read novels by her son Pablo'
- (ii) María ha oído muchas habladurías de fotografías de sí misma. (Spanish)
 María has-3SG much gossip of photographs of CL-self
 'María has heard many nasty comments of photographs of herself'

aboutness phrase *de Pedro -of Pedro-* has to be before the embedded CP, presumably due to the length of the latter):

(233)

- a. Ana sabe de Pedro [qué novelas de Javier Marías ha leído] (Spanish)
Ana knows-3SG of Pedro what novels of JM has-3SG read
'About Pedro, Ana knows which novels by JM he has read'
- b. Ana preguntó de María [qué novelas de Javier Marías había leído] (Spanish)
Ana asked-3SG of María what novels of JM had-3SG read
'About María, Ana asked which novels by JM she had read'
- c. Ana nos ha dicho de María [qué novelas de Javier Marías ha leído] (Spanish)
Ana CL-us has-3SG said of María what novels of JM has-3SG read
'About María, Ana has told us which novels by JM she has read'

Now, consider (234), where the relevant subextraction (the one from SPEC-C) takes place:

(234)

- a. ??/*_iDe qué escritor_i sabe Ana de Pedro [CP [qué novelas t_i] _j ha leído t_j] (Spanish)
Of what writer knows-3SG Ana of Pedro what novels has-3SG read
'Which writer does Ana know about Pedro which novels by he has read?'
- b. ??/*_iDe qué escritor preguntó Ana de María [CP [qué novelas t_i] _j había leído t_j] (Spanish)
Of what writer asked-3SG Ana of María what novels had-3SG read
'Which writer did Ana ask about María which novels by she had read?'
- c. ??/*_iDe qué escritor_i nos ha dicho Ana de María [CP [qué novelas t_i] ha leído t_j] (Spanish)
Of what writer CL-us has-3SG said Ana of María what novels has-3SG read
'Which writer has Ana asked about María which novels by she has read?'

In sum, the easier the presuppositional/aboutness reading of the *wh*-phrases (of one or both of them), the easier the subextraction process. Note that both Uriagereka's (2004) analysis and mine are tacitly reinforced by Lasnik & Saito's (1992) data, since, as they noted, if the *wh*-phrase undergoing subextraction is D-linked (e.g., *which*), subextraction improves (cf. (212c,d)).

The resulting scenario, I believe, is good, for even though we can expect differences regarding subextraction in the v*/TP-v*P domains if what I have defended is correct, we do not obviously expect the asymmetries noted by Torrego (1985) in the CP. Curiously, even if subextraction is marginally possible from argumental *wh*-phrases, it is totally blocked in the case of *wh*-phrases contained within adjuncts, regardless of negation:

(235) Spanish

- a. *_iDe qué autor_i no sabes [CP [en cuántas novelas t_j] _i el protagonista mata a alguien t_i]?
Of what author not know-2SG in how-many novels the main character kills-3SG to someone
'Of what author don't you know in how many novels the main character kills someone?'
- b. *_iDe qué piloto_i no sabes [CP [para qué coche t_j] _i han diseñado un nuevo motor t_i]?
Of what pilot not know-2SG for what car have-3PL design a new engine
'Of what pilot don't you know for what car they have designed a new engine?'

In conclusion, I have argued that subextraction from SPEC-C is (generally) as bad in Spanish as it is in English. If that is correct, something must be said about the data of Torrego (1985). I have claimed that, in those data, negation blurs the picture, forcing a presuppositional reading whereby the *wh*-phrase(s) behave(s) as dislocated 'aboutness' phrase(s) (cf. Cinque (1991), Fox (2000), Heycock (1995), Rizzi (1990; 1991), Pesetsky (1987; 2000), for instance). This conclusion is consistent with Esther Torrego's judgments, since, as noted by Uriagereka (2004), she judges (236) as ungrammatical:

- (236) *¿De qué autora_i te preguntas [_{CP} [qué traducciones t_i] están a la venta]? (Spanish)
Of what author CL-you wonder-2SG what translations are-3PL to the sale
'Of what author do you wonder what translations are on sale?'

9. Conclusions

In this paper I have put forward a proposal concerning parametric variation that, besides being consistent with Chomsky's (2000; 2001; 2004; 2005) Phase Theory, seems to be enough to account for important properties of Null Subject Languages (NSLs). The proposal clearly revamps (and has been inspired by) Chomsky's (1986) analysis of V-movement as a proper L-marker of the VP, up to the point that the core idea is, as far as I can see, virtually identical. Actually, it must be noted that this very intuition (or a slightly modified version of it) has been presented in the GB literature in one or another form, either suggesting that NSLs's INFL is a proper governor of the subject or the VP (cf. Belletti & Rizzi (1981), Jaeggli (1982; 1984), Kayne (1989), Lasnik & Saito (1992), *inter alia*), or that SPEC-INFL has A and A' properties in NSLs (cf. Camacho (2005), Masullo (1992; 1993), Myriam Uribe-Etxebarria (1992; 1995), *inter alia*), or else that bounding nodes are different cross-linguistically (cf. Rizzi (1978; 1982)). In the present formulation, I have argued that it is possible to claim that T has phase properties in NSLs without giving up the strong phase role of v^* and C^* ; in particular, I have claimed that T, together with the ϕ -features inherited from C, can inherit *edge features* from v^* by means of v^* -to-T movement: the former features are responsible for T's A-nature; the latter, for T's A'-nature. Granted, for that scenario to be possible, I have assumed that v^* -to-T movement is truly syntactic, forcing a reprojection of TP (metaphorically speaking, v^* 's movement "pushes up" the v^* P phase to the TP level, causing what I have called a *phase-sliding*). The consequences are easy to calculate: every operation that was supposed to apply at the v^* P level, applies at the $v^*/$ TP level; subextraction from SPEC- v^* is possible, since it is no longer a phase *edge* after v^* -to-T movement; intervention effects in VOS orders are avoided, arguably with both nominative Case and accusative Case assignment taking place in parallel within the $v^*/$ TP phase. If correct, the proposal may perhaps explain why most NSLs (putting to the side those in which the verb moves higher, up to the C system) lack VP ellipsis (taking it that only phase domains can be targeted for operations like ellipsis), and, plausibly, why Laka's (1990) Σ is projected above TP in NSLs, but above v^* P in English.

It is also interesting to see that the different behaviour of Case/Tense features of subject DPs (under Pesetsky & Torrego (2001; 2004a; 2004b) approach to Case) follow from this analysis; thus, if my proposal is right, the Case feature of subject DPs in English remains "computationally alive" longer than in Spanish due to the phase delay that we have seen, with important side effects in the CP layer ensuing¹²². I have further pushed the proposal to capture the 'hot' left-peripheral activity of NSLs, arguing that an *edge featured* T can replace Uriagereka's (1995) F, something that also has something to say about the EPP and what I have called the *F continuum*. In this respect, note that there is something peculiar about one of the languages that belong to the *F continuum*, French: although French shows v^* -to-T movement, it manifests poor (or null) peripheral activity, and, in addition, it has the traditional EPP -like English. Given those facts, one would want for the French verb to stop at v^* , for its T does not seem to qualify as a phase head. A possible way out (as Juan Uriagereka (p.c.) has pointed out to me) is to defend that, in French (but not in, say, Italian or Catalan), v^* -to-T movement is really phonological (cf. Chomsky (2001)). If that is the case, we have a possible explanation to the fact that French -and Brazilian Portuguese- do not show verb movement to C nor long-distance head movement (i.e., excorporation); it has TP ellipsis, though, but that can follow even if v^* -to-T movement is phonological, under a PF-based approach to ellipsis, like Lasnik's (1999a; 1999b).

Synthesizing, the logic of the proposal outlined here points to the conclusion that parameters can be associated with whether or not given (functional) heads are endowed with *edge features* or focus/ ϕ -features (cf. Borer (1984), Chomsky (2001; 2005), and Miyagawa (2004)). Viewed that way, parametric variation boils down to feature assembling into Lexical Items with

¹²² The only English subject that seems to resist this generalization is PRO. Cf. Gallego (2005) for some facts about PRO in English relatives supporting the general idea presented here.

remarkable derivational consequences, reconciling a long-standing insight about linguistic universals –and their parameters– with the worthy goal (embodied in the inquiry undertaken by the Minimalist Program) of accounting for properties of the Faculty of Language in a principled way (i.e., reducing them to interface conditions or conceptual necessities).

REFERENCES

- Abels, Klaus (2003): *Successive Cyclicity, Anti-Locality, and Adposition Stranding*, Ph.D. Dissertation, U.Conn.
- Alexiadou, Artemis & Elena Anagnostopoulou (1998): "Parametrizing Agr: Word Order, V-Movement and EPP-Checking", *Natural Language and Linguistic Theory*, 16, 491-539.
- Alexiadou, Artemis & Elena Anagnostopoulou (2001): "The subject in situ generalization, and the role of Case in driving computations", *Linguistic Inquiry*, 32, 193-231.
- Arnáiz, Alfredo (1992): "On Word Order in Wh-questions in Spanish", in A. Kathol & J. Beckman (eds.), *MIT Working Papers in Linguistics*, 16, 1-10.
- Baker, Mark C. (1988): *Incorporation: A Theory of Grammatical Function Changing*, Chicago: University of Chicago Press.
- Baker, Mark C. (1995): *The polysynthesis parameter*, New York: Oxford University Press
- Barbosa, Pilar (1997): "Subject Positions in the Null Subject Languages", *Seminários de Linguística*, 1, 39-63.
- Barbosa, Pilar (2001): "On Inversion in Wh-questions in Romance", in A. Hulk & J. I. Pollock (eds.), *Subject Inversion in Romance and the Theory of Universal Grammar*, Oxford: Oxford University Press, 20-59.
- Beghelli, Filippo & Tim Stowell (1997): "Distributivity and Negation: The Syntax of *Each* and *Every*", in A. Szabolcsi (ed.), *Ways of Scope Taking*, Dordrecht/Boston/London: Kluwer, 71-107.
- Belletti, Adriana (2001): "'Inversion' as Focalization", in A. Hulk & J. I. Pollock (eds.), *Subject Inversion in Romance and the Theory of Universal Grammar*, Oxford: Oxford University Press, 60-90.
- Belletti, Adriana (2004): "Aspects of the Low IP Area", in L. Rizzi (ed.), *The Structure of CP and IP. The Cartography of Syntactic Structures (vol. 2)*, Oxford (New York): Oxford University Press, 16-51.
- Belletti, Adriana & Luigi Rizzi (1981): "The Syntax of *ne*: Some Theoretical Implications", *The Linguistic Review*, 1, 117-154.
- Bello, Andrés (1847): *Gramática de la lengua castellana, destinada al uso de los americanos*, edición con notas de Rufino José Cuervo, 2 vols., Ramón Trujillo (ed.), Madrid: Arco/Libros.
- Benincà, Paola & Cecilia Poletto (2004): "A case of *do*-support in Romance", *Natural Language and Linguistic Theory*, 22, 51-94.
- Bhatt, Rajesh (1999): *Covert Modality in Non-Finite Contexts*, Ph.D. Dissertation, U.Penn.
- Bobaljik, Jonathan David & Diane Jonas (1996): "Subject Positions and the Roles of TP", *Linguistic Inquiry*, 27, 195-236.
- Boeckx, Cedric (1999a): "Conflicting c-command requirements", *Studia Linguistica*, 53, 227-250.
- Boeckx, Cedric (1999b): "Decomposing French Questions", *University of Pennsylvania Working Papers in Linguistics*, 69-80.
- [Boeckx, Cedric (2000): "Properties of French Interrogatives", Ms. U.Conn.]
- Boeckx, Cedric (2001): "Scope Reconstruction and A-Movement", *Natural Language and Linguistic Theory*, 19, 503-519.
- Boeckx, Cedric (2002): "French complex inversion in the light of a minimalist program", in J. Camps and C. Wiltshire (eds.), *Proceedings of Linguistic Symposium on Romance Linguistics (LSRL) 30*, Amsterdam: John Benjamins, 43-56.
- Boeckx, Cedric (2003a): *Islands and Chains. Stranding as resumption*, Amsterdam: John Benjamins.
- Boeckx, Cedric (2003b): "Case Matters and Minimalist Concerns", *Harvard Working Papers in Linguistics*, 8, 159-187.
- Boeckx, Cedric (2003c): "French *Wh*-in-situ Interrogatives as (Co)vert Clefts", Ms. Harvard University,
- Boeckx, Cedric (2004): "Long distance agreement in Hindi: some theoretical implications", *Studia Linguistica*, 58, 1-14.
- Boeckx, Cedric & Kleantes Grohmann (2004): "Putting Phases into Perspective", Ms. Harvard University & University of Cyprus.
- Boeckx, Cedric & Sandra Stjepanović (2001): "Head-ing toward PF", *Linguistic Inquiry*, 32, 345-355.
- Bonet, Eulàlia (1989): "Subjects in Catalan", in L. Cheng & H. Demirdache (eds.), *MIT Working Papers in Linguistics*, 13, 1-26.
- Borer, Hagit (1984): *Parametric Syntax: Case Studies in Semitic and Romance Languages*, Dordrecht: Foris.
- Bošković, Željko (1999): "On multiple feature-checking: Multiple *wh*-fronting and multiple head movement", in S. Epstein & N. Hornstein (eds.), *Working Minimalism*, Cambridge (Mass.): MIT Press, 159-187.
- Bošković, Željko (2000): "A-Movement and the EPP", *Syntax*, 5, 167-218.
- Bošković, Željko (2005): "On the Operator Freezing Effect", Ms. U.Conn.
- Bosque, Ignacio (1983): "Sobre la interrogacion indirecta", *Dicenda*, 1, 13-34.

- Bosque, Ignacio (1996): *El sustantivo sin determinación. La ausencia de determinación en la lengua española*, Madrid: Visor.
- Bosque, Ignacio (2001): "Adjective position and the interpretation of indefinites", in J.Gutiérrez-Rexach and L.Silva-Villar (eds.), *Current Issues in Spanish Syntax and Semantics*, Berlin: Mouton de Gruyter, 17-63
- Broeckhuis, Hans (2005): "Extraction from subjects: some remarks on Chomsky's 'On Phases' ", Ms. Universiteit Van Tilburg.
- Brucart, José M. (1992): "Some Asymmetries in the Functioning of Relative Pronouns in Spanish", *Catalan Working Papers in Linguistics* 1, 113-143.
- Brucart, José M. (1993): "Sobre la estructura de SComp en español", in A.Viana (ed.), *Sintaxi. Teoria i perspectives*, Lleida: Pagès, 59-102.
- Brucart, José M. (1994): "Sintaxis y semántica en el análisis generativo de la oración", in F. Hernández Paricio (ed.), *Perspectivas sobre la oración*, Zaragoza: Publicaciones de la Universidad de Zaragoza, 9-69.
- Brucart, José M. (1995): "Syntactic Variation and Grammatical Primitives in Generative Grammar", Ms. UAB.
- Brucart, José M. (1997): "Concordancia *ad sensum* y partitividad en español", in M. Almeida & J. Dorta (eds.) *Contribuciones al estudio de la lingüística hispánica. Homenaje al profesor Ramón Trujillo*,(vol. 1), Tenerife: Montesinos, 157-183.
- Camacho, José (2005): "Do Subjects have a place in Spanish?", Ms. Rutgers University.
- Campos, Héctor (1997): "On Subject Extraction and the Antiagreement Effect in Romance", *Linguistic Inquiry*, 28, 92-119.
- Cardinaletti, Anna (2001): "Subjects and *Wh*-questions: A Reply to Uriagereka", Ms. University of Bologna/University of Venice.
- Carstens, Vicki (2003): "Rethinking Complementizer Agreement: Agree with a Case Checked Goal", *Linguistic Inquiry*, 34, 393-412.
- Castillo, Juan Carlos, John Drury & Kleantes Grohmann (2000): "No more EPP", in R. Billerey & B. D. Lillehaugen (eds.), *Proceedings of the 19th West Coast Conference on Formal Linguistics*. Somerville (Mass.): Cascadilla Press, 153-166.
- Cecchetto, Carlo (2000): "Doubling structures and reconstruction", *Probus*, 12, 93-126.
- Cecchetto, Carlo (2004): "QR in the Theory of Phases", Ms. Milano-Bicocca.
- Chametzky, Robert (2000): *Phrase structure. From GB to minimalism*. Oxford: Blackwell
- Cheng, Lisa (1991): *On the typology of wh-questions*, Ph.D. Dissertation, MIT.
- Chomsky, Noam (1964): *Current Issues in Linguistic Theory*, The Hague: Mouton.
- Chomsky, Noam (1981): *Lectures on Government and Binding*, Dordrecht (Holland): Foris Publications.
- Chomsky, Noam (1986): *Barriers*, Cambridge (Mass.): MIT Press.
- Chomsky, Noam (1991): "Some notes on economy of derivation and representation", in R. Friedin (ed.), *Principles and Parameters in Comparative Grammar*, Cambridge (Mass.): MIT Press. [reprinted in Chomsky (1995)]
- Chomsky, Noam (1993) "A Minimalist Program for Linguistic Theory," in K. Hale & S. J. Keyser (eds.) *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, Cambridge (Mass.): The MIT Press, 1-52. [reprinted in Chomsky (1995)]
- Chomsky, Noam (1995): *The Minimalist Program*, Cambridge (Mass.): MIT Press.
- Chomsky, Noam (2000): "Minimalist Inquiries: The Framework", in R. Martin, D. Michaels, & J. Uriagereka, *Step by Step. Essays on Minimalist Syntax in Honour of Howard Lasnik*, Cambridge (Mass.): MIT Press, 89-155.
- Chomsky, Noam (2001): "Derivation by Phase", in M. Kenstowicz (ed.), *Ken Hale: A Life in Language*, Cambridge (Mass.): MIT Press, 1-52.
- Chomsky, Noam (2004): "Beyond Explanatory Adequacy", in A. Belletti (ed.), *Structures and Beyond. The Cartography of Syntactic Structures (vol. 3)*, Oxford (New York): Oxford University Press, 104-131.
- Chomsky, Noam (2005): "On Phases", Ms. MIT.
- Chomsky, Noam & Howard Lasnik (1995): "The theory of principles and parameters", in N. Chomsky (ed.), *The Minimalist Program*, Cambridge (Mass.): MIT Press, 13-127.
- Cinque, Guglielmo (1991): *Types of A'-Dependencies*. Cambridge (Mass.): MIT Press.
- Cinque, Guglielmo (1993): "A Null Theory of Phrase and Compound Stress", *Linguistic Inquiry*, 24, 239-298.
- Cinque, Guglielmo (1999): *Adverbs and Functional Heads. A Cross-Linguistic Perspective*, New York: Oxford University Press.

- Costa, João (2000): "Word order and discourse-configurationality in European Portuguese", in J. Costa (ed.), *Portuguese syntax: New comparative studies*, Oxford: Oxford University Press, 94-115.
- Demirdache, Hamida & Myriam Uribe-Etxebarria (2000): "The Primitives of Temporal Relations", in R. Martin, David Michaels, & J. Uriagereka (eds.), *Step by Step. Essays on Minimalist Syntax in Honour of Howard Lasnik*, Cambridge (Mass.): MIT Press, 157-186.
- Den Besten, Hans (1983): "On the interaction of root transformations and lexical deletive rules", in W. Abraham (ed.), *On the Formal Syntax of Westgermania*, Amsterdam: John Benjamins.
- Depiante, Marcela (2001a): "On Null Complement Anaphora in Spanish and Italian", *Probus*, 13, 193-221.
- Depiante, Marcela (2001b): "Ellipsis in Spanish and the Stranded Affix Filter", *Proceedings of NELS*, 31.
- Diesing, Molly (1990): "Verb movement and the subject position in Yiddish", *Natural language and linguistic theory*, 8, 41-79.
- Donati, Caterina (1997): "Comparative Clauses as Free Relatives: a Raising Analysis", *Probus*, 9, 145-166.
- Donati, Caterina (2000): *La sintassi della comparazione*, Padova: Unipress.
- Epstein, Samuel David & T. Daniel Seely (2002): "Rule Applications as Cycles in a Level-free Syntax", in S. Epstein & T. Seely (eds.), *Derivation and Explanation in the Minimalist Program*, Malden (Mass.): Blackwell, 65-89.
- Etxepare, Ricardo (1997): *The Syntax of Illocutionary Force*, Ph.D. Dissertation, University of Maryland.
- Etxepare, Ricardo (1998): "On the Structure of Declarative Clauses", in A. Schwegler, B. Tranel & M. Uribe-Etxebarria (eds.), *Romance Linguistics. Theoretical Perspectives*, Amsterdam/Philadelphia: John Benjamins, 53-66.
- Etxepare, Ricardo (1999): "On Null Complementizers in Spanish", *International Journal of Basque Linguistics and Philology XXX-2*, 469-496
- Etxepare, Ricardo (2002): "On Quotative Constructions in (Peninsular) Spanish", ms. CNRS/EHU.
- Etxepare, Ricardo & Kleanthes Grohmann (2005): "Aspectual Variation in Adult Root Infinitivals Constructions", paper presented in the *15th Colloquium on Generative Grammar*, Universitat de Barcelona, Barcelona, 4-6 April 2005.
- Fernández Soriano, Olga (1999): "Two types of impersonal sentences in Spanish: Locative and dative subjects", *Syntax*, 2:2, 101-140.
- Fortuny, Jordi (2005): "Discontinuous Categories, Syntactic Syncretism and Syntactic Analytism. Expansion and Contraction in Grammar", Ms. UB.
- Fox, Danny (1995): "Economy and Scope", *Natural Language Semantics*, 23, 283-341.
- Fox, Danny (2000): *Economy and Semantic Interpretation*, Cambridge (Mass.): MIT Press.
- Frampton, John & Sam Gutmann (2000): "Agreement is Feature Sharing", Ms., Northeastern University.
- Gallego, Ángel J. (2003): "La interacción sintáctica entre T y C en español", Ms. UAB/IUOG.
- Gallego, Ángel J. (2004a): "T-to-C and Σ -to-C Movement in (Peninsular) Spanish and Catalan", paper presented in the *XIV Colloquium on Generative Grammar*, Universidade do Porto, Porto (Portugal).
- Gallego, Ángel J. (2004b): "Phase Effects in (Iberian) Romance", Ms. UAB/UPV-EHU. [paper presented in the *XV Colloquium on Generative Grammar*, Universitat de Barcelona, Barcelona (Spain), April 2005].
- Gallego, Ángel J. (2005): "T-to-C Movement in Relative Clauses", Ms. UAB. [to appear in *Proceedings of Going Romance Conference 2004*, Universiteit Leiden, Leiden (Holland)]
- Giorgi, Alessandra & Fabio Pianesi (2004): "Complementizer Deletion in Italian", in L. Rizzi (ed.), *The Structure of CP and IP. The Cartography of Syntactic Structures (vol. 2)*, Oxford (New York): Oxford University Press, 190-210.
- Goodall, Grant (1993): "Spec of IP and Spec of CP in Spanish Wh-Questions", in W. Ashby, M. Mithun, G. Perissinotto, & E. Raposo (eds.), *Linguistic Perspectives on the Romance Languages*, Amsterdam: John Benjamins, 199-209.
- Goodall, Grant (1999): "On Preverbal Subjects in Spanish", in T. Satterfield, C. M. Tortora, & D. Cresti (eds.), *Current Issues in Romance Languages*, Amsterdam/Philadelphia: John Benjamins, 95-109.
- Goodall, Grant (2000): "What Spanish can tell us about the EPP", in M. Leonetti & O. Fernández Soriano (eds.), *Current Issues in Generative Grammar: Papers from the 10th Colloquium on Generative Grammar*, Universidad de Alcalá, 109-128.
- Grosu, Alexander & Julia Horvath (1984): "The GB Theory and raising in Rumanian", *Linguistic Inquiry*, 15, 348-353.
- Guasti, Ma Teresa (1996): "On the controversial status of Romance interrogatives", *Probus*, 8, 161-180.
- Haegeman, Liliane (1998): "V-Positions and the Middle Field in West Flemish", *Syntax*, 1, 259-299.
- Hale, Ken & Samuel Jay Keyser (2002): *Prolegomenon to a Theory of Argument Structure*, Cambridge (Mass.): MIT Press.

- Harley, Heidi (2003): "How do verbs get their names? Denominal verbs, Manner Incorporation and the ontology of verb roots in English", Ms. University of Arizona.
- Harley, Heidi (2004): "Merge, conflation, and head movement: The First Sister Principle Revisited", in K. Moulton & M. Wolf (eds.), *Proceedings of NELS 34*, UMass Amherst: GLSA.
- Henry, Alison (1995): *Belfast English and Standard English. Dialect Variation and Parameter Setting*, New York (Oxford): Oxford University Press.
- Heycock, Caroline (1995): "Asymmetries in Reconstruction", *Linguistic Inquiry*, 26, 547-170.
- Herburger, Elena (2000): *What Counts: Focus and Quantification*, Cambridge (Mass.): MIT Press.
- Hernanz, M. Lluïsa (2001): "¡En bonito lío me he metido!: Notas sobre la afectividad en español", *Moenia*, 7, 93-109.
- Hernanz, M. Lluïsa (2003): "From polarity to modality: the case of *bien*", Ms. UAB.
- Hernanz, M. Lluïsa & José M. Brucart (1987): *La Sintaxis. Principios teóricos. La oración simple*, Barcelona: Crítica.
- Higginbotham, James (1985): "On Semantics", *Linguistic Inquiry*, 16, 547-593.
- Hiraiwa, Ken (2001): "Multiple Agree and the Defective Intervention Constraint in Japanese", *MIT Working Papers in Linguistics*, 40, 67-80.
- Hirata, Ichiro (1997): "On apparent violation of the subject condition", *English Linguistics*, 14, 342-347.
- Holmberg, Anders (2005): "Is There a Little Pro? Evidence from Finnish", *Linguistic Inquiry*, 36, 533-564.
- Hornstein, Norbert (2003): "On Control", in R. Hendrick (ed.), *Minimalist Syntax*, Oxford: Blackwell, 6-81.
- Hornstein, Norbert (2005): "What do labels do?", Ms. UMD.
- Hornstein, Norbert & Juan Uriagereka (2002): "Reprojections", in S. Epstein & T. Seely (eds.), *Derivation and Explanation in the Minimalist Program*, Malden (Mass.): Blackwell, 106-132.
- Huang, James (1982): *Logical relations in Chinese and the theory of grammar*, Ph.D. Dissertation, MIT.
- Irurtzun, Aritz (2003): "The Locus of [+F]ocus", Ms. EHU/UPV.
- Irurtzun, Aritz (2005): "Focus and Clause Structuration in the Minimalist Program", Ms. HiTT-EHU/UPV [to appear in C. Boeckx (ed.), *Minimalist Theorizing*]
- Jaeggli, Osvaldo (1982): *Topics in Romance Syntax*, Foris: Dordrecht.
- Jaeggli, Osvaldo (1984): "Subject extraction and the Null Subject Parameter", *Proceedings of NELS 14*, 132-153.
- Johnson, Kyle (1985): *A Case for Movement*, Ph.D. Dissertation, MIT.
- Johnson, Kyle (2003): "Towards an Etiology of Adjunct Islands", A. Dahl, K. Bentzen & P. Svenonius (eds.), *Proceedings of the 19th Scandinavian Conference on Linguistics*, vol. 31.1., 187-215.
- Kayne, Richard S. (1989): "Null Subjects and Clitic Climbing", in O. Jaeggli & K. Safir (eds.), *The Null Subject Parameter*, Dordrecht: Kluwer, 239-261.
- Kayne, Richard S. (1994): *The Antisymmetry of Syntax*, Cambridge (Mass.): MIT Press.
- Kayne, Richard S. (2000): *Parameters and Universals*. New York: Oxford University Press.
- Kempchinsky, Paula (1987): *Romance Subjunctive Clauses and Logical Form*, Ph.D. Dissertation, UCLA.
- Kennedy, Christopher (1997): "Antecedent-contained deletion and the syntax of quantification", *Linguistic Inquiry*, 28, 662-688.
- Kirsner, Robert (1973): "Natural Focus and Agentive Interpretation: On the Semantics of Dutch Expletive *er*", *Stanford Occasional Papers in Linguistics*, 3, 101-114.
- Kitahara, Hisatsugu (1992): "Checking theory and scope interpretation without Quantifier Raising", *Harvard Working Papers in Linguistics*, 1, 51-71.
- Koopman, Hilda (1983): "ECP effects in main clauses", *Linguistic Inquiry*, 14, 346-350.
- Koster, Jan (2003): "All languages are tense second", Ms. University of Groningen.
- Kratzer, Angelika (1996): "Severing the External Argument from its Verb", in J. Rooryck & L. Zaring (eds.), *Phrase Structure and the Lexicon*, Dordrecht: Kluwer.
- Kuroda, Yuki (1972): "The categorial and the thetic judgment", *Foundations of Language*, 9, 153-185
- Laka, Itziar (1990): *Negation in Syntax: On the Nature of Functional Categories and Projections*, Ph.D. Dissertation, MIT.
- Landau, Idan (2004): "The Scale of Finiteness and the Calculus of Control", *Natural Language and Linguistic Theory*, 22, 811-877.
- Larson, Richard (2004): "Sentence-final adverbs and 'scope' ", *Proceedings of NELS*, 34.
- Lasnik, Howard (1999a): "Pseudogapping puzzles", in S. Lappin & E. Benmamoun (eds.), *Fragments: Studies in Ellipsis and Gapping*, New York: Oxford University Press, 141-74.
- Lasnik, Howard (1999b): *Minimalist Analysis*, Oxford: Blackwell.
- Lasnik, Howard (2003): *Minimalist investigations in linguistic theory*, London: Routledge.

- Lasnik, Howard & Myung-Kwan Park (2003): "The EPP and the subject condition under sluicing", *Linguistic Inquiry*, 34, 649-660.
- Lasnik, Howard & Mamoru Saito (1992): *Move α : conditions on its applications and outputs*, Cambridge (Mass.): MIT Press.
- Lasnik, Howard & Juan Uriagereka (2005): *A Course in Minimalist Syntax. Foundations and Prospects*, Oxford: Blackwell.
- Legate, Julie Anne (2003): "Some Interface Properties of the phase", *Linguistic Inquiry*, 34, 506-516.
- Legate, Julie Anne (2004): "Phases and Cyclic Agreement", Ms. MIT.
- Leonetti, Manuel (2004): "Specificity and Differential Object Marking in Spanish", *Catalan Journal of Linguistics*, 3, 75-114.
- Levin, Beth & Malka Rappaport (1995): *Unaccusativity. At the Syntax-Lexical Semantics Interface*, Cambridge (Mass.): MIT Press.
- López-Cortina, Jorge (2002): "The Structure of Split-Interrogatives", Ms. Georgetown University.
- Lorenzo, Guillermo (1994): "Qué expletivo en preguntas dislocadas", *Archivum Ovetensis*, XLIV-XLV, 423-446.
- McCloskey, James (2000): "Quantifier float and *wh*-movement in an Irish English", *Linguistic Inquiry*, 31, 57-84.
- Marantz, Alec (1997): "No Escape from Syntax: Don't Try Morphological Analysis in the Privacy of Your Own Lexicon", in *U. Penn Working Papers in Linguistics*, 4.2., 201-225.
- Masullo, Pascual J. (1992): "Quirky Datives in Spanish and the Non-Nominative Subject Parameter", in A. Kathol & J. Beckman (eds.), *MIT Working Papers in Linguistics*, 16, 89-103.
- Masullo, Pascual J. (1993): "Two Types of Quirky Subjects: Spanish versus Icelandic", *Proceedings of NELS*, 23, 303-317.
- Masullo, Pascual J. (2005): "The syntax-lexical semantics interface: prepositionalizing motion verbs in Spanish", paper presented in the GGT Seminar, UAB, April 7 2005.
- Mateu, Jaume (2002): *Argument Structure: Relational construal at the syntax-semantics interface*, Ph.D. Dissertation, UAB.
- Matushansky, Ora (2004): "The Status of Head-Movement in Linguistic Theory", Ms. MIT/CNRS.
- Mioto, Carlos (1998): "A periferia esquerda no Português Brasileiro", Ms., Universidade Federal de Santa Catarina - University of Siena.
- Miyagawa, Shigeru (2004): "On the EPP", in N. Richards & M. McGinnis (eds.), *Proceedings of the EPP/Phase Workshop*, Cambridge (Mass.): MIT Press.
- Moro, Andrea (1997): *The Raising of Predicates. Predicative Noun Phrases and the Theory of Clause Structure*, Cambridge (New York): Cambridge University Press.
- Moro, Andrea (2000): *Dynamic Antisymmetry. Movement as a symmetry breaking phenomenon*, Cambridge (Mass.): MIT.
- Nunes, Jairo (2001): "Sideward Movement", *Linguistic Inquiry*, 32, 304-344.
- Nunes, Jairo (2004): *Linearization of Chains and Sideward Movement*, Cambridge (Mass.): MIT Press.
- Ordóñez, Francisco (1998a): "Post-verbal asymmetries in Spanish", *Natural Language and Linguistic Theory*, 16, 313-346.
- Ordóñez, Francisco (1998b): "The inversion construction in interrogatives in Spanish and Catalan", in J. Lema & E. Treviño (eds.), *Theoretical analyses on Romance languages*. Amsterdam: John Benjamins, 329-350.
- Ordóñez, Francisco (2005): "Two Specs for postverbal subjects: Evidence from Spanish and Catalan", Ms. SUNY Stony Brook.
- Ordóñez, Francisco & Esthela Treviño (1999): "Left Dislocated Subjects and the *pro*-drop Parameter: A Case Study of Spanish", *Lingua*, 107, 39-68.
- Ordóñez, Francisco & Antxon Olarrea (2005): "Microvariation in Caribbean/non Caribbean Spanish Interrogatives", Ms. SUNY Stony Brook/U.Arizona.
- Ormazábal, Javier, Juan Uriagereka & Myriam Uribe-Etxebarria (1994): "Word order and *wh*-movement: towards a parametric account", Ms. UConn/UPV-EHU/UMD/MIT.
- Ortega-Santos, Iván (2005): "On Postverbal Subjects, PF and the Copy Theory: The Spanish Case", Ms. UMD.
- Pesetsky, David (1987): "*Wh*-in-situ: Movement and Unselective Binding", in E. Reuland & A.G.B. ter Meulen (eds.), *The Linguistic Representation of (In)definiteness*, Cambridge (Mass.): MIT Press.

- Pesetsky, David (1998): "Some Optimality Principles of Sentence Pronunciation", *Is the Best Good Enough?: Optimality and Competition in Syntax*, in P. Barbosa et al. (eds.), Cambridge (Mass.): MIT Press, 337-383.
- Pesetsky, David (2000): *Phrasal Movement and Its Kin*, Cambridge (Mass.): MIT Press.
- Pesetsky, David & Esther Torrego (2001): "T-to-C Movement: Causes and Consequences", in M. Kenstowicz (ed.), *Ken Hale: A Life in Language*, Cambridge (Mass.): The MIT Press, 355-426.
- Pesetsky, David & Esther Torrego (2004a): "Tense, Case, and the Nature of Syntactic Categories", in J. Guéron & J. Lecarme (eds.), *The Syntax of Time*, Cambridge (Mass.): MIT Press, 495-537.
- Pesetsky, David & Esther Torrego (2004b): "The Syntax of Valuation and the Interpretability of Features", Ms. MIT/UMass Boston.
- Picallo, M. Carme (1985): *Opaque Domains*, Ph.D. Dissertation, CUNY.
- Picallo, M. Carme (1990): "Modal Verbs in Catalan", *Natural Language and Linguistic Theory*, 8, 285-312.
- Picallo, M. Carme (1998): "On the EPP and Null Expletive Subjects", *Probus*, 10, 219-241.
- Picallo, M. Carme (2002): "Abstract Agreement and Clausal Arguments", *Syntax*, 5, 116-147.
- Picallo, M. Carme (to appear): "Some notes on grammatical gender and I-pronouns", *Konstanz Arbeitspapiere zur Sprachwissenschaft*, Free University, Berlin & University of Konstanz.
- Platzack, Christer (2003): "Agreement and Null Subjects", *Nordlyd*, 31, 326-355.
- Poletto, Cecilia (2001): "Complementizer deletion and verb movement in standard Italian", in C. Cinque & G. Salvi (eds.), *Current studies in Italian syntax. Essays offered to Lorenzo Renzi*, Amsterdam: Elsevier, 265-286.
- Poletto, Cecilia & Jean-Yves Pollock (2004): "On the Left Periphery of Some Romance Wh-Questions", in L. Rizzi (ed.), *The Structure of CP and IP. The Cartography of Syntactic Structures (vol. 2)*, Oxford (New York): Oxford University Press, 251-296.
- Pollock, Jean-Yves (1989): "Verb Movement, Universal Grammar, and the Structure of IP", *Linguistic Inquiry*, 20, 365-424.
- Pollock, Jean-Yves (1997): *Language et Cognition. Introduction au programme minimaliste de la grammaire générative*. Paris: Presses Universitaires de France.
- Raposo, Eduardo (1986): "On the null object in European Portuguese", in O. Jaeggli & C. Silva-Corvalán (eds.), *Studies in Romance linguistics*, Dordrecht: Foris, 373-390.
- Raposo, Eduardo & Juan Uriagereka (1996): "Indefinite SE", *Natural Language and Linguistic Theory*, 14, 749-810.
- Raposo, Eduardo & Juan Uriagereka (2005): "Clitic Placement in Western Iberian: A Minimalist View", Ms. UCSB/UMD. [published in G. Cinque & R.S. Kayne (eds.), *The Oxford Handbook of Comparative Syntax*, Oxford (New York): Oxford University Press]
- Richards, Norvin (1997): *What Moves Where When in Which Language?*, Ph.D. Dissertation, MIT.
- Rigau, Gemma (1986): "Some remarks on the nature of strong pronouns in null-subject languages", in I. Bordelais, H. Contreras & K. Zagona (eds.), *Generative studies in Spanish syntax*, Dordrecht: Foris, 143-163.
- Rigau, Gemma (1988): "Strong pronouns", *Linguistic Inquiry*, 19, 503-511.
- Rigau, Gemma (1995): "The properties of the temporal infinitive constructions in Catalan and Spanish", *Probus*, 7, 279-301.
- Rigau, Gemma (1998): "On Temporal and Causal Infinitive Constructions in Catalan Dialects", *Catalan Working Papers in Linguistics*, 6, 95-114.
- Rivero, M. Luisa (1991): *Las oraciones de relativo*, Taurus: Madrid.
- Rivero, M. Luisa (1994): "Negation, imperatives, and Wackernagel effects", *Rivista di linguistica*, 6, 91-118.
- Rizzi, Luigi (1978): "Violations of the Wh-Island Constraint in Italian and the Subjacency Condition", *Montreal Working Papers in Linguistics*, 11, 155-190.
- Rizzi, Luigi (1982): *Issues in Italian Syntax*, Dordrecht: Foris.
- Rizzi, Luigi (1986a): "On the status of subject clitics in Romance", in O. Jaeggli & C. Silva-Corvalán (eds.), *Studies in Romance Syntax*, Dordrecht: Foris, 391-419.
- Rizzi, Luigi (1986b): "Null objects in Italian and the theory of pro", *Linguistic Inquiry*, 17, 501-557.
- Rizzi, Luigi (1990): *Relativized Minimality*, Cambridge (Mass.): MIT Press.
- Rizzi, Luigi (1991): "On the Status of Referential Indices", in A. Kasher (ed.), *The Chomskyan Turn*, Oxford: Blackwell.
- Rizzi, Luigi (1992): "Argument/adjunct (a)symmetries", in *Proceedings of NELS 22*, Amherst (Mass.): GLSA, 365-381. [reprinted in Rizzi (2000)]

- Rizzi, Luigi (1996): "Residual verb second and the *wh*-criterion", in A. Belletti & L. Rizzi (eds.), *Parameters and functional heads: essays in comparative syntax*, Oxford: Oxford University Press.
- Rizzi, Luigi (1997): "The Fine Structure of The Left Periphery", in L. Haegeman (ed.), *Elements of Grammar. Handbook in Generative Syntax*, Dordrecht: Kluwer: 281-337.
- Rizzi, Luigi (1999): "On the Position "Int(errogative)" in the Left Periphery of the Clause", Ms. U.Siena. [reprinted in G. Cinque & G. Salvi (eds.), *Current studies in Italian Syntax. Essays offered to Lorenzo Renzi*, Amsterdam: Elsevier. 2001]
- Rizzi, Luigi (2000): *Comparative Syntax and Language Acquisition*, London/New York: Routledge.
- Rizzi, Luigi (2004a): "Locality and Left Periphery", in A. Belletti (ed.), *Structures and Beyond. The Cartography of Syntactic Structures (vol. 3)*, Oxford (New York): Oxford University Press, 223-251.
- Rizzi, Luigi (2004b): "On the Forms of Chains: Criterial Positions and ECP Effects", Ms. U.Siena.
- Rizzi, Luigi & Ur Shlonsky (2005): "Strategies of Subject Extraction", Ms. U.Siena & U. Geneva.
- Rodríguez, María (2003): *Alevosía*, China Records.
- Rosselló, Joana (2000): "A Minimalist Approach to the Null Subject Parameter", *Catalan Working Papers in Linguistics*, 8, 97-128.
- Salanova, Andrés Pablo (2002): "Inversion in Spanish interrogatives", Ms. MIT.
- San Martín, Itziar (2004): *On Subordination and the Distribution of PRO*, Ph.D. Dissertation, UMD.
- Sigurðsson, Halldór (2000): "The Locus of Case and Agreement", *Working Papers in Scandinavian Syntax*, 65, 65-108.
- Sigurðsson, Halldór (2003): "Case: Abstract vs. Morphological", in E. Brandner & H. Zinzmeister (eds.), *New Perspectives on Case Theory*, Stanford: CSLI Publications, 223-268.
- Sigurðsson, Halldór (2004): "The Nominative Puzzle and the Low Nominative Hypothesis", Ms. U.Lund.
- Solà, Jaume (1992): *Agreement and Subjects*, Ph.D. Dissertation, UAB.
- Solà, Jaume (2002): "Clitic Climbing and Null Subject Languages", *Catalan Journal of Linguistics*, 1, 225-255.
- Sportiche, Dominique (1981): "Bounding Nodes in French", *The Linguistic Review*, 1, 219-246.
- Suñer, Margarita (1994): "V-Movement and the Licensing of Argumental *Wh*-Phrases in Spanish", *Natural Language and Linguistic Theory*, 12, 335-372.
- Suñer, Margarita (2003): "The lexical preverbal subject in a Romance null subject language: Where art thou?", in R. Núñez-Cedeño, L. López, and R. Cameron (eds.), *A Romance perspective on language knowledge and use: Selected papers from the 31st Linguistic Symposium on Romance Languages (LSRL), Chicago, 19-22 April 2000*, Amsterdam: John Benjamins, 22-38.
- Stowell, Tim (1981): *The origins of phrase structure*, Ph.D. Dissertation, MIT.
- Stowell, Tim (1982): "The Tense of Infinitives", *Linguistic Inquiry*, 13, 561-570.
- Svenonius, Peter (2001): "Locality, Phases, and the Cycle", Ms. U.Trømsø.
- Svenonius, Peter (2002): "Case is uninterpretable aspect", Ms. U.Trømsø.
- Stepanov, Arthur (2001): *Cyclic Domains in Syntactic Theory*, Ph.D. Dissertation, U.Conn.
- Szabolcsi, Anna (1992): "Subordination: Articles and Complementizers", in I. Kenesei & Cs. Pléh (eds.), *Approaches to Hungarian, Vol.4: The Structure of Hungarian*, Szeged: JATE, 123-137.
- Talmy, Leonard (2000): *Towards a Cognitive Semantics*, Cambridge (Mass.): MIT Press.
- Takahashi, Daiko (1994): *Minimality of Movement*, Ph.D. Dissertation, U.Conn.
- Tellier, Christine (1990): "Subjacency and Subject Condition Violation in French", *Linguistic Inquiry*, 21, 306-311.
- Torrego, Esther (1983): "More Effects of Successive Cyclic Movement", *Linguistic Inquiry*, 14, 361-365.
- Torrego, Esther (1984): "On Inversion in Spanish and Some of Its Effects", *Linguistic Inquiry*, 15, 103-129.
- Torrego, Esther (1985): "On Empty Categories in Nominals", Ms. U.Mass Boston.
- Torrego, Esther (1989): "Unergative-Unaccusative Alternations in Spanish", *MIT Working Papers in Linguistics*, 10, 253-272.
- Torrego, Esther (1994): "Cómo", in V. Demonte (ed.), *Gramática del español*, México, Colegio de México: Publicaciones de la NRFH VI, 255-266.
- Torrego, Esther (1995): "On the Nature of Clitic Doubling", in H. Campos & P. Kempchinsky (eds.), *Evolution and Revolution in Linguistic Theory: Studies in Honor of Carlos P. Otero*, Washington: Georgetown University Press, 399-418.
- Torrego, Esther (1996): "On Quantifier Float in Control Clauses", *Linguistic Inquiry*, 27, 111-126.
- Torrego, Esther (1998a): *The Dependencies of Objects*, Cambridge (Mass.): MIT Press.
- Torrego, Esther (1998b): "Nominative subjects and PRO-drop INFL", *Syntax*, 1, 206-219.
- Torrego, Esther (1999): "Aspect in the prepositional system of Romance", in T. Satterfield, C. Tortora, & D. Cresti (eds.), *Current Issues in Romance Languages*, Amsterdam: John Benjamins, 337-357.

- Torrego, Esther (2002): "Arguments for a Derivational Approach to Syntactic Relations Based on Clitics", in S. Epstein & T. Seely (eds.), *Derivation and Explanation in the Minimalist Program*, Malden (Mass.): Blackwell, 249-268..
- Torrego, Esther & Juan Uriagereka (1992): "Indicative Dependents", Ms. U.Mass Boston/UMD.
- Travis, Lisa (1984): *Parameters and effects of word order variation*, Ph.D. Dissertation, MIT.
- Treviño, Esther (1994): *Las Causativas del Español con Complemento Infinitivo*, Estudios de Lingüística y Literatura, XXVII, El Colegio de México, México, D.F.
- Uriagereka, Juan (1988): *On Government*, Ph.D. Dissertation, U.Conn.
- Uriagereka, Juan (1993): "Specificity and the Name constraint", *University of Maryland Working Papers in Linguistics*, 1, 121-143.
- Uriagereka, Juan (1995): "An F Position in Western Romance", in K. Kiss (ed.), *Discourse configurational languages*. Oxford / New York: Oxford University Press, 153-175.
- Uriagereka, Juan (2001): "Doubling and Possession", in B. Gerlach & J. Grijzenhout (ed.), *Clitics in Phonology, Morphology and Syntax*, Amsterdam/Philadelphia: John Benjamins, 405-431.
- Uriagereka, Juan (2002a): "Multiple Spell-Out", in J. Uriagereka (ed.), *Derivations. Exploring the Dynamics of Syntax*, London/New York: Routledge, 45-65.
- Uriagereka, Juan (2002b): "Minimal Restrictions on Basque Movements", in J. Uriagereka (ed.), *Derivations: Exploring the Dynamics of Syntax*, London & New York: Routledge, 86-114.
- Uriagereka, Juan (2002c): "Formal and Substantive Elegance in the Minimalist Program", in J. Uriagereka (ed.), *Derivations: Exploring the Dynamics of Syntax*, London & New York: Routledge, 147-175.
- Uriagereka, Juan (2002d): "Evidential contexts", Ms. UMD.
- Uriagereka, Juan (2003): "Pure Adjuncts", Ms. UMD.
- Uriagereka, Juan (2004): "Spell-out Consequences", Ms. UMD.
- Uriagereka, Juan (2005a): "A Peripheral Pleonastic in Western Iberian", Ms. UMD.
- Uriagereka, Juan (2005b): "A Markovian Syntax for Adjuncts", Ms. UMD.
- Uriagereka, Juan (in progress): *Syntactic Anchors at the Semantic Interface*, Ms. UMD/UPV-EHU.
- Uriagereka, Juan & Eduardo Raposo (2002): "Two Types of Small Clauses", in J. Uriagereka (ed.), *Derivations. Exploring the Dynamics of Syntax*, London/New York: Routledge, 212-234.
- Uribe-Etxebarria, Myriam (1992): "On the Structural Positions of the Subject in Spanish, their Nature and their Consequences for Quantification", in J. Lakarra & J. Ortiz de Urbina (eds.), *Syntactic Theory and Basque Syntax*, San Sebastian: ASJU, 447-491.
- Uribe-Etxebarria, Myriam (1995): "On the structure of SPEC/IP and its relevance for scope asymmetries", in J. Amastae, G. Goodall, & M. Montalbetti (eds.), *Contemporary Research in Romance Linguistics*, Amsterdam: John Benjamins, 355-367.
- Watanabe, Akira (2000): "Feature Copying and Binding: Evidence from Complementizer Agreement and Switch Reference", *Syntax*, 3, 159-181.
- Wurmbrand, Susi (2005): "Tense in Infinitives", HO. U.Conn.
- Zubizarreta, M. Luisa (1998): *Prosody, focus, and word order*, Cambridge (Mass.): MIT Press.
- Zwart, C. Jan-Wouter (1993): "Verb Movement and Complementizer Agreement", *MIT Working Papers in Linguistics*, 18.
- Zwart, C. Jan-Wouter (2001): "Syntactic and phonological verb movement", *Syntax*, 4, 34-62.

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