

1987

Romance Inversion, the Minimality Condition and the ECP

Eduardo Raposo
University of California, Santa Barbara

Follow this and additional works at: <https://scholarworks.umass.edu/nels>



Part of the [Linguistics Commons](#)

Recommended Citation

Raposo, Eduardo (1987) "Romance Inversion, the Minimality Condition and the ECP," *North East Linguistics Society*. Vol. 18 : Iss. 3 , Article 6.
Available at: <https://scholarworks.umass.edu/nels/vol18/iss3/6>

This Article is brought to you for free and open access by the Graduate Linguistics Students Association (GLSA) at ScholarWorks@UMass Amherst. It has been accepted for inclusion in North East Linguistics Society by an authorized editor of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.

Romance Inversion, the Minimality Condition and the ECP

Eduardo Raposo

University of California, Santa Barbara

1. Introduction.

In this paper, I will address two issues.¹ In section 2, I show that European Portuguese (henceforth EP) has free inversion, despite some claims to the contrary in the generative literature on Romance languages (cf., for example, Safir (1985, 236-240), Zubizarreta (1982, 83-85)². I also propose a new analysis of free inversion. Contrary to what is usually assumed since Rizzi's (1982, 117-184) important article on this topic, I will suggest that free inversion of the subject is better construed as adjunction to IP rather than to VP.

The second issue that I address is the topic of *wh*-extraction of the subject. In section 3, I show that the syntactic contexts where extraction takes place correlate with the syntactic contexts where free inversion of the subject applies. Crucially, in those contexts where inversion is blocked, extraction of the subject is also blocked. This suggests, in the spirit of Rizzi (1982, 117-184), Jaeggli (1984, 1985), and others, that extraction of the subject is dependent on the possibility of inverting it. In section 4, I analyze the way in which the gaps left by subject

RAPOSO

extraction obey the empty category principle, which requires every non-pronominal empty category to be properly governed. A crucial hypothesis is the idea that strong Agr in the pro-drop Romance languages causes IP to be a minimality barrier, protecting its specifier position from external government by another head. Finally, I will suggest that, in addition to inversion, (inflected) verb raising to C(omp) also creates a syntactic environment that licenses subject extraction.

2. Romance Inversion as Adjunction to IP.

Consider first the sentences in (1), with the underlined subject in inverted position:³

- (1) a. e_i assistiu ao jogo [o António]_i.
'Attended (to-) the game António'
b. e_i entregaram o exame [apenas três estudantes]_i.
'Only turned the exam three students'

Sentences like (1) are semantically and phonetically different from the corresponding declaratives with the subject in pre-verbal position. Phonetically, they have a particular intonational and stress pattern, different from that of declarative clauses with an SVO word-order. Semantically, the post-verbal subject is interpreted as the focus of the clause. In this respect, EP is not different from Italian, as has been shown in important work by Calabrese (1985, 1987).⁴ Under this view, subject inversion in the Romance pro-drop languages is not "free", at least from a phonetic and a semantic perspective. It is dependent on pragmatic and/or discourse factors, it involves an interpretation where the inverted subject is a focus, and it has specific intonational and stress patterns.⁵

Let us turn to the syntactic contexts where subject inversion applies. Inversion is possible in matrix clauses, as shown in (1), and also in finite complement clauses, independently of the semantic type of the matrix predicate. This is shown in (2), where the matrix predicates are, in that order, an epistemic, a volitional and a factive verb.

- (2) a. A Inês acha [que e_i apenas viu o filme o António]_i.
'Inês thinks [that only saw the movie António]'
b. Eu quero [que e_i venham a minha casa os meninos]_i.
'I want [that come to my house the children]'
c. Eu lamento [que e_i chumbasse o exame só o Luis]_i.
'I regret [that flunked the exam only Luis]'

ROMANCE INVERSION, MINIMALITY AND THE ECP

When we consider inflected infinitival complements to factive verbs, however, the situation is different. Factive verbs allow an inflected infinitival complement clause with a pre-verbal subject and either with ((3b)) or without ((3a)) an auxiliary verb⁶ (for discussion, see Raposo (1987)).

- (3) a. Eu lamento [algumas pessoas comprarem esse jornal].
'I regret some people to-buy-Agr that newspaper'
b. Eu lamento [algumas pessoas terem comprado esse jornal].
'I regret some people to-have-Agr bought that newspaper'

However, only (3b) (with an auxiliary) allows inversion of the complement subject:

- (4) a. ?* Eu lamento [comprarem esse jornal algumas pessoas].
'I regret to-buy-Agr that newspaper some people'
b. Eu lamento [terem comprado esse jornal algumas pessoas].
'I regret to-have-Agr bought that newspaper some people'

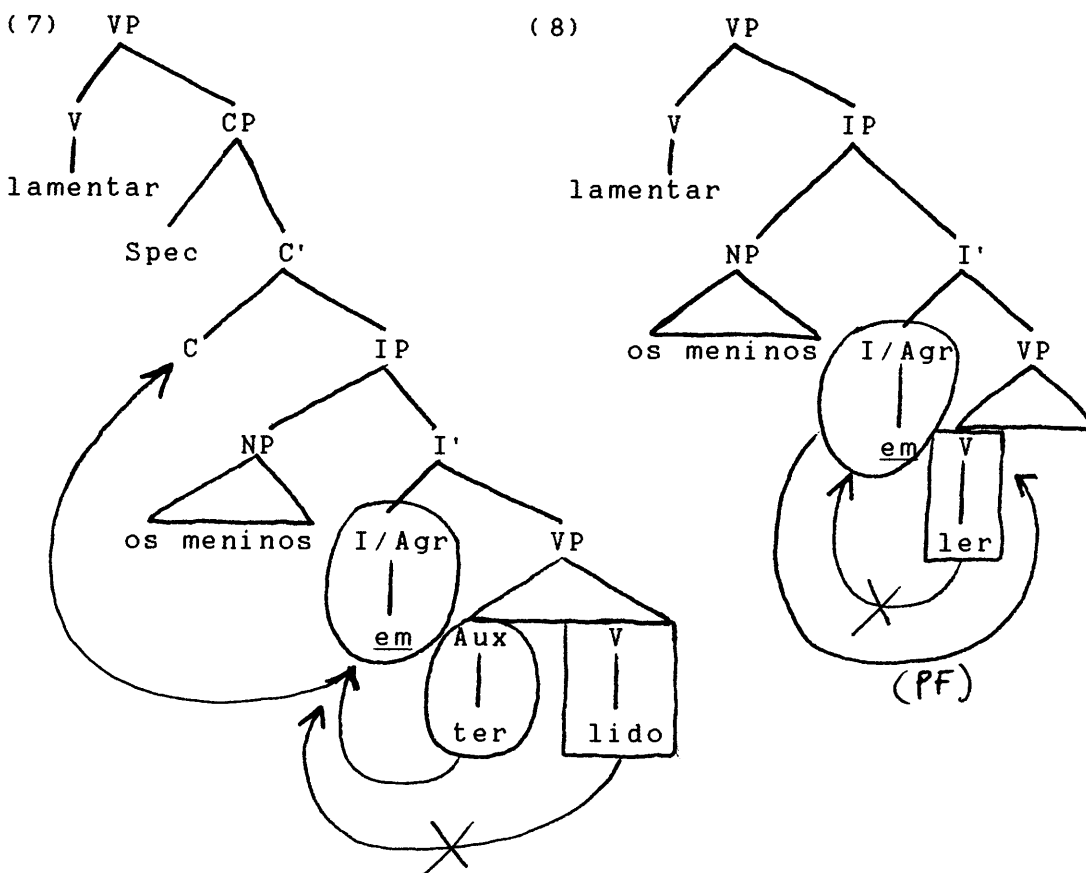
In order to understand this contrast, we will have to digress a little into the syntax of inflected infinitival complements in general, and their occurrence as factive complements in particular. Inflected infinitival clauses have an Infl node that dominates only Agr features (abbreviated here as I/Agr). This Infl is thus essentially nominal. In Raposo (1987), I proposed to assimilate such an Infl to a zero-level [+N] (in terms of X'-theory) consisting only of \bar{x} -features. From this it follows that if we take IP to be a maximal projection of Infl, an inflected infinitival clause is a maximal projection with nominal properties. In Raposo (1987), it is also argued that this Infl is capable of assigning nominative Case to a lexical subject only if it is specified for Case. Thus, it must itself be governed by a Case assigning category at S-structure.

Let us turn now to the syntax of these complements when they are embedded under factive predicates like lamentar, 'to regret'. It is well-known since Kiparsky and Kiparsky (1971) that factive verbs select both for CPs and for NPs with an abstract propositional content. Thus, both (5) and (6) are possible:

RAPOSO

- (5) Eu lamento [_{CP} que os meninos tenham assaltado o banco].
'I regret [that the children have robbed the bank]'
- (6) Eu lamento [_{NP} o assalto do banco pelos meninos].
'I regret [the robbery of the bank by the children]'

In view of this, it is natural to claim that the selectional requirements of factive verbs may be directly satisfied by inflected infinitival complements, given that these have nominal properties and a propositional content. If this is correct, inflected infinitival complements to such verbs can occur in two different structures, given in (7) and (8):



In (7), the embedded clause is a CP, and the inflected infinitival IP is a complement of C. The argument of the verb in this case is the entire CP. In (8), on the other hand, the inflected infinitival IP is a direct argument of the verb, and there is no CP node. In order for (7) to satisfy the requirement that Agr have Case, I/Agr has to raise to C, where it is governed and Case-assigned by the matrix predicate.⁷ But this implies that I/Agr must first be picked up by some verb,

ROMANCE INVERSION, MINIMALITY AND THE ECP

so that it does not end up stranded at S-structure.⁸ Thus, in order to result in a well-formed S-structure, (7) necessarily involves V to I to C raising.

Pollock (1987) addresses the question of what types of verbs may raise to Infl in English and in the Romance languages in general. He shows that only auxiliaries (like the ones mentioned in fn. 6), but not plain lexical verbs, can raise from V to Infl in Romance non-finite clauses. Thus, a structure like (7) is possible only if there is an auxiliary verb in VP that raises to Infl, picking up I/Agr and then raising in turn to C. This gives us the word order Auxiliary verb - subject - VP in the embedded complement, which in fact we do get, as shown in (9) (compare with (3b) above with the order subject - Aux - VP):

- (9) Eu lamento [terem algumas pessoas comprado esse jornal].
'I regret to-have-Agr some people bought that newspaper'

Let us now turn to the structure represented in (8). Contrary to (7), here I/Agr is directly accessible to government and Case by the matrix predicate at S-structure, since there are no intervening barriers between them. The word-order in the complement is thus subject - Verb, and we get the sentences already given in (3) above. A lexical verb is now possible (as in (3a)) because I/Agr stays in situ and therefore doesn't have to be picked up by V, which in turn remains inside VP without violating the constraint studied by Pollock. Note further that (8) cannot underlie a sentence with an auxiliary verb in pre-subject position, if we take this word-order as being strictly derived from the operation of V to I to C raising. The reason is that the complement is an IP, not a CP, and therefore there is no C position available for raising.

Let us reconsider at this point the contrast in (4). Recall that what differentiates the grammatical (4b) from the ungrammatical (4a) (both with an inverted subject) is precisely the presence of an auxiliary in the grammatical case (4b) versus the absence of such an auxiliary in (4a). We now also know that with an auxiliary in the complement ((3b)), the structure involved may be (7), with a CP node, while if there is no auxiliary ((3a)) the only possible structure involved is (8), where IP is the direct argument of the verb.

Consider now the principle constraining adjunction proposed in Chomsky (1986, 6):

RAPOSO

- (10) Adjunction is possible only to a maximal projection (hence, X") that is a nonargument.

In the light of (10), there is a straightforward way of accounting for the contrast between (4a) and (4b), if we assume the characterization of subject inversion to be as in (11):

- (11) Inversion of the subject is adjunction to IP.

First, recall that (7) is a possible structure for example (4b) (prior to inversion). In (7), adjunction to IP is legitimate because IP is not an argument of the matrix verb (rather, CP is the argument). The structure of (4a) (prior to inversion), however, must be (8), as we concluded above. Here, IP is the argument of the verb. Thus, adjunction will be prohibited by Chomsky's principle (10). Note that the characterization of subject inversion as adjunction to VP cannot explain the contrast under study, given that VP is not an argument, and inversion should then be possible in both cases. In fact, if our argument is correct, this shows that subject inversion cannot possibly be adjunction to VP. Summarizing, only assuming that free inversion of the subject is adjunction to IP can we make sense of the data concerning this phenomenon in EP.

Given the conclusion that inversion cannot be adjunction to VP, how do we prevent this? Although I don't have any principled proposal at this time, one way of doing it would be simply to stipulate it as a principle of UG. This is precisely what Chung and McCloskey (1987, 1995) propose in their study of small clauses in Irish:

- (12) Categories are adjoined to the nonargument maximal projection that most immediately dominates them (Chung and McCloskey (1987)).

3. Wh-Extraction and Inversion in EP.

In this section, I show that wh extraction of the subject is possible in the contexts where free inversion can apply and that it is impossible in those contexts where it can't apply. This behavior suggests very much that wh extraction of the subject in EP takes place from post-verbal position, as proposed by Rizzi (1982, 117-184) for Italian. Next, I consider the behavior of wh-in-situ, which provides us with an overt indication that this conclusion is correct.

- (13) and (14) show that subject extraction is

ROMANCE INVERSION, MINIMALITY AND THE ECP

possible in root clauses and in embedded finite clauses independently of the semantic type of the matrix predicate.

- (13) Que pessoas_i e_i assistiram ao jogo?
'What persons e attended the game?'
- (14) a. Que pessoas_i a Inês acha [que e_i viram o filme]?
'What persons does Ines think [that e saw the movie]?'
b. Que pessoas_i tu queres [que e_i venham a tua casa]?
'What persons do you want [that e come to your house]?'
c. Que pessoas_i tu lamentas [que e_i chumbassem o exame]?
'What persons do you regret [that e flunked the exam]?'

Let us turn now to subject extraction out of an inflected infinitival complement of a factive verb. The contrast between (4a) and (4b) (the inversion cases) is paralleled by subject extraction. As with inversion, extraction is possible if there is an auxiliary verb in the infinitival complement, and quite degraded if there is no such auxiliary. This is shown in (15) and (16):

- (15) ?*Que pessoas_i tu lamentas [e_i comprarem esse jornal]?
'What persons do you regret e to-buy-Agr that newspaper?'
- (16) Que pessoas_i tu lamentas [e_i terem comprado esse jornal]?
'What persons do you regret to-have-Agr bought that newspaper?'

The generalization that emerges from the behavior of subject extraction in (13)-(16) is that it can't take place from pre-verbal, non-inverted position.

In EP, a wh-phrase can remain in-situ without the resulting structure being necessarily interpreted as an echo-question.⁹ Some examples are given in (17):

- (17) a. (Tu) encontraste quem ontem à noite?
'(You) met whom yesterday night?'
b. (Tu) vais oferecer isso a quem?
'(You are going to offer that to whom?'
c. (Tu) achas que ele encontrou quem ontem à noite?
'(You) think that he met whom yesterday night?'
d. (Tu) achas que ele vai dar isso a quem?
'(You) think that he is going to give that to whom?'

RAPOSO

Crucially, an embedded wh-subject cannot be left in-situ in pre-verbal position:

- (18) *(Tu) achas que quem falou com o teu pai acerca de ti?
'(You) think that who talked to your father about you'

If the wh-subject quem is inverted, the result, although a little "heavy" (and thus requiring a special intonation), is acceptable:

- (19) (Tu) achas que falou com o teu pai acerca de ti quem?
'(You) think that talked to your father about you who?'

The behavior of wh-in-situ in EP thus reinforces (on an overt basis) the conclusion that subject wh extraction cannot be from pre-verbal position. In addition, under the assumption that this constraint on pre-verbal extraction is due to the requirements of the ECP on the variable wh-trace left behind, the behavior of wh-in-situ shows that the requirements of the ECP must be met at the level of LF (besides S-Structure) (see Kayne (1984, 47-86), Lasnik and Saito (1984)).

4. Agr, the Minimality Condition and the ECP.

I will now introduce a few theoretical assumptions, as well as an hypothesis concerning the role of "strong" Agr in the minimality condition of Chomsky (1986). This hypothesis is central to my account of the data of wh-extraction of the subject in EP (and, I believe, in the romance pro-drop languages in general).

I assume the general framework of Chomsky (1986), in particular the idea that there are various types of barriers: inherent barriers (defined in terms of L-marking and blocking categories), barriers by inheritance, and minimality barriers (defined in terms of the minimality condition). I also assume the theory of adjunction and domination of May (1985), in particular the statement given in (20):

- (20) α is dominated by β only if it is dominated by every segment of β .

I also assume the definition of government in terms of exclusion, as given in (21) (from Chomsky (1986, 9):

ROMANCE INVERSION, MINIMALITY AND THE ECP

- (21) α governs β iff α m-commands β and there is no τ , τ a barrier for β , such that τ excludes α .

Let us now turn to the Empty Category Principle (ECP). In the spirit of Aoun et al. (1987)¹⁰, Jaeggli (1985), Stowell (1981) and others, I will take this principle to consist of two distinct requirements that non-pronominal empty categories must obey: a requirement of antecedent government (for every link of a given chain), and a requirement of head government. Antecedent government and head government are defined in terms of (21). For antecedent government, we specify in (21) that the governor is a coindexed antecedent within the chain; and for head government, we specify in (21) that the governor is a head. I also assume that the head government requirement of the ECP is satisfied only under two additional conditions. First, a constraint on directionality: only canonical (left-right in Romance) head government satisfies the ECP;¹¹ second, a constraint on the "strength" of the potential head governor, possibly subject to parametric variation.¹²

Consider now the definition (23) of the minimality condition, as stated in Chomsky (1986, 42):¹³

- (22) ... α ... [τ ... δ ... β ...]
 (23) τ is a barrier for β if τ is (a projection, the immediate projection) of δ , a zero-level category distinct from β .

Consider a structure like (24):

- (24) Y^0 ... [X' ' Spec [X' X^0 Complements]]

Choice of "the immediate projection" in (23) gives us what Chomsky calls the "narrower" version of the minimality condition. Under this version, only X' qualifies as a minimality barrier for some element that it dominates, given the definitional requirement that τ be an immediate projection of the head δ . Therefore, only the complements of the local head X^0 are protected from government by the less local governor Y^0 outside the immediate domain of X^0 . The specifier of X^0 , however, is not protected in this way, since it is not dominated by the immediate projection of X^0 .

Choice of "a projection" in (23) gives us what Chomsky calls the "broader" version of the minimality condition. Under this version, both X'' and X' qualify as minimality barriers for elements that they dominate (given the definitional requirement that τ is any projection of δ , including a maximal projection), with the result that both the specifier and the complements

RAPOSO

of X^0 are protected from outside government by Y^0 .

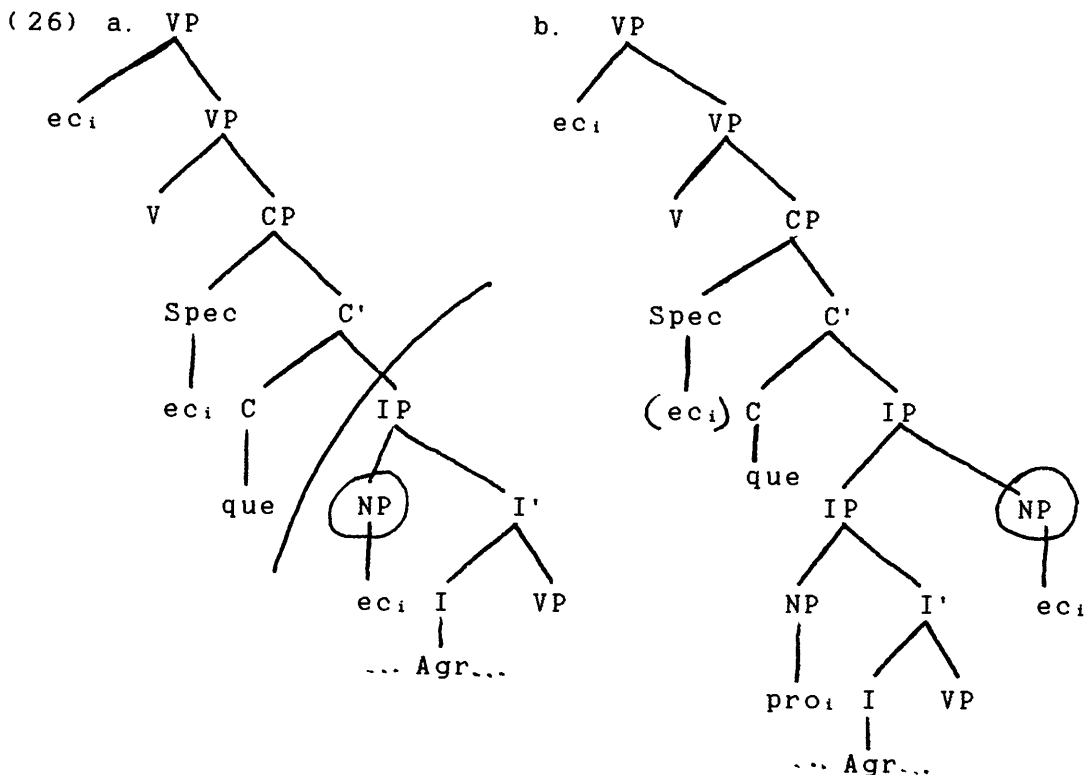
Consider now the general structure of IP:

(25) ... [I' NP [I' [I Agr] VP]]

I would like to claim that in the Romance pro-drop languages Agr is "strong" enough to make I' (IP) qualify as a minimality barrier. In other words, Agr is strong enough to put into operation the broader version of the minimality condition. As a result, the Spec of IP (the subject NP) is protected from government by a head external to IP.

5. Wh Extraction in EP and the ECP

Given these theoretical assumptions, let us consider the case of extraction of a subject out of a finite complement clause with a matrix epistemic or volitional predicate, that is, (14a,b) (I leave aside for the moment the issue of factive complements). The relevant representations are given in (26).



(26a) represents subject extraction from pre-verbal position, while (26b) represents extraction from post-verbal, inverted position (which, as we concluded in section 2, is the IP-adjoined position). We

ROMANCE INVERSION, MINIMALITY AND THE ECP

now want to block (26a), while permitting (26b). I will assume throughout, with Chomsky (1986), that wh extraction proceeds via adjunction to VP. I will be concerned with the status of the empty categories in the extraction site and in the Spec position of CP with respect to the ECP.

In (26a) antecedent government is satisfied by both ecs, if we assume that extraction is successive cyclic, that is, that there is an intermediate trace in the Spec of CP that antecedent governs the trace in the extraction site.¹⁴ What rules out (26a) is the fact that the trace in argument position is not canonically head governed. Infl head governs this trace, but not canonically, and this is not enough to meet the requirements of the ECP. In addition, since IP is a minimality barrier for elements in the subject position, external canonical head government of the subject trace is blocked, and the structure is ruled out by the ECP.

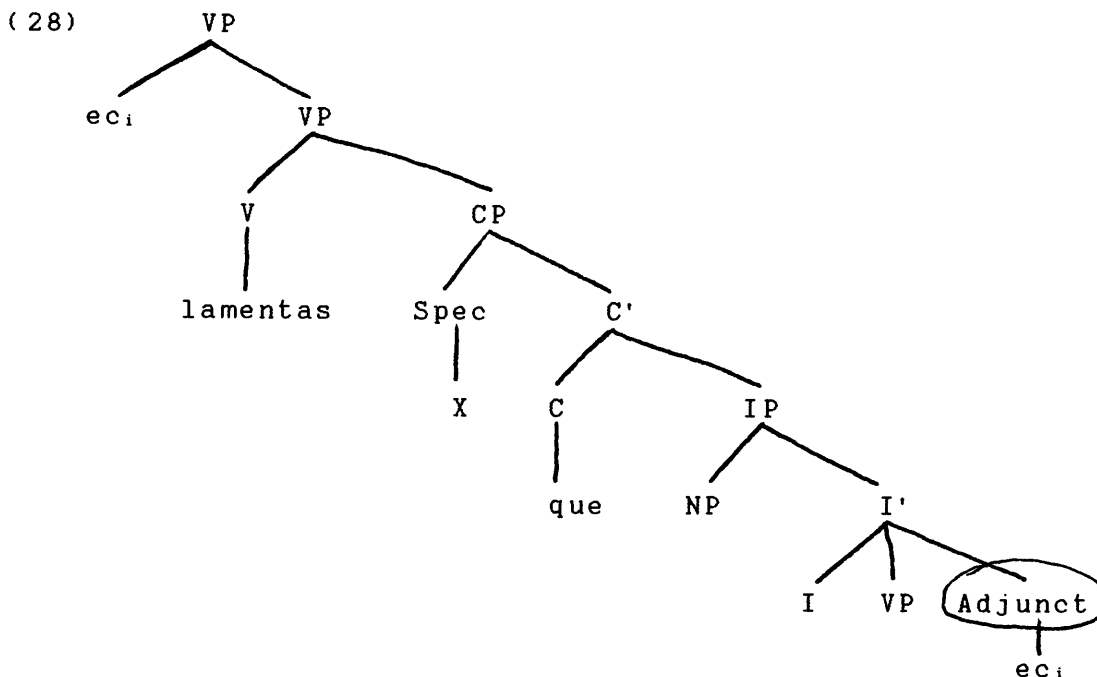
In (26b), inversion has applied, adjoining the subject to IP. Can extraction now take place? Antecedent government is trivially satisfied by both traces if extraction goes through the Spec of C. If it doesn't, the IP-adjoined trace is antecedent governed by the trace adjoined to the matrix VP, since there are no barriers between them. IP is not a blocking category for the trace adjoined to it because it does not dominate this trace--only one of its segments does. Therefore, CP is not a barrier by inheritance and, since it is an argument, neither is it an inherent barrier. How is the trace adjoined to IP head governed? The crucial observation here is that Infl does not m-command (and therefore, does not govern) this trace because its maximal projection (IP) does not dominate it. As a consequence, the minimality condition is nullified, IP is not a barrier anymore and the subject trace can be head governed from outside IP. Given the minimality condition, I conclude that the complementizer que successfully head governs the adjoined trace.^{15,16}

Let us now consider the case of extraction out of a finite factive complement, (14c). Out of such a complement, there is an interesting contrast between subject and adjunct extraction. Whereas subject extraction is permitted, adjunct extraction is blocked. This is shown by the contrast between (14c) and (27):

- (27) *Quantas vezes_i lamentas [que o António tenha visto esse filme e_i]?
How many times do you regret [that António has seen that movie e]?

RAPOSO

The ungrammaticality of (27) can be explained if we adopt Zubizarreta's (1982) idea that the Comp position associated with a factive verb in Portuguese is not an appropriate landing site for wh-extraction. The relevant representation associated with (27) is (28):



(28) is ruled out because the adjunct trace is not antecedent governed --there is an intervening barrier (CP) between that trace and its closest antecedent adjoined to the matrix VP.^{17,18}

How can the subject in (14c) escape the effects of the ECP? The relevant representation is again the one given in (26b) (without the intermediate trace in Spec). The subject adjoins first to IP. Extraction may now take place without successive cyclicity, given that CP will not inherit barrierhood from IP for reasons already mentioned. In other words, the intermediate trace adjoined to the matrix VP is an adequate antecedent governor of the trace adjoined to IP. As for head government, I continue to assume that it is satisfied by the complementizer que.¹⁹

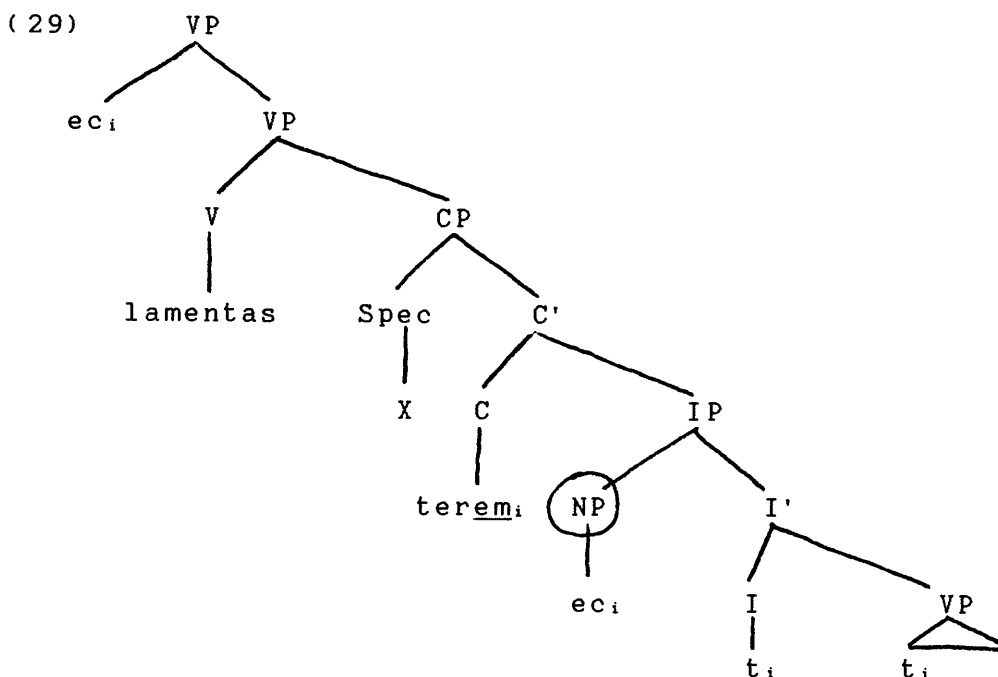
Let us now look at extraction out of inflected infinitival complements to factive verbs, starting with the ungrammatical (15). (8) represents the structure of (15) prior to extraction (and inversion). The subject cannot be extracted from pre-verbal position because the empty category left behind is not head governed. It is

ROMANCE INVERSION, MINIMALITY AND THE ECP

not head governed by I, because of the directionality requirement, and it is not head governed by the matrix verb, because IP is a minimality barrier. The subject cannot be extracted from post-VP position either, because, as noted before, IP is an argument and adjunction cannot take place.

Prior to extraction (or inversion), (16) (that is, (3b)) can be associated with either one of the representations (7) or (8), as we concluded above. Extraction from (8) is excluded for reasons by now familiar. In (7), the subject can adjoin to IP and extraction is permitted from this position. How is the ECP satisfied? With a factive verb, the Spec of CP is not an adequate landing site for the wh-phrase, and antecedent government is satisfied in the same way as for (14c): the trace in IP-adjoined position is antecedent governed by the (matrix) VP-adjoined trace. How about head government? Recall that in (7), I/Agr necessarily raises to C, in order to get Case from the matrix predicate. Thus, Infl in C is now in a canonical head government position with respect to the wh-trace in IP-adjoined position, and both requirements of the ECP are satisfied.²⁰

(16), however, has an alternative strategy for subject wh-extraction, namely from the non-inverted, pre-VP subject position. The crucial observation is that this position is post-verbal, given the obligatory raising of V/I/Agr to C. This is represented in (29):



RAPOSO

In (29), I/Agr in C canonically head governs the trace in subject position, and this particular requirement of the ECP is thus satisfied (see note 20). How is antecedent government satisfied? If we take the antecedent governor of the subject trace to be the trace in VP-adjoined position, we have a barrierhood problem. Since IP is a blocking category for the subject trace, CP is a barrier by inheritance. However, it is plausible to maintain the idea that a raised V/I/Agr in C L-marks IP, thus voiding its blocking category status with respect to the subject trace (and thus voiding the barrierhood of CP). Alternatively, it could be suggested that I/Agr in C both head governs and antecedent governs the trace in subject position, since they are necessarily coindexed by the agreement rule. However we decide this issue, both requirements of the ECP are satisfied by the trace in subject position.

That extraction is permitted both from inverted and non-inverted subject position in the case of an inflected infinitival complement is overtly shown by wh-in-situ:

- (30) a. *Tu lamentas quem não ter ouvido o concerto?
'You regret who not to-have-Agr listened to the concert?'
- b. Tu lamentas não ter ouvido o concerto quem?
c. Tu lamentas não ter quem ouvido o concerto?
'You regret not to-have-Agr (who) listened to the concert (who)?'

6. Conclusion.

At the empirical level, I suggested that wh-extraction of the subject in EP is dependent on subject inversion, being necessarily from post-verbal position (although not necessarily from post-VP position, cf. the case of (29)). At the theoretical level, I proposed that subject inversion in Romance is adjunction to IP rather than to VP. I have also proposed that Agr in the pro-drop Romance languages is "strong" enough to invoke the broader version of the minimality condition of Chomsky (1986), i.e., it makes IP qualify as a minimality barrier. From this, it follows that wh-extraction cannot be from pre-verbal (or, perhaps better, from pre-Infl) position, if we assume that head government (for the ECP) requires canonical government by a head. Adjunction to IP has the effect of removing the subject out of the government domain of Infl, nullifying the minimality condition and opening up the way for canonical head government from outside IP.

ROMANCE INVERSION, MINIMALITY AND THE ECP

FOOTNOTES

¹ I would like to thank Manuela Ambar, Andrea Calabrese, Noam Chomsky, Vivianne Deprez, John Frampton, Jane Grimshaw, Richard Kayne, Jean-Yves Pollock, Luigi Rizzi, Esther Torrego and Juan Uriagereka for helpful discussion and suggestions. All errors are mine.

² Zubizarreta (1982, 83) correctly describes (E?)Portuguese as having subject inversion with the postposed subject interpreted as the focus of the sentence, but she denies that this is the normal case for Romance inversion in general. She also argues that postposed subjects must undergo an obligatory rule of Focus at LF, and that Wh-movement (out of inverted position) bleeds the application of this rule, with the consequence that postposed subjects cannot undergo wh-movement. But this is a rather strange conclusion for several reasons, one of them being that wh-phrases (or their traces) themselves are interpreted as the focus of the sentence and yet undergo wh-movement. See Chomsky (1971), Jackendoff (1972) and Calabrese (1987) for further discussion.

³ Words like apenas, só 'only' are modifying "focus" adverbs with interesting syntactic and semantic properties beyond the scope of this paper. If a subject modified by one of these adverbs is postposed, no special intonation is required.

⁴ Subject inversion in Italian, as described by Calabrese (1985), seems to be even less "free" than in EP.

⁵ Inversion is possible without any special stress or focus interpretation in the case of subjects of passive or unaccusative verbs, as in (ia,b):

- (i) a. Desapareceram alguns livros da biblioteca.
'Disappeared some books from the library'
b. Foram roubados alguns livros da biblioteca.
'Were stolen some books from the library'

I have nothing to say about this type of inversion in this paper.

⁶ Some of these auxiliaries are ter 'have', the copula ser 'be', and modals like poder 'can', dever 'must'. See Pollock (1987).

⁷ If I/Agr stays in situ, it is not governed by the matrix verb because CP is a barrier by inheritance for Infl. CP is not a barrier for Infl in C, because (i) it is an argument and (ii) it does not inherit barrierhood from IP, since IP is not anymore a blocking category for Infl in C.

⁸ See also Chomsky (1986, 68-73) for some general properties of X⁰ Movement that would prevent V to C

RAPOSO

directly without stopping first in I.

⁹ A wh-phrase-in-situ is subject to a special intonational pattern (distinct from "echo" wh-in-situ).

¹⁰ Although the organizational model proposed in this particular article will not be followed here.

¹¹ For the notion of canonical government, see Kayne (1984, 167-168). Rizzi (1987) adopts a similar idea concerning head government.

¹² We assume that lexical heads are inherently strong. What defines "strength" in the case of functional heads (C and I) is very much an area of open debate. It is usually assumed that a "strong" Infl, for example, is one that is morphologically rich (see Rizzi 1986). This characterization is difficult to extend to C in a literally way, for obvious reasons (but see Bayer (1984)). Following an idea originally due to Pesetsky (1982), we might say (with Chomsky (1986)) that there is a process of Spec-Head Agreement in CP (an instantiation of a process generalizing across categories), perhaps subject to parametric variation, and whose application renders C strong for the ECP. See also Rizzi (1987).

¹³ The order between δ and β is irrelevant. The minimality condition is due to Reuland (1983).

¹⁴ Note that I am assuming a relativized minimality principle in the spirit of Rizzi (1987), such that a head does not invoke minimality if antecedent government is involved.

¹⁵ I will therefore adopt the position that the head of CP in the pro-drop Romance languages is strong enough to satisfy the head government requirement of the ECP, perhaps because it is indirectly coindexed with the subject trace through Spec-head Agr. See the references given in fn. 12. I leave this issue for future work.

¹⁶ It follows from our analysis that short extraction of a wh-subject cannot be from pre-verbal position. Rather, it must be from post-verbal, inverted position (or from object position, in the case of an unaccusative or passive verb). Both Rizzi (1982, 151-152) and Jaeggli (1984) give evidence that short extraction of a wh-subject in Italian and in Trentino (a dialect from Northern Italy), respectively, is not from pre-verbal position. For lack of space, we cannot develop this issue here.

¹⁷ It is crucial, however, that an adjunct be prohibited from adjoining to IP, otherwise there would be no CP barrier blocking antecedent government. At the moment I have to stipulate this result, since I have no principled way of deducing it.

¹⁸ Note that there is nothing wrong with head government of the adjunct trace, if we assume that INFL (or V, if the adjunct originates inside VP) canonically head governs that trace.

ROMANCE INVERSION, MINIMALITY AND THE ECP

¹⁹ But note that now we cannot invoke Spec-head Agreement as an account of the "strength" of the complementizer, given that extraction is not successive cyclic. Perhaps the head of CP is occupied by a "strong" factive operator (lexicalized by que) which head governs the subject trace. Note also that VP-adjunction of the subject would create a problem for antecedent government, since CP would be a barrier separating the adjoined trace from its closest antecedent, the trace adjoined to the matrix VP.

²⁰ This implies that the trace of Infl (with Agr) is not "strong" enough to invoke the broader version of the minimality condition, i.e., with a trace in the Infl position, IP is not a minimality barrier.

REFERENCES

- Aoun, J., N. Hornstein, D. Lightfoot and A. Weinberg (1987) "Two Types of Locality," Linguistic Inquiry 18: 537-578.
- Bayer, J. (1984) "COMP in Bavarian Syntax," The Linguistic Review 3: 209-274.
- Calabrese, A. (1985) "Focus and Logical Structures in Italian," ms., MIT, Cambridge, Massachusetts.
- Calabrese, A. (1987) "Focus Structures in Berber: a Comparative Analysis with Italian," in M. Guerssel and K. Hale (eds.) Studies in Berber Syntax, Lexicon Project Working Papers 14: 103-121, Center for Cognitive Sciences, MIT, Cambridge, Massachusetts.
- Chomsky, N. (1971) "Deep Structure, Surface Structure and Semantic Interpretation," in D. Steinberg and L. Jakobovits (eds.), 183-216.
- Chomsky, N. (1986b) Barriers, MIT Press, Cambridge, Massachusetts.
- Chung, S. and J. McCloskey (1987) "Government, Barriers and Small Clauses in Modern Irish," Linguistic Inquiry 18: 173-238.
- Jackendoff, R. (1972) Semantic Interpretation in Generative Grammar, MIT Press, Cambridge, Massachusetts.
- Jaeggli, O. (1984) "Subject Extraction and the Null Subject Parameter," NELS 14: 132-153.
- Jaeggli, O. (1985) "On Certain ECP Effects in Spanish," ms., University of Southern California.
- Kayne, R. (1984) Connectedness and Binary Branching, Foris, Dordrecht.
- Kiparsky, P. and C. Kiparsky (1971) "Fact", in D. Steinberg and L. Jakobovits (eds.), 345-369.
- Lasnik, H. and M. Saito (1984) "On the Nature of Proper Government", Linguistic Inquiry 15: 235-289.

RAPOSO

- May, R. (1985) Logical Form, MIT Press, Cambridge, Massachusetts.
- Pesetsky, D. (1982) "Complementizer-Trace Phenomena and the Nominative Island Condition," The Linguistic Review 1: 297-344.
- Pollock, J-Y. (1987) "Sur la Syntaxe Comparee de la Negation de Phrase en Francais et en Anglais: Deplacement du Verbe, et Grammaire Universelle", ms., Universite de Paris 12.
- Raposo, E. (1987) "Case Theory and Infl-to-Comp: The Inflected Infinitive in European Portuguese", Linguistic Inquiry 18: 85-109.
- Reuland, E. (1983) "Governing -ing," Linguistic Inquiry 14: 101-136.
- Rizzi, L. (1982) Issues in Italian Syntax, Foris, Dordrecht.
- Rizzi, L. (1986) "Null Objects in Italian and the Theory of pro," Linguistic Inquiry 17: 501-558
- Rizzi, L. (1987) "Relativized Minimality," ms., Université de Genève.
- Safir, K. (1985) Syntactic Chains, Cambridge University Press, Cambridge, England.
- Steinberg, D. and L. Jakobovits (eds.) (1971) Semantics: an Interdisciplinary Reader in Philosophy, Linguistics and Psychology, Cambridge University Press, Cambridge, England.
- Stowell, T. (1981) Origins of Phrase Structure, Doctoral Dissertation, MIT, Cambridge, Massachusetts.
- Zubizarreta, M.-L. (1982) "Theoretical Implications of Subject Extraction in Portuguese," The Linguistic Review 2: 79-96.