SOME OBSERVATIONS ON VERB MOVEMENT IN PORTUGUESE *WH* QUESTIONS[*]

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0. Introduction

This paper is intended to be a preliminary survey of Portuguese data concerning verb movement in *wh* questions. Ambar (1992) claimed: (i) that subject-verb inversion (SVI) in European Portuguese (EP) *wh* questions is a result of verb movement (to INFL) to COMP; (ii) that this movement is triggered by the licensing requirements of an empty category occurring inside EP *wh* phrases. Here I will mainly discuss claim (ii), since confirmation of it might offer an alternative to Rizzi's account of "residual Verb Second (V2)", according to which V-to-COMP is triggered by the *Wh* Criterion (see section 4 here)[1]. In section 1 I present the EP facts and Ambar's account of them. In sections 2 and 3 I show that evidence internal to EP, and comparative consideration of EP and Brazilian Portuguese (BP) suggest that (ii) above cannot be maintained[2]. It will be shown that EP is much like English with respect to verb movement in *wh* questions. If this result is right, Ambar's approach to SVI in *wh* questions may be eliminated as a potential explanation of "residual V2". In the last section, I show that, in principle, both EP and BP can be accomodated under Rizzi's approach. In fact, I will argue that EP fills a gap in the picture predicted under Rizzi's assumptions: EP can be characterized as a language with *Dynamic Agreement just at LF*.

1. Asymmetries among *Wh* Phrases with respect to V-to-Comp in EP

1.1. Wh Questions in EP

According to Ambar (1992), V-to-COMP occurs in matrix *wh* questions when one of the following *wh* phrases occupies the Spec of CP: que "what", o que "what", quem "who", por que "why", quando "when", onde "where", how "como". As we see by the glosses, they correspond to the English "bare" *wh* phrases, although we will see some reasons to believe that at least que, por que and o que must have internal structure. This paradigm is exemplified in (1)-(2):

(1) a. *Que ofereceu o Pedro à Maria?*
        What offered the Pedro to+the Maria
        "What did Pedro offer to Mary?"
    b. **Que o Pedro ofereceu à Maria?*

(2) a. *Onde tinha o Pedro encontrado a Maria?*
        where had   met
        "Where has Pedro met Maria?"

[1] Following Ambar, I will assume (i) above throughout this paper -- that is, that EP SVI is an instance of V-to-INFL-to-COMP. I must say that this assumption does face problems at least with respect to Brazilian Portuguese data, as we will see in section 4.

[2] The BP judgements I present here are mine, checked with the judgements of my wife, who speaks the same dialect I do ("gaúcho" dialect, spoken in the South of Brazil), and sometimes with the judgements of a third speaker, Guian, who speaks a different dialect ("paulista" dialect, spoken in São Paulo). Our judgements disagree with those of the speakers cited by Rizzi, since these do not admit *wh* in situ as a normal strategy for questions (Rizzi (1992), note 12, p.23).

b.   **Onde* o Pedro *tinha* encontrado a Maria?

On the other hand, still following Ambar, when a *wh* phrase has the internal (sub)structure **[...[Que N']...]**, and N' has lexical content, the phrase does not require V-to-COMP[3]. Compare (1) with (3), and (2) with (4). But here a first qualification must be made: sentences like (3b) and (4b), that is, *without V-to-COMP*, are marked. To be fully acceptable, these sentences require entonational emphasis of the *wh* phrase or of the subject. Ambar abstracted this fact away from her analysis, but we will see that this decision may be wrong (see sections 2.2 and 2.3 below).

(3) a.   [*Que   presentes*] *ofereceu* o Pedro à Maria?
             What presents   offered
     b.   [*Que presentes*] o Pedro *ofereceu* à Maria?
             "What/Which presents did Pedro offer to Maria?"

(4) a.   [*Em* [*que   lugar*]] *tinha* o Pedro encontrado a Maria?
             in   what place   had   met
     b.   [*Em* [*que lugar*]] o Pedro *tinha* encontrado a Maria?
             "In what/which place has Pedro met Maria?"

Finally, consider what happens in embbeded *wh* questions. According to Ambar, V-to-COMP is obligatory only with ~~que~~ "what" and ~~por que~~ "why", cf. the contrast (5) vs. (6) below. And a new qualification in required: for some speakers ~~por que~~ behaves just like the other *wh* phrases for some speakers. This fact suggests that the pattern of ~~que/por que~~ in (5) is unstable, an observation which will have some relevance later on (see sections 2.1 and 3.2 here).

(5) a.   O João perguntou *que ofereceu* o Pedro à Maria
             **O João perguntou *que* Pedro *ofereceu* à Maria
             "João asked what Pedro offered to Maria"
     b.   O João perguntou *por que ofereceu* o Pedro um presente à Maria
             **O João perguntou *por que* o Pedro *ofereceu* um presente à Maria
             "João asked why Pedro offered a present to Mary"

(6) a.   O João perguntou *onde/em que lugar tinha* o Pedro encontrado a Maria
     b.   O João perguntou *onde/em que lugar* o Pedro *tinha* encontrado a Maria
             "João asked where/in what/which place Pedro has met Maria"

Thus, EP shows different asymmetries in matrix and in embbeded questions with respect to V-to-COMP. The data, as they are pictured by Ambar, are summarized in (7) below (*N'* in (7c) stands for any relevant lexical content under this node):

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[3] Here I use an old-fashioned X-bar notation to describe the internal structure of NPs, since I do not want to make any specific claim about it.

(7)   --

		Obligatory V-to-COMP	
		In Matrix Questions	In Embedded Questions
a.	que, por que quem, quando,	Yes	Yes
b.	onde, como, o que	Yes	No
c.	[...[que N']...]	No	No

Now let me sketch the way Ambar approached to these facts.

1.2. Ambar's Account of EP Facts

The interrogative NP que in (7a) is related in an obvious way to the simplest case of (7c), namely, interrogative NPs with the form **[que N']**, where N' has lexical content: given these phrases, it is plausible to say that que has a null N'. On the other hand, since (7a) phrases behave like (7b) ones in matrix context, Ambar extends the hypothesis of *a null N'* to the latter, too. In other words, Ambar postulates the distinction sketched in (8) below as the source of the asymmetry in matrix context.
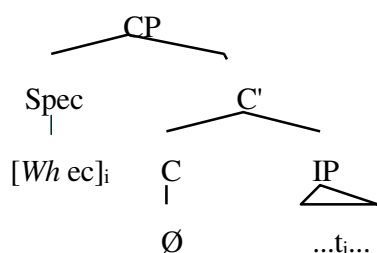
(8)   a. $[...[Wh \ [ec]_{N'}]...]_{XP[+wh]}$ $(= (7a,b))$

       b. $[...[Que \ N']...]_{XP[+wh]}$ $(= (7c))$

Now, the empty category in (8a) is subject to the minimal requirements of formal licensing and of content recoverability, according to Rizzi (1986). Crucially, Ambar takes these requirements as the triggers of V-to-COMP. An imediate consequence of this assumption is that, since phrases (7c)/(8b) do not have a null N', they should not trigger V-to-COMP, as expected if the picture in (7) is right.
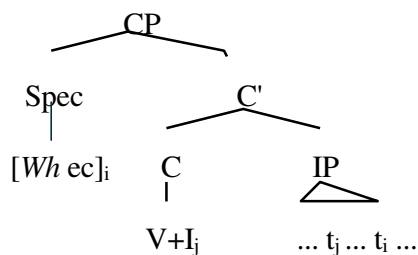   Consider what happens in *matrix context*, as in (9a) below. Since Ambar assumes the ec in (8a) to be *pro* (see p.191-8), it must be formally licensed through some form of *lexical government*. Under the assumption that the *wh* element itself is not a lexical governor, there is no available lexical governor for the ec in (9a). Hence, all *wh* phrases with an internal null N' ((7a,b)) trigger V-to-COMP in matrix context to formally license the null N': the inflected verb in C° functions as the relevant lexical governor, as in (9b)[4]:

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[4] There are some problems with the way Ambar implements this idea. For instance, for the ec to be licensed in (9b), V+INFL in C° must govern the ec. In the Barriers framework, this is possible just in case the NP$_{[+wh]}$ is not a barrier; but, by Barriers definitions, it is (since V+INFL does not L-mark the NP). Thus, Ambar has to assume that V+INFL in C do L-marks the NP, against the definitions she previously assumed. But I will not go into technical details here. See Ambar (1992), chapter 6.
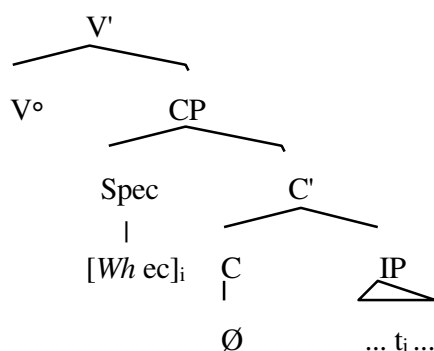
(9) a.

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              CP
         _____
       Spec         C'
        |        _____
    [Wh ec]ᵢ   C          IP
               |        _____
               Ø        ...tᵢ...
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b.

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              CP
         _____
       Spec         C'
        |        _____
    [Wh ec]ᵢ   C          IP
               |        _____
             V+Iⱼ     ... tⱼ ... tᵢ ...
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Turning now to the asymmetry in *embbeded contexts* as depicted in (10) below, we see that the matrix verb is the lexical governor of the null N' (according to Chomsky (1986)). Hence, it can *not* be the formal licensing requirement of the ec that triggers V-to-COMP in embbeded questions.

(10)

```
              V'
         _____
       V°           CP
                _____
              Spec         C'
               |        _____
           [Wh ec]ᵢ   C          IP
                      |        _____
                      Ø        ... tᵢ ...
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In order to explain the contrast between (7a) and (7b) phrases, Ambar takes, then, advantage of the fact that (7b) phrases seem to have more specified inherent *content* than phrases in (7a). She expresses this idea assuming that phrases in (7b) have inherent *features* which are relevant for *content recoverability* of the null N', but que and por que lack any such feature. The basic distinction is sketched in (11), and the relevant feature content of phrases (7b) is specified in (12b) below.

(11)   a.   [...[que *ec*]...]   (= (7a))

       b.   [...[que *ec*[feature]]...]   (= (7b))

(12) a. que = [que *ec*]   por que = [por [que *ec*]]^5

 b. quem = [que *ec*[human]]   o que = [que *ec*[definite]]]
  quando = [que *ec*[time]]   onde = [que *ec*[place]]
  como = [que *ec*[manner]]

Given this distinction, it seems natural to assume further that the feature content of phrases in (12b) exempts them from the need of an external element to recover the content of the null N'. On the other hand, the same is not true of phrases (12a), which require an external element to do the job. Ambar makes, then, a final assumption: although the matrix verb in (10) is able to lexically *govern* the ec, this government relation is not the type of relation able to *identify* the content of an ec; Spec-Head agreement with an inflected verb *is* a relation of such a type. Then, the inflected verb must move to C° in (10) in order to identify the ec of phrases (7a)/(11a)/(12a).

   The final result, then, is that the EP facts plotted in (7) above seem to be explained by the system summarized in (7') below:

(7')   --
                                                Obligatory V-to-COMP for
                                     Formal Licensing   Content Recoverability
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  a. [..[que *ec*]..]   Yes   Yes
  b. [..[que *ec*[feature]]..]   Yes   No
  c. [..[que N']..]   No   No

In spite of the atractiveness of this system, I will present some empirical and conceptual reasons to doubt it is right. All the arguments point to the same conclusion: it is incorrect to see que in (7a) as a model for all *wh* phrases that trigger V-to-COMP. Hence, it is incorrect to see the requirements of a putative *ec* as the triggers of all cases of V-to-COMP in EP *wh* questions.

2. Further Properties of *Wh* Elements in Portuguese

2.1. *Que* is different

As we have seen in the last section, Ambar's account crucially depends on the internal structure of interrogative phrases. With respect to this particular aspect, we may wonder what (standard) Brazilian Portuguese (BP) paradigm looks like, since there does not seem to be any relevant difference between EP *wh* phrases and the BP ones. And what BP *wh* questions tell us is that que "what" behaves differently from all other *wh* phrases. So, both in embedded and matrix questions, if there is obligatory verb movement at all, it is restricted to the cases where que is the Spec-of-CP, as

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[5] Portuguese has a complementizer que homophonous to the interrogative element que. There are, however, at least two reasons to say that que in (12a) is the interrogative element. First, because the phrases in (12) are interrogative ones, and the complementizer que is obligatory only to introduce embbeded finite *declarative* sentences. Second, in BP the complementizer que may co-occur with the interrogative que, as in:

(i)   (Paulo perguntou) *o que (que)* o Pedro ofereceu à Maria
        "(Paulo asked) what (that) Pedro offered to Maria"
(ii)   (Paulo perguntou) *por que (que)* o Pedro ofereceu presentes à Maria
        "(Paulo asked) why (that) Pedro offered presents to Maria"

in (13)[6]. In particular, por que "why" clearly behaves like the other *wh* phrases (including phrases of the form **[P° [que ...]]**), and *unlike que*, as we see in (14):

(13)　a.　　*Que deu* o Pedro à Maria?
　　　　　　"What did Pedro give to Maria?"
　　　b.　　??*Que* o Pedro *deu* à Maria?
　　　　　　(Contrasting with "*O que* o Pedro deu à Maria?")
　　　c.　　O Paulo disse *que deu* o Pedro à Maria
　　　　　　"Paulo said what Pedro gave to Mary"
　　　d.　　??O Paulo disse *que* o Pedro *deu* à Maria
　　　　　　(Contrasting with "O Paulo disse *o que* o Pedro deu à Maria")

(14)　a.　　(O Paulo disse) *por que* o Pedro *deu* presentes à Maria
　　　　　　(Paulo said) why Pedro gave presents to Mary
　　　b.　　(O Paulo disse) *para que* o Pedro *pediu* dinheiro à M.
　　　　　　(Paulo said) for what Pedro asked some money to Mary
　　　c.　　(O Paulo disse) *quem* o Pedro *encontrou*
　　　　　　(Paulo said) who Pedro met
　　　d.　　(O Paulo disse) *onde* o Pedro *encontrou* a Maria
　　　　　　(Paulo said) where Pedro met Maria
　　　e.　　(O Paulo disse) [*que presentes*] o Pedro *deu* à Maria
　　　　　　(Paulo said) what/which presents o Pedro gave to Maria

Wh-in-situ questions in BP confirm the idiosyncratic behavior of que: it is the only *wh* phrase which can *not* stay in situ, as the contrast between (15) and (16) shows[7,8]. Again por que patterns with all

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[6] In isolation, sentences like (13b,d) do not seem too bad in BP. But the contrast emerges when we compare them to their near-paraphrases with o que in the place of que. In fact, the marginal acceptability of (13b,d) may be due to some interference of the latter structures, since the non-tonic article o in o que often seems to be dropped in spoken language.

[7] In BP, *wh* questions do not require *wh* movement, and *wh* phrases in situ are interpreted as *echo* elements just under stress (but see fn.3). There may be some difference of acceptability between both the movement and the *wh* in situ strategies in some contexts, probably due to the action of ECP and Subjacency. For instance, both extraction and *wh* in situ are possible in the object position of an embbeded declarative, as in (i), but *wh* in situ in the subject position degrades the sentence, as in (ii):

(i)　　a.　　O Paulo disse que a Maria tinha encontrado quem?
　　　b.　　Quem o Paulo disse que a Maria tinha encontrado?
　　　　　　"Who did Paulo say that Maria has met?"

(ii)　　a.　　??O Paulo disse que quem tinha encontrado a Maria?
　　　b.　　Quem o Paulo disse que tinha encontrado a Maria?
　　　　　　"Who did Paulo say (that) has met Maria?"

The contrast is sharper in an embbeded question:

(iii)　a.　　O Paulo perguntou se a Maria tinha encontrado quem?
　　　b.　　??Quem o Paulo perguntou se a Maria tinha encontrado?
　　　　　　"Who did Paulo ask whether Mary met?"

(iv)　a.　　*O Paulo perguntou se quem tinha encontrado a Maria?
　　　b.　　?Quem o Paulo perguntou se tinha encontrado a Maria?
　　　　　　"Who did Paulo ask whether met Maria?"

For some discussion of EP *wh* in situ, see Ambar (1992), pp.253-8.

other *wh* phrases and, in particular, with the other phrases of the form **[P° [que ...]]**. That is, (13) to (16) not only show that que is different from all other *wh* phrases, but also that por que is a well-behaved case in BP.

(15) a.   *O Paulo deu *que* à Maria?
            Paulo gave what to Mary?
      b.   O Paulo deu o livro à Maria *por quê*?
            Paulo gave the book to Mary why?
      c.   O Paulo pediu dinheiro à Maria *para quê*?
            Paulo asked money to Mary for what (what for)?
      d.   O Paulo acertou a Maria *com quê*?
            Paulo shot Maria with what?

(16) a.   Paulo encontrou [*que pessoas*]/*o quê*/*quem*?
            Paulo met [what/which persons]/what/who?
      b.   Paulo encontrou Maria [*em que lugar*]/*onde*/*quando*/*como*?
            Paulo met Maria [in what/which place]/where/when/how?

Now, there are two pieces of evidence pointing to the same conclusions for the *EP paradigm*, contrary to the picture Ambar has drawn. First, EP not only has *wh*-in-situ questions, but also such questions show the same paradigm as BP (cf. Teyssier (1976)), that is, the asymmetry que *versus* the other *wh* phrases is also present in EP.

  Second, as I said before, Ambar noticed that absence of embedded V-to-COMP with por que leads variable judgements, and not to the consensual unacceptability, as is the case of que in both EP and BP. Hence, even for some speakers of EP, por que does not require V-to-COMP in embedded questions. Ambar attributes this variability to the fact that por que has the form **[PP por [que *ec*]]**[9]. What is relevant for my purposes is that, once she assumed that por que has the same internal structure of other **[P° [que ...]]** phrases, she should predict that por que would pattern with

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[8] It is hard to evaluate the acceptability of que in a "vacuous-movement" subject position, probably due to the factor mentioned in the fn.7, but we find in general the same contrasts as those in (13), cf. (i) below. It seems to me, however, that some verbs turn this sort of sentence acceptable, as in (ii):

 (i)   a.   *Que / O que* cheira mal?
                "What's stinking?"
        b.   *Que / O que* limpa bem o chão?
                "What's good to clean the floor?"
 (ii)   a.   *Que / O que* aconteceu? "What happened?"
        b.   *Que / O que* caiu do céu? "What fell down from the sky?"

 (ia) is the Portuguese correlate of the (non-)French sentence "*Que/*Quoi sent mauvais?", from Friedemann (1990). It may be the case that the contrast between (i) and (ii) is related to unaccusativity, but I will not go into this question.

[9] According to her, por governs the ec, but not properly, given the additional assumption that prepositions are not proper governors in Portuguese (since they can not be stranded; see Ambar (1992), pp.189-8). But this explanation clearly does not work, for Ambar's hypothesis is that V-to-COMP in embedded context has nothing to do with the government requirement (that is, with formal licensing), but with the feature identification requirement. Ambar's suggestion has other problems as well. First, since she assumed that prepositions are not proper governors in Portuguese, it is not clear why for some speakers embbeded questions with por que and without V-to-COMP are acceptable in the first place. Second, since Ambar analised the ecs in (7'a,b) as *pro*, it is hard to see in which sense the ECP, a condition on *traces*, should be relevant to them (see Ambar (1992), p.190-3). We could try to ammend her account and say that the preposition por has a feature ([+cause] or [+reason], for instance) which is, for some speakers but not for others, able to identify the ec. Even in this case I do not think the system is exempt from the objections which follow in the text.

these phrases. And, as a matter of fact, this is true in general for BP and also for *wh*-in-situ questions in EP. Furthermore, it is true in general even for some EP speakers, as I have just said. From this point of view, what is surprising is that, for some *other* speakers (including Ambar), por que acquires the idiosyncratic behavior of que in Spec of embbeded questions. Hence, what is in need of additional explanation are these "idiosyncratic occurrences" of por que, and *not* the "regular cases". But, given the idiosyncratic nature of que and of those occurrences of por que, it is not quite appealing to try to assimilate all other *wh* phrases to them.

Since these observations do not affect the fact that just que and por que (for some speakers) trigger V-to-COMP in embbeded context in EP, Ambar could still argue that the objection above does not affect her explanation of this particular instance of V-to-COMP in EP. Recall that her analysis is that embbeded V-to-COMP is triggered by the *content recoverability* requirement of the ec in the phrases in (7a). But there are reasons to believe that even this is incorrect. First, as we have seen, que can not stay in object position in Portuguese, although this is a position where ec's requiring feature identification may be found[10].

Moreover, the content recoverability requirement is, in the usual case, satisfied by a licenser that can provide some *semantic content* to the ec: this is what happens with *pro* identified by AGR in null subject languages, with arbitrary *pro* in object position in Italian, and with *pro* object of "orphan prepositions" in French (cf. Zribi-Hertz (1984), apud Tellier (1988)). But it seems that the licensing requirements of que in Spec-of-CP are purely *formal*. (i) They may be satisfied by an inflected verb that has no thematic relation at all with que. This is what happens in (17b), where que came from an object position in the *embbeded clause* to the matrix Spec-of-CP, and of course the only inflected verb available for *matrix V-to-COMP* is the matrix one. (ii) Que can be also licensed in Spec-of-CP if followed by the inflected copula, as in (17c). This is a sort of cleft construction, similar to the *qu... est-ce que* construction in French. What is relevant here is that the copula do *not* show any agreement with the *wh* phrase, as we see in (17d): the *wh* NP is plural, and the copula is third person singular (Portuguese shows morphological number agreement of the verb with the subject). (iii) Finally, in BP even the copula in (17c) may be dropped, and the bare complementizer is enough to license interrogative que in Spec-of-CP.

(17) a.   *Que_i o Paulo *disse* que a Maria encontrou t_i?
      b. Que_i *disse* o Paulo que a Maria encontrou t_i?
              What did Paulo say that Maria found out?
      c. Que_i *(é) que* o Paulo disse que a Maria encontrou t_i?
              What (was) that Paulo said that Maria found out?
      d.   *Que* $rapazes_i$ *(é) que* o Paulo disse que a Maria encontrou t_i?
              What/Which boys (was) that Paulo said that Maria met?

All these facts point to one conclusion: the interrogative que is licensed in Spec-of-CP whenever COMP has some lexical content, whatever such content is. This clearly shows that the licensing of que has nothing to do with content recoverability of its internal ec. Hence, the specific way in which Ambar explained the triggering of *embbeded* V-to-COMP can not be maintained. In the next section, I will show that her analysis of *matrix* V-to-COMP can not be maintained either.

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[10] For instance, this is the case of arbitrary small *pro* in Italian, according to Rizzi (1986). Ambar might answer to this objection saying that Portuguese verbs do not license arbitrary objects. Nevertheless, Portuguese prepositions do not license them either, and still que may stay in situ when it is the object of a preposition. So, something else must be said.

2.2. On the Internal Structure of Wh Phrases in Portuguese

Recall that Ambar's analysis of matrix V-to-COMP crucially relies on the internal structure of the *wh* phrases: those with an internal ec would require V-to-COMP; those without one would not. A first piece of evidence showing this is incorrect comes from the fact that even the phrases in (7c) -- that is, those *without* the putative null N' -- "prefer" V-to-COMP. As I said before, even to Ambar herself the "unmarked" sentences with these phrases *show V-to-COMP*. Sentences without V-to-COMP are quite marginal: hence, the contrast between (3'a) and (3'b) below in EP. For sentences like (3'b) to be acceptable, either the *wh* phrase itself must be "contrastively stressed", as in (3'c), or the subject of the sentence must be, as in (3'd) (Ambar (1992), p.59-60):

(3')   a.   [*Que presents*] *ofereceu* o Pedro à Maria?
              What/Which presents offered Pedro to Maria?
       b.   ??[*Que presentes*] o Pedro *ofereceu* à Maria?
       c.   [*Que PRESENTES*] o Pedro *ofereceu* à Maria?
       d.   [*Que presentes*] o PEDRO *ofereceu* à Maria?

Whatever the explanation for the accepatability of (3'c,d) (see section ... for discussion), what is relevant at this point is the contrast between (3'a) and (3'b): it shows that, in the unmarked case, complex *wh* phrases *do* trigger V-to-COMP. But they obviously do *not* have any ec whatsoever inside themselves; hence, the licensing requirements of such an hypothetical ec can *not* be the trigger of matrix V-to-COMP in EP.

    Now, suppose we ignore the complicated paradigm in (3') above, and keep Ambar's proposal for the phrases that *always* require matrix V-to-COMP, that is, those in (7a,b). The problem, then, is that there is *no* independent evidence for an ec inside the phrases in (7b). The evidence for a null N' in (7a) is quite obvious: these phrases alternate with phrases like que coisa "what/which thing" and por que razão "for what/which reason", where there is an overt N'[11]. But no comparable alternation exists for the phrases in (7b), as we can see in (18) below. In this respect the phrases in (7b) behave as they had no internal structure -- at least, no internal structure which can independently be lexicalized:

(18) a.   [quem] "who"   = [$_{NP}$ *que* pessoa] "what/which person",
                                       but *[$_{NP}$ *quem* pessoa] "who person"
      b.   [o que] "what"   = [$_{NP}$ *que* coisa] "what/which thing",
           (lit. "the what")   but *[$_{NP}$ *o que* coisa] "what thing" (lit. "the what thing")
      c.   [onde] "where" = [$_{PP}$ em *que* lugar] "in what/which place",
                                      but *[$_{PP}$ *onde* (em) que lugar] "where (in) which place", *[$_{PP}$ *onde* lugar] "where place"
      d.   [quando] "when" = [$_{PP}$ em *que* momento] "in what/which moment",
                                      but *[$_{PP}$ *quando* (em) que momento] "when (in) which moment", *[$_{PP}$ *quando* momento] "when moment"
      e.   [como] "how"   = [$_{PP}$ de *que* modo] "in what/which manner" (lit. "of what/which manner"), but *[$_{PP}$ *como* (de) que modo] "how (in) which manner", *[$_{PP}$ *como* modo] "how manner"

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[11] Portuguese has another *wh* element, qual, which shares these distributional properties with que. They differ in the following: (i) qual has a plural counterpart (quais); (ii) it may be applied to human referents; (iii) when not accompanied by a lexically filled N', it must have a "D-linked" interpretation (cf. Pesetsky (1987)); (iv) it may stay in situ in object position. I will put aside consideration of this element, although it is clearly relevant to the issues under discussion.

The contrast between phrases (7a) and (7b) with respect to lexical expansion of N' makes two points. First, it corroborates the idiosyncratic nature of que and of embbeded V-to-COMP in EP. Second, together with (3'), it points to the inadequacy of viewing matrix V-to-COMP in EP as a result of the licensing requirements of a putative ec inside the *wh* phrases in (7a,b).

I think the general conclusion to be drawn from the discussion in this section is clear: Ambar's suggestion that V-to-COMP in EP *wh* questions is systematically related to an ec inside *wh* phrases is incorrect. In the next section, I will try to make some sketchy remarks with a more constructive intention. My aim is not to provide a full-fledged analysis of all the phenomena I have been discussing, but just to put things under a plausible perspective.

3. The EP Asymmetries Again

Let me start by recomposing the EP picture according to the precedent discussion. In sum, this picture would look like (19) below. (19a) contrast with all other *wh* phrases in that it can not stay in situ (in object position), and it always trigger V-to-COMP, even in embbeded context. (19b) is much like all other *wh* phrases, except that, for some speakers, it behaves like (19a) in embbeded Spec-of-CP. Finally, phrases in (19e) are different in that they *may* or *may not* trigger matrix V-to-COMP, depending on the presence of "contrastive stress". I will discuss each contrast in turn.

(19)

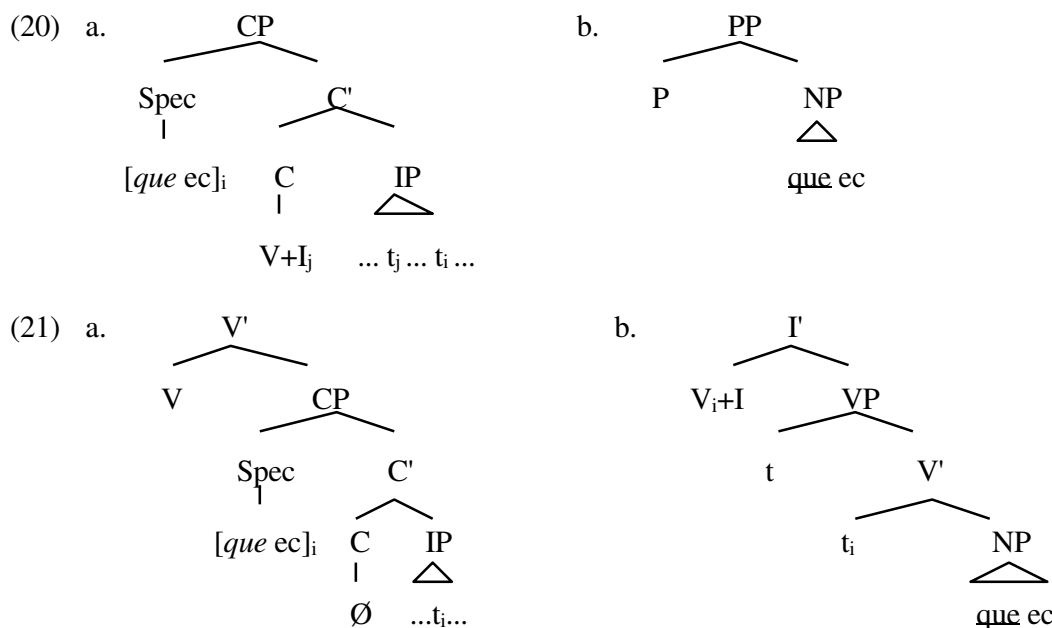|		Obligatory V-to-C in		*Wh*-in-situ
		matrix questions	embbeded questions	Questions
a.	[$_{NP}$que *ec*]	Yes	Yes[12]	No
b.	[$_{PP}$por [$_{NP}$que *ec*]]	Yes	±	Yes
c.	[$_{PP}$P° [$_{NP}$que *ec*]][13]	Yes	No	Yes
d.	quem, o que, como, quando, onde	Yes	No	Yes
e.	[...[*wh* N']...]	±	No	Yes

3.1. On the Contrast between (19a) and the Other Wh Phrases

Consider first the contrast between (19a) and the other *wh* phrases. Here it is plausible to follow Ambar's suggestion, and to try to assign the idiosyncratic behavior of (19a) to its null N': (19a) differs from (19d,e) by the presence of the ec, and from (19b,c) by the presence of additional lexical material inside the latter phrases (namely, the preposition). Since (19d,e) do not have an internal ec, their distribution is not affected by any condition on ec's. As for (19b,c), we may presume that the preposition is sufficient to satisfy the requirements of the ec in (19a), which is a substructure of (19b,c).

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[12] Teyssier says that "tous les interrogatifs ... peuvent introduire des interrogations indirectes, à l'exception de que pronom atone, qui est toujours remplacé dans cet emploi par o que" (pp.127-8). But, since Ambar accepts the sentences in question, and also they seem to be good in BP, I will ignore Teyssier's observation here.

[13] Here I follow the data in Teyssier (1976), since Ambar has no examples of this type (except sentences with por que, which are *sub judice*).

What about (19a) itself? It is plausible to say, then, that its idiosyncratic behavior must be traced back to the licensing conditions on its internal ec. Whatever these conditions are, we already know two things. First, they must be *formal* in nature, and do not have anything to do with content recoverability. Second, they must act in such a way that configurations like (20a,b) are licensed, and (21a,b) are not:

(20)   a.
```
              CP
         ┌────┴────┐
       Spec        C'
        |      ┌────┴────┐
    [que ec]ᵢ  C         IP
               |         △
             V+Iⱼ    ... tⱼ ... tᵢ ...
```

b.
```
              PP
         ┌────┴────┐
        P          NP
                   △
                 que ec
```

(21)   a.
```
              V'
         ┌────┴────┐
        V          CP
              ┌────┴────┐
            Spec        C'
             |      ┌────┴────┐
         [que ec]ᵢ  C         IP
                    |         △
                    Ø      ...tᵢ...
```

b.
```
              I'
         ┌────┴────┐
       Vᵢ+I        VP
              ┌────┴────┐
              t         V'
                   ┌────┴────┐
                  tᵢ         NP
                             △
                           que ec
```

One possibility is that the relevant condition is, as Ambar suggested, the ECP, and that the ec in (19a) is a trace. Consider the *wh* phrase o que. It has the distribution of an NP, has an overt determiner (the definite article o), and que exhausts its N' position (compare *o que objeto lit. "the what object" vs. que objeto "what/which object"). The fact that que may occur in complementary distribution with determiners suggests it is an X°, not a phrase. So, we may assume the following sketch of internal structure for o que:

(22) $[_{NP} [_{Det} o] [_{N'} ...[_{N°} que]...]]$

If something like (22) is the structure of o que, then it is plausible that (19a) has the following structure, where que undergoes head-movement from N to D:

(23) $[_{NP} [_{Det} que_i] [_{N'} ...[_{N°} t_i]...]]$
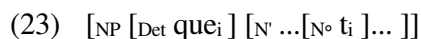
Now, t_i in (23) is subject to the ECP (compare this with Ambar's suggestions, cf. fn.10). We could further speculate that que in D° is the antecedent governor, but not the head governor of t_i. Then, the trace needs an external head governor, which is not found in (21a,b), but just in (20a,b)[14]. Notice that, in this case, something should be said about the impossibility for (19a) to stay in situ in object position, as opposed to the possibility of (19b,c)'s staying in their base position. This could mean

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[14] Que seems to have just the feature [+WH] as syntactic lexical content. It could be the case that this feature is not sufficient to turn a formative a (proper) lexical governor. Qual, which has a distribution very similar to que, may stay in object position. Interestingly, it differs from que in having a plural counterpart: it seems, then, that number inflection can turn the [+WH] element in a proper governor. See here fn.12.

that t_i is properly governed when (23) is a complement of a P°, but not when (23) is in object position[15].

   Obviously, a subtler analysis is required if this approach is to be maintained, but I do not see any reason in principle to rule it out. The point is: the head government part of the ECP is a *formal condition on traces*; hence, it is the sort of condition we are looking for to explain the idiosyncratic behavior of (19a). Now let me return to the idiosyncratic use of por que, as suggested in (19b).

3.2. On the Contrast between (19b) and (19c) in Embedded Context

As we have seen, for some speakers (19b) patterns with (19a) in embbeded questions, requiring V-to-COMP in this context. This means that, in spite of its superficial resemblance to (19c) phrases, for these speakers por que do not have the internal structure in (19c). Indeed, there is independent evidence that the expression por que may also have the status of an X°, but no parallel evidence exists for **[P° [que ...]]** phrases. Interrogative por que is one of three homophonous forms distinguished by Standard Portuguese spelling. At least one of these forms, porquê, clearly occurs in X° positions (as an N°, cf. (22) below), and it is plausible that the other one, porque, is also an X° (the head of XP in (23)[16]):

(22)   a.   Ninguém sabe [$_{NP}$ o *porquê* disso tudo]
             "Nobody knows [the *reason* for this all]"
       b.   Paulo enumerou [$_{NP}$ vários *porquês*] para que isso acontecesse
             "P. gave [several *reasons*] for that to happen"

(23)   Paulo casou com Maria [$_{XP}$ *porque* queria o dinheiro dela]
             "P. married M. *because* he wanted her money"

Given these two X°s homophonous to interrogative por que, it is possible that, based on them, some speakers analyse it as an X°, too. In this case, (19b) might have an internal structure similar to (19a)

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[15]   Assuming that the proper head government requirement applies at S-Structure, it could be the case that traces of verbs are not proper governors (the V has raised to INFL), and traces in (or inside phrases in) object position are properly governed just when the object phrase is in Spec-of-AgrO, or when there is another trace in this position co-indexed with the trace in object position (notice that this could be the explanation of the ungrammaticality of (21a), too). Now, the fact that *wh* objects cannot stay in Spec-of-AgrO could be a case of the broader generalization that *wh* phrases cannot undergo "half movement" in direction to its scope position, cf.Rizzi (1991), pp.8-9. But then the problem is that this generalization refers to movement to intermediate *A′*-positions, and Spec-of-AgrO is presumably an *A*-position.

[16]   If porque is a lexical X°, as its spelling suggests, it seems to be better analysed as C°, and not as P° or Adv°, since true P°s and Adv°s taking sentential complements admit (in fact, require) co-occurrence with the complementizer que:

 (i)   João pediu *para que* Maria casasse com Paulo
           "J. asked *(for) that* M. married P."
 (ii)   Paulo casou com Maria *depois que* soube do dinheiro dela
           "P. married M. *after (that)* he heard about her money"
 (iii)   Paulo casou com Maria *porque (*que)* queria o dinheiro dela
           "P. married M. *because (*that)* he wanted her money"

It is possible, however, that porque is not a "bare" X°, but it has the internal structure in (v), derived from (iv):

 (iv)   [$_{PP}$ [$_{P°}$ por] [$_{CP}$ [$_{C°}$ que] ...]]
 (v)   [$_{PP}$ [$_{P°}$ por+que$_i$] [$_{CP}$ [$_{C°}$ t$_i$] ...]]

Even in this case, porque would have a structure closely related to that in (23). Anyway, porque can not be identical to the interrogative por que, since the latter may co-occur with the complementizer que (see fn.6 here).

for such speakers, maybe something like (24a) or (24b), and the null N' would be subject to the same constraints in (19a,b):

(24) a. $[_{NP} [_{Det}$ porque$_i$ $] [_{N'} ...[_{N°}$ t$_i$ $]...]]$

      b. $[_{PP} [_{P°}$ porque$_i$ $] [_{NP} [_{Det}$ t$_i$ $] [_{N'} ...[_{N°}$ t$_i$ $]...]]]$

One could object that por que must be different from que, still, since all speakers agree that it can stay in situ, unlike que. But, if government by INFL is what licenses configurations like (20a) above, then it is predicted that por que can stay in situ: it is a *sentential adjunct*, unlike que, which is an argument. Being a sentential adjunct, por que is governed by INFL and, then, licensed in situ. But, once moved to Spec-of-CP, it is not governed by INFL anymore, and V(+INFL)-to-COMP is triggered. In this way, we have a better understanding of the factors involved in the idiosyncratic occurrences of por que[17].

3.3. On the Contrast between (19d) and (19e)

Finally, let us take on the contrast between (19d) and (19e) phrases. Recall that a phrase with the form in (19e) does not require V-to-COMP in matrix questions when it is "contrastively stressed", or when the subject is (cf. (3') above). (19d) phrases, on the other hand, do require V-to-COMP even when the subject is "contrastively stressed". Moreover, apparently these phrases themselves cannot be "contrastively stressed", or there is no relevance in doing it, since Ambar does not consider this possibility.

    Now consider what happens in BP. If a *wh* phrase of the form in (19e) is stressed, it receives a sort of "topic" interpretation, as we can see in (25) and (26):

(25)   A: Os rapazes foram a várias festas ontem à noite.
           "The guys went to many parties yesterday"
       B: Que garotas/*GAROTAS eles encontraram lá?
           "What girls/*GIRLS did they meet there?"

(26)   A: Os rapazes encontraram as garotas ontem à noite.
           "the guys met the girls yesterday night"
       B: Que ??garotas/GAROTAS eles encontraram?
           "Which ??girls/GIRLS did they meet?"

(25) shows that "stress" over the *wh* phrase is unacceptable when the phrase is just a request for new information. (26) shows that "stress" is *required* if the *wh* phrase is asking for further specification of some (supposedly) given information. On the other hand, when the *subject* of a question is "stressed" in BP, it must be interpreted as "contrastive focus", as (27) below shows. Curiously, when the subject is so focussed, again the *wh* phrase is interpreted as a sort of topic, requiring reference to information previously given in the discourse, cf. (28):

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[17] All these suggestions must face two problems already present in Ambar's proposal: Portuguese prepositions do not seem to be proper governors (cf. fn.10), and the definition of government relevant to configuration (20) is not trivial (cf. fn.5). I will leave open these problems.

(27a) A: O João saiu ontem à noite.
           "João went out yesterday night"
       B: Aonde o João/ele/*o JOÃO foi ontem?
           "Where did João/he/*JOÃO went yesterday?"

(27b) A: Os rapazes encontraram todas as garotas ontem.
           "The guys met all the girls yesterday"
       B: Que garotas ??o João/o JOÃO encontrou?
           "Which girls did ??João/JOÃO meet?"

(28a) A: Os rapazes viram todas as garotas ontem.
           "the guys saw all the girls yesterday"
       B: Que garotas o JOÃO viu?
           "which girls did JOÃO see?"

(28b) A: Os rapazes saíram ontem à noite em busca de companhia
           "The guys went out yesterday night looking for company"
       B: ??Que garota(s) o JOÃO encontrou?
           "What/Which girl(s) did JOÃO meet?"

(28c) A: O João saiu ontem à noite em busca de companhia.
           "João went out yesterday night looking for company"
       B: Que garota(s) ele encontrou?
           "Which girl(s) did he meet?"

Let me call "discourse stress" the operation of stressing either the *wh* phrase or the subject, since it has obvious discursive import. What is interesting is that discourse stress over the phrases in (19d) has no effect parallel to the topic interpretation required in the case of phrases in (19e). It seems that the phrases in (19d) can be only significatively stressed when they are in situ, and then we get an echo question. If the subject is stressed, it is interpreted as a focus, as in (27) above, but again no discourse effect arises on the *wh* phrase itself, as we can see comparing (29) below to (28b) above:

(29)   A: Os rapazes saíram ontem à noite em busca de companhia
       B: Quem o JOÃO encontrou?
           "Who did JOÃO meet?"

Thus, (25)-(28) suggest that *wh* phrases of the form in (19e) may function as a sort of topic in BP, but (29) shows that this option does not appear to be available for (19d) phrases. If this bifurcation in fact exists, we might wonder why it would be so. Since it seems to be closely related to the complexity of the phrases -- (19e) contains more lexical information than (19d) --, I speculate that (19e) phrases can be a topic because of their additional lexical information, and (19b) cannot because they do not have lexical information independent of the *wh* element.

   The idea is appealing. A *topic* codifies old information in the sentence; a *focus*, new information. Since *wh* elements express a request for new information, they function intrinsically as a focus and, as such, they do not require further mechanisms to express their "discourse role"; hence, *wh* phrases containing just *wh* information do not require "discourse stress" to be interpreted as focus. Since these phrases contain information that can be interpreted just as a focus, they can not be topics. But complex *wh* phrases have independent lexical content which may refer to information already

provided in the discourse; so, (part of) them may function as a topic, and "discourse stress" may be a way of codifying this[18].

    If these suggestions are on the right track, we clearly have some syntactic consequences, for it is generally presumed that *wh* operators and topics occupy different syntactic positions. The prediction would be that (19d) phrases could occupy just the Spec-of-CP position, but (19e) phrases could also occupy a topicalized position in BP[19]. It is not possible to discuss in detail this prediction here. Nevertheless, it turns out that the EP paradigm could be a striking evidence of it. Remember that the distribution of the "discourse stress" in EP is the same as in BP, except that it correlates with V-to-COMP: (19d) phrases always trigger V-to-COMP, (19e) phrases do it just in their "unmarked" occurrences, that is, when they do not co-occur with "discourse stress". Thus, it is plausible that the phrases in (19e) and (19d) have the same distributional possibilities in EP that they have in BP. Now, we know independently of EP that "residual V2" is triggered by operator, including *wh*, movement, but not by topic constructions, as the English paradigm below attests:

(30) a.   Who did Paul meet?
      b.   Never before did Paul meet Mary.
      c.   Mary, Paul met (her) before.
      d.   Mary PAUL met before.
      e.   *Mary, did Paul meet (her) before.
      f.   *Mary did PAUL meet before.

The precedent discussion suggests the following explanation for the contrast between (19e) and (19d) phrases in EP: (19e) do trigger V-to-COMP when they are in Spec-of-CP, but do not require V-to-COMP when they are in a topicalized position (that is, when they are "discourse-stressed", or the subject of the sentence is); (19d) phrases, on the other hand, always trigger V-to-COMP because they must be in Spec-of-CP. Notice, however, that, for this explanation to work, it is crucial to assume that *wh* phrases trigger V-to-COMP just when in Spec-CP. (This amounts to say, in Rizzi's system, that the *WH* Criterion is activated just at the CP level: see next section.)[20]

    To summarize the suggestions made so far about (19) above: (i) obligatory V-to-COMP in matrix question is triggered independently of the licensing requirements of the empty category in the phrases (19a,b,c); (ii) obligatory V-to-COMP in embbeded context is triggered by idiosyncractic properties of (19a) (and (19b), for some speakers); (iii) (19e) phrases do require V-to-COMP when in Spec-of-CP. If these suggestions are right, they lead to one conclusion: once we have controlled disturbing factors (like lexical idiosyncrasy and intervention of independent grammatical processes, like topic constructions), the EP paradigm of V2 in *wh* questions seems to be parallel to the

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[18] This could be the reason why only complex *wh* phrases may be "D-linked", in Pesetsky's terms. See Hornstein & Weinberg (1990), however, for arguments against the relevance of Pesetsky's distinction. Even under H&W's picture my speculation would hold, since they argue that the relevant distinction is between complex vs. non-complex *wh* phrases.

[19] Which position it is -- adjoined to IP, or a TOPIC position, etc. -- is a matter which requires further investigation. I think that it cannot be the position occupied by John in (i), for instance, because the BP sentences under discussion do not present any pause between the topic and the subject:

 (i)   John, Mary never saw.

On the other hand, the position may not be the same as that occupied by left dislocated elements, since in EP left dislocation seems to allow SUBJ-AUX inversion (cf. Ambar (1992), pp.73-86). Still, as far as I know, there is no conclusive evidence that V goes to C in EP left dislocated sentences, so we cannot rule out this possibility in principle.

[20] There is another problem with the suggestion that the phrases in (19e) may not be in Spec-CP at SS: this means that these *wh* phrases moved to a position which is intermediate in the path to Spec-CP, violating the banning on "half-movement" of *wh* operators, cf. fn.16.

paradigm of English (except for the fact that EP also has the *wh*-in-situ strategy). That is, EP is a "residual V2" language in the sense that it presents a root/non-root asymmetry in wh questions. In the final section I will discuss both the EP and BP *wh* paradigms with respect to Rizzi's approach to "residual V2" phenomena.

4. Conclusion: Parametric Variation in Portuguese

If the suggestions I made in the precedent section can be maintained, the only difference between EP and BP, as far as *wh* questions are concerned, is that *wh* movement triggers V-to-COMP in EP, but not in BP. The systematic nature of this contrast suggests that the variation between both systems is parametric in nature. I tried to show that EP *wh* questions behave, to a large extent, like *wh* questions in English, which Rizzi (1991) argued to be an instantiation of what he calls "residual V2" phenomena: "construct-specific manifestations of INFL to C in a language (like English and Modern Romance languages except Raetho-Romansch) which does not generalize the V2 order to main declarative sentences" (p.1). Rizzi proposed to reduce the different manifestations of "residual V2" to the action of what he called the *Wh* Criterion, and to the different ways this principle may be satisfied. Thus, we may wonder whether Rizzi's mechanisms could subsume not only the paradigm of EP *wh* questions, but also the parametric variation between EP and BP.

Let us concentrate on the crucial properties addressed by the *Wh* Criterion (and auxiliary devices), the interactions between *wh* movement and (V+)INFL-to-COMP[21]. We could summarize the range of variation discussed by Rizzi in the following chart, where the Portuguese variants were added:

(31)

		SS *Wh* Movement in		SS INFL-to-COMP
		matrix Qs	embbeded Qs	in matrix *Wh* Qs
a.	English	obligatory	obligatory	obligatory
b.	EP	optional	obligatory	obligatory
c.	BP/French	optional	obligatory	optional[22]
d.	Chinese/ Japanese	No	No	No

Rizzi's *Wh* Criterion is stated as in (32):

(32)   *Wh-Criterion*:
        A. A *wh* operator must be in a Spec-Head configuration with an $X^{\circ}_{[+wh]}$.
        B. An $X^{\circ}_{[+wh]}$ must be in a Spec-Head configuration with a *wh* operator.

(32) is "a general well-formedness principle on the scope of *wh* operators" and, as such, "a criterial condition applying universally at LF" (p.2). The core Spec-Head configuration to which (32) applies is that in which a *wh* operator is in Spec-of-CP, and C° contains the specification [+WH] at LF. (32)

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[21] I consider only movement of non-subject *wh*, since things are more complicated with subjects, cf. Rizzi (1991), pp.4-7.

[22] In BP, this movement is not limited to sentences with a pronominal subject, as in French. This difference is presumably a consequence of the different properties of Nominative Assignment in both languages. For the French restriction, see Rizzi & Roberts (1989), Rizzi (1991).

acts as a trigger of "residual V2" when it applies at S-Structure, and $X^o_{[+wh]}$ is INFL; then INFL must raise to C° at S-Structure. (32) does not trigger overt INFL-to-COMP when it does not apply at S-Structure, or C° acquires the specification [+WH] from a source which is not INFL. Then, in Rizzi's picture, the "parameters" of liguistic variation are:

(33)   a. the level at which (32) applies: as earlier as SS, or just at LF;
      b. the sources of [+WH] for matrix C° in the language:
         $INFL_{[+wh]}$ and/or Dynamic Agreement;
      c. the level at which Dynamic Agreement applies: both SS and LF, or just at LF;

Dynamic Agreement is a device introduced by Rizzi in order to account for the fact that *wh* movement in French does not require INFL-to-COMP, although (32) applies at SS in French. According to Rizzi, in this case C° acquires [+WH] by entering in Spec-Head Agreement relation with a *wh* operator:

(34)   *Dynamic Agreement*: $[_{CP}$ *Wh*-Op   C° ...$]$ $\rightarrow$ $[_{CP}$ *Wh*-Op $C^o_{[+wh]}$ ...$]$

Dynamic Agreement is not relevant to embbeded questions, since the [+WH] specification of C° is lexically licensed, and then base-generated in this case.

Consider now how (32)-(34) account for (31). If (32) applies just at LF, no overt movement is required at SS; this is what happens in Chinese and Japanese. Notice that Japanese and Chinese do not offer any evidence for the possible existence of Dynamic Agreement just at LF, since we cannot know if INFL has moved to C° at LF -- as far as I know, there is no evidence for such a movement. Hence, we cannot know if INFL is base-generated with the specification [+WH], or if these languages have Dynamic Agreement just at LF either. This means that we cannot use such languages as an argument for the existence of Dynamic Agreement at LF (as Rizzi does).

If (32) applies as earlier as SS, overt *wh* movement is required whenever C° acquires [+WH] independently. This is what happens in embbeded questions, where the specification is lexically selected, hence, base-generated. As we see in (31), embbeded questions require *wh* movement in English, EP, BP and French; thus, according to Rizzi, in these languages (32) applies as earlier as SS.

Now, suppose that (32) applies at SS and Dynamic Agreement is available at SS, too. Then, a matrix C° may get its [+WH] through agreement with an *wh* operator in Spec-of-CP. In such a language, *wh* movement does not require INFL-to-COMP in matrix questions: this is the case of BP and French in (31c); INFL-to-COMP is triggered in questions when INFL is base-generated with the specification [+WH]. If a language does not have Dynamic Agreement at SS, then *wh* movement at SS cannot assign [+WH] to C°. In this case, the only way of satisfying (32) at SS is moving an $INFL_{[+wh]}$ to C°, that is, INFL-to-COMP is obligatory in matrix *wh* questions: this is what happens with English and EP, cf. (31a,b). Hence, under Rizzi's view, the "parametric" variation between EP and BP with respect to (V to) INFL-to-COMP has the same source as the variation between English and French is: BP and French have Dynamic Agreement at SS, English and EP do not.

Consider the case of a language where (32) applies at SS, but Dynamic Agreement exists just at LF. Then, an $INFL_{[+wh]}$ will trigger SS *wh* movement, but an INFL non-specified for [+WH] will not. Crucially, a *wh* element per si will not trigger *wh* movement either, since, according to Rizzi, a *wh* in situ is not an operator (see Rizzi (1991), pp.7-10). In such a language, therefore, SS INFL-to-COMP in *wh* questions must co-occur with *wh* movement, but *wh* in situ is possible if there is no INFL-to-COMP: this seems to be the case of EP, cf. (31b). On the other hand, if (32) applies at SS,

and the language does not dispose of Dynamic Agreement at any level, INFL must be [+WH], since there is no other way for a matrix COMP to get [+WH]. In this language, both INFL-to-COMP and *wh* movement in matrix questions are obligatory: this is the case of English, cf. (31a). Hence, Rizzi's approach predicts the "parametric" variation found between EP and English: their difference arises from the fact that EP has LF Dynamic Agreement, and English does not have Dynamic Agreement at all. EP, then, provides true evidence for the existence of Dynamic Agreement at LF, instead of Japanese and Chinese.

So, it seems that the general properties of Portuguese *wh* questions suggest that the distinctions captured on Rizzi's proposal are right. But at least Brazilian Portuguese data present some problems as well. Under Rizzi's system, obligatoriety of *wh* movement in embbeded questions indicates that the *Wh* Criterion applies at SS in BP; optionality of *wh* movement in matrix questions indicates the presence of Dynamic Agreement in BP; possibility of having (V+)INFL-to-COMP in matrix questions indicates that INFL may be [+WH] in BP. In fact, although somewhat marked, Subject-Auxiliary Inversion (SAI) seems to be *licensed* by questions in Portuguese, since it is not acceptable at all in normal declarative sentences (that is, with neutral intonation), cf. the following paradigms:

(35) a.   Onde o Paulo *tinha* ido ontem?
          "Where did Paulo come yesterday?"
     b.   ?Onde *tinha* o Paulo ido ontem?

(36) a.   O Paulo *tinha* saído ontem?
          "Did Paulo go out yesterday?
     b.   ?*Tinha* o Paulo saído ontem?

(37) a.   O Paulo *tinha* saído ontem.
     b.   *Tinha o Paulo saído ontem.
     c.   *Ontem *tinha* o Paulo saído.

The contrast between (35b)-(36b), on the one hand, and (37b,c) on the other shows that it is plausible that SAI is triggered by questions in BP. In Rizzi's terms, this is captured by specifying the content of INFL in questions as [+WH]. Since *Wh* Criterion applies at SS in BP, the prediction is that, whenever there is SAI in a *wh* question in BP, there should be *wh* movement too, just as in French. But this prediction is incorrect, since a BP *wh* question allows SAI to co-occur with a *wh* in situ, cf. (38d):

(38) a.   O Paulo *teria* feito *o que* numa situaçãao destas?
     b.   *O que* o Paulo *teria* feito numa situação destas?
     c.   *O que teria* o Paulo feito numa situação destas?
     d.   *Teria* o Paulo feito *o que* numa situação destas?
          "What would Paulo have done in such a situation?"

If Rizzi's approach, summarized in (32)-(34), is to be preserved, the only solution I can see to acommodate (37d) is to argue that it is *not* a case of INFL-to-C. The fact that SAI is *licensed* in BP by questions indicates its "residual V2" character in BP and argues against such a solution. On the other hand, as far as I know there is no conclusive test showing that (V+)INFL is in C° in (38d). For instance, the distribution of sentential adverbs like *probably* in questions, which may be evidence for saying that V+INFL is higher than IP in English questions, cf. the unacceptability of (39d), does

not work in BP, cf. (40) (notice also that this explanation of (39d) cannot be extended to (39e) anyway):

(39) a. Paulo *probably would* have said that in such a situation.
      b. *Probably* Paulo *would* have said that in such a situation.
      c. What *would* Paulo *probably* have said in such a situation?
      d. *What *probably would* Paulo have said in such a situation?
      e. *What *would probably* Paulo have said in such a situation?

(40) a. O Paulo *provavelmente teria* dito isto numa situaçao dessas
      b. *Provavelmente* o Paulo *teria* dito isto numa situaçao dessas.
      c. O que *teria* o Paulo *provavelmente* dito numa situaçao dessas?
      d. O que *teria provavelmente* o Paulo dito numa situaçao dessas?
      e. O que *provavelmente teria* o Paulo dito numa situaçao dessas?

Secondly, SAI is possible in BP embbeded questions even when C° is overtly filled, as in (41), indicating that SAI in BP is not subject to the same constraints imposed on it by other "residual V2" languages:

(41) a. Paulo perguntou *o que teria* Paulo feito numa situação dessas
      b. Paulo perguntou *se teria* o Paulo feito isto numa situação dessas.

Hence, although (38d) may not be an argument against Rizzi's approach to V2, it shows that something more is going on in (Brazilian) Portuguese SVI/SAI. This may be a good starting point for further study of "residual V2" in Portuguese.

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