

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/31521246>

Rhetorical Wh-Phrases in the Left Periphery of the Sentence

Article · January 2000

Source: OAI

CITATIONS

10

READS

134

2 authors, including:



Cecilia Poletto

Goethe-Universität Frankfurt am Main

90 PUBLICATIONS 1,204 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Nominal Modification (Graduate school, German Science Foundation) [View project](#)



Sociosyntax [View project](#)

«Rhetorical» *wh*-phrases in the left periphery of the sentence

Hans-Georg Obenauer and Cecilia Poletto

CNRS, UPRESA 7023 - University of Padova

1. Introduction

In this paper we will examine the syntax of rhetorical *wh*-questions in Italian and French and argue in favor of an analysis which reduces the distributional peculiarities of RQs to the fact that the *wh*-item (and the inflected verb) in RQs raises higher than it does in normal («true») questions.¹

Let us begin by recalling some properties of rhetorical questions (from now on RQs) and stating our formal criteria for the rhetorical status of questions. Like «normal» questions, rhetorical questions come in two major types, *wh*-questions and Yes-No questions. In what follows, we will be concerned exclusively with *wh*-questions.

In the first place, rhetorical questions are determined by their meaning. An interrogative structure like (1a) or (1b):

- (1) a. Who can you trust, nowadays?
- b. What difference does it make?
- c. Why relive it?

¹. This paper has benefited from discussions with Manuela Ambar, Jean-Claude Anscombe, Paola Benincà, Cassian Braconnier, Guglielmo Cinque, Richard Kayne and Jean-Yves Pollock; we wish to thank them all. The usual disclaimers apply. For administrative reasons in Italy, Hans-Georg Obenauer takes responsibility for sections 1, 6, 7, 8, and Cecilia Poletto for sections 2, 3, 4, 5.

The work presented here was carried out as part of the Conjoined research project No. 5337 CNRS-CNR.

is a rhetorical question, in the sense that we will use here, if instead of the normal interrogative reading expressed in (2) it is taken to convey the rhetorical interpretation informally expressed in (3):

(2) wh x, x a human [you can trust x, nowadays]

(3) no x, x a human [you can trust x, nowadays]

(in certain cases, like in (1c), only a rhetorical interpretation is possible).² In other words, a «rhetorical question is interrogative in structure, but has the force of a strong assertion. It generally does not expect an answer» (Quirk et alii (1985)).

So far, rhetorical questions might not differ, syntactically / structurally or otherwise, from «true» questions requesting information in the form of values of the

². Our notion of RQ is more restrictive than the notion defined in terms of «absence of a genuine request for information», which can be considered as definition of rhetorical questions in a larger sense. Indeed, the latter notion covers questions with an interpretation of the type characterized in (3), but also, for example, a question like (i) in German, introduced by adverbial *was*, with a meaning close to ‘why’:

- (i) Was lachst du denn so?
 what laugh you ‘denn’ thus
 ‘Why are you laughing like this?’

(i) can express surprise without having the force of a negative assertion, i.e. it does not necessarily deny that there might be a reason (acceptable for the speaker) for laughing. With this interpretation, (i) does not ask for an answer, and fits the larger definition of RQs, but not the more restrictive one indicated in (3). Other interpretations of (i) are possible. For a discussion of this type of sentence in French, German, and the Italian Northern Veneto dialect Alpagotto, see Munaro and Obenauer (1999).

variable bound by the interrogative operator. However, it has often been pointed out in the literature that RQs do have particular properties.³

One of these properties is the fact that negative polarity items (NPIs) are more generally licensed in RQs than in true questions. Examples of such licensing are given in (4) (containing a so-called weak polarity item, possible in contexts which are insufficient to license stronger types of NPIs) and (5) (containing a strong NPI):

- (4) Who has *any* money to spare these days?
 (5) Who (the hell) *gives a red cent* about your problems?
 (= (13a) of Lee 1996)

The precise conditions under which licensing takes place are a subject of debate; they depend on structural properties of the licenser (the *wh*-phrase) and the type of NPI, even beyond the weak-strong distinction illustrated in (4) vs. (5).⁴ In principle, then, the occurrence of NPIs in questions can be used as a formal diagnostic for their RQ status, subject to the adequate choice of the type of NPI. We will come back to this question below.

Besides NPI licensing, there are also purely syntactic properties that distinguish rhetorical *wh*-questions from genuine questions. Obenauer (1994, chap. III) observed that rhetorical *wh*-questions are subject crosslinguistically to stronger conditions on *wh*-pied-piping; it is also argued there that despite superficial evidence to the contrary, the *wh*-phrases of rhetorical *wh*-questions cannot occur «in situ», but must move to initial position at S-structure (i.e. before Spell-Out in present terms). These two phenomena, Obenauer (1994) argues, are in fact surface manifestations of a unique property (analyzed there as following from a stronger form of Spec-Head Agreement in Spec, CP). We will not deal with the restrictions on pied-piping here, but focus on the landing site of the *wh*-phrase and the relevant structure of the larger CP-domain.

³ One of the properties distinguishing TQs and RQs is intonation. In a gross approximation, RQ intonation is obligatorily falling; this is not the case for TQs. We will not be concerned with intonation in this paper.

⁴ For recent discussion, see the divergent views of Han and Siegel (1997) and Lee (1996).

Turning back to the question of NPIs as diagnostics of the rhetorical status of *wh*-questions, we note that this test cannot be applied in Italian, as the negative elements corresponding to English NPIs - *niente*, *nessuno* and other *n*-words - are not licensed in the same environment (presumably because they differ in internal constitution from *any NP*). The possibility of NPI licensing in Italian *wh*-interrogative sentences is extremely restricted: the only grammatical case is the one in which the *wh*-item corresponds to the subject and the NPI to the direct object, the NPI furthermore being limited to the negative element *niente*, as shown in (6a):

- (6) a Chi ha detto niente?
 who has said anything?
 b *Chi ha visto nessuno?
 who has seen anybody
 c *Cosa ha visto nessuno?
 what has seen anybody
 d *Chi ha pensato a niente?
 who has thought of anything

If the *wh*-item does not correspond to the subject (6c) or if the NPI is not the direct object (6d) and does not correspond to the NPI *niente* ‘anything’ (6b), the sentence is ungrammatical.

NPI licensing, then, does not identify the class of rhetorical questions in Italian. In order to delimit our field of inquiry, we will adopt a morphosyntactic criterion that singles out the rhetorical type of interpretation we are interested in in standard Italian, namely the presence in the sentence of the adverbial element *mai*, roughly corresponding to English ‘ever/never’, and we will examine its behavior when it is combined with a +realis or -realis verbal form and with the modal verb, *potere* ‘can’:

- (7) a Cosa mai avrei potuto dire?
 what ever have+conditional could say

- b Quando mai ti ha dato soldi, lui? ⁵
 when ever to-you has given money, he

We will thus utilize, for Italian, a definition of *wh*-RQs as those *wh*-questions that contain the morpheme *mai*, and we will contrast the behavior of *wh*-items in this type of question with respect to what we will call «true questions» (from now on TQs). We will not provide any formal test for isolating TQs from other interrogative types, and will simply consider TQs as genuine requests for information which are opposed to echo questions. Therefore, we will include in the definition of TQs interrogative sentences which are out of context, but also interrogative sentences which presuppose a given context. The main concern of this work is not to provide a typology of question types but only the structure of RQs as defined above, which will be opposed to all other types of interrogative clauses. As for French, we will show that the NPI diagnostic can be used for the identification of RQs.

Our central claim, namely that in RQs the *wh*-item raises higher than in other types of questions, will be shown to derive:

- a) the syntax of subject inversion in Italian;
- b) the ordering of the *wh*-phrases with respect to left dislocated items and hanging topics;
- c) the exclusion of sentence internal «rhetorical» *wh*-phrases in French.

The paper is organized as follows. Sections 2-4 deal with Italian and sections 5-7 with French. In section 2 we discuss subject inversion and left dislocations in RQs and TQs, section 3 describes some differences between +realis and -realis verbal forms and section 4 considers the positions of *mai* inside the clause. Section 5 introduces RQs in French, section 6 argues that genuine RQs must have sentence initial *wh*-phrases, and section 7 brings to light a parallelism between RQs and negation. Section 8 concludes the discussion.

5. Many speakers find this type of clauses marginal; they degrade when the *wh*-item *cosa* 'what' is used in combination with a verb like *fare* 'to do':

- (i) Cosa mai ha fatto?
 What ever has (he) done?

2. *Wh*-phrases are located higher in RQs than in true questions

In this section we will provide two arguments based on standard Italian data which show that in RQs the *wh*-item and the inflected verb move higher than they do in TQs as defined above.

2.1. RQs and subject inversion in Italian

The first test regards the subject position in TQs and RQs. It is well known (cf. Rizzi (1991) among others) that in standard Italian no subject can occur in the SpecT (or SpecAgrS) position as shown in (8) in main interrogative clauses:

- (8) a *Cosa ha Gianni fatto?
 what has John done
 b *Cosa Gianni ha fatto?
 what John has done

(8a) shows that inversion of the «Germanic» type is not allowed,⁶ nor is a subject immediately after the *wh*-item (cf. (8b)). This is a well known fact which has received much attention in the literature (cf. among others Rizzi (1991)).

The only possible positions for a subject DP are shown in (9):

- (9) a Gianni, cosa ha fatto?
 John, what has done
 b Cosa ha fatto, Gianni?
 what has done, John

⁶ This is a general phenomenon in the Romance domain, in which only the Romance varieties that are still V2 allow sequences like (2a).

A subject can only occur at the left edge of the whole interrogative structure - cf. (10) -, or at its right edge (see Poletto and Pollock (1999)) for a detailed analysis of the pattern).

- (10) [SubjectP DP [FocusP true WH ...]]

Rizzi (1991) explains the ungrammaticality of (8a,b) as a consequence of the absence of nominative Case. Rizzi's hypothesis is that nominative cannot be assigned to the subject because it is not in a Spec-head relation with the inflected verb which has moved higher than the AgrS° position - that is, to C° -, destroying the Spec-head relation. If this hypothesis were correct, Italian should lack the phenomenon of «Germanic inversion» altogether. We will see directly (cf. (11)) that this is not the case; for this reason we will adopt an alternative analysis for the ungrammaticality of (8a,b), namely the one proposed in Poletto (in press). If we assume that the preverbal subject position in Italian is a Topic position inside the CP domain, as has been proposed by several authors for French (Kayne and Pollock (1998)), Spanish (Ordoñez (1997), Barbosa (1998)) and Italian (Poletto (in press)), we can account for the pattern in (8) and (9) in a direct way: in main questions there is no suitable position for the subject DP at the right of the *wh*-item, as the SpecTopic position where the subject is realized is higher than the *wh*-item. The only position for preverbal subjects in languages like standard Italian is higher than the position of *wh*-items in TQs, as shown in (9a), or right dislocation (as in (9b) - (see Poletto and Pollock (1999) for a detailed analysis of postparticipial subjects).

This proposal also provides an explanation for data like the following, which are completely unexpected under Rizzi's (1991) analysis:

- (11) a Cosa mai avrebbe Gianni potuto fare, in quel frangente?
 what ever had+conditional John could do, in that situation
 b *Cosa avrebbe Gianni fatto se sua madre gli avesse dato l'eredità?
 what had+conditional John done if his mother had given him the
 heritage
 c *Cosa avrebbe John concluso leggendo quell'articolo?
 what had+conditional John concluded reading that article

In (11a) the subject is located between the auxiliary *avrebbe* and the past participle *potuto*, hence this is a genuine case of «Germanic inversion», as the subject is located between the auxiliary and the past participle. Both the *wh*-item and the inflected verb occupy a position higher than the subject DP, but notice that this question is precisely an instance of what we have defined as RQ in the introduction above. Germanic inversion of a DP subject is allowed only in one type of interrogative sentences, namely RQs, while it is sharply ungrammatical in all other interrogative structures.⁷ Notice in fact that if the sentence is interpreted as a true question, Germanic inversion of the subject is ungrammatical, even in sentences that contain a verb in the conditional, as shown by (11b) and (11c).

The most natural explanation for the contrast between (2a) and (11a) is that only in (11a) do the *wh*-item and the inflected verb move to a position which is high enough to cross over the DP subject position.

Hence, the contrast between (2a) and (11) induces us to hypothesize that *wh*-items can occur in more than one position, which can be lower or higher than the subject SpecTopic position (cf. (12)). Moreover, each position corresponds to a distinct interpretation of the question.

- (12) [XP rhetorical WH [SubjectP DP [FocusP true WH ...]]

Structure (12) shows the layering of the functional projections inside the CP domain. We follow here Rizzi (1997) that *wh*-items in true questions occur in a SpecFocus position, although the structure of the true interrogative is probably much more complex (cf. Pollock, Munaro and Poletto (1999)). As we are not focussing on true questions but on RQs, we simply indicate the position of the *wh*-item as SpecFocus.

7. Other non-interrogative structures, like Aux-to-C constructions, show the same pattern; we will not take them into account here, although it can be shown that in all these cases the verb raises very high in the Comp domain, crossing the subject position and the position of left dislocated items.

2.2. *Wh*-RQs and Left dislocation

The second argument in favor of the idea that *wh*-items move higher in RQs than in other interrogative sentences is provided by the position of Left Dislocated elements. In what follows we will distinguish the Left Dislocation construction from the so called Hanging Topic (the *Nominativus Pendens* of the traditional grammars), as only LD singles out the difference between RQs and TQs.⁸ Note that in TQs the only position for a left dislocated element is at the left of the *wh*-item, as in (13):

- (13) a A Gianni, cosa gli hai dato?
 to John, what to-him have (you) given?
 b *Cosa, a Gianni, gli hai dato?
 what to John to-him have (you) given

The contrast between (13a) and (13b) is very sharp and it has been interpreted in recent analyses of the left periphery of the sentence like Rizzi (1997) and Benincà (1998) as a clue to the fine structure of the CP domain, and precisely as an argument for a structure like the following:

- (14) [TopicP LD [FocusP WH ...]]

The Topic position which contains left dislocated items is higher than the position where *wh*-items are moved in languages like Italian.

Note however, that the situation is different if we consider RQs:

- (15) ?Cosa mai, a Gianni, avresti potuto dirgli che lo tirasse su in un momento simile
 what ever, to John, had+conditional could tell-him that cheered him up

⁸ Hanging Topic can be quite easily distinguished from Left Dislocation, as only Left Dislocation copies the case of the clitic, while Hanging Topics can only be DPs and not PPs. In order to disambiguate between the two constructions we use an indirect object with the preposition *a*, which singles out the LD construction.

in such a moment

This sentence is perceived by many informants as marginal, but it clearly contrasts with the example in (13b), which is totally excluded.⁹ Note that the position of the verb is lower than the left dislocated item, and this might give rise to the marginality effect found in (15). Rizzi (1997) postulates in his analysis of the left periphery that the Topic^o position is not a suitable position for the inflected verb, as it already contains «topic» (probably nominal) features which are not compatible with it. Therefore, the verb has to remain lower than the Topic^o position (otherwise it would have to jump over Topic^o to land in a higher head position, yielding an instance of improper movement). Suppose that the position of the verb in *wh*-RQs is usually the head of an FP located higher than the TopicP, presumably the head of the FP whose specifier hosts the *wh*-item. The fact that in (15) the Topic^o position is not accessible to the verb can now explain the marginality effect.

Note that the raising of the verb to a position higher than Topic^o increases the unacceptability of the sentence, though there is still a clear contrast with TQs displaying the same order, which are totally ungrammatical:

- (16) a ??Cosa mai avresti, a Gianni, potuto dirgli, che lo tirasse su in un momento simile
 what ever have+conditional to John tell him, that cheered him up in such a moment
- b *Cosa gli hai, a Gianni, detto
 what to-him have to John told

Note that the difference cannot be attributed to the fact that in (16b) the clitic *c*-commands the left dislocated item, as similar cases are found in Aux-to-Comp constructions and they are judged by many speakers as grammatical, as (17) shows:

⁹ Note that all these sentences have to be uttered with a «broken intonation», i.e. with a comma before and after the left dislocated element, while this is not the case when the left dislocated item is the first element of the sentence. This is a general phenomenon which also occurs when left dislocation in Aux to C environments is tested.

- (17) Avendolo, il contratto, già firmato, ...
 having-it, the contract, already signed ...

Therefore, we will assume that the position of *wh*-items in RQs is higher than the position where they usually occur in true questions. More precisely, we will propose a structure of the left periphery of the type illustrated in (18):

- (18) [_{XP} rhetorical WH [_{TopicP} LD [_{FocusP} true WH ...]]]

We will not give a more precise characterization of the XP projection for the moment.

3. Realis modality in RQs

In the introduction we defined *wh*-RQs as those questions containing a *wh*-item modified by the adverb *mai*. As seen above, *mai* can cooccur with a realis mood, like the indicative. On the other hand, it can cooccur with an irrealis mood like future, conditional or subjunctive (only in embedded contexts) or even with a modal verb like *potere* ‘can’.

Examples illustrating the case of irrealis forms are given under (19):

- (19) a Cosa mai avrei potuto dire?
 what ever have+conditional could say
 b Mi sono chiesto cosa mai un uomo possa fare ...
 I wondered what ever a man can+subjunctive do ...
 c Quando mai avrà un lavoro, quel benedetto ragazzo?
 when ever will-have a job, that blessed boy

Note that (19a) contains a compound conditional tense, but the RQ interpretation is found also with the present of the modal verb *potere* ‘can’:

- (20) Cosa mai può fare?

what ever can do

RQs with a realis mood without a modal are also possible, the present or the present perfect indicative are grammatical as the following sentences show:

- (21) a Quando mai ci va Gianni, al cinema?
when ever there goes John, to the cinema
b Cosa mai ha detto di tanto grave?
what ever has said so serious

In all cases the interpretation is that of a RQ, and implies that the answer to the question is a negative one.¹⁰

Although both RQs with a +realis mood and -realis mood have the same interpretation, there are some facts about subject inversion which show that -realis mood can raise higher than +realis verbal forms. When we discussed the «Germanic» type of inversion found only in RQs but not in other interrogative types, we used a -realis verbal form; the example is repeated here as (22):

- (22) Cosa mai avrebbe Gianni potuto fare, in quel frangente?
what ever had+conditional John could do, in that situation

If we substitute the conditional in (22) with a +realis verbal form, the sentence degrades:

- (23) a ?Cosa mai può Gianni fare, in un frangente simile?
what ever can John do, in such a situation
b ?Quando mai ha Gianni mangiato patate?

¹⁰. Note however that there is a difference between -realis RQs and +realis RQs. In the first case the interpretation is always the «canonical» rhetorical one, and corresponds to a negation of the values of the wh-item itself. +realis RQs can also have this interpretation, but in some cases can also be interpreted as containing a negation which does not have scope on the wh-itself but on the whole interrogative and can be paraphrased as «I cannot imagine what the value of the wh-item is». We will elaborate on this in the next section and propose a structural explanation for this.

when ever has John eaten potatoes

Note however that (23) is not totally ungrammatical as (11b) or (11c) are. Hence, there is still a difference between RQs and other types of *wh*-interrogatives. Moreover, it seems that inversion does not depend here on the RQ status of the sentences itself, but on the movement possibilities of the verbal form, as a sentence like (23b) becomes perfectly grammatical if the order is *wh*-item-subject-verb:

- (24) (E) quando mai Gianni ha mangiato patate?
(and) when ever John has eaten potatoes

Again there is a sharp contrast between (24) and the corresponding non-rhetorical questions, which (as already noted by Rizzi (1991)) do not tolerate the order *wh*-item - subject (cf. (8b)). Therefore, we can interpret the contrast between (22) and (23) as a function of verb movement: in all RQs the *wh*-item is located higher than the subject position. Therefore, in all RQs we find the order *wh*-item - subject. However, - realis verbal forms can climb higher than + realis forms; more precisely, - realis verbal forms occupy a position higher than the subject, while + realis verbal forms occur lower than the subject. The structure of the two types of RQs would thus be the following:

- (25) a [XP rhetorical WH V [subjectP DP [FocusP true WH ...]]]
b [XP rhetorical WH [subjectP DP V [FocusP true WH ...]]]

(25a) corresponds to (22), while (25b) corresponds to (23). Note that for the sake of concreteness in (25b) the verb occurs higher than the position where *wh*-items occur in non-rhetorical questions, but we do not have any principled reason for putting it in that position. It might well be the case that the verb occurs in a position lower than FocusP or even in Focus^o. At present we do not have any evidence for choosing one of these options, therefore we will leave this matter open.

The structures in (25) show that the contrast between (22) and (23) does not invalidate our argument in favor of the idea that rhetorical *wh*-items are located higher than the subject position while this is not the case in other types of interrogative structures. However, note that they also show that there cannot be a

Spec-head agreement relation between the verb and the *wh*-item in interrogative sentences in Italian (as assumed by Rizzi (1991)), because in example (24) the subject can intervene between the *wh*-item and the inflected verb.

4. The positions of *mai*

In this section we will examine the positions of *mai* in *wh*-interrogatives. It has to be noted that *mai* can also occur in positions which are not adjacent to the *wh*-item, as the following examples show.

- (26) a Cosa avrebbe **mai** Gianni potuto fare ...
 what had+conditional even John could do ...
- b Cosa avrebbe Gianni **mai** potuto fare ...
 what had+conditional John ever could do ...
- c Cosa avrebbe Gianni potuto **mai** fare ...
 what had+conditional John could ever do ...
- d Cosa avrebbe Gianni potuto fare **mai** in quel frangente ¹¹
 what had+conditional John could do ever in that occasion ...

We will consider here two alternative analyses and provide arguments to the effect that in all the cases in (26) the structure is different from the cases in which *mai* occurs to the immediate right of the *wh*-item when the verb is a - realis form.

The first analysis considers cases like (26) as instances of a process fundamentally similar to quantifier floating, in which the *wh*-item and the adverb *mai* form a constituent from which the *wh*-item has been moved further to satisfy additional features leaving the adverbial form behind in a lower position. In this perspective, there is a point in the derivation in which the *wh*-item and the adverb form a constituent, from which the *wh*-item is extracted leaving a trace inside the constituent. We will refer to this hypothesis as the «constituent hypothesis».

¹¹. We insert here the phrase «in that occasion» because many speakers judge sentence-final *mai* as marginal, probably because of focus reasons.

Alternatively, we might consider cases like (26) as having nothing in common with the RQ structures we have examined up to now. In other words, the adverb and the *wh*-item would not form a constituent at any point in the derivation. We will refer to this as the «non-constituent hypothesis».

A stronger version of this analysis considers all the cooccurrences of *wh*-items and *mai* as non-constituents, hence also cases in which the *wh*-item and the adverb occur in adjacent positions as non-constituent, but simply happen to be adjacent in the string although they are located in different FPs.

It can be immediately shown that this stronger version of the non-constituent analysis is not correct and that the *wh*-item and the adverb can form a constituent, as they can be extracted together.

- (27) Cosa mai credi che avrebbe potuto fare?
 what ever believe that had-conditional could do?
 ‘What do you think that he might have done?’

(27) shows that the *wh*-item and the adverb can form a single constituent, although it does not show that they must.

Moreover, the adverb *mai* is incompatible with nominals like *diavolo* ‘the hell’, a fact which can be immediately explained if we suppose that the adverb forms a constituent with the *wh*-item, as the *wh*-item and the nominal do:

- (28) a ??Cosa mai diavolo avrebbe potuto fare in quel frangente?
 what ever the hell had+conditional could do in that occasion
 b ??Cosa diavolo mai avrebbe potuto fare in quel frangente?
 what the hell ever had+conditional could do in that occasion

Therefore, we have to discard the hypothesis that the *wh*-item and the adverb never form a constituent.

However, there is evidence that the weaker non constituent hypothesis is on the right track, at least for the cases in which the *wh*-item and the adverb are not adjacent, but probably also for some cases in which they are adjacent if the verb is a + realis form (see footnote 10).

Let us first consider the cases in which the *wh*-item and the adverb are not adjacent, as in (26).¹² In these examples, the adverb and the nominal modifying the *wh*-item can cooccur:

- (29) Cosa diavolo avrebbe mai potuto fare in quel frangente?
 What the hell had+conditional ever could do in that occasion?

We can interpret the contrast between (28) and (29) as an argument in favor of the idea that in (29) the *wh*-item and the adverb never form a constituent at any point in the derivation, and that this leaves space for the nominal *diavolo*. In (28), the fact that the two elements are adjacent and that, as we will see, the verb is inflected in a -realis form forces the speaker to interpret the sequence *wh*-item - *mai* as a constituent, which triggers the ungrammaticality of *diavolo* in these structures.

Another argument in favor of the weak non-constituent hypothesis is the interpretation of sentences like (26): some informants note that when *mai* and the *wh*-item occur in non-adjacent positions, the meaning changes with respect to a RQ:

- (30) a Quando mai sarebbe partito?
 when ever were+conditional left
 b Quando è partito mai?
 when is left ever

A sentence like (30a) is uttered when the speaker intends to underline that the person in question has never left, while (30b) is a true question, uttered when the speaker cannot figure out when the person in question has left. As already noted in

¹². Note that the adverb *mai* can also be found in yes/no questions in a position immediately following the verb, but does not single out a rhetorical interpretation:

- (i) Potrebbe mai esistere un uomo così?
 could ever exist such a man?

We will not consider yes/no questions here.

footnote 10, this interpretation contains a negation which does not have scope over the *wh*-item only but over the whole *wh*-question.

Note that the interpretation of (30b) is possible only when the verb is in its + realis form. If the verb is a – realis form as in (28a), this interpretation is excluded.

Moreover, in (30b) the *wh*-item and the adverb are not adjacent, but the interpretation of (30b) is also possible when the *wh*-item and the adverb are adjacent, as already noted in footnote 10, provided the verb is in a + realis form. Summing up, the situation is the following: a) when the *wh*-item and the adverb are not adjacent we only have a negation on the whole predicate, b) when the *wh*-item and the adverb are adjacent and the verb is a – realis we only have negation on the *wh*-item c) when the *wh*-item and the adverb are adjacent but the verb is a + realis form then we can have both interpretations.

At this point we have to explain a) why the two interpretations are distributed as they are and b) a more basic question that we did not formulate clearly up to now but which has been at the basis of this work, namely the reason why *mai*, a temporal adverb is used to single out the RQ interpretation.¹³

13. One interesting problem concerns the grammaticality pattern of sentences like the following, in which the position of the adverb with respect to the inverted subject depends on the type of *wh*-item with the following distribution: only argumental *wh*-items tolerate the sequence V-adverb-subject, while non-argumental do not.

- (i) ???Quando avrebbe mai Gianni potuto partire ...
 when had+conditional ever John could leave
- (ii) Dove avrebbe mai Gianni potuto andare
 where had+conditional ever John could go
- (iii) ??Come avrebbe mai Gianni potuto reagire
 how had+conditional ever John could react
- (iv) Come avrebbe mai potuto chiamarsi
 how had+conditional ever could call

Suppose that the interpretation corresponding to «canonical» RQs, namely that negation has only scope on the *wh*-item corresponds to the structure in which the *wh*-item and the adverb form a constituent. The interpretation in which negation has scope over the whole predicate would thus correspond to the structure in which the *wh*-item and the adverb do not form a constituent, as in (26). This assumption that each interpretation corresponds to a different structural relation between the *wh*-item and the adverb provides us with the tools to explain the two puzzles mentioned above. When the *wh*-item and the adverb are not adjacent, there is no evidence for them to form a single constituent, therefore all sentences in (26) only have the interpretation in which negation has scope over the entire predicate. When the *wh*-item and the adverb are adjacent, we have in principle two possibilities: the *wh*-item and the adverb can be adjacent because they form a constituent or they might be adjacent but occur in different FPs. The difference between + realis and – realis verbal forms can be connected to another difference which has already been discussed in section 3, namely the raising possibilities of the different verbal forms. As we have seen, - realis forms raise higher than + realis verbal forms. This means that a + realis verbal form leaves more structural space for a non-constituent analysis of the sequence *wh*-item adverb. In other words, the fact that – realis forms raise higher forces the speaker to analyze the sequence in (30a) as a single constituent, while this is not necessary in cases like (31), and forbidden in cases like (28b), in which the verb intervenes between the *wh*-item and the adverb:

- (31) Quando mai è partito?
 When ever is left?

Therefore, the hypothesis that the two interpretations are connected to two distinct structures solves the first puzzle. Moreover, it also gives us some hints concerning the reason why the adverb *mai* has the function it has in the structure. *Mai* is not only a temporal adverb, it is also a negative one, and here it is its negative value which signals the scope of negation in these sentences. At this point of our research this is only an intuition, which needs to be further developed. In particular,

-
- (v) Come avrebbe mai Gianni potuto comportarsi
 how had+conditional ever John could behave

it is necessary to establish the reason why just the adverb *mai* is used among possible negative elements (for instance, why aren't there RQs with the negative marker *non* 'not', if a negative element has to be added). Another problem is raised by RQs in which the rhetorical interpretation is achieved by simply stressing the *wh*-item without adding other elements like the conjunction *e* 'and' or *ma* 'but', which can only be used in main but not in embedded clauses:

- (32) a Ma cosa avrebbe potuto fare in un frangente simile?
 but what had+conditional could do in such a situation
 b E cosa avrebbe potuto fare in un frangente simile?
 and what had+conditional could do in such a situation
- (33) a *Mi ha domandato ma cosa avrebbe potuto fare ...
 he asked me but what had+conditional could do ...
 b Mi ha domandato e cosa avrebbe potuto fare ...
 he asked me and what had+conditional could do ...

Another interesting development concerns the possible positions where *mai* can occur when it does not form a constituent with the *wh*-item, as there seem to be more than one possibility, as (26) shows. These facts might provide evidence for a very precise mapping of the functional structure activated in languages like Italian inside the IP and the CP domains. We leave these different questions to future work.

5. Rhetorical *wh*-questions in French

Let us now turn to RQs in French and consider the consequences of the preceding analysis, under the hypothesis that French shares the structure of its left periphery with Italian, the null hypothesis.¹⁴ In French, contrary to Italian (cf. (6), above),

¹⁴ Cf. Munaro, Poletto and Pollock (1999), where the same hypothesis is shown to lead to important explanations and generalizations.

NPIs are generally licensed in the presence of rhetorically interpreted *wh*-phrases.¹⁵ We thus adopt the licensing of NPIs as formal criterion for the rhetorical status of *wh*-questions. We illustrate this fact in (34) vs. (35): replacing the indefinite *quelque chose* ‘something’ in the ambiguous (34a,b) by the NPI *quoi que ce soit* ‘anything’ (literally ‘what that this be (subjunctive)’) yields (35a,b), which can only be interpreted as RQs:

- (34) a Qui a dit quelque chose?
 who said something
 b A qui ai-je promis quelque chose?
 to whom have-I promised something
- (35) a Qui a dit quoi que ce soit?
 who said what that this be (‘anything’)
 b A qui ai-je promis quoi que ce soit?
 to whom have-I promised what that this be (‘anything’)

Like the weak NPI *quoi que ce soit* (and, analogously, *qui que ce soit* ‘anyone’, *où que ce soit* ‘anywhere’, etc.), strong NPIs like *lever le petit doigt* (lit. ‘to lift the little finger’) can be licensed by argumental *wh*-phrases:

- (36) a Qui a levé le petit doigt pour elle?
 who lifted the little finger for her
 b Pour qui a-t-il levé le petit doigt?
 for whom has he lifted the little finger
 c Quand a-t-il levé le petit doigt pour ses amis?
 when has he lifted the little finger for his friends ¹⁶

¹⁵. Subject to certain restrictions which are much less severe than in Italian, and do not concern us here.

¹⁶. See Lee (1996) for the optional argument status of certain *wh*-phrases including *when*.

Again, these questions can only be interpreted rhetorically. NPI licensing, then, may be used in French to identify *wh*-RQs (see note 15).

Let us go one step further and check the possibility of topic intervention between the *wh*-phrase and TP. (37) shows that in TQs, as in Italian, the topic is clearly preferred to the left of the *wh*-phrase. The acceptability of the inverse order slightly improves in RQs; we leave open the question why (38) is not perfect.

- (37) a ??Quand, à Jean, lui as-tu donné le livre?
 when to J to-him have you given the book
 b A Jean, quand lui as-tu donné le livre?
- (38) ?Quand, à Jean, lui a-t-elle prêté quoi que ce soit?
 when to J to-him has she lent anything

6. Rhetorical *wh*-phrases «in situ»?

The preceding French examples, with the *wh*-phrase in sentence initial position, are compatible with the predictions made by our analysis of Italian. Against the background of our hypothesis concerning the higher raising of rhetorical *wh*-phrases, the French data we will now turn to are particularly interesting, since they suggest, at first blush, that the hypothesis is incorrect - that is, too strong - for French. It is well-known that French can make extensive use of so-called *wh*-in-situ in nonformal speech.¹⁷ (39a-c) are indeed ambiguous between a TQ and a RQ interpretation. More precisely, while (39a-c) can have an ordinary question interpretation, they may

¹⁷ The in principle also possible echo question interpretation is available in (39c), provided the appropriate echo intonation is present. In (39a) and (39b), echo question interpretation is excluded by the context, i.e. by sentence initial *et* and *mais*, logically incompatible with a demand for repetition of an element of preceding discourse.

For extensive discussion of French *wh*-in-situ, as well as certain parallelisms with (the much more restricted) *wh*-in-situ in English, see Obenauer (1994, chap. III).

also be interpreted as meaning that ‘nothing is being proved’, that ‘nobody will be impressed’, and that ‘nothing would have been changed’.

- (39) a Et ça prouve quoi?
and this proves what
- b C’est bien joli, mais ça va impressionner qui?
that’s sure nice but it will impress who
- c Ça aurait changé quoi?
that would-have changed what

(Obenauer 1994, 319)

Obenauer (1994) analyzed these cases as having unmoved *wh*-phrases «in situ». We will adopt here a more recent hypothesis concerning sentence internal *wh*-phrases, namely, the one made in Pollock, Munaro and Poletto (1999). According to these authors, overtly sentence internal *wh*-phrases in French raise to a lower operator position of the CP-domain - in fact, to Spec, FocP - while sentence initial *wh*-phrases move up to a higher position, namely, Spec, ForceP. The *wh*-phrases in (39) appear to be unmoved because the rest of the sentence has itself raised higher to their left (for detailed justification, we refer the reader to Pollock, Munaro and Poletto (1999)). The fundamental question remains: do (39a-c) invalidate the extension of our earlier hypothesis to French?

We will argue that this is not the case, that the hypothesis is correct for French as well, and that (39a-c) are simply instances of the general possibility of having *wh*-phrases in a lower position in French, and not true cases of RQs. This claim will be based on the fact that there are two types of interrogative *wh*-structures in French which are exclusively interpreted as RQs, not as TQs, and that in these structures, the *wh*-phrase is always sentence initial, as in fact predicted by our analysis of Italian.

The relevant data involve quantified NPs, in contrast to the bare *wh*-quantifiers shown in (39). We therefore begin by establishing that like bare *wh*-quantifiers, quantified NPs can regularly appear «in situ» (i.e., in noninitial position). (40a, b) show the phrases *quel film*, *quelle épice* in initial position, and (41a, b) show them in noninitial position.

- (40) a Quel film y a-t-il à la télé?
 what movie is there on TV
 b Quelle épice as-tu as mise dans la sauce?
 what spice have-you put into the sauce
- (41) a Il y a quel film, à la télé?
 b Tu as mis quel épice dans la sauce?

All of (40)-(41) are well-formed as TQs. Consider now (42).

- (42) Quel intérêt y a-t-il à aller à ce congrès?
 what interest is there to go to this congress

For certain speakers, (42) can only be interpreted as meaning that there is no interest in going to the congress, while for others (42) is ambiguous between a TQ and a RQ. The relevant point is that the speakers of the first type, who only interpret (42) as a RQ, reject the analog with the *wh*-phrase in situ, while the other speakers accept (43):

- (43) (*) Il y a quel intérêt, à aller à ce congrès?

This suggests - contrary to (39) - that the sentence initial position is crucial for rhetorical interpretation, an assumption confirmed by the following case. (44) is unambiguous for all speakers; it contains a complex *wh*-expression with an inherently rhetorical meaning:

- (44) Quel mal y a-t-il à vouloir devenir riche?
 what harm is there to want to-become rich

(43) is not interpretable as a TQ asking the addressee to specify the value of *x* such that *x* is a harm inherent to the wish to become rich, but only with a 'there is no harm ...' meaning.

- (45) *Il y a quel mal à vouloir devenir riche?

there is what harm to want to-become rich

Concerning (44)/(45), notice that in the more stereotypical (46):

- (46) *Quel mal y a-t-il à donner de l’argent aux pauvres?*
 what harm is there to give money to the poor

a rhetorical interpretation of the *wh*-phrase is strongly favored by the clausal context, for pragmatic reasons; we deliberately avoid such «conditioning» in (44)/(45) by choosing, on the contrary, a context which would be perfectly in line with a true question interpretation. But this type of interpretation is precisely what is impossible in (44)/(45); the expression *quel mal y a-t-il* has a rhetorical meaning inherently.

Wh-expressions with inherent rhetorical meaning, then, are excluded in sentence internal position; they must raise to initial position, as predicted by the hypothesis developed above.

This clear result leaves open the question why sentences like (39), with «*wh*-in-situ», can have a rhetorical interpretation. The preceding discussion leads to the conclusion that a genuine rhetorical interpretation is possible only in the high position we argued for. If this is correct, the seemingly rhetorical interpretation of sentences like (39) must be a derived effect. We will adopt the solution proposed in Obenauer (1994, 319f), where such structures are considered to be true *wh*-questions, used with the aim of defeating the opponent. The rhetoric tactics used take advantage of the contradiction between the (true) request for providing the value(s) of the variable, on the one hand, and the presumed inability of the addressee to do so, on the other. In other words, the rhetorical effect in questions like those in (39) arises as a result of the speaker’s expectation that his true question will force the addressee to concede that no (acceptable) value exists.

Obenauer (1994, 320) notes that if this approach of (39) is basically correct, it follows that the «in-situ» position is excluded for *wh*-phrases in those cases where the strategy just outlined, i.e. via a true question, is not available. This, it is noted there, is precisely what one finds in cases of inherent rhetorical meaning, as in (47), for example, or in the second type of structures we will examine below.

Before doing so, let us consider an apparent alternative to the treatment of (39) we just adopted, and show why it is not a viable alternative. One might suggest that,

contrary to appearances, these «in situ» *wh*-questions do conform to the analysis in terms of «high movement», and therefore are syntactically genuine RQs. Under this hypothesis, the *wh*-phrase has raised to the high Spec position in the CP domain, but the rest of the sentence has itself raised - for reasons that remain to be determined - to a still higher position, with the result seen in (39).¹⁸ Such an analysis is untenable, since it predicts that (45) (and (43), for the speakers in question) are well-formed. The inability of this analysis to explain the crucial contrast (44) vs. (45) ((42) vs. (43)), then, is a strong argument to the effect that *wh*-phrases «in-situ» move to a low CP-layer, if indeed they do move.

Let us turn now to the second type of evidence in favor of obligatory sentence initial position for rhetorical *wh*-phrases. Consider the following sentences:

- (47) a Quelle admiration a-t-elle pour lui?
 what admiration has-she for him
 b De quelle arrogance a-t-il fait preuve?
 of what arrogance has he made proof
 ‘What arrogance has he shown?’
- (48) a *Elle a quelle admiration pour lui?
 b *Il a fait preuve de quelle arrogance?

On a par with (44)/(45), the examples in (47) cannot be interpreted as TQs, but only as RQs, the meanings conveyed being that no admiration is felt and no arrogance shown.¹⁹ As in the previous case, the *wh*-phrase again can occur overtly only in

¹⁸. A possibly innocuous complication arising in this context stems from the fact that stating the conditions under which *quoi* ‘what’ must be replaced by *que* becomes more difficult. Since the argument in the text suffices to exclude the «high-position» analysis for (39), it is unnecessary to further examine this complication.

¹⁹. Sentences of this type often have an «echo» flavor, as a kind of take-up of preceding discourse. The important observation is that even with this type of interpretation, normally compatible in French with sentence internal position, the *wh*-phrases in question are acceptable only in sentence initial position.

sentence initial position. The prediction of our hypothesis concerning the higher landing site for «structurally rhetorical» *wh*-questions, as we might call them by now, is again borne out. French behaves - in spite of the general availability of *wh*-in-situ - as our analysis of Italian leads us to expect.

7. A parallelism between RQs and negation

Independently of the common structure we established, there is one difference between the two types of genuine RQs in French that we will address before concluding. Contrary to the type manifested in ((42) and) (43), the one in (47) cannot be said to be based on complex *wh*-expressions - *quel intérêt y a-t-il, quel mal y a-t-il* - marked as inherently rhetorical in the lexicon. Indeed, the relevant elements in the examples in (47) are the nouns *admiration*, *arrogance*, which are members of a larger class with the same behavior, viz., the class of psych-nouns, with no obvious relation to *wh*-interpretation.

The question, then, arises as to why the examples in (47) are excluded with a TQ interpretation, but possible with a RQ interpretation. Let us begin with the first part of the question. An approach which suggests itself relates the impossibility of (47a, b) as TQs to a salient property of the psych-nouns in question, namely, the fact that they are [-count]. (47a, b), it seems, cannot have a standard interrogative interpretation because *admiration* and *arrogance* are mass nouns which are incompatible with a set of individuals acting as possible values of the variable *x* in (47). In other words, (47a, b) would, as TQs, require (approximate) logical forms of the type

- (49) a what *x*, *x* an admiration [... *x* ...]
 b what *x*, *x* an arrogance [... *x* ...]

In this respect, the abstract mass nouns *admiration* and *arrogance* behave like the concrete mass nouns *sand* and *flour*, which are again incompatible with

corresponding sets of individuals.²⁰ It is of course well known that, on the other hand, mass nouns like *sand* and *flour* are acceptable in interrogatives like (50):

- (50) a What sand do you recommend for ...
 b What flour do you use for ...

in which, however, ‘... kind/type of sand/flour ...’ is the only possible interpretation, expressed informally in (50’):

- (50’) what *x*, *x* a type/kind of sand/flour [... *x* ...]

(50) in fact uses a possibility of turning [-count] nouns into [+count] nouns. A TQ interpretation of interrogatives with a questioned [-count] nominal, then, is (more or less) impossible to the extent that a type or kind interpretation is (more or less) excluded. Type/kind interpretation is very difficult to obtain with nouns like *admiration* and *arrogance*, whence, presumably, the exclusion of (47a, b) qua TQs.

Let us now turn to the second part of the question: why is RQ interpretation possible in the case of (47) while TQ interpretation is not? A priori, if RQ interpretation were obligatorily based on the same (type of) process as that active in TQ interpretation - that is, construal along the lines of (49) - we should expect (47a, b) to be excluded generally, and not only as TQs. The actual acceptability of (47a, b) might then be taken to cast doubt on the adequacy of the type of representation in (49) even for true *wh*-questions. In other words, the hypothesis that TQs require the association of a set of individuals with the *wh*-word might seem to be put into question.

Alternatively, it might be the case that the intuitively appealing RQ interpretation we referred to in (3), namely, «for no *x*, *x* = ... [... *x* ...]», involves an interpretive process different from the one that rules (47a, b) out qua TQs. This is the path we

²⁰. *Admiration* and *arrogance* of course share other properties of [-count] nouns (like, for example, incompatibility with the indefinite article in the absence of further elements; cf. *J'éprouve pour Marie une admiration *(sans bornes)* ‘I feel for M. an admiration (without limits)’; we restrict ourselves to the property in the text.

will be led to take. Notice, indeed, that there is a striking parallel between (47a, b) qua RQs, on the one hand, and (51a, b), on the other: ²¹

- (51) a Elle n’a aucune admiration pour lui.
 she ‘ne’ has no admiration for him
 b Il n’a fait preuve d’aucune arrogance.
 he ‘ne’ has shown no arrogance

(51a, b) are as acceptable (or even slightly more so) as the quasi synonymous (52a, b), which contain the sentence negation *ne...pas* and (reduced) partitive forms of the psych-nouns:

- (52) a Elle n’a pas d’admiration pour lui.
 she does not feel/have admiration for him
 b Il n’a pas fait preuve d’arrogance.
 he ‘ne’ has not shown arrogance

21. Acquaviva (1995, 79) notes that contrary to English *no*, the Italian negative quantifier *nessun(o)* behaves like the indefinite article with respect to mass nouns: both are excluded in such contexts. Thus, forms like *nessun(a) acqua* ‘no water’ are impossible on a par with *un(a) acqua* ‘a water’ (Acquaviva actually suggests that *nessun* is the result of overt incorporation of the D° *un* into the affixal Q° *ne*-). This parallelism extends to French, where *une eau* ‘a water’ and *aucune eau* ‘no water’ have parallel status (the remarks in the text concerning ‘kind/type of’ interpretation apply). Psych-nouns have a somewhat special status here, in that they are generally more easily acceptable with *aucun*, as illustrated by (51), which compares with

- (a) ??Elle n’a aucune farine à la maison.
 she ‘ne’ has no flour at home

(with a mass reading, the sentence is normally acceptable only if *aucune* bears heavy stress, which is not required in (48)). We presently do not see the reason of this difference. The relevant point of our discussion - the parallelism between «questioned» psych-nouns in RQs and negated psych-nouns - remains valid.

Let us state the contrast between TQs and RQs in the following way. While true *wh*-questions require possible values of the variable to be individuals (with types/kinds functioning as individuals), sentence negation with *aucun* involves no such requirement, nor do rhetorical questions.²² This, then, suggests that, with respect to their quantificational component, RQs are - at least in part - not treated as *wh*-questions, but in a way closer to that of sentence negation.²³ We will be satisfied here with this answer to the two parts of our question concerning the interpretive properties of (47a, b).

8. Conclusion

Our study of the syntax of rhetorical questions in Italian and French has brought forward new evidence to the effect that rhetorical questions have structural properties which distinguish them from ordinary («true») questions. More precisely, we have argued that the domain of functional projections in which the proposition proper - that is, IP/TP - is embedded, the «left periphery», contains a specialized layer hosting the *wh*-phrases of RQs. Given its location to the left of topicalized elements, the *wh*-phrases of rhetorical questions in Italian raise to a position higher than the one used as final landing site for *wh*-phrases of ordinary («true») questions. We also showed that verbs move to different positions depending on their \pm realis

²² Jean-Claude Anscombe (p. c.) points out that another way of expressing the difference is to say that the individuals in the case of sentence negation and of rhetorical questions may be subquantities or «pieces», in contrast with the requirements on individuals in TQs.

²³ We do not take a position here with respect to the question whether a (covert) negative constituent is actually present in the structure of RQs. For an analysis making this assumption, see Lee (1996).

It may well be the case that RQs involving *wh*-phrases with [+count] nouns as nominal heads can also (alternatively) resort to a treatment of the type used in TQs. We leave this question open.

modal value, and studied the interaction of the placement of the adverb *mai* with the interpretation.

With respect to the question of the larger validity of the «higher level» hypothesis, French provided interesting testing ground since *wh*-in-situ structures in this language seem compatible, at first sight, with rhetorical interpretation. Closer examination revealed that such cases are not genuine RQ structures, and that the extension of the hypothesis to French leads to correct predictions. The analysis of French *wh*-in-situ structures as true questions embedded in a polemical strategy allows us to account for the absence of such structures in Italian: it simply follows from whatever excludes (non-echo) *wh*-questions in this language. Concerning the quantificational aspect of RQ interpretation, we found a remarkable parallelism between RQs (as opposed to TQs) and sentence negation.

On a more general level, the successful extension of the analysis to French suggests that the hypothesis of a more largely shared structure of the left periphery among the Romance languages is potentially rich and well worth being pursued and deepened.

HG.Obenauer@compuserve.com
poletto@maldura.unipd.it

References

- Acquaviva, Paolo (1995) «Operator Composition and the Derivation of Negative Concord», *Geneva Generative Papers* Vol. 3, No. 2, 72-104.
- Barbosa, Pilar (1996) «A New Look at the Null Subject Parameter». João Costa et alii, eds., *Proceedings of ConSOLE 3*, Leiden University.
- Benincà, Paola (1998) «La struttura della frase esclamativa alla luce del dialetto padovano», Paola Benincà, Guglielmo Cinque, Tullio de Mauro and Nigel Vincent, eds., *Italiano e dialetti nel tempo- Saggi di grammatica per Giulio C. Lepschy*, Bulzoni, Rome, 23-43.

- Han, Chung-Hye and Laura Siegel (1997) «Syntactic and Semantic Conditions on NPI Licensing in Questions», *Proceedings of the 15th WCCFL*, Stanford Linguistics Association, CSLI, 177-191.
- Kayne, Richard and Jean-Yves Pollock (1998) «New Thoughts on Stylistic Inversion», talk at the Word Order in Romance conference, Amsterdam, May 1998.
- Lee, Felicia (1996) «Negative Polarity Licensing in Wh-Questions: The Case for Two Licensers», ms., UCLA.
- Munaro, Nicola, and Hans-Georg Obenauer (1999) «Underspecified *wh*-phrases in pseudo-interrogatives», ms., CNRS Paris-St. Denis / CNR Padova.
- Obenauer, Hans-Georg (1994) *Aspects de la syntaxe A-barre - Effets d'intervention et mouvements des quantifieurs*, thèse d'Etat, Université de Paris VIII.
- Ordoñez, Francisco (1997) *Word Order and Clausal Structure in Spanish and Other Romance Languages*, PhD dissertation, CUNY.
- Poletto, Cecilia (in press) *The Higher Functional Field in the Northern Italian Dialects*, unpublished ms., Università di Padova, to appear at Oxford University Press, New York, Oxford.
- Poletto, Cecilia and Jean-Yves Pollock (1999) «Subject Positions in Romance», talk delivered at the Workshop on the Cartography of Functional Projections, Siena 24-26 November 1999.
- Pollock, Jean-Yves, Nicola Munaro and Cecilia Poletto (1999) «Eppur si muove - On Comparing French, Portuguese, and Bellunese Wh-Movement», ms., CNRS / Università di Padova, submitted to *Natural Language and Linguistic Theory*.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leach, Jan Svartvik (1985) *A Comprehensive Grammar of the English Language*, Longman, London, New York.
- Rizzi, Luigi (1991) «Residual Verb Second and the Wh-Criterion», Technical Reports in Formal and Computational Linguistics, n° 2, Université de Genève. Reprinted in Adriana Belletti and Luigi Rizzi, eds. (1996), *Parameters and Functional Heads*, Oxford University Press, Oxford, 63-90.
- Rizzi, Luigi (1997) «The Fine Structure of the Left Periphery», L. Haegeman, ed., *Elements of Grammar*, Kluwer, Dordrecht.