

# QUANTIFIER PREPOSING IN FRENCH AND ITALIAN AS A ROOT PHENOMENON: A SYNTACTIC OR A PRAGMATIC APPROACH?\*

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**Abstract:** On the basis of a corpus research it is shown that quantifier preposing in French and Italian, arguably a focalization mechanism, is a root phenomenon, occurring only in root-clauses and in root-like clauses. It is furthermore shown that other types of focalization in the left periphery in French and Italian are not root phenomena, in accordance with Emonds' claim for English clefting. The question is why there should be such a difference. Three recent approaches to root phenomena are discussed, a syntactic one, a pragmatic-semantic one, and a mixed one. A mixed analysis of the focalization data is proposed.

**Keywords:** root transformation, focalization, French, Italian, quantifier preposing

## 1. Introduction

Emonds (1970, 1976) essentially distinguishes two types of transformations: structure-preserving transformations and root transformations. Structure-preserving transformations move constituents only into a position in which a constituent of that category can be base-generated. Root transformations move constituents into non base-generated positions, viz. positions where such nodes are immediately dominated by a root S. These transformations are constrained in that they can only apply in roots, i.e. non-embedded clauses:

(1) **Root transformation** (Emonds 1976)

A transformation that moves, copies or inserts a node C into a position in which C is immediately dominated by a root S in derived structure is a "root transformation".

With this description Emonds characterizes topicalization and left dislocation in English as root transformations, i.e. main clause phenomena. Clefting, on the other hand, is a structure-preserving transformation, because a cleft has the same structure as a relative clause construction.

Hooper and Thompson (1973) show that Emonds' purely syntactic account, which restricts root transformations to root sentences, i.e. non-embedded sentences, does not account for the fact that root transformations can also occur in some embedded sentences. Hooper and Thompson (1973) claim thus that embedded clauses can be root-like and that all sentences in which root transformations are allowed, including some types of embedded clauses, express assertions.

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In this paper<sup>1</sup>, the distribution of quantifier preposing in French and Italian is studied and it is shown that, just like topicalization and dislocation in English, it is also a root phenomenon, occurring in root sentences and root-like, embedded, sentences:

- (2) *Rares sont les artistes que le succès ne change pas.*  
‘There are only few artists whom their success does not alter.’
- (3) *Penso che molti siano i motivi per avere fiducia ed essere ottimisti.*  
‘I think that there are many reasons to trust and to be optimistic.’

Just like Emonds does for clefting in English, it is furthermore argued that clefting and other types of non sentence-initial focalization in French and Italian, as in (4-5), are not root phenomena.

- (4) *C’était mieux que ce soit lui qui demande.*  
‘It was better that it was he who asked.’
- (5) *Mi dispiace che siano pochi i preti progressisti ed umani.*  
‘I am sorry that there are only few progressive and human priests.’

One of the questions that this paper aims to answer is why there should be such a difference. Why are topicalization, left dislocation and quantifier preposing root phenomena, but why are clefting and other types of non sentence-initial focalization not restricted to root(-like) sentences? According to Hooper and Thompson (1973), root phenomena, such as topicalization and left dislocation serve to emphasize and are therefore restricted to assertions, expressed by root and root-like, sentences. Heycock (2005), however, points out that clefting also serves to emphasize and is not restricted to assertions, so that, in her view, Hooper and Thompson’s explanation for root phenomena, which is that emphasis can only occur in assertions, cannot be correct.

In the past ten years several accounts have been proposed for the existence of root phenomena: syntactic accounts, such as, e.g. Haegeman (2002, 2003a, 2003b, 2007), Haegeman and Úrögdi (2010); pragmatic-semantic accounts, such as De Cat (2012); and mixed accounts, such as Bianchi and Frascarelli (2010).

In this paper a mixed account will be proposed for the different distribution of quantifier preposing and non sentence-initial focalization in non-root sentences in French and Italian.

The paper is organized as follows. In section 2, Emonds’ and Hooper and Thompson’s description and account of root phenomena is briefly recapitulated. In section 3, on the basis of corpus research, it is shown that quantifier preposing in French and Italian is a root phenomenon, but that non sentence-initial focalization is not. In section 4, some recent accounts of root phenomena are presented. In section 5, my

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account of the distribution of quantifier preposing and non sentence-initial focalization is proposed. The paper ends, in section 6, with a summary of the results and some concluding remarks.

## 2. Root phenomena

Emonds (2007) distinguishes five groups of root transformational operations involving leftward movement: leftward movement to pre-subject position with no verb inversion, such as topicalization in English (6); leftward movement to pre-subject position with obligatory finite verb fronting, as in English direct question formation (7); finite verb inversions, such as English auxiliary inversion (8); leftward movement with clause-final subjects, such as preposing of AP over *be* (9); left dislocated phrases with commas, such as left dislocation (10):

- (6) **These steps** I used to sweep with a broom.
- (7) **How would** we escape?
- (8) **Will** they support us?
- (9) **More important has been** the establishment of legal services.
- (10) **These clams**, I buy them right at the shore.

Emonds shows that these transformations only apply in root sentences:

- (11) \*Have I shown you the broom (that) **these steps** I used to sweep with?
- (12) \*Bill wonders why **more important has been** the establishment of legal services.
- (13) \*The fact that **these clams**, I buy them right at the shore means that they are sure to be fresh.

He notes, however, that some of the root transformations sound acceptable when embedded, at least to some speakers:

- (14) ?We convinced the authorities that **more important would be** the establishment of legal services.

Emonds' analysis is rather descriptive. He only describes the syntactic context in which root phenomena must occur, but he does not explain why this should be so. In order to explain exceptions such as (14), Hooper and Thompson (1973) use the semantic notion of assertion. They distinguish five classes of verbs with *that*-complements and argue that root transformations can only apply in these sentences if they are asserted, but not if they are presupposed:

- (i) Class A verbs (non factive): asserted complement  
say, report, exclaim, assert, claim, vow, be true, be certain, be sure, be obvious
- (15) Carol said that **most embarrassing of all was** falling of the stage.
- (16) \*That **this building**, it would be demolished was decided.

- (ii) Class B verbs (non factive): asserted complement  
suppose, believe, think, expect, guess, imagine, it seems, it happens, it appears  
(17) It appears that **this book** he has read thoroughly.
- (iii) Class C verbs (non factive): neither asserted nor presupposed  
be (un)likely, be (im)possible, be (im)probable, doubt, deny  
(18) \*It was impossible that **each part** he had examined carefully.
- (iv) Class D verbs (factive): presupposed complement<sup>2</sup>  
resent, regret, be sorry, be surprised, bother, be odd, be strange, be interesting  
(19) \*It's strange that **this book**, it has all the recipes in it.
- (v) Class E verbs (semifactive): asserted complement  
realize, learn, find out, discover, know, see, recognize  
(20) The public does not realize that **even more corrupt is** the Republican Party.

Hooper and Thompson (1973) assume that restrictive relative clauses depending on definite head nouns are presupposed, but that non restrictive relative clauses and restrictive relative clauses depending on an indefinite head noun are asserted, which would explain the different distribution of root transformations in relative clauses:

- (21) \*The car that **only rarely did** I drive is in excellent condition.  
(22) This car, which **only rarely did** I drive, is in excellent condition.

Hooper and Thompson (1973) also make a distinction between asserted and presupposed adverbial clauses, and show that root transformations only occur in the first type:

- (23) Mildred drives a Mercedes, because **her son**, he owns a stock in Xerox. (asserted adverbial clause)  
(24) \*Sam is going out for dinner, not because **his wife**, she can't cook, but because he want to discuss Q-magic with Stella. (presupposed adverbial clause)

Hooper and Thompson (1973) assume that adverbial clauses introduced by *when*, *before*, and *after* are always presupposed, and, therefore, do not allow root transformations:

- (25) \*We were all much happier when **upstairs lived the Browns**.  
(26) \*Helen and Jack had dinner before **into the kitchen trooped the children**.

<sup>2</sup> Hooper and Thompson (1973) notice that Root Transformations in the complements of class C and D verbs are not ungrammatical for all speakers. Those who accept Root Transformations with class C verbs also accept them with class D verbs. They accept them with all of the five classes of verbs. This might suggest that these speakers do not make the root – non root or assertion – presupposition distinction. Hooper and Thompson (1973: fn. 7) notice that instead of the class C or D verb a sentence adverbial can be used:

- (i) It is odd that the door was unlocked.  
(ii) Oddly, the door was unlocked.

It might thus also be the case that speakers who accept Root Transformations with class C and D verbs, accept them in an interpretation as in (ii), which is an assertion.

Hooper and Thompson (1973) show thus that Emonds' (1970) purely syntactic account, which restricts root transformations to root sentences, i.e. non-embedded sentences, does not account for the fact that root transformations can also occur in some embedded sentences: complements of class A, B, and E verbs, non-restrictive relative clauses and restrictive relative clauses depending on an indefinite noun, some types of adverbial clauses. Hooper and Thompson (1973) claim that all sentences in which root transformations are allowed express assertions.

In the next section, I test Emonds' distinction between root transformations and structure-preserving transformations and Hooper and Thompson's (1973) distinction between assertions and presupposition with respect to root phenomena on the basis of quantifier preposing and non sentence-initial focalization in French and Italian in order to determine whether they are root phenomena according to their criteria.

### 3. Quantifier preposing and clefting in French and Italian

The identification of root phenomena has essentially been based on Germanic languages in the literature. The most discussed root phenomena are topicalization and V2. Antepositions are much rarer in Romance, and they are more accepted in the form of focalization than in the form of topicalization. One of the cases in which sentential initial focus is possible in Romance, is quantifier preposing, which involves the anteposition of a quantifier like 'rare', 'few', or 'numerous'. This case could be equated with Emonds' "preposing around *be*". As such it is predicted that it is a root phenomenon. In 3.1, I present my corpus research on quantifier preposing in French and in 3.2 on Italian, which was meant to verify whether quantifier preposing is a root phenomenon. Clefting is, according to Emonds, a structure-preserving transformation, i.e. not a root transformation. In 3.3, I present my corpus research on clefting, i.e. non sentence-initial focalization in French and Italian, the goal of which was to check whether this type of focalization is a root phenomenon.

#### 3.1 Quantifier preposing in root(-like) sentences in French

*Rare*-preposing does not only involve fronting of the quantificational adjective 'rare', but also the fronting of related quantifiers such as 'many' or 'few'. In this paper, I discuss the distribution of *rare*-preposing in French and Italian.

Lahousse (2003), who discusses anteposition of adjectives in French, argues that the fronted adjective, which besides *rare* and *nombreux* 'many' can be adjectives like *tel* 'such', *grand* 'great', *vif* 'intensive', has a narrow focus interpretation and that this interpretation is due to its anteposition and to its being selected within or contrasted with a set of referents in the context.<sup>3</sup>

<sup>3</sup> Lahousse argues that besides a focus interpretation, the fronted adjective can also have a topic interpretation, depending on the context:

- (i) (Il lui tenait) ... des discours aussi sentimentaux (**sentimentaux** sont aussi ceux que ... )  
(he addressed to her) .... equally sentimental words (sentimental are also those that ...)

Sleeman (2010a) also analyzes fronted *rare* and *nombreux* in French as foci. In Sleeman (2010a) it is shown that fronting of ‘rare’ and ‘many’ in French licenses the use of an infinitival relative clause. In that paper it is claimed that infinitival relative clauses are licensed by a contrastive (= emphatic) focus, which can be expressed by superlatives and equivalent adjectives. Since superlatives express the highest or lowest value on a scale, a natural contrast is established with an empty set of elements that expresses an even higher or lower value on the scale. ‘Rare’ and ‘many’ also express high values on the scale. When they are fronted, they get a contrastive (= emphatic) interpretation: there is (almost) no one or nothing else having or not having the property under consideration:

- (27) *Rares sont probablement les dirigeants des groupes qui souscriront aux conclusions de l’analyse théorique.*  
 ‘There are probably few leaders of the groups who will subscribe to the conclusions of the theoretical analysis.’
- (28) *Je dirais plutôt que rares sont les jours où les trains sont à l’heure.*  
 ‘I would rather say that trains arrive seldom on time.’
- (29) *Il semble que rares sont les mots susceptibles de cerner la nature de son jeu.*  
 ‘It seems that there are almost no words with which the nature of his acting can be described.’
- (30) *J’ai cru remarquer, d’ailleurs, que rares sont les personnes qui ...*  
 ‘By the way, I think I have noticed that those who ... are rare.’

Preposing of ‘rare’ and ‘many’ can be subsumed under Emonds’ root transformation “Preposing around *be*”. This transformation fronts comparative and superlative adjectives. On the basis of a corpus research, I analyzed the contexts in which ‘rare’/‘many’ preposing occurs.<sup>4</sup> For French, my research revealed that ‘rare’/‘many’ preposing almost exclusively occurs in root sentences in Emonds’ sense, i.e. in non-embedded clauses. In Frantext, preposed ‘rare’ occurs in the sequence *rares sont* ‘rare are’ in 95 texts between 1950 and 2007. In 89 of these texts, preposed ‘rare’ occurs in a non-embedded clause. In 6 texts, preposed ‘rare’ occurs in an embedded, root-like clause: in the complement of Hooper and Thompson’s (1973) class A and E verbs (*dire* ‘say’, *avouer* ‘confess’, *remarquer* ‘notice, realize’), and in adverbial clauses introduced by *parce que* ‘because’, *puisque* ‘since’, and concessive *si* ‘even though’ or *tellement ... que* ‘so that’ expressing assertions:

- (31) *une actualité chaude que rares sont celles à pouvoir couvrir efficacement*  
 ‘a world full of events that only few editors are able to report on adequately’
- (32) *Secteur immense, à peine défriché, puisque très rares sont les constructeurs de machines qui reconnaissent les exigences du facteur humain.*  
 ‘An enormous sector, hardly exploited, because the machine constructors who recognize the requirements of the human factor.’

<sup>4</sup> The corpora that I used for French were the electronic literary database Frantext and LexisNexis, which contains a collection of newspapers.

- (33) *Plus qu'on ne croit, du reste, parce que rares sont ceux qui osent se révéler tardivement.*  
 'More than what is thought, by the way, because those who dare to come out late.'
- (34) *Si très rares ont été les jours de ma vie où j'ai été sans lire [...], pas rares sont ceux où je n'ai fait que cela.*  
 'Even if the days of my life on which I have not read are rare, even more rare are the days on which I have done nothing else than reading.'
- (35) *ce long chemin [...] tellement peu commode que bien rares sont ceux qui s'y sont risqués [...]*  
 'this long road [...] so uncomfortable that those who have dared enter it are very rare [...]

According to Hooper and Thompson (1973), root transformations only apply in non-restrictive relative clauses and in relative clauses depending on an indefinite NPs. In (36), in which *rare* has been fronted, *rare*-preposing is used in an embedded clause, which, at first sight, seems to be a restrictive relative clause modifying a definite noun phrase. The following text, however, reveals that the relative clause must be interpreted as a non-restrictive relative clause:

- (36) *Ils [les vidangeurs] assuraient l'hygiène des immeubles où rares étaient les installations ... hygiéniques. Presque partout il y avait des bailles abritées par des appentis au fond des cours.*  
 'They [the garbage collector] took care of the hygiene of the buildings where the hygienic installations were rare. Almost everywhere there were holes covered by tents in the back of the yards'

For Italian I also studied the contexts in which fronting of *pochi* 'few', *molti* 'many' and equivalent adjectives is used. The results are presented in the following subsection.

### 3.2 Quantifier preposing in root(-like) sentences in Italian

In Hooper and Thompson's (1973) analysis, root transformations cannot occur in the complement of class C and D verbs. Class C verbs express an uncertainty ('it is (un)likely', 'it is possible', 'to doubt'), whereas class D verbs are psychological factive verbs ('to regret', 'be surprised', 'it is strange'). In Italian all these verbs require the subjunctive in the complement clause. The class A verbs (verbs of saying) and the class E verbs (epistemic semifactive verbs like 'to know', 'to realize') all require the indicative in Italian. Class B verbs expressing an opinion ('to believe', 'it seems') require the subjunctive. In *La Repubblica* I searched contexts in which the string *molti sono I / quelli* 'many are (ind.) the / those' or *molti siano I / quelli* 'many are (subj.) the / those', with fronted *molti* 'many', *pochi* 'few' and equivalents, occurs.<sup>5</sup> I found 49 cases in which the verb in the complement clause was used in the indicative, and only 4 cases in which the

<sup>5</sup> For Italian I used the database *La Repubblica* on line, which contains texts from 1984 until now (*La Repubblica* dal 1984). For Italian I also used the LexisNexis database.

verb in the complement clause was used in the subjunctive. In none of these four cases the subjunctive depends on a class C or class D verb. In (37), the subjunctive depends on a class B verb (*pensare* ‘to think’, *ritenere* ‘to believe’), which allows for root transformations in Hooper and Thompson’s (1973) analysis:

- (37) *Penso – aggiunge – che molti siano i motivi per avere fiducia ed essere ottimisti.*  
‘I think – he adds – that there are many reasons to trust and to be optimistic.’

In (38), the subjunctive depends on the verb *colpire*, which may be used as a class D verb (‘it is astonishing’, which does not allow for root transformations, but also as a class E verbs (‘one notices’):

- (38) *Colpiscono, tra i fondatori, i cognomi di politologi e politici di destra e di sinistra. Colpisce che numerosi siano i “dipietristi” e i “pattisti” di Mario Segni.*  
‘The names of left wing and right wing political commentators and politicians among the founders is striking. It is striking that there are many followers of Di Pietro and Mario Segni.’

I also studied the use of *rare*-preposing in adverbial clauses in Italian. According to Haegeman (2003) and Lahousse (2010), root transformations only occur in peripheral adverbial clauses, such as causal and concessive clauses, but not in central adverbial clauses such as temporal, conditional or purpose clauses (see section 4). As expected, I found examples of *rare*-preposing in peripheral adverbial clauses. In (39) the adverbial clause is causal and in (40) it is concessive:

- (39) *perché molti sono i dischi di grande valore che sono stati pubblicati anche in Europa recentemente*  
‘because there are many valuable cds that, recently, have also been published in Europe’
- (40) *anche se molti sono i pettegolezzi che iniziano a circolare*  
‘even if a lot of gossip starts to go round’

According to Hooper and Thompson (1973), root phenomena can also occur in non-restrictive relative clauses, such as (41):

- (41) *Bologna e Sampdoria offrono un primo tempo combattuto, in cui poche sono le concessioni allo spettacolo.*  
‘Bologna and Sampdoria play a difficult first half, which does not offer much to the spectators.’

I found only one example of the use of *rare*-preposing in what seems to be a temporal clause, i.e. a central adverbial clause, which does not allow for root transformations:

- (42) *nel momento dell'amarezza, quando molte sono le tentazioni e spesso tutte legittime*  
‘in time of sorrow, when there are many temptations, which are always all legitimate

The adverbial clause is, however, used as peripheral adverbial clause rather than as a central adverbial clause in this example. It is used in a non-restrictive way, and functions rather as a non-restrictive relative clause modifying *il momento*.

In this section, I have shown that ‘rare’-fronting only occurs in root(-like) clauses expressing assertions in Hooper and Thompson’s view. According to Emonds, clefting is not a root phenomenon. In the next section, I investigate whether this is the case on the basis of data from French and Italian.

### 3.3 Clefts

In Emonds’ (1976) analysis, root transformations are transformations that produce word orders that could not be generated by the phrase structure rules. Since the word order of clefts is the same as the word order in NP + relative clause, Emonds analyzes clefting as a structure- preserving transformation and hence not as a root transformation. It is thus predicted that clefting does not only occur in root clauses, but also in embedded clauses. In Hooper and Thompson’s (1973) analysis, it is predicted that clefts do not only occur in asserted clauses, but also in non-asserted clauses. I verified these predictions for French and Italian. I checked for both languages whether clefts can be used in the complement of Hooper and Thompson’s (1973) class C and class D verbs, in central adverbial clauses, and in restricted relative clauses depending on a definite antecedent. Corpus research showed that this is possible:

- (43) *Il n’est pas impossible, maintenant, que ce soit lui qui tienne le plus à moi.*  
‘It is not impossible that, now, it is he that loves me most.’
- (44) *C’était mieux que ce soit lui qui demande.*  
‘It was better that it was he who asked.’
- (45) *Cest pour que ce soit lui qui s’occupe de toi.*  
‘The goal is that he takes care of you.’
- (46) *... ne meurt que si c’est lui qui le décide.*  
‘... only dies if it is he that decides to do so.’
- (47) *Voglio che sia lui a parlarmi.*  
‘I want that it is he that speaks to me.’
- (48) *l’orchestra strabiliante che è stato lui a plasmare*  
‘the extraordinary orchestra that he has modeled’

Italian also has another type of focalization, the focalization of a quantifier, which Sleeman (2010b) analyzes as a clefted quantifier. In Italian, quantificational adjectives can occur in sentence-initial position, as in the examples discussed in the previous section, but can also occur after the verb *essere* ‘to be’. Sleeman (2010b) analyzes this type of focalization of a quantifier as a clefted quantifier.

- (49) *Sono molte le persone che perdono il lavoro.*  
‘Many people lose their job.’

Corpus research revealed that, contrary to fronted quantificational adjectives, clefted quantificational adjectives occur both in asserted and in non-asserted sentences:

- (50) *Sembra che **siano molti** i fan a scegliere questa opzione.*  
‘It seems that many fans choose this option.’
- (51) *Mi auguro che **siano molti** i cittadini che condividono il suo punto di vista.*  
‘I am happy that there are many citizens that share his opinion.’
- (52) *Mi dispiace che **siano pochi** i preti progressisti ed umani.*  
‘I am sorry that there are only few progressive and human priests.’
- (53) *Siccome **sono molti** i cittadini che si impegnano a rispettare le regole, [...]*  
‘Since there are many citizens who try to respect the rules, [...].’

In the recent literature, several analyses have been proposed to account for root phenomena. In the following section, some of these accounts are presented.

#### 4. Some analyses of root phenomena

In this section three analyses of root phenomena that have been proposed in the literature are presented: a syntactic one (subsection 4.1), a pragmatic-semantic/information structural one (subsection 4.2), and a mixed approach (subsection 4.3).

##### 4.1 Root phenomena, truncation, and intervention effects

Within a cartographic approach, and reformulating Hooper and Thompson’s (1973) insights, Haegeman (2002, 2003a, 2003b) decomposes Rizzi’s original Force head into two heads: (i) the head hosting the subordination conjunction, for which she proposes the label Sub, and (ii) the head that encodes speaker or speech time anchoring, which she labels Force. Force encodes the anchoring of the proposition to the speaker/speech time and licenses, among other things, independent illocutionary force and independent temporal reference. Illocutionary force correlates with the speakers’ communicative intention in that particular clause and therefore with assertion. Haegeman shows that only sentences that are anchored to speaker and / or speech time can contain expressions of epistemic modality, such as *probably / might / may*. Distinguishing peripheral and central adverbial clauses, which recalls Hooper and Thompson’s (1973) distinction between non-restrictive and restrictive adverbial clauses, discussed in section 2, Haegeman shows that peripheral adverbial clauses, as (54), which express propositions anchored directly to the speaker or to the speech time can contain expressions of epistemic modality, whereas central adverbial clauses, as (55), which only express events or states of affairs and which are syntactically and prosodically integrated, cannot (see also Lahousse 2010):

- (54) The ferry will be fairly cheap, while the plane will **probably / might** be too expensive.
- (55) \*??John works best while his children are **probably / may** be asleep.

Partly based on Bayer (2001), Haegeman (2002, 2003a, 2003b) formulates furthermore the hypothesis that there is a direct relation between illocutionary force and the availability of topicalization and focalization. In other words, the presence of Force is a precondition for the availability of the projections of TopP and FocP in the left periphery:

- |      |    |                              |     |     |     |       |     |
|------|----|------------------------------|-----|-----|-----|-------|-----|
| (56) | a. | Root clause:                 |     | Top | Foc | Force | Fin |
|      | b. | Central adverbial clause:    | Sub |     |     |       | Fin |
|      | c. | Peripheral adverbial clause: | Sub | Top | Foc | Force | Fin |

Since, in Haegeman's analysis, only peripheral adverbial clauses, but not central adverbial clauses, contain Force, and thus also TopicP and FocusP, Haegeman can account for the fact that only peripheral adverbial clauses, but not central adverbial clauses, allow argument fronting:

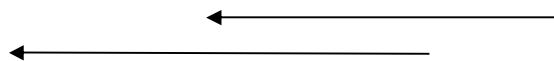
- (57) His face not many admired, while **his character** still fewer felt they could praise.  
 (58) I think we have more or less solved the problem for donkeys here, because **those we haven't got**, we know about.  
 (59) \*While **his paper** I was revising last week I suddenly thought of another analysis.

Haegeman (2007), however, notices that there is a problem with the truncation analysis. Although argument fronting is a root phenomenon, adjunct fronting is available in central adverbial clauses:

- (60) If **on Monday** the share price is still at the current level , ...  
 (61) ... until **one day** the car was stolen.

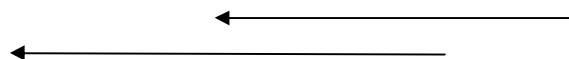
For this reason Haegeman's (2007, 2010) and Haegeman and Ürögdi (2010) propose that in central adverbial clauses the (temporal) or (conditional) operator moves to the left. The ungrammaticality of argument fronting in the central adverbial clauses (62) and (64) is therefore due to an intervention effect, occurring with arguments but not with adjuncts, recalling Rizzi's (1990) Relativized Minimality theory. In the temporal adverbial clause in (62) there is an overt operator, *when*, in the temporal adverbial clause (63) and in the conditional clause (64) there is an empty operator:

- (62) \*<sub>CP</sub> when<sub>i</sub> [<sub>TopP</sub> this song<sub>j</sub> [<sub>FinP</sub> [<sub>IP</sub> I [<sub>TP</sub> t<sub>i</sub> [<sub>VP</sub> heard t<sub>j</sub> ]]]]]]



- (63) We threw a party [<sub>PP</sub> after [<sub>CP</sub> OP<sub>i</sub> [<sub>IP</sub> John [<sub>TP</sub> t<sub>i</sub> [<sub>VP</sub> departed ]]]]]]

- (64) \*<sub>CP</sub> OP<sub>i</sub> if [<sub>TopP</sub> this song<sub>j</sub> [<sub>FinP</sub> [<sub>IP</sub> I [<sub>MP</sub> t<sub>i</sub> [<sub>VP</sub> heard t<sub>j</sub> ]]]]]]



For peripheral adverbial clauses it is argued that there is no operator movement, so that argument fronting does not create an intervention effect.

(65) [<sub>CP</sub> OP<sub>+FORCE</sub> while [<sub>FinP</sub> [<sub>IP</sub> I [<sub>TP</sub> [<sub>VP</sub> heard his question ]]]]]

In the next subsection a pragmatic-semantic account is presented.

## 4.2 Root phenomena and Information Structure

Just like Haegeman (2002, 2003a, 2003b), De Cat (2012) contends that assertoric root(-like) clauses are inherently qualified epistemically. Just like Haegeman (2002, 2003a, 2003b), De Cat (2012) assumes that epistemic qualification is inextricably linked with information structure, the level at which the truth of propositions is evaluated with respect to the topic. De Cat (2012) also assumes that embedded clauses that do not allow main clause phenomena are obligatorily thetic, i.e. all-focus (66), and that only root(-like) clauses can have a topic-focus articulation (67):

- (66) \**J'ai envie de les chicons<sub>i</sub> en<sub>i</sub> manger tous les jours.*  
I-have desire to the witloof PART eat all the days
- (67) *Les chicons<sub>i</sub> j'ai envie d'en<sub>i</sub> manger tous les jours.*  
the witloof I-have desire to PART eat all the days  
'I want to eat witloof every day.'

Contrary to Haegeman (2002, 2003a, 2003b), however, De Cat (2012) does not assume that information structure is expressed in the syntactic structure. She advances several arguments in favor of a non-syntactic account of root-phenomena. The first argument comes from gradiency effects. Building on Green (1976, 1996), De Cat (2012) shows that the acceptability of argument fronting depends on a number of factors, such as the presence of negation, the type of person in the main clause, the (in)definiteness of the subject in the embedded clause or the position of the embedded clause, which cannot be accounted for in a syntactic approach, in De Cat's (2012) view.

- (68) a. John says that he'll win it, and I think that win it he will. (Green 1976: 35a)  
b. \*John says that he'll win it, but I don't think that win it he will. (Green 1976: 35b)
- (69) a. I regret that never before has such a proposal been made. (Green 1976: 40)  
b. \*He regrets that never before has such a proposal been made. (Green 1976: 20)
- (70) a. It seemed that into the garden ran a golden-haired girl. (Green 1976: 20)  
b. \*It seemed that into the garden ran the cat with the red collar. (Green 1976: 40)
- (71) He was washing the dishes when in came the dog. (Green 1976: 62b)
- (72) a. \*When in came the dog he was washing the dishes.  
b. When was he washing the dishes? \*When in came the dog.  
c. What happened? (He was washing the dishes when) in came the dog.
- (73) ... places where, upon mentioning the name of an habitue friend, might be obtained strange whiskey and fresh gin in many of their ramifications. (Dorothy Parker, in Green 1996)



- (78) *l' unica persona che a Gianni, non gli ha mai fatto un favore*  
 the only person that to Gianni not to-him has ever done a favor
- (79) *Se gli esami finali non li superi, non otterrai il diploma*  
 if the exams final not them pass-2SG, not obtain-FUT.2SG the degree
- (80) *E' strano che questo problema gli student non l'abbiano potuto risolvere*  
 it's strange that this problem the students not it have-3PL can-PART solve

Bianchi and Frascarelli (2010) show, however, that this is not the case for all types of dislocations. Just like Haegeman (2002, 2003) and De Cat (2012) they relate information structure to the illocutionary force of the sentence, but they make a pragmatic distinction between three types of topics, which can all be expressed by dislocations. They claim that A-topics (aboutness topics, conversation shift) are restricted to root sentences:

- (81) [<sub>A-top</sub> *un gran turismo*] [*due mattine fa han dovuto farlo rientrare*  
 a tourist bus two days ago had must-PART make-it go back  
*dal giro di città*]  
 from-the tour of tour

They show that G-topics (given, i.e. familiar, topics) have a free distribution. They also occur in non-root sentences:

- (82) A: *Il riso è già pronto.*  
 'Rice is ready.'
- B: *Vabbé: se il riso l'hai già cotto, apparecchia la tavola*  
 Well: if the rice it have.2SG already cooked, dress the table

They argue that C-topics (contrastive topics) are restricted to clauses expressing propositions and hence are excluded from central adverbial clauses, which express events:

- (83) ?\* *Se il riso lo cuoci e le verdure le prepari,*  
 if the rice it cook-2SG and the vegetables them prepare-2SG  
*riusciremo ad andare a tavola entro un'ora.*  
 mange-FUT.1PL to go to lunch in an hour

Bianchi and Frascarelli (2010) adopt Frascarelli and Hinterhölz's (2007) Topic Hierarchy, expressing the three types of topics, each having its own pragmatic and prosodic properties, in the articulated left periphery of the clause, as in Haegeman's (2002, 2003a, 2003b) account:

- (84) [<sub>ShiftP</sub> A-Topic [<sub>ContrP</sub> C-Topic [<sub>FocP</sub> [<sub>FamP\*</sub> G-Topic [<sub>FinP</sub> [<sub>IP</sub>  
 L\*+H H\* L\*

After having presented several accounts of root phenomena proposed in the recent literature, I will now propose my own account of the focalization data presented in this paper.



structural account has to be discarded as well, just like Haegeman's (2002, 2003) analysis.

## 5.2 A mixed analysis

In 4.3 I have presented Bianchi and Frascarelli's (2010) analysis of dislocation in root and non root clauses. Bianchi and Frascarelli (2010) distinguish three types of topics, each with its own information structural value and its own projection in the left periphery of the clause. They show that A-topics are root phenomena, that C-topics are excluded from central adverbial clauses, and that G-topics occur both in root and non root clauses. In this section, I propose an analysis in the same spirit to account for the focalization data.

Kiss (1998) distinguishes three types of focus: information focus, identificational focus, and contrastive focus. Identificational focus is exhaustive, whereas information focus is not. Contrastive focus is also exhaustive, but operates on a closed set of elements, and as such also identifies the excluded element(s). Wehr (2005) distinguishes a fourth type of focus, viz. emphatic focus:

(93) I LOVE swimming.

To account for the distribution of focus in root clauses, I claim that quantifier preposing involves emphatic focalization, but that clefting does not. The data suggest that emphatic focalization, just like emphatic topicalization (i.e. A-topics, conversation shift topics), is licensed in sentences with illocutionary force (cf. Bianchi and Frascarelli 2010 for dislocation); other types of focalization (cf. C-topics and G-topics) also occur in non-root clauses. Combining this information structural analysis with Haegeman's (2002, 2003) cartographic analysis, in which topicalization and focalization are related to illocutionary force, the following picture emerges:

(94) a. Root(-like) clauses: (Sub) Top<sub>(E)</sub> Foc<sub>(E)</sub> Force Fin  
 b. Non-root clauses: Sub (Top) (Foc) Fin

Only root and root-like embedded clauses can (optionally) contain an emphatic focus projection, and that is why only these allow quantifier preposing. Notice that emphatic topic and emphatic focus do not necessarily co-occur. The following example shows that emphatic focus does not have to be sentence-initial, and can be preceded by a non-emphatic, G-topic:

(95) **Ce livre**<sub>G-topic</sub>, **rare**<sub>Emphatic focus</sub> sont les personnes qui l'ont lu.  
 'This book, only few people have read it.'

As already observed in the introduction to this paper, an account in terms of emphasis was already proposed by Hooper and Thompson (1973). They claim that the failure of root transformations to occur in non-asserted clauses is due to the pragmatic incompatibility of emphasis with non-assertion. As also observed in the introduction,

Heycock (2005) notices that there is a problem with Hooper and Thompson's (1973) claim. She notices that

[Hooper and Thompson's claim] has not been pursued in subsequent literature. There is counterevidence to this claim in their own article. They point out that emphasis can be achieved by other means including clefting (It's this book that you should read), and they further point out that clefting is a 'structure-preserving transformation', so that Emonds' (1970) proposal would predict, correctly, that it can occur quite generally in embedded contexts. (Heycock 2005)

Just like Hooper and Thompson (1973), I assume that emphatic focus is licensed by illocutionary force. I have claimed, however, that only preposed focus is emphatic focus, but that clefting is not emphatic.

## 6. Conclusions

In this paper I have shown that fronted quantificational adjectives in French and Italian are root phenomena. For clefted constituents in French and Italian I have shown that they are not root phenomena. Quantifier preposing and clefting both involve focalization. Clefting shows that an information structure articulation per se is not excluded in non-root sentences. In order to account for the different behavior of focalized constituents, I have claimed that quantifier preposing involves emphatic focalization, which I have assumed to be only possible in sentences with illocutionary force.

## References

- Bianchi, V., Frascarelli, M. 2010. Is topic a root phenomenon?. *Iberia* 2 (1): 43-88.
- De Cat, C. 2012. Towards an interface definition of root phenomena. In L. Aelbrecht, L. Haegeman and R. Nye (eds.), *Main Clause Phenomena*, 135-158. Amsterdam / Philadelphia: John Benjamins.
- Emonds, J. 1976. *A Transformational Approach to English Syntax: Root, Structure-Preserving, and Local Transformations*. New York: Academic Press.
- Frascarelli, M., Hinterhölzl, R. 2007. Types of Topics in German and Italian. In S. Winkler and K. Schwabe (eds.), *On Information Structure, Meaning and Form*, 87-116. Amsterdam / Philadelphia: John Benjamins.
- Green, G. 1976. Main clause phenomena in subordinate clauses. *Language* 52 (2): 382-397.
- Green, G. 1996. Distinguishing main and subordinate clause; the root of the problem. Ms., University of Illinois.
- Haegeman, L. 2002. Anchoring to speaker, adverbial clauses and the structure of CP. In S. Mauck and J. Mittelstaedt (eds.), *Georgetown University Working Papers in Theoretical Linguistics* 2: 117-180.
- Haegeman, L. 2003a. Conditional clauses: External and internal syntax. *Mind and Language* 18: 317-339.
- Haegeman, L. 2003b. Speculations on adverbial fronting and the left periphery. In J. Guéron and L. Tasmowski (eds.), *Temps et point de vue / Tense and Point of View*, 329-365. Paris: Publidix.
- Haegeman, L. 2007. Operator movement and topicalization in adverbial clauses. *Folia Linguistica* 41 (3-4): 279-325.
- Haegeman, L. 2010. The internal syntax of adverbial clauses. *Lingua* 120: 628-648.
- Haegeman, L., Ürögdi, B. 2010. Referential CPs and DPs: An Operator movement account. *Theoretical Linguistics* 36 (2-3): 111-152

- Heycock, C. 2005. Embedded root phenomena. In M. Everaert and H. van Riemsdijk (eds.), *The Blackwell Companion to Syntax*, 174-209. Oxford: Blackwell.
- Hooper, J. B., Thompson, S. A. 1973. On the applicability of root transformations. *Linguistic Inquiry* 4 (4): 465-497.
- Kiss, K. 1998. Identificational Focus versus Information Focus. *Language* 74 (2): 245-73.
- Lahousse, K. 2010. Information Structure and epistemic modality in adverbial clauses. *Studies in Language* 34 (2): 298-326.
- Rizzi, L. 1990. *Relativized Minimality*. Cambridge, MA: MIT Press.
- Rizzi, L. 1997. The fine structure of the left periphery. In L. Haegeman (ed.), *Elements of Grammar: A Handbook of Generative Syntax*, 281-337. Dordrecht: Kluwer.
- Sleeman, P. 2010a. Superlative adjectives and the licensing of non-modal infinitival subject relatives. In P. Cabredo-Hofherr and O. Matushansky (eds.), *Adjectives. Formal Analyses in Syntax and Semantics*, 233-264. Amsterdam / Philadelphia: John Benjamins.
- Sleeman, P. 2010b. Infinitival relative clauses and Italian clefts. *Bucharest Working Papers in Linguistics XII* (1): 35-50.
- Wehr, B. 2005. Focus strategies in Old French and Old Irish. In J. Skaffari (ed.), *Opening Windows on Texts and Discourses of the Past*, 353-379. Amsterdam / Philadelphia: John Benjamins.