Understanding Word Order in the Left Periphery

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"Why do meteors always land in craters?"

Acknowledgments

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Glossing Conventions

Several of the examples featuring in this thesis come with an accompanying context. When this is the case, note that a word-for-word translation is only provided for those sentences where the specific phenomenon which is being discussed takes place. A looser translation is offered for all other sentences.

Almost all the examples in this thesis come from European languages. To render interlinear glossing more immediately readable, and since I assume basic familiarity with the grammatical system of the languages involved, I have chosen not to use the typical morpheme-by-morpheme glossing system suggested in the *Leipzig glossing rules* (Bickel et al. 2015). Instead, I have opted for a more informal glossing style. Phrases such as the Spanish verb "amo" are then glossed as in (i) rather than as in (ii):

(i) Amo (Spanish)
I-love

(ii) Amo (Spanish)
Love-PRS.1SING

All abbreviations for grammatical categories on the other hand follow the conventions established by the Leipzig glossing rules. The one abbreviation used in this thesis and which is not part of Bickel et al's list is (iii):

(iii) cl = clitic

Many of the examples in this thesis feature a resumptive clitic. I have marked clitics which are free morphemes as in (iv), and clitics which are enclitic on a host as in (v). Following the Leipzig rules, in (v) the "=" sign marks the presence of a bound morpheme. Note that (v) features two bound clitics, the first proclitic, the second enclitic on the epenthetic vowel *–e*:

(iv) Lo
It(cl)

(v) Glielo
To.him(cl)=it(cl)

1 Libraries, Peripheries

Imagine sitting at your local library, or even in front of that dusty bookshelf in your living room; anywhere with books will do.
If the books you see are your books, these are likely just sitting on the shelf in a random order. If you are sitting at the library, however, things are likely to be different: there are too many books for them to be just sitting around in random places. Some ordering system must be in place to ensure that you and people like you do not waste half a day trying to retrieve that copy of Cinque (1990).
Those shelves at the library form a *complex system*: a system composed of many elements –the books–, where the properties of each element are dependent on those of other elements. Exactly which properties of a book are determined by those of other books, you may wonder? In a library, those of linear precedence. The absolute position of Cinque (1990), for instance, depends on how many copies of Chomsky (1995) also fit on that specific shelf. The relative position of Cinque (1990) with respect to Chomsky (1995), on the other hand, depends on the specific ordering system used to file the books, most likely the alphabetical one. Books are also very likely to be sorted according to different fields of research, perhaps according to subfields as well. To be able to navigate through the shelves, and finally get hold of that copy of Cinque (1990), you must be familiar with this ordering system. Being able to orient yourself among all those books also means being able to disregard ordering criteria that, even though perfectly plausible, simply will not apply in that specific environment; color of the cover, number of pages and font size are a few examples.

The left periphery of a sentence is remarkably similar to the situation just described, although at least in the case of the left periphery, the issue is not so much about *finding* specific elements, but rather about knowing where to *put* them. Unlike the library user, moreover, the language user has no explicit knowledge of what ordering system is used to order the various elements found in the left periphery. Yet he or she still somehow manages to consistently place the same elements in the same position. Impressive!
Just like a library, the left periphery is a *complex* system. It can fit in several elements, including topics, declarative complementizers, relative pronouns, modifiers, foci, interrogative operators and polarity particles. This list is far from being exhaustive, as I am not considering the different types of topics, nor the various subtypes of foci, nor the fact that declarative complementizers come in at least two sorts: a structurally high type and a structurally low one.
Just like the books in a library, the constituents which form the left periphery interact with each other in terms of linear precedence: some constituents may only precede,

while some may only follow, others. Some other elements may also be in free distribution with each other.

Complex systems call for an explanation, especially if they exhibit any kind of restrictions in the way their subparts interact. Regardless of what specific system is being investigated, there is the issue of how complexity is handled: how can that many elements interact seamlessly with each other? There is also the question of the nature of the ordering system used: in what ways is it efficient? And what does it tell us about what features or properties are relevant and irrelevant to the system?
These questions are of no less interest if applied to the left periphery. This is especially so in the light of the language user's lack of any explicit knowledge concerning what ordering mechanisms are responsible for the order in which left-peripheral constituents ultimately surface.
Gaining a better understanding of word order in the left periphery is precisely what this thesis attempts to do. Just as understanding where exactly a specific book needs to be positioned requires knowledge of which criteria determine its relative position and which ones do not, we are interested in understanding which underlying factors have an impact on the way constituents are merged in the left periphery, and which ones do not. A relevant question is also whether it makes sense to define classes of constituents in terms of their absolute position in the clausal spine, or whether their position should simply be defined as relative to the position of the other constituents in the clause.

In this thesis, I argue for a relativized approach to word order. In particular, I contend that the distribution of left-peripheral constituents is not to be defined in absolute terms, but is rather a function of their relative position with respect to specific elements in the clause. We will see how this kind of approach allows us to model the flexibility which is inherent to the distribution of some classes of elements.
Not only is the distribution of left-peripheral constituents dependent on the properties of other elements in their domain, so is their specific type. We will see this to be the case for constituents which can be specified with different pragmatic imports, as is the case for topics. I further model relativity in the system by postulating that some types of leftward movement operations are *foot*- rather than *head*-driven, meaning it is the foot of the movement chain which triggers the fronting operation and which determines the distribution of the dislocated constituent.
In this thesis, strong emphasis is placed on prosody as a factor shaping the left periphery. Both my analysis of topicalization and my analysis of focalization crucially rely on the idea that it is prosodic factors which trigger movement: either in an attempt to align an otherwise prosodically misaligned structure, or in an attempt to create a marked one. Prosodic factors also explain the existence of cross-linguistic variation concerning the distribution of at least some left-peripheral constituents: these

differences can be traced back to underlying differences with respect to how and where main stress is assigned.

1.1 Organization of the Thesis

This thesis is article-based. As such, it consists of parts which are to be taken as self-contained units, as well as parts which attempt to connect everything together. Chapters 2 to 7 are of the latter kind, chapters 8 to 10 of the former.

Chapter 2 is an introductory chapter: in it, I provide an overview of the history of the left periphery, and the birth of the notion of a *field* of projections. This thesis takes the ordering restrictions observed in cartographic analyses of the left periphery as a starting point; in chapter 3, I thus present the cartographic research project and provide a critical assessment of it.

Chapters 4 to 6 further elaborate on some of the findings of each of the three articles. As such, they can be read in the order in which they appear in this thesis, or in combination with their respective article. In chapter 4, I summarize the main findings of article 1 and use them to further a prosodic analysis of word order in the left periphery. I argue in particular that the fronting of some pragmatically marked types of foci arises from an attempt to create a prosodically marked structure, to match the pragmatic markedness of these elements. In chapter 5, I discuss the notion of *relativized* topicality, to which I arrive in article 2, and use it to capture the topic-like nature of fronted adverbials. In chapter 6, I further develop the idea that it is the foot of the movement chain which determines what can be topicalized, a notion which I first develop in article 2 and which I further elaborate on in article 3. Chapter 7 then employs the findings of both the articles and their accompanying chapters to argue for a considerably reduced hierarchy of the left periphery.

In chapter 8 one can find the first of the three articles. In this article, I discuss whether it is possible to account for word order in the left periphery in terms of Relativized Minimality, as suggested by Abels (2012). Chapter 9 features the second article, where I develop a foot-driven analysis of the distribution and the typology of the different types of topics. In chapter 10 is the third article, where I discuss topicalization as a general phenomenon and provide an account of the formal differences characterizing the different types of non-focal movement.

2 A History of the Left Periphery

The first mention of the term *complementizer* is found in Peter Rosenbaum (1962)'s dissertation on predicate complement constructions in English (Rosenbaum (1962:9, 41 for a definition). Rosenbaum uses this term indiscriminately to refer to all markers of syntactic subordination, hence not simply the morphemes *that*, *for* and *to*, but also

the English saxon genitive and gerund –*ing* morphemes. The list of what counts as "complementizer" is updated over the years, with Joseph Emonds suggesting already in 1969 that the saxon genitive *-s* morpheme should not count as such. The term "complementizer" is later reprised by Joan Bresnan (1970), who devotes a full article to discussing the syntax of these elements. Bresnan argues in particular that the underlying sentential complementizers for English are *that*, WH, and *for*. Bresnan is also the first to postulate the existence of a deep structure node, *COMP,* which immediately dominates complementizers. In (1970), the left periphery thus looks like in (1):

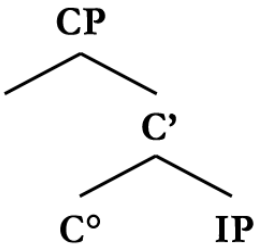
(1)

COMP
|
That/WH/for

Already in Bresnan (1970), but especially in Chomsky (1981), this COMP node acquires a central importance in the derivation of a number of syntactic operations, such as question formation. Chomsky (1981) for instance postulates that it is under a COMP node that wh-elements are stored.

In Chomsky (1986), this COMP node finally becomes an independent clausal projection: the *complementizer phrase* (CP). In (1986), what counts as 'left periphery' is then a standard G&B three-level projection:

(2)

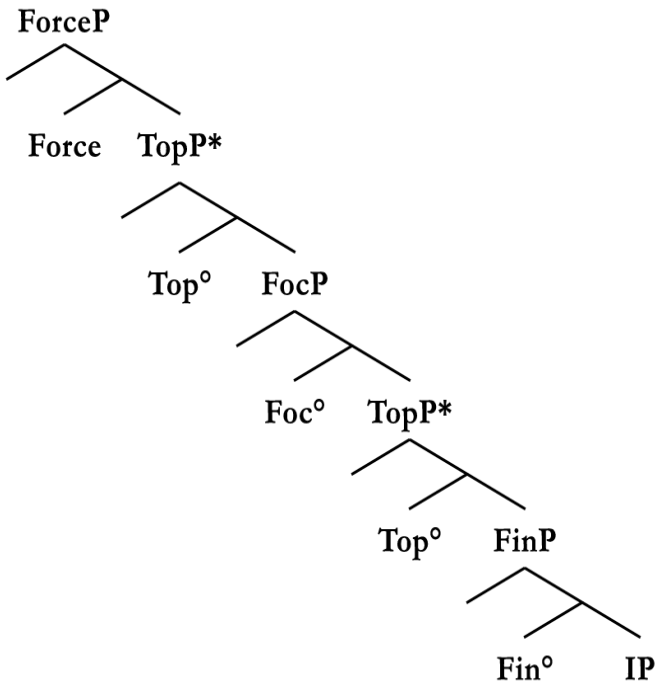


Already in the early 90s, linguists start to feel the need for a more layered CP, where more elements may be hosted. In her (1990) dissertation on negation in Basque and English, Laka for instance postulates the existence of a Σ phrase to accommodate negation. This ΣP is however not yet specific to the left edge of the clause: according to Laka, ΣP is merged above the IP in Basque, but IP-internally in English.

Chomsky (1995) later tackles the need for additional landing sites above the subject by postulating that the CP may feature multiple specifiers. Uriagereka (1995) similarly proposes the existence of an unspecified functional projection in the left periphery, FP, where constituents encoding various discourse properties and information-structural elements may be merged.

A turning point in the history of the left edge of the clause is definitely represented by Luigi Rizzi's (1997) seminal paper *The fine structure of the left periphery*. It is in this article that it is for the first time suggested that the various constituents featuring in the CP may be associated with specific functional projections, whose relative order is universal. Rizzi's (1997) multifunctional approach to the left edge of the clause is the end point –but also the starting point, as we will see–, of a general process of increased specialization of existing functional projections. As Rizzi (1997) himself notes (see also Cinque & Rizzi 2008), the initial push towards a further unpacking of existing functional projections was likely provided by Pollock's (1989) analysis of verb movement in French and English. Pollock notes that assuming the existence of a unique I° node fails to account for why French verbs surface in different positions depending on their finiteness specification. To capture these facts, Pollock then suggests to split I° into two distinct functional heads, to which he simply refers as X1 and X2. These two heads later become AgrS and T in Belletti (1990). In his (1997)'s paper, Rizzi equally suggests to split what at the time was simply known as "the CP" into at least five dedicated functional projections. These projections host information-structure related notions such as "focus" and "topic", but also various types of declarative complementizers. According to Rizzi (1997), these projections occur in a rigid relative order, which is shown in (3):

(3)



(Rizzi 1997:297)

At the left end of the sequence in (3) is *Force,* which Rizzi postulates as the host of complementizers like the Italian "che" (=*that*), which always introduces [+finite] clausal complements, and which always precedes all other elements in the left periphery.

Following *Force* is the first of two *Top(ic)* projections, where constituents such as clitic-resumed topics (see Cinque 1990) are hosted. According to Rizzi (1997), the two topic projections can be iterated, hence the "*" notation on both TopP nodes. In between the two Topic projections is a unique *Foc(us)* projection, where fronted foci are internally merged. Closing off the right edge of the hierarchy is then *Fin(iteness)*, where structurally low complementizers such as Italian *di,* which introduces non-finite embedded clauses, are merged.

The sequence in (3) is couched within a framework which later became known as *cartography*, which will be discussed in detail in the following chapter. One of the main tenets of cartography is the idea that to each morpho-syntactic feature corresponds a different functional projection in the clausal spine. This kind of approach entails that, if additional features are found, these must be linked to their own dedicated functional projection. It also entails that, if constituents apparently belonging to a unique class of elements, such as matrix and embedded *wh*-elements, turn out to display a diverging distribution, it is because they must be associated with distinct dedicated projections.
Over the years, this 'one feature-one projection' rule has led to an exponential growth of the hierarchy in (3). Already in (2001), for instance, Rizzi altered the sequence to include a dedicated functional projection for the polarity complementizer "se" (=*if*) and the wh-word "perché" (=*why*). This projection, Int, was postulated to appear right after the first Topic projection, and to precede FocP. In the (2001) version of the left-peripheral hierarchy, a third Topic projection was also inserted after Int and immediately after FocP. These changes are illustrated in (4):

(4) FORCE (TOP*) INT (TOP*) FOC FIN IP[1]

(Rizzi 2001: 289)

In Rizzi (2004a), a dedicated functional projection for fronted modifiers, Mod, is added to the sequence. This is on the grounds of the diverging distribution characterizing these elements and clitic-resumed topics, a class of elements of which modifiers were taken to be a part in the (1997) version of the hierarchy[2]. In (2004), the left periphery thus looks as in (5):

(5) Force Top* Int Top* Focus Mod* Top* Fin IP

(Rizzi 2004a:241)

[1] Notational differences characterize different versions of the hierarchy. In (4), for instance, topic projections are marked as 'TOP*' and no longer as 'TopP' as it was the case in the (1997) version of the sequence. In this thesis, I always adopt the notation used in the original example, unless there is a good reason not to. This means that a same projection may be represented through slightly different labels across the different examples.

[2] We will explore the parallels between modifiers and topics in more detail in chapter 5.

As the reader can tell by the presence of the asterisk on the Mod projection, Rizzi (2004a) takes modifiers to also be able to appear more than once within the same left periphery, exactly like topics.

A final[3] revision to the left-peripheral hierarchy is argued for in Rizzi & Bocci (2015). Rizzi and Bocci (2015) add a further Top node in between the projection hosting fronted foci, and that hosting fronted modifiers. They also postulate the existence of a distinct projection hosting embedded *wh*-elements, *QEmb*. According to Rizzi and Bocci, QEmb is made necessary by the existence of distributional differences characterizing *wh*-words occurring in matrix questions on the one hand, and those in embedded ones on the other. Specifically, whereas in matrix questions *wh*-elements cannot co-occur with foci, they can in embedded interrogatives, but only in the order Focus < WH. These additions modify yet again the appearance of the left periphery, which presently looks as detailed in (6):

(6) [Force [Top* [Int [Top* [Foc [Top* [Mod [Top* [Qemb [Fin [IP …]]]]]]]]]]]

(Rizzi & Bocci 2015, ex. 29)

The various revisions to the purported structure of the left periphery have not only been along the longitudinal axis, with the postulation of a higher number of dedicated functional projections; they have also been attempts to better define the nature of the projections which were already in place. It is precisely in this light that both Benincà and Poletto (2004) and Frascarelli and Hinterhölzl (2007) are to be interpreted. Both of these two papers focus in particular on the nature of those recursive Top projections we observe in Rizzi's hierarchy ever since its earliest version. According to Benincà and Poletto, there is no such thing as a Top projection lower than focus: anything marked as topical by Rizzi and which occurs lower than Focus is actually part of the focus field of the clause. Benincà and Poletto propose their own version of the hierarchy, which I report in (7):

(7) [Hanging Topic [Scene Setting [LD [LI [Contr. Focus [Inform.Focus]]

Topic Field **Focus Field**

(Benincà & Poletto 2004:71)

The left edge of the hierarchy in (7) represents the topic field of the left periphery: it hosts all constituents which are topic-like in nature. Here, "LD" stands for *Left Dislocated*, and "LI" stands for *List Interpretation*. Following the rightmost projection in the topic field is the focus field, hosting contrastive foci as well as information ones.

Frascarelli & Hinterhölzl (2007) set out to provide a precise characterization of the properties and distribution of the different pragmatic types of topics. They identify

[3] At least at the time of writing (late 2017).

three types of topics: shifting topics, familiar topics and contrastive topics. These constituents will be the specific focus of article 2. The distribution of these elements is later captured by Frascarelli (2012) with specific respect to Rizzi's hierarchy. Frascarelli suggests in particular the following implementation of the left-peripheral hierarchy:

(8) [ForceP [ShiftP [ContrP [IntP [FocP [FamP* [FinP [IP

(Frascarelli 2012:182)

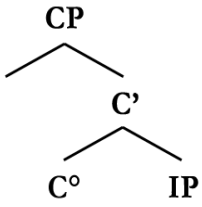
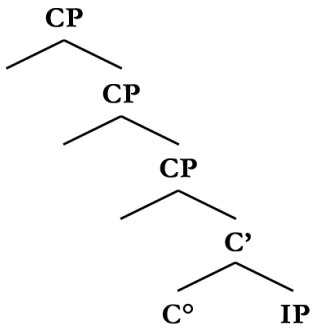
Efforts to refine the nature of the projections in the left periphery do not only characterize the topic projections, but also the Focus one. In this respect, the works by Bianchi and Bocci (2012), Cruschina (2012), Bianchi (2015) and Bianchi, Bocci and Cruschina (2015, 2016) deserve particular mention. Bianchi and Bocci (2012) note how not all types of foci can front to the left edge of the clause: in languages like Italian, for instance, only corrective foci may move to the left periphery. Cruschina (2012) later makes a revision to this generalization by showing how mirative foci, which encode an element of surprise or unexpectedness, may also move to the left periphery. To account for these facts, Bianchi, Bocci and Cruschina (2015, 2016) postulate the existence of a functional head which bears an implicature-triggering feature, which they dub FAI (from *focus-associated implicatures*). This FAI projection appears lower than Force, as shown in (9), and is argued to be responsible for the specific conventional implicatures associated with mirative and corrective foci:

(9) $[_{FP}$ Force $[_{FaiP}$ FAI°$_{[mir/corr]}$ $[_{FocP}$ YP$_{i\ [+foc]}$ Foc°$_{[+foc]}$…$[_{TP}$…<YP$_i$>]]]]

(Bianchi, Bocci & Cruschina 2015:13)

The table in (10) provides a bird-eye's view of the different implementations of the left-peripheral sequence discussed in this section. It thus summarizes more than 46 years of development of the notion of 'left periphery':

(10)

Bresnan (1970)	COMP | that
Chomsky (1986)	
Chomsky (1995)	
Rizzi (1997)	ForceP < TopP* < FocP < TopP* < Fin
Rizzi (2001)	FORCE (TOP*) INT (TOP*) FOC FIN IP
Rizzi (2004a)	Force Top* Int Top* Focus Mod* Top* Fin IP
Benincà & Poletto (2004)	[Hanging Topic [Scene Setting [LD [LI [Contr. Focus [Inform. Focus]]
Frascarelli (2012)	[ForceP [ShiftP [ContrP [IntP [FocP [FamP* [FinP [IP
Rizzi & Bocci (2015)	[Force [Top* [Int [Top* [Foc [Top* [Mod [Top* [Qemb [Fin [IP …]]]]]]]]]]
Bianchi, Bocci & Cruschina (2015, 2016)	$[_{FP}$ Force $[_{FaiP}$ FAI°$_{[mir/corr]}$ $[_{FocP}$ YP$_i$ $_{[+foc]}$ Foc°$_{[+foc]}$… $[_{TP}$…<YP$_i$>]]]]

3 Cartography and the Left Periphery

This thesis takes as its starting point the cartographic maps of the left periphery detailed in Rizzi (1997, 2001, 2004a) and especially in Rizzi & Bocci (2015). Although I resort to these maps as a source of word ordering observations, my own analysis of word order phenomena will stray very far from cartography. Even so, no thesis on word order in the left periphery would be complete without a chapter on the significance of the cartographic research project.

Few linguistic frameworks are as controversial as cartography, which finds its official manifesto in Cinque and Rizzi's (2008) *The Cartography of Syntactic Structures*. Cartography is defined by Rizzi and Cinque as a topic of research rather than a framework: it attempts to determine which structural maps can be used to capture the syntax of natural languages. As Cinque and Rizzi also remark, however, over the years cartography has acquired much of a heuristic dimension: cartographic studies are associated with their own methodology, and come with specific expectations concerning the structure of syntactic objects. In this thesis, I will then refer to cartography as 'framework'.

Cartography comes with a well-defined body of assumptions. The first, as already discussed in chapter 2, is the idea that to each morpho-syntactic feature corresponds a dedicated functional projection, and hence a specific slot in the functional sequence (see also Kayne 2005). This cartographic golden rule represents a first point of controversy, in that it can result in particularly lengthy sequences of functional projections −the "oceans of functional projections" described in Newmeyer (2013)−. We already had a chance of appreciating this potential problem in chapter 2, as we witnessed the evolution of the concept of 'left periphery' in the last five decades: ever since Rizzi (1997), the number of projections posited in CP has grown steadily. These lengthy sequences of functional projections are perceived by many as fundamentally anti-minimalist, particularly in the wake of recent shifts towards the reduction of the representational format (cf. Culicover & Jackendoff 2005, 2006; Jackendoff 2008). It is however worth noting that there is nothing intrinsically anti-minimalist in the idea of rich sequences of functional projections. As Cinque and Rizzi themselves remark, nothing about the basic operation *merge* entails there is a limit on how many times this should apply, and hence on the upper number of resulting functional projections. In fact, these rich sequences of functional projections may be a (perhaps not immediately transparent) way of preserving local simplicity: to assume the 'one feature−one projection' rule is to assume that each functional head has a minimally simple featural specification. This severely constrains the number and type of relations that each head can express. Local simplicity is then preserved by having any element which is to be endowed with two (or more) features first move to the projection which licenses the first feature, and then be merged in the projection which licenses the second feature. This way, feature licensing is kept strictly local.

The fact that cartographic systems are at least locally minimal also entails that there is no well-founded reason to believe cartography is inherently ill-equipped to provide a computationally sensible model of how natural language is processed. If we model linguistic exchanges in terms of information theory (Shannon 1948), for instance, systems where constituents have a fixed position in the sentence exhibit a lower degree

of entropy, hence should be overall easier to process. In this respect, and in all fairness, the cartographic framework offers a solution which is perhaps computationally more attractive than models of the left periphery where no fixed position is assumed, such as the one being developed in this thesis. Cartography thus is not inherently anti-minimalist, nor does it offer a framework which cannot be translated in computational terms. To the extent to which different constituents can be shown to indeed always target the same projection –as will be seen later on, not a trivial assumption by any means-, cartography may even provide a particularly straightforward model for machine learning (see Merlo & Stevenson 2001)).

One aspect of cartography which I do believe to be problematic relates to the lack of a coherent body of assumptions detailing what types of features the system expects to find grammaticalized in the form of dedicated functional projections. As remarked above, nothing in the system prevents us from generating dozens of projections; at the same time, it is also very likely that not all imaginable semantic or pragmatic properties are grammaticalized in the form of a dedicated functional projection. If that were the case, we would indeed find ourselves dealing with "oceans of projections". This would result in a system which is perhaps locally simple, but which globally strays very far from simplicity. In their cartographic manifesto, Cinque and Rizzi state that one of the goals of cartography is precisely to complement the expansion of functional sequences with a more top-down line of inquiry, trying to gauge not only what properties are grammaticalized in functional sequences, but also which ones never are. It is of course difficult, perhaps even impossible, to provide an answer to the latter question, given that it would require the existence of negative evidence. Yet even if we take into consideration the inherent difficulties associated with proving that something is *never there*, one must concur that the cartographic tradition has so far fallen short of providing any indication on how to constrain the proliferation of functional heads. When a new functional projection is postulated, there is no fail-safe mechanism which allows one to determine whether or not such a projection should really be part of the sequence.

Another aspect which is presently not clear concerns the nature of what can be grammaticalized in the form of dedicated functional projections. Over the years, functional projections encoding notions relating to pure syntax (such as Force and Fin, which host complementizers), pragmatics (such as the topic and focus projections) as well as semantics (such as Benincà and Poletto's (2004) *List Interpretation* projection) have been suggested. As discussed in chapter 3, Bianchi, Bocci and Cruschina (2015, 2016) even postulate the existence of a dedicated functional projection whose sole purpose is to license conventional implicatures. This projection thus has no immediate impact on the overt structure of the left periphery, as it does not host any visible constituent. With particular reference to this latter projection, assume that I want to

contend that this in fact exists. Proving that a projection which does not host any visible material is actually there is already challenging *per se*. Note however how the challenge is further exacerbated by the lack of any restrictions on what features are currently taken by cartography to be plausible candidates for grammaticalization in the form of dedicated functional projections.

An important point of discussion in cartography concerns the status of the functional hierarchies. Specifically, the question is whether these are to be taken as primitive of Universal Grammar, and hence are essentially unexplained objects, or whether they can be derived from independent factors and conditions. The answer of cartography to this question is a decisive "the latter". In this respect, it is particularly instructive to read what Cinque and Rizzi write in their (2008) paper:

(11) It is hard to imagine that the hierarchy may be an irreducible property of UG, disconnected from any other aspect of human cognition; it is also hard to believe that the hierarchy may be a purely arbitrary "cultural" property, rediscovered by every language learner in the same form, language after language, on the basis of pure inductive learning. So, there must be some principles determining the hierarchical sequence, and guiding the child to "rediscover" it in the course of language acquisition.

(Cinque & Rizzi 2008: 52)

Cinque and Rizzi (2008) then go on to list potential factors which are likely to influence or even fully dictate the way the various functional projections are ordered. The fact that, cross-linguistically, topics tend to precede foci is for instance explained by arguing that focus movement is often accompanied by verb movement to C. If the moved verb, which has to be adjacent to the focused constituent, were to move higher than an intervening topic, a violation of the head movement constraint (Travis 1984) would ensue. The nature and the empirical coverage of such explanations is presently immaterial, especially since we will be developing our own in the course of the thesis. What matters is understanding that not even cartographists believe the sequence to be something which is arrived at and which requires no further explanation of any sort. In this respect, cartography is no different from any syntactic, semantic or pragmatic analysis that tries to account for the cross-linguistic preference towards sequences of the form Topic<Focus rather than for sequences of the form of Focus<Topic.
To the extent to which it provides possible explanations for the way left-peripheral constituents are ordered relative to each other, this thesis is then at least marginally compatible with cartography.

Where cartography does differ from other frameworks is in the way such an order is formalized. Cartographists may not believe that functional hierarchies are primitives,

but they do believe these are real, substantive components of UG. Rizzi (2011) in particular likens the left-peripheral hierarchy to the DNA sequence: a sequence of elements whose relative order is not a primitive, but which is nevertheless a real, observable component of any biological system.

Another fundamental component of cartography as a line or research is the idea that those sequences of functional projections which cartography tries to map as precisely as possible are universal. The universal nature of functional hierarchies is as much of a working claim as it is a heuristic guideline: according to Cinque and Rizzi, it would be methodologically wrong to adopt as the first working hypothesis the idea that languages may differ after all. This is because, by doing so, one may fail to uncover similarities across different languages that happen to be masked by superficial confounding factors.

It is precisely the idea that these functional sequences should be rigidly ordered that I find problematic. As we have seen, there is nothing intrinsically wrong -or even necessarily unappealing- about the idea that each projection may encode a single feature. Provided that one can substantiate this claim, there is also nothing intrinsically wrong with the notion of functional hierarchies as an integral part of Universal Grammar. As we will see, however, cartography predicts a rigidity in the way constituents are ordered which is simply not observed. Another aspect of cartography which hardly finds any correspondence in natural languages is the idea that constituents can be defined in terms of absolute positions: as will be discussed in detail in article 2 (chapter 8), what defines the distribution of a given constituent is rather its relative position with respect to other constituents.

4 Prosody and the Left Periphery

In **article 1**, I explore the issue of how big a portion of the left periphery can be made to follow from Relativized Minimality (Rizzi 1990), as argued extensively in Abels (2012).
In his (2012) article, Klaus Abels discusses the left periphery of Italian, and claims that it is possible to account for almost all observed precedence relations through (a revised version) of Rizzi's *Relativized Minimality* (henceforth, *RM*).
The basic insight of Abels' analysis is the idea that the distribution of a constituent is mainly a function of how far up in the clause said constituent can move, and hence of its sensitivity to the various types of islands. If foci turn out to be sensitive to the type of islands created by relative operators, for instance, we predict that foci should never be able to precede relative operators. This is because linear precedence would imply

that the focus has moved across the relative operator, something which would give rise to an island violation.

This type of approach to word order has several merits: it is simple, it is straightforward, it utilizes a syntactic notion, namely (some version of) RM, which is needed independently to capture ordering phenomena other than those pertaining to the left periphery. The mechanism on which it relies, RM, is also general enough for this model to be able to capture precedence relations across clausal domains, and not simply within a single left periphery. In short, there is no reason *not* to resort to a RM analysis of left periphery, unless of course it can be proven that this line of analysis is simply not restrictive enough to capture word order phenomena.

Determining whether a RM approach to the left periphery is restrictive enough is precisely what I set out to do in article 1. My analysis consists in a two-pronged approach to the question: on the one hand, I investigate whether a RM model can still capture the distribution of clitic-resumed topics once a finer topic typology is adopted. I consider in particular the distribution of contrastive and familiar topics, which were clustered into a unique 'Top' class in Abels' original analysis. On the other hand, I revise the validity of existing data.

The distribution of the different types of topics turns out to fully comply with what a RM analysis of the left periphery would predict. Specifically, we see that the relative order of topics with respect to other left-peripheral elements is no more restricted locally –i.e., when the two constituents surface in the same left periphery– than it is non-locally –i.e., when the two constituents are moved to two distinct left peripheries– . If the relative distribution of topics follows entirely from RM, the distribution of several types of operators seems at first sight to behave nothing like expected. In this chapter, I am going to focus on two such elements, namely foci and *wh*-operators. This is because the analysis I develop to capture the distribution of these elements helps me to further elaborate on an analysis of word order phenomena as shaped by prosodic factors, which is ultimately the goal of this chapter. For a detailed discussion on what other pairs do not transparently conform to the expectations of a RM analysis of the left periphery, the reader is referred to article 1.

The relative distribution of foci and matrix interrogative operators is at first sight problematic for RM because it is more restricted locally than it is non-locally. Specifically, whereas locally a fronted focus and a *wh-element* can never co-occur, in either order, both the order Focus < WH and WH < Focus are acceptable non-locally. At first sight, this state of affairs seems to be exactly the kind of situation which is evidence in favor of the existence of a local hierarchy of functional projections: a restriction is present locally, but disappears non-locally. This type of configuration can

optimally be captured through a system like Rizzi's hierarchy (any version of it), because it is the nature of hierarchies to only impose restrictions at the local level. The distributional differences just described can for instance be captured already in Rizzi (1997): neither the order Focus < WH, nor the order WH < Focus are grammatical locally because, following Rizzi (1997), fronted foci and matrix *wh*-elements target an identical projection, the specifier of FocP. Both orders are however grammatical whenever the two constituents surface in two different left peripheries, as each element will be targeting a separate FocP projection.
This kind of analysis is not necessarily void of potential issues. One concern relates to the legitimacy of the claim that foci and *wh*-elements target a unique projection in matrix questions; the analysis must be complemented by a theory detailing why this should be the case, and why this is no longer the case in embedded questions, as will be seen below. As far as I am aware, this type of explanation is currently missing from the cartographic literature.

In article 1, I argue that it is still possible to account for the distribution of foci and matrix interrogative operators in terms of RM, but that in order to do so, two modifications to our system are necessary. The first is a revision of our understanding of how foci and *wh*-elements interact for the purposes of locality. Both Rizzi (2004a) and Abels (2012) argue that these two classes of elements are interveners for each other. The grammaticality of the non-local WH < Focus and Focus < WH configurations shows however how this cannot possibly be the case: clearly, the movement of a focus to the left periphery is not blocked by an intervening *wh*-element, and neither is the movement of a *wh*-word blocked by an intervening focus.
If foci and *wh*-elements are not interveners for each other, the ungrammaticality of the local Focus < WH and WH < Focus orders is however left unexplained. In article 1, I argue for a prosodic explanation of the facts: neither configuration is allowed because the prosodic contour associated with a fronted focus is incompatible with that of a matrix question. A fronted focus must be followed by a flat intonational contour, which extends for as long as the end of the utterance is reached (see in particular Bocci 2013). This low, flat contour is incompatible with the prosody associated with matrix questions, which see a typical sentence-final rise.
A prosodic explanation of the ungrammaticality of the orders Focus < WH and WH < Focus explains why these elements are no longer incompatible in embedded questions: as Cruschina (2017) points out, the intonational contour associated with an embedded question is essentially identical to that of a declarative clause, which implies the absence of any sentence-final intonational rise. A prosodic analysis of the relative distribution of foci and wh-elements also has the added advantage of extending to languages other than Italian, on which both Rizzi (2004a) and Abels (2012) are based. If what is behind the local incompatibility of foci and *wh-elements* are simply prosodic factors, we expect

to find languages where these two elements are compatible even in matrix environments. Indeed, this is the case for Serbian, which crucially displays no final intonational rise in matrix questions.

Over the course of this thesis, strong emphasis is placed on the idea that prosodic factors may influence the shape of the left periphery. As we just saw, at least some ordering configurations are ruled out exclusively for prosodic reasons. Prosody is also an integral part of my analysis of topicalization, which I develop in detail in articles 2 and 3. In article 3, where I discuss polarity focus, I also suggest there is a correlation between types of fronting operations, associated prosodic contour, and the type of polarity focus these structures may correlate with. More specifically, I argue that, in languages like Italian and Spanish, the presence of verum focus can be realized by merging a stressed polarity particle in the left edge of the clause. This fronting is, however, in blatant violation of the prosodic rule which states that, in these languages, main stress must be assigned rightmostly (Szendrői 2002, 2017; Samek-Lodovici 2006, 2015). In this chapter, I want to push this prosodic line of analysis even further and argue that the trigger behind the fronting of a narrow focus in Romance languages is entirely prosodic in nature. Specifically, I am going to argue that it arises from the attempt to create a prosodically misaligned structure, to match the pragmatic markedness of the types of foci which can be fronted in these languages. As we will see, this line of analysis can account for several features associated with focus fronting in Romance languages, first and foremost for the fact that focus fronting is always optional. Following Rizzi (1997), I will refer to the movement operation which fronts a narrowly focalized constituent to the left periphery as "focalization".

Cruschina (2016) argues that Romance languages exhibit a divide in terms of what subtypes of foci can be fronted to the left periphery. For most Romance languages (this is the case in Italian, Spanish, French, European Portuguese, Brazilian Portuguese, Romanian), he suggests that the division of labor is clear: only mirative and corrective foci may –optionally– front[4]. Contrastive and purely information foci, on the other hand, can never front. Exceptions to this generalization are then languages like Sicilian, where even information foci may –again, optionally– also front.
Ever since Rizzi (1997), a particularly problematic aspect of Focalization has been how to account for the fact that the movement of the focus to the left periphery is completely optional, as exemplified in (12). In (12), the corrective focus may either remain in situ, or it may be fronted to the left periphery:

[4] Later in this chapter we will however refine this claim.

(12) (a) ¡Luisa habló CON JUAN, (no CON CARLO)! (Spanish)
Luisa spoke WITH JUAN, (not WITH CARLO)!
(b) ¡CON JUAN Luisa habló, (no CON CARLO)!

The two alternatives in (12) are truth-conditionally identical: there is no meaning which could be associated with (12a) which could not also be read off (12b), and vice versa. Importantly, that the PP *with Juan* is to be interpreted as a corrective focus is clear even if fronting does not take place, since, even when in situ, this is going to be associated with a specific prosodic contour which is nothing like the contour for broad focus, or narrow information focus (see Bocci 2013). If consulted about possible differences between (12a) and (12b), speakers are likely to simply report that the alternative exhibiting fronting feels more "marked" than the one which does not.

That movement may be optional is problematic under the cartographic assumption that focalization is triggered by the presence of a strong feature on a functional head. The prediction is that strong features should always trigger the movement of any element bearing a matching feature; to assume that movement is truly optional thus means to run into all sorts of problems concerning the nature of such features.

The issue of optionality is tackled by Bianchi & Bocci (2012) and Bianchi, Bocci & Cruschina (2015, 2016) by suggesting that movement always takes place, and there is optionality with respect to which copy is actually pronounced. Going back to our Spanish example in (12), this means that both alternatives present an identical underlying structure, which I show in (13):

(13) ¡(CON JUAN) Luisa habló CON JUAN!

Example (12a) will then obtain if it is the lower copy of the movement chain that is pronounced, whereas (12b) will obtain if it is the higher copy which is given overt spell-out. This type of account is not without issues: it still requires an explanation of what determines which copy is pronounced given a specific environment. In this sense, postulating that it is either the lowest or the highest copy which is pronounced simply postpones the level of derivation on which an account of the optionality must be provided.

More problematic for a covert movement analysis of focalization is the fact that structures with in situ foci do not exhibit any of the hallmarks of syntactic movement. In situ foci do not for instance license parasitic gaps, as highlighted by Dal Farra (2017):

(14) *Silvia ha recensito l'ARTICOLO senza leggere _ (non il libro).
**Silvia has reviewed THE.ARTICLE without to-read _ (not the book)*
Intended: 'Silvia has reviewed the article without reading it'
(Dal Farra 2017:2)

To account for the fact that it is only mirative and corrective foci which front (and as already mentioned in chapter 2), Bianchi, Bocci and Cruschina (2015, 2016) argue that what triggers the movement of the focus is the presence of a functional head, *FAI*. This functional projection works by licensing the presence of a specific conventional implicature, which is to be associated with the focus constituent which lands in an immediately adjacent projection.

According to Bianchi, Bocci and Cruschina, both mirative and corrective foci differ from contrastive and information foci in being associated with a specific, non-cancellable implicature[5]. In the case of mirative foci, this conventional implicature takes the form of (15):

(15) There is at least one focus alternative proposition which is more likely than the asserted proposition with respect to a contextually relevant modal base and a stereotypical ordering source.

(Bianchi, Bocci & Cruschina 2015: 9)

In the case of corrective foci, on the other hand, we have (16):

(16) There is one focus alternative proposition, already introduced in the context, which is incompatible with the proposition expressed in the corrective reply.

(Bianchi, Bocci & Cruschina 2015: 9)

According to Bianchi, Bocci and Cruschina, the two conventional implicatures detailed in (15-16) both depend on the presence of a focus structure which must be in the scope of the implicature trigger; this is because the two implicatures are calculated in relation to the set of focus alternatives for the asserted content. Consider the mirative import whose implicature is provided in (15): whether a focus is mirative or not can only be calculated on the basis of other alternatives in its associated focus value. If such focus value contains at least one alternative which is deemed to be more likely than the actual asserted focus, then a mirative interpretation is licensed.

Whenever a mirative or corrective focus features in the sentence, Bianchi, Bocci and Cruschina argue, the necessity to compute its associated conventional implicatures activates the FAI projection. The FAI head then in turns activates the adjacent Focus projection, thereby triggering the (covert or overt) fronting of the focus element to the specifier of this latter projection. This fronting operation presumably takes place in order for the focus to be in the scope of the implicature trigger head, thereby making it possible for the associated implicatures to be calculated.

What I think is a problematic aspect of Bianchi, Bocci and Cruschina's analysis is the idea that focus fronting is required to license the conventional implicature on the FAI

[5] For a detailed analysis of conventional implicatures, see Potts (2005, 2007).

projection. Whether or not the focus moves to the left periphery, this is still going to be in the scope of the implicature-trigger head, as the former is always c-commanded by the latter. The only way to justify the need for the focus to front is to assume that the FAI head must *locally* scope over a focused constituent, something which presently does not follow from the system. Another problematic aspect of their analysis is the fact that the conventional implicature associated with mirative foci, and the implicature associated with corrective foci, are argued to be licensed by the same functional head, even though the non-at-issue content licensed for the two types of focus is clearly different. If the associated implicature is licensed by the same head, through an identical specifier-head relation, towards two types of foci which are merged in an identical projection, then how are the two types of foci distinguished? Related to what we discussed in chapter 2 is also the question of why it is only the conventional implicatures associated with foci which should be grammaticalized in the form of a dedicated functional projection. Contrastive topics are also associated with non-cancellable non-at-issue content: they come with the conventional implicature that there is at least one question in their associated topic value which is not resolved by the statement in which this appears (Büring 1997, 2003, 2016; Lee 2017). Exactly like corrective and mirative foci, these can also be licensed in the left periphery. So why are contrastive topics not equally associated with a corresponding implicature-licensing projection in the left periphery?

Another type of analysis which cannot quite capture Romance mirative and corrective focalization is the interface-based approach first argued in Neeleman & van de Koot (2008) to account for contrastive fronting in Dutch. To capture the optionality of Dutch A-bar scrambling operations –which mark the scrambled constituent as contrastive–, Neeleman and van de Koot postulate that movement has a disambiguating effect at the interfaces. When scrambling takes place, the sister of the landing site of moved constituent is overtly marked as the *domain of contrast* (Neeleman & Vermeulen 2012) of the A-bar scrambled constituent. This means that, if movement takes place, the information-structural organization of the clause will be fully transparent and completely readable off the surface structure of the clause. When movement does not apply, on the other hand, the domain of contrast will have to be calculated directly by the interlocutor. This type of interface-driven analysis is also picked up by Titov (2012, 2017), who suggests an identical analysis to account for contrastive topic movement in Russian, which is equally optional. Titov identifies two distinct –and opposing– principles shaping the derivation of contrastive topic constructions. On the one hand, we have the more general principle of *last resort* (Chomsky 1995), which identifies movement as a costly operation, to be avoided unless absolutely necessary for the derivation to converge. On the other, there is the desire to construct sentences which are as unambiguous as possible, and hence to

always overtly mark the domain of contrast of a given contrastive constituent. It is precisely the opposing nature of these two forces which drives the optionality. This is because, whether movement takes place or not, either of these constraints will be violated. Structures where fronting occurs, then, favor interface transparency to the elimination of all movement operations which are not strictly necessary. Structures where movement does not take place, on the other hand, are syntactically less costly but are so at the price of reduced interface readability.

This type of interface-based analysis of optionality presupposes that all material to the right of a fronted constituent represents a continuum in information-structural terms. If the movement of a contrastive constituent is argued to mark its domain of contrast, it must then be the case that nothing other than what is to the right of the fronted element is part of such a domain. An interface-based approach to Romance focalization will not do because this is precisely what we do *not* observe.

Let us consider corrective focus fronting, which is in many ways considerably easier to model than mirative focus fronting[6]. A very plausible candidate for what corrective focus fronting may mark is the part of the sentence which does not get corrected, i.e., the part of the sentence which the corrective statement and its antecedent have in common. This state of affairs is illustrated in (17), where I also provide an antecedent sentence to show to what extent the post-focal material in the corrective statement is shared by its antecedent:

(17) A: Maria ha comprato del pane (Italian)
Mary has bought some bread
B: DEL LATTE Maria ha comprato!
SOME MILK Mary has bought!
'It was MILK that Mary bought!'

An interface-driven analysis works perfectly for structures like (17): everything to the right of the fronted correction does indeed form a semantic unit, namely the part of a proposition which was already part of the immediate context. Once we start considering sentences which feature at least one level of embedding, however, this parallel disappears. Consider in particular the exchange in (18):

(18) A: Luisa crede che Maria abbia comprato del pane (Italian)
Luisa thinks that Mary has bought some bread
B: Luisa crede che DEL LATTE Maria abbia comprato!
Luisa thinks that SOME MILK Mary has bought!

[6] That mirative focus fronting should exist is potentially problematic *per se*, because, in several mirative focus structures, what is fronted is part of a broader focus construction. More on this will be said in the following chapter.

B's reply is perfectly felicitous given A's statement, and so is the intermediate position of the corrective focus in the sentence. Clearly, however, the material to the right of the fronted focus no longer forms an information-structure continuum by itself: the material which features in the matrix clause (*Luisa believes*) is also shared with the antecedent sentence.
Note that, with the same context, the focus can also land in the highest left periphery:

(19) B: DEL LATTE Luisa crede che Maria abbia comprato!
SOME MILK Luisa thinks that Mary has bought!

In this case, assuming that the extra movement step which turns (18) into (19) is covert would of course be pointless: it would defy the purpose of movement as taking place exclusively to mark the extension of a semantic unit of discourse.

To account for the distribution and optionality of focalization, I take the movement of mirative and corrective foci to the left periphery to be *prosodically* motivated. Specifically, the idea I am going to pursue is that these constituents are fronted because the fronting operation creates a prosodically misaligned structure, which goes to match their pragmatic markedness.
All the languages which are reviewed in this thesis assign main stress to the rightmost constituent in the main intonational phrase (Hamlaoui & Szendrői, 2015). This means that, if we consider prosodic factors and nothing else, (20a) is well-formed (i.e., it is *prosodically aligned*), whereas (20b) is not (stress is represented by means of capitals):

(20) (a) Ho comprato DEL PANE (Italian)
I-have bought SOME BREAD
(b) DEL PANE ho comprato
SOME BREAD I-have bought

The idea that fronting may occur to give rise to a misaligned structure is potentially counterintuitive, especially in the light of what I argue in article 3, where, as we will see, I analyze some instances of topicalization as an attempt to repair an otherwise prosodically misaligned structure. The crucial difference between those instances of movement, and focalization in Romance languages, lies in the nature of the constituent which is fronted. In article 3, I argue that mirative and corrective foci are inherently emphatic, in that they mark the rejection of an expectation concerning the possible value for the constituent in focus. When either of these foci is realized, the speaker may or may not decide to match this pragmatic emphasis with emphasis on the prosodic level, by moving the narrow focus constituent –which must bear main stress, by virtue of Reinhart's (1995) *stress-correspondence rule*– to a position where main stress is normally not licensed. This explains the impression of added markedness associated

with the fronted alternative as opposed to the in situ version of it. It also accounts for why this is all this fronting operation seems to do.

A prosodic analysis of focalization thus accounts for why, in many languages, it is only corrective and mirative foci which may front to the left periphery. It does so without resorting to the notion of functional projections licensing conventional implicatures, which, as we saw above, is inherently problematic. A prosodic analysis also explains why it is possible for a corrective or mirative focus to land in the intermediate left periphery in those cases where an additional level of embedding is present. If main stress is by default assigned to the rightmost constituent in the main intonational clause, both the intermediate left periphery, and the highest one, qualify as prosodically marked positions. Finally, a prosodically-driven account of focalization has the added advantage of correctly predicting that any emphatic type of focus will be able to front to the left periphery, not simply corrective and mirative ones. In this respect, consider for instance the exchange in (21):

(21) A: Ricordati, LE UOVA devi comprare (Italian)
Remember, THE EGGS you-must buy

Assume (21) has been uttered by A to B after both speakers had previously agreed that eggs must be bought. As B is about to leave for the supermarket, A utters (21). The fronted object is thus not mirative: that eggs are to be bought clearly does not come as a surprise, as it was agreed on by both speakers at an earlier moment. The fronted focus is also not corrective: nowhere in the context is there a proposition of the form *B must buy x*, which A's statement goes to correct. Yet fronting is licensed nonetheless.
The fronted element in (21) can front because it is to be interpreted emphatically: perhaps A is stressing "le uova" because B has a chronic tendency to forget to buy eggs when these are needed. Perhaps it is because A and B are to bake a cake and eggs are crucial to do so. The exact nature of the associated emphasis in (21) is unimportant: what is important is that the nature of such an emphasis is clearly context-dependent, that emphasis is not only licensed in mirative or corrective contexts, and that even when the emphasis is not mirative or corrective in nature, fronting is licensed.
Additional evidence in favor of a more generic notion of emphasis as trigger for focalization is offered in article 3, where I analyze the conditions which license the use of polarity particle strategies in Spanish. As the reader will have a chance to appreciate, polarity particle insertion, which results in a prosodically misaligned structure, is licensed in Spanish not only in mirative and corrective contexts, but also in environments where the intent of the speaker is simply to reassert an existing proposition.

5 Relativized Topicality & Modifier Movement

In **article 2**, I discuss clitic left dislocation (*CLLD*, Cinque 1990), and topic projections in the left periphery.

No analysis of word order in the left periphery can escape an account of how topics come to be, and of their distribution: topics single-handedly make up almost half of the left-peripheral sequence. If we consider Rizzi and Bocci's (2015) left-peripheral hierarchy, for instance, out of the 10 postulated functional projections, four are Topic ones. I repeat the sequence below as (22), where I highlight the Topic projections in bold:

(22) [Force [**Top*** [Int [**Top*** [Foc [**Top*** [Mod [**Top*** [Qemb [Fin [IP …]]]]]]]]]]]
(Rizzi & Bocci 2015, ex. 29)

In article 2, I am specifically interested in answering two distinct questions. The first concerns the stand-alone nature of topics in the left periphery. Topics are the only element in the sequence for which the presence of multiple dedicated functional projections was postulated ever since the very first version of the hierarchy (i.e., Rizzi 1997). No other left-peripheral element exhibits a distribution as unrestricted as that of topics. Note that postulating the existence of multiple dedicated functional projections for a constituent is not the same as claiming that such positions are recursive. An example of a recursive projection is Mod[7]: more than one modifier may occur within the same left periphery, but these may only do so if strictly adjacent. What differentiates topics from other types of elements is precisely the fact that two or more topics may appear in the same left periphery and be separated by constituents of a different class, as I show in (23) below. In (23), the two topics (underlined) are separated by a modifier (in bold):

(23) Credo che <u>a Paolo</u> **lentamente** <u>il libro</u> lo abbiano letto (Italian)
I-believe that <u>*to Paolo*</u> ***slowly*** <u>*the book*</u> *it(cl)* *they-have* *read*
'I believe that the book was read to Paolo slowly'

The second question pertains to the specific labels the Top projections in (22) should be assigned. In chapter 2, we briefly saw how Mara Frascarelli (2012) argues in favor of replacing Rizzi's (2004a) generic TopP labels with projections detailing the specific pragmatic import these elements may be specified with. Frascarelli divides topics according to the three classes she and Roland Hinterhölzl devised in their (2007) paper on topicalization in German and Italian. These are *shifting* (or aboutness) topics,

[7] At least in Rizzi (2004a), 'Mod' is marked as being recursive. The asterisk notation on Mod however disappears in Rizzi & Bocci's (2015) version of the hierarchy.

contrastive topics and *familiar* topics. Shifting topics introduce a shift in the discourse: they indicate that an entity other than the one functioning as the topic in a previous sentence is now the sentence topic. Contrastive topics are topical elements which create oppositional pairs with respect to other topics which are either explicitly mentioned or implicitly part of the discourse. Finally, familiar topics mark topic continuity; as such, they are generally de-stressed and may be pronominal in nature. Frascarelli's (2012) suggested topic hierarchy is repeated in (24):

(24) [ForceP [ShiftP [ContrP [IntP [FocP [FamP* [FinP [IP

(Frascarelli 2012:182)

Article 2 represents the natural continuation of the last part of article 1, where I investigate whether it is possible to account for the distribution of the different types of topics in terms of RM.

Already in article 1, I found it quite challenging to separate the different types of topics from one another. Investigating the distribution of a specific type of constituent presupposes possessing a working definition of it which guarantees no overlaps with other constituents that are similar in nature. In the case of topics, this is by no means an easy task. Article 1 was originally meant to include a section on the distribution of shifting topics: this section had to be omitted on the grounds that I simply could not find any example of a shifting topic which could not also be interpreted as contrastive. What I mean here is not that it is impossible to find examples of shifting topic which are not immediately interpreted as in opposition to other topics. Rather, what is impossible to find are examples of shifting topics which, even provided an appropriate contrastive context, consistently fail to license those typical ordered pairs of contrastive statements which are the hallmark of contrastive topics, and which right-dislocated topics never license (see Benincà 2001). If the relevant criterion to distinguish contrastive topics from other topics is then whether the topic in question licenses such contrastive-pair structures, it is evident that we run into a problem.

Article 2 takes as a starting point this observed impossibility to distinguish between shifting and contrastive topics and develops an analysis of topicalization which is all-round flexible: both in accounting for the distribution of topics, and for their typology.

The need for a flexible analysis of the distribution of topics is exemplified by contrastive topics. According to Frascarelli (2012), the dedicated position for contrastive topics is located above IntP, where the *wh*-word *why* and the interrogative complementizer *if* are merged. Cross-linguistic data show us however that a clitic-resumed topic can give rise to a contrastive-pair structure whether it is merged before or after IntP. This is illustrated in (25) for Catalan:

(25) (a) IntP < CT (Catalan)

Per què	el pa	l'has	venut,	
Why	*the bread*	*it(cl).you-have*	*sold,*	
i	el peix	l'has	regalat?	
and	*the fish*	*it(cl).you-have*	*given-for-free?*	

(b) CT < IntP

Entenc	per què	vols	estudiar	francès,	
I-understand	*why*	*you-want*	*to-study*	*French,*	
però	anglès,	**per què**	en	vols	estudiar?
but	*English,*	***why***	*I t(cl)*	*you-want*	*to-study?*

(Article 2, ex. 2)

In article 2, I go on to show that the ability to license a contrastive-pair construction is not licensed in a specific, absolute position in the clausal spine, but rather is assigned depending on the relative position of the topic with respect to the focus. Any topic preceding material in focus can be contrastive, regardless of its relative height. As I show in the article, this approach also accounts for the contrastivity of constituents in situ and constituents which are the target of short A-scrambling.

The answer to the second question addressed by this article, the issue of whether the Top projections in Rizzi's hierarchy can be replaced with more precise labels, is then a negative one; provided that the constituent in focus does not front, any topic position within the left periphery can be a contrastive topic one.

The answer to the question of why the distribution of topics is so unrestricted, I argue, lies in a *foot*-driven analysis of topicalization. Following Platzack (1996), and especially van Craenenbroeck (2006), I take the foot rather than the head of the movement chain to be what triggers the movement of a topic out of its external merge position. I then identify *focus* as the triggering feature responsible for the movement of a topic: a topic moves to escape a domain marked as [+ focus].

One of the predictions of a foot-driven analysis of topicalization is that there will be extreme flexibility in the landing site of a moved topic. This is because there are several different ways in which a sentence may be divided into what is in focus and what is not in focus. If topics front to move out of a domain marked as [+focus], we thus expect their landing sites to match these possibilities.

A foot-driven analysis of topicalization partially overlaps with an adjunction analysis of this phenomenon in that both would predict flexibility in the landing site of the topic. The added advantage of a foot-driven analysis is that an explanation of where exactly the topic will land is already inherent in the system. Within an adjunction analysis, on the other hand, this would have to be stipulated independently.

The idea that movement may be *foot*- rather than *head*-driven goes explicitly against a cartographic account of the left periphery. As we saw in chapter 2, implicit in any cartographic analysis is the idea that the head of each dedicated functional projection hosts a specific morpho-syntactic feature, which acts as a probe (in Chomsky's (1995) sense) and triggers the movement of any matching element to its specifier. In cartography, movement is thus always head-driven.

There are several reasons why an account in terms of *foot*- rather than *head*-driven movement of topicalization is empirically more appropriate. First of all, a head-driven analysis of topicalization predicts extreme rigidity in the landing site of the moved constituent. As just discussed with respect to contrastive topics, this type of rigidity simply will not do for CLLD. A head-driven analysis also makes specific predictions concerning the nature of the constituents which reach the left periphery, minimally that these must be part of a well-defined class of constituents. Specifically, if topicalization is indeed the result of a topic feature triggering the fronting of all constituents specified as [+ topic], we expect these constituents to be, quite trivially, topical. The extreme heterogeneity which characterizes constituents which can undergo CLLD however suggests the process of topicalization is an attempt to remove *any constituent* out of a specific position, rather than the attempt to move *something specific* to a given projection. Evidence in favor of such an analysis comes from examples like the one in (26), which I take from Brunetti (2009). (26) shows how constituents targeted by CLLD need not even be topical in the strictest sense: the fronted PP here is technically focal, as the whole sentence is in broad focus.

(26) Sai? A mio fratello gli hanno rubato la moto (Italian)
You-know? To my brother to-him(cl) they-have stolen the motorbike
'Guess what? Someone stole my brother's motorbike'
(adapted from Brunetti 2009: 760[8])

To capture this heterogeneity, I develop what can be described as a *relativized* approach to topicalization. I start by providing a privative definition of what counts as topic: topic is anything which is *not in focus*. This privative definition of topic, coupled with the foot-driven analysis I have just discussed, accounts for the existence of examples like (26). In (26), I argue, the speaker presumably wants to stress it is a motorcycle, and not something else, which was stolen from the brother. As such, they assign additional emphasis to this constituent, i.e, this constituent is focalized. The focalized nature of the direct object in (26) triggers the fronting of the indirect object, whose in situ position would have it follow the DP, and hence appear inside a focus domain.

[8] This example is "adapted" in that I have added a clitic coindexed with the fronted PP, so as to show that this is indeed a clitic-resumption strategy. No clitic was present in Brunetti's original example because clitic resumption is not mandatory with PP topics in Italian.

For a detailed analysis of how this process works, and of what counts as focus domain, the reader is referred to article 2. For now, what matters is understanding why this type of approach to topicalization is relativized. It is relativized in that the fronted prepositional phrase is not topical in an absolute sense: it is decidedly not, especially considering that it qualifies as new information, exactly like everything else in the clause. The fronted PP is however topicalized in that its in situ position would have it follow *the motorcycle*, which is assigned additional emphasis in (26).

An analysis of (26) along the lines I have just sketched implies the existence of *foci within foci*: in (26), I am assuming the presence of a narrow focus (the direct object) within a sentence which is already in broad focus. Note that this possibility must be assumed even in languages like Italian, which is generally assumed to disallow the presence of two foci (see Calabrese 1982). As a matter of fact, this is the only way to account for the existence of mirative foci appearing in broad focus environments. In this respect, consider for instance (27):

(27) Mio cugino ieri si è trovato al bar con i suoi amici…Prova a dire? (Italian)
My cousin yesterday met with his friends at the pub…Guess what?
TRE INTERE BOTTIGLIE DI VINO si sono bevuti!
THREE WHOLE BOTTLES OF WINE REFL. they-are drunk!
'THREE WHOLE BOTTLES OF WINE they have drunk!'

In (27), the whole sentence is in broad focus: everything is new information. Even so, the direct object fronts to the left periphery, on the grounds that it is only the direct object which is specified with a mirative import.

As it was already the case for prosodic factors in chapter 3, it is interesting to see whether the analysis we have just developed to account for the flexible nature of topicalization can be extended so as to capture other elements in the left periphery. I argue that it can: specifically, I believe that this type of analysis can explain the presence of fronted modifiers in the left periphery.
The projection Mod, where fronted modifiers are allegedly merged, has a complicated history. It was not present in Rizzi's (1997) original formulation of the left-peripheral hierarchy, something which is not necessarily surprising given that, as we saw in chapter 2, several positions where added over the course of the years. The story of Mod is however slightly more convoluted than that of Int (which was added to the hierarchy in 2001), or QEmb (which was added in 2015): in the original (1997) sequence, fronted modifiers did not have their own dedicated functional projection because they were treated as topics. The modifier "domani" (in bold) is for instance used in Rizzi (1997) as an example of how the same left periphery may contain multiple topics:

(28) Il libro, a Gianni **domani** glielo darò senz'altro (Italian)
The book, to Gianni ***tomorrow*** *to-him(cl)=it(cl) I-will-give for.sure*
(Rizzi 1997: 290)

It is only in (2004) that modifiers are assigned their own projection. Rizzi justifies this decision on the grounds of two observations: on the one hand, modifiers are hardly 'topical'. 'Topical' is here being defined in the classic, Heim (1982) sense: there is hardly any file-card corresponding to "domani" which is being updated as (28) is uttered. The second observation pertains to the distribution of modifiers, which Rizzi (2004a) argues to be significantly more restricted than the distribution of topics. Rizzi states that, unlike topics, modifiers can never precede *wh*-elements. This is shown in (29-30):

(29) (a) Perché, improvvisamente, Gianni è tornato a casa? (Italian)
Why, suddenly, Gianni is returned to home?
'Why, suddenly, Gianni went back home?'
(b) *Improvvisamente, perché Gianni è tornato a casa?
**Suddenly, why Gianni is returned to home?*
(Rizzi 2004a: 239)

(30) (a) Il canestro, perché non lo regali al vicino? (Italian)
The hoop, why not it(cl) you-give to-the neighbor?
(b) Perchè il canestro non lo regali al vicino
Why the hoop not it(cl) you-give to-the neighbor?
Both (a) and (b): 'Why don't you give the hoop to the neighbor?'
(Article 2, ex. 12)

It is particularly instructive to read what Rizzi has to say concerning the reasons which led him to initially treat modifiers as topics. Below is the relevant excerpt from his (2004a) article:

(31) What positions do left-peripheral adverbs occupy? In Rizzi (1997) it was assumed that they normally fill regular topic positions, which can proliferate quite freely in Romance (as many topics are possible as there are topicalizable elements). This hypothesis has some initial appeal in that the intonational contour of preposed adverbs is very similar to the topic intonation (the phrase is separated from the rest of the structure by "comma intonation"). A preposed adverb seems to have something in common with a topic, the fact of being made prominent by movement to the left periphery, but it does not share with

the topic the necessary connection to the background, whence its compatibility with "what happened" contexts.

(Rizzi 2004a:237)

I would like to argue that modifiers are fronted to the left periphery through exactly the same mechanism which is responsible for the fronting of topics. The fact that modifiers are not strictly 'topical' in a pragmatic sense is simply a consequence of the foot-driven, relativized nature of topicalization.

This kind of approach to modifier movement accounts for the similarities between fronted modifiers and topics noted in Rizzi (2004a): the fact that these two elements are similar follows from the fact that both elements are moved through an identical mechanism, namely the process by which constituents marked as non-focal must evacuate a focal domain. The fact that they are not identical follows from the foot-driven nature of topicalization: what gets fronted are not constituents which are part of a natural class, but *anything* marked as non-focal and which would otherwise appear inside of a focus domain. Note that this is the same line of analysis which I used to account for the hardly topical nature of the topicalized PP in Brunetti's example in (26). Note also that, if it is at least plausible to suggest that fronted modifiers should target their own functional projection, it would be considerably harder to account for the hardly topical nature of the fronted PP in (26) by suggesting this is not in fact a topic. This constituent exhibits all the hallmarks of CLLD, including the possibility of being clitic-resumed.

If the fronted modifier in (28) fronts thanks to a process of topicalization, what would the derivation for (28) be, then? In (28), it is impossible to determine whether it is the whole IP which is in focus, or it is simply the modifier "senz'altro" which is. For the sake of the argument, let us assume that the latter holds, although note that whether it is the former or the latter option which is correct is immaterial for our purposes. The suggested derivation for an example like (28) would then be as shown in (32):

(32) [$_{CP}$ Il libro, a Gianni domani [$_{IP}$ glielo darò
[$_{CP}$ *The book, to Gianni tomorrow* [$_{IP}$ *to-him(cl)=it(cl) I-will-give*
[$_{+FOC}$ senz'altro ~~il libro~~ ~~a~~ ~~Gianni~~ ~~domani~~]]]
[$_{+FOC}$ *for.sure* ~~*the book*~~ ~~*to Gianni*~~ ~~*tomorrow*~~]]]

In (32), the three constituents which are to be fronted to the left periphery are externally merged in the IP, in a position following the focused adverbial "senz'altro". If these constituents were to remain in situ, they would occur inside the focus domain of the clause, resulting in these also being interpreted as being in focus. Fronting then applies to these three constituents alike, ultimately resulting in their left-peripheral position.

What about the distributional differences between topics and modifiers noted in Rizzi (2004a)? I do not yet possess a satisfactory account of why these differences should be present, so at the moment I can only offer some speculations on the matter.
A first thing to highlight is that it is not altogether impossible (as already noted in Rizzi 2004a) to obtain a topical interpretation of fronted modifiers. Some fronted modifiers can be interpreted as contrastive topics, as is the case in the structure below:

(33) A: Quale libro è che Gianni ha letto velocemente, e (Italian)
Which book it-is that Gianni has read quickly, and
quale lentamente?
which slowly?
'Which book did Gianni read quickly, and which one did he read slowly?'
B: Velocemente, ha letto *Le Petit Prince;* lentamente, ha letto
Quickly, he-has read Le Petit Prince; slowly, he-has read
Ringenes Herre
Ringenes Herre.

In (33), the two fronted modifiers *quickly* and *slowly* give rise to a contrastive-pair structure, exactly like canonical contrastive topics. They are also topical in a pragmatic sense: they describe what the sentence is going to say something about. Indeed, a sentence like "Quickly, he read Le Petit Prince" could be paraphrased as "As for activities completed quickly, John read Le Petit Prince". The fact that at least some fronted modifiers behave exactly like canonical topics is additional evidence supporting an identical analysis for these elements.

Recall from above that my analysis of topicalization takes the movement of a non-focal constituent to be motivated by the need to escape a domain in focus. As I am trying to extend such analysis to modifier fronting, I would then predict the following structure to be what is underlying the ungrammatical example in (29b):

(34) [$_{CP}$*Improvvisamente, [$_{CP}$ **+FOC** perché [$_{IP}$ Gianni è tornato a casa
*[$_{CP}$ *Suddenly, [$_{CP}$ **+FOC** why [$_{IP}$ Gianni is come-back to home*
~~improvvisamente~~?]]]
~~suddenly~~?]]]

In (34), the fronted modifier surfaces in a position preceding all other material in the *why* question, *wh*-word included. According to the foot-driven analysis of topicalization I develop in article 2, and if modifiers are indeed fronted through topicalization, we predict that everything to the right of the fronted modifier should count as being in focus. Note in particular that the *wh*-word needs to be in focus too, since a landing site for the modifier is present also in a position before *why* (see (29a)).

If everything to the right of the modifier is in focus in (34) (=29b), it means that the focus alternatives for (34) are calculated at the level of the *why* question, and not of the IP as in (29a). This presumably leads to the unfelicitousness of the structure because, in (34), it seems as if the fronted modifier is to be interpreted as modifying the *why*-question as a whole: it seems as if "improvvisamente" modifies the event of the question being asked, rather than the event of Gianni going home, which is the reading we want.
If the modifier is fronted to a position below the *wh-element*, on the other hand, the focus alternatives relevant for the interpretation of the modifier are calculated at the level of the IP, as desired. This leads to a structure like that in (35):

(35) [$_{CP}$ Perché improvvisamente [$_{IP\ +FOC}$ Gianni è tornato a casa?]
[$_{CP}$ Why suddenly [$_{IP+\ FOC}$ Gianni is come-back to home?]]
Focus value: {why suddenly Gianni went to bed, why suddenly Paul started shouting, …, why suddenly Mary opened the door}

In (35), the fronted "improvvisamente" now modifies an object which it can actually modify, namely the event of Gianni going home. This event is interpreted as being contrasted to other activities Gianni might have performed, as well as with other events performed by different agents. These are all linguistic objects that "improvvisamente" could be interpreted as modifying, hence the grammaticality of (29a).

As a final remark, note that even if we were to assume that fronted modifiers head their own functional projection, some features of their distribution would still have to be stipulated independently. As I show in detail in article 1, for instance, modifier movement is necessarily local: the dislocated modifier can front up to the first available left periphery, and not any further. Consider for instance the ungrammaticality of (36) below, which shows precisely that:

(36) *Domani ho deciso che i libri, li devi (Italian)
**Tomorrow I-have decided that the books, them(cl) you-must*
rimettere a posto.
put in place.
(Intended: 'I have decided that tomorrow you are to put the books away')
(Article 1, ex. 41)

The source of the ungrammaticality of (36) is the fact that "domani" can only be interpreted as modifying the embedded predicate, given that the verb in the matrix clause is in the past tense.

The extremely local nature of modifier movement does not follow from a cartographic implementation of the left periphery: for all intents and purposes, the fronting operation detailed in (36) should be possible, given that the modifier should be able to target the Mod projection in the matrix left periphery.
Clearly, then, some additional restrictions to capture the distribution of fronted modifiers must be posited independently even if we associate a specific position in the left periphery to these elements.
A plausible explanation for the locality of modifier movement is one in terms of lack of ambiguity if the fronting is kept local. Presumably, the ungrammaticality of (36) has nothing to do with syntactic requirements. It surely has nothing to do with intervention either: the only element which could be generating an intervention effect in (36) is the clitic-resumed topic "il libro", and note how the sentence is still ungrammatical if this constituent is no longer fronted:

(37)	*Domani	ho	deciso	che	devi	rimettere	a	posto	i	libri.
	Tomorrow	*I*	*decided*	*that*	*you-must*	*put*	*in*	*place*	*the*	*books.*

One reason which may be underlying the locality of modifier movement is the fact that, if this type of movement were not local, structures would be ambiguous with respect to where the modifier was externally merged. This is obviously not an issue in (36), since the tense mismatch helps in disambiguating the structure. Consider however a sentence like (38) below:

(38)	Oggi	ho	deciso	che	devi	rimettere	i	libri	a	posto.
	Today	*I*	*decided*	*that*	*you-must*	*put*	*the*	*books*	*in*	*place.*

(a) *I decided that today you are to put those books away
(b) Today I (have) decided that you are to put the books away

Both meaning (38a) and (38b) are plausible. The locality of modifier movement in this case thus helps maintaining the two possible meanings separate: to express (38b), (38) will be chosen. To express (38a), on the other hand, the fronted modifier will be only moved up to the first left periphery, as illustrated in (39):

(39)	Ho	deciso	che	oggi	devi	rimettere	i	libri	a	posto.
	I	*decided*	*that*	*today*	*you-must*	*put*	*the*	*books*	*in*	*place.*

6 Where you come from determines where you can go

In chapter 5, I have started painting a picture of topicalization as a movement operation whose features are dictated by the *foot* of the movement chain. According to this line of analysis, to be able to understand the nature and composition of the left edge of the clause, one must then understand what is going on at its right edge. In this chapter, I would like to push this line of analysis even further, and further elaborate on how it is the bottom of the movement chain which determines at least some of the properties of the movement operation. In particular, I will use the foot-driven analysis of topicalization argued for in chapter 5 (and article 2) to account for the ungrammaticality patterns observed in some extraction structures. The data discussed in this chapter makes specific reference to the contents of article 3, where I discuss polarity focus and polarity topicalization. In this chapter, I will be presenting additional data supporting the conclusion, reached in article 3, that the well-formedness of topicalization is to at least some extent semantically determined. This identifies purely semantic considerations as one of the factors which have an effect on the shape of the left periphery.

In articles 1 and 2, I tackle the question of what principles are responsible for the distribution of left-peripheral constituents, focusing in particular on RM as a way to predict the relative order of the various left-peripheral constituents, and on foot-driven movement as a way to account for what constituents are moved to the left edge of the clause. These articles, however, can only provide a partial answer to the left-peripheral puzzle: to the extent to which there is variation in the fronting processes which dislocate constituents to the left, one must also account for why this is the case. It is precisely in this light that **article 3** should be interpreted. In article 3, I discuss a particular type of fronting configuration to which I refer as *polarity topicalization*. Polarity topicalization is a process by which several types of non-focal constituents are fronted to the left periphery of a sentence, crucially resulting in the sentence being interpreted as featuring a narrow polarity focus. In article 3, I discuss three such types of movement: Bare Neg Fronting, Simple Preposing and Quantifier Fronting. These are compared with standard CLLD structures, which are the focus of article 2, and which can also be associated with polarity focus. In article 3, I show how the first three types of polarity topicalization are never accompanied by clitic resumption, and how they never reconstruct for binding, nor scope. CLLD, on the other hand, is always accompanied by clitic resumption, generally reconstructs for scope, and always reconstructs for binding.

Just as article 2 represents the natural continuation of article 1, it is on the specific framework argued for in article 2 that article 3 is based. In article 3, I use the privative

definition of topic I arrive at in article 2 to argue for unified analysis of these different types of polarity fronting. I show in particular how, as long as the fronting operation results in a structure where the finite verb appears sentence finally, all these structures can be associated with polarity focus.
This is a first example of how it is the bottom of the movement chain which determines the nature of the overall structure. Regardless of the type of the fronting operation *per se*, and of the formal features which characterize it, all the four movement configurations discussed in article 3 will be associated with an identical semantics as long as their fronting results in an identical element being in focus.
A second way in which it is the bottom of the chain which determines what happens in the left periphery is by influencing whether the fronted constituent will be clitic-resumed or not. The absence of clitic resumption seems in particular to be connected to the presence of polarity focus: as I show in article 3, only structures where it is the polarity of a proposition which is in focus license the lack of clitic resumption of the fronted element. The absence of clitic resumption in turn determines on which dimension the contrast set for contrastive topics is calculated; as will be seen in this chapter, this ultimately has an effect on what environments license the fronting.

To see how polarity focus affects the obligatoriness of clitic resumption, consider the contrast illustrated in (40). In (40a), the fronted adjective "scortese" (*impolite*), which features in a polarity focus construction, may or may not be clitic-resumed[9]. In (40b), we are fronting the same adjective and in an almost identical environment. The only difference between (40a) and (40b) pertains to the nature of the constituent in focus: in (40b), it is no longer just the negative polarity which is in focus, but the adverbial "never". We see that, as soon as an element other than the polarity is in focus, clitic resumption of the fronted adjective is mandatory:

(40)	(a)	Con	me	scortese	non	(lo)	è		(Italian)
		With	*me*	*impolite*	*not*	*it(cl)*	*s/he-is*		
	(b)	Con	me,	scortese	non	*(lo)	è	mai	
		With	*me*	*impolite*	*not*	**(it(cl))*	*s/he-is*	*never*	

The absence of clitic resumption of those constituents for which a corresponding clitic would be available, such as the fronted adjective in (40), has a very distinct effect on the semantics of these constructions: it forces the identification of the contrast-set for the fronted element with its entailment scale. This effect can for instance be appreciated in Bare Neg Fronting (BNF) structures, of which I provide an example in

[9] Note that this does not mean the structure where clitic resumption is present and the one where this is absent are associated with the same semantics, as I will discuss in a moment. In (40), I am merely considering clitic resumption possibilities.

(41a). BNF dislocates a variety of different constituents to the left periphery of a negated sentence. Importantly, it does so without any accompanying clitic resumption, even when a corresponding clitic would be available. Negation is mandatory in BNF structures, as shown by the ungrammaticality of (41b):

(41) (a) Bello non è (Italian)
Handsome not he-is
(b) *Bello è
**Handsome he-is*

That negation should have a repairing effect on the extraction of the fronted element is surprising. If anything, we would expect the opposite grammaticality patterns, given that negation generally blocks extraction (cf. Ross's *inner island*). The ungrammaticality of (41b) is thus not ascribable to syntactic factors.

In article 3, I argue that the repairing effect of negation observed in (41b) does not follow from syntax because it is semantic in nature. Understanding why (41b) is ungrammatical requires understanding two separate conditions. The first is the required non-exhaustiveness of contrastive topics, which I model after Büring's (1999) *S-topic* rule. The second is the generalization I have just mentioned which requires cliticless topics to be interpreted within their entailment scale. Let us start by discussing the former.
Already in (1997), Büring noted that contrastive topics must be assigned a non-exhaustive interpretation. He then identified such non-exhaustiveness as having an effect on what derivations are available given a potentially ambiguous structure. This can be observed in structures containing two scope-taking elements, such as (42) below:

(42) Alle Politiker sind nicht korrupt (German)
All politicians are not corrupt

(Büring 1997: 175)

According to Büring, (42) is ambiguous between a wide-scope and narrow-scope reading of the sentential negation. This is however only the case if the universal subject is not interpreted as a contrastive topic. If it *is* −something which in German coincides with the presence of the so-called *hat contour*−, then only the wide-scope reading of the negation is available:

(43) /Alle Politiker sind nicht\ korrupt[10]
[All politicians]$_{CT}$ are not corrupt

[10] I follow Büring (1997) in representing the 'hat' contour through the "/ \" notation.

(a) ✓ ¬ < ∀
(b) * ∀ < ¬

To capture the ungrammaticality of reading (43b), Büring postulates the following generalization on the distribution of contrastive topics, to which he refers as 'S-topics':

(44) Given a sentence A, containing an S-topic, there is an element Q in $[[A]]^t$ [=the topic value of A] such that Q is still under consideration after uttering A.
(Büring 1999:150)

Rule (44) states that for a contrastive topic to be felicitous, there must be some relevant question in its associated topic value which is left unanswered after the sentence featuring the contrastive topic has been uttered. As what is topicalized in (43) is the universal quantifier, the topic value associated with it will consist of questions of the form of (45):

(45) Are $[x]_{CT}$ politicians corrupt or not?
Where x ∈ {some, many, … , all},
Hence {Are some politicians corrupt or not?, …, Are all politicians corrupt or not?}

Reading (43b) is then infelicitous given (44) because asserting that *all* politicians are not corrupt logically entails that *some* politicians are corrupt, that *many* politicians are corrupt and that *most* politicians are corrupt. (43b) thus leaves none of the questions spelled out in (45) unanswered.
In article 3, I use Büring's S-topic rule to account for the grammaticality patterns observed in (41a-b), where the adjective is a contrastive topic (CT). (41b) has the intended semantics sketched in (46):

(46)		
	Handsome(he)	ordinary semantic value
	{handsome(he), ¬ handsome(he)}	focus semantic value
	Is he x or not? Where x ∈ {handsome, …}	topic semantic value

The type of contrast set which is to be associated with (46) has an impact on whether the resulting structure will be well-formed or not. Following (44), the proposition described in (46) is not going to be well-formed if the set of alternatives associated with the contrastive topic is calculated on its entailment scale, namely anything along the lines of *handsome* ⇒ *at least average-looking* ⇒ *not unattractive*. This is because *handsome* is the strongest member of the scale, hence stating that the property of being attractive holds of someone entails that the property of being at least average-looking, and that of being not attractive, also do. Positive polarity and an interpretation within the scale

then results in the resolution of all questions in the topic value associated with the contrastive structure.

If the set of potential alternatives to the contrastive topic consists of properties not part of its entailment scale (e.g., {Norwegian, wise, tall, (…)}), on the other hand, the resulting structure will be felicitous given (44). This is because stating that someone is handsome does not resolve the question of whether or not he is also tall, Norwegian, or wise.

In article 3, I argue that this is precisely what is behind the ungrammaticality of structures like (41b). (41b) is ungrammatical because the absence of clitic resumption forces an interpretation of the fronted adjective within its entailment scale. That clitic-less adjectives such as the one in (41b) should be interpreted within their entailment scale accounts for the particular environments in which BNF constructions are often uttered. The fronted element in BNF is often overtly contrasted to its opposite:

(47) A: Raj è attraente (Italian)
Raj is attractive
B: Brutto non è
Ugly not he-is
'Well, he is definitely not *ugly'*

(Article 3, ex. 58)

Interestingly enough, constructions like (41b) can be salvaged by clitic resumption. In article 3, I argue that this is because clitic resumption allows for the fronted element to be contrasted with alternatives outside of its entailment scale. This is shown by the well-formedness of (48), where the fronted adjective *handsome* is contrasted with "tall". Note that (48) is a polarity focus structure as well:

(48) Bello lo è, alto non lo è (Italian)
Handsome it(cl) he-is, tall not it(cl) he-is

If clitic resumption is present, the possibility of interpreting the fronted element within its entailment scale, as in (47), seems in fact quite marginal. This is shown in (49):

(49) A: Raj è attraente (Italian)
Raj is attractive
B: ?Brutto non lo è
?Ugly not it(cl) he-is

In both (48) and (47), the fronted adjective can thus be said to be a contrastive topic; the only difference between the two constructions pertains to the level at which this contrast is realized.

We have thus identified an entirely semantically-motivated restriction on what kind of environments can license the fronting of a contrastive topic: the need for the contrastive statement not to resolve all the questions in the associated topic value. Interestingly, this purely semantic explanation does not simply capture the ungrammaticality of cases like (41b), but a variety of additional fronting structures as well. It can in particular account for several of the examples presented in Cinque (1990) as instances of environments where negation salvages extraction. Let us focus on one such example, which I report in (50):

(50) (a) *In modo scortese, Carlo di solito si comporta (Italian)
**In manner rude, Carlo of usual REFL. behaves*
Intended: 'Carlo usually behaves rudely'
(b) In modo scortese, Carlo di solito non si comporta
In manner rude, Carlo of usual not REFL. behaves
'Carlo does not usually behave rudely'

(Cinque 1990:79)

Cinque accounts for the salvaging effect of negation in cliticless instances of movement, as observed for instance in (41a), by suggesting that the negation "passes on"[11] its operator features to the fronted constituent, rendering it operator-like. This is relevant because operators, an example of which is fronted foci, can always grammatically front to the left periphery even though they are not accompanied by clitic resumption of the fronted element. In article 3, I end up rejecting this kind of analysis because I show how elements which are clearly not operators can still front to the left periphery without being clitic-resumed. To account for the ungrammaticality of (50a) I will instead use the semantic restriction we have just identified concerning the required non-exhaustiveness of contrastive topics.

The most immediate reading (although not the only available one, as we will see below) of verb-final structures like (50) is a polarity focus reading[12]. Accordingly, we might expect that what the speaker is trying to say with the ungrammatical structure in (50a) is essentially something along the lines of "it is the case that Carlo generally acts in a rude manner". The fronted element is not clitic-resumed: it cannot, as Italian has no corresponding clitic for this type of element. The lack of clitic resumption entails that the fronted element must be interpreted within its entailment scale, namely something along the lines of *in a rude manner ⇒ in a slightly rude manner ⇒ not in a polite manner*. (50a) is then infelicitous because stating that Carlo has acted impolitely already resolves the

[11] Cinque (1990) phrases it in terms of "amalgamation" with the negation.
[12] See chapter 10 (article 3), where I incorporate this observation in my analysis of polarity topicalization.

questions of whether or not he has acted politely, and that of whether or not Carlo has acted like an average human being on a normal day: we know he has not.
As no corresponding clitic is available for the fronted prepositional modifier in (50a), we cannot use clitic resumption to salvage the structure like we did in (48). We can however insert a post-verbal lexical element to ensure that the sentence is not interpreted as featuring polarity focus, as I have done in (51). This is because removing the focus on the polarity has a salvaging effect on extraction similar to the one clitic resumption has. Note in particular how, in (51), the extraction of the PP modifier is now grammatical even if the sentence still has a positive polarity:

(51) In modo scortese, Carlo di solito si comporta con Paolo
In manner rude, Carlo of usual REFL. behaves with Paolo
'It is with Paolo that Carlo usually behaves in a rude way'

To the extent to which a salient alternative for the VP can be thought of, one does not even need to add any post-verbal lexical element to ensure that a polarity focus reading is absent. This is particularly challenging in (50a), because of the present tense specification on the verb, and the fact that the verb itself is a rather generic term, so it is hard to find other verbs with which this could be contrasted. Consider then (52), where I use the more specific "introduced himself":

(52) In modo scortese, Carlo si è (solo)[13] presentato. Per il resto
In manner rude, Carlo REFL is (only) introduced. For the remainder
della serata, è-stato un perfetto *gentleman.*
of-the evening, he-was a perfect gentleman.
'When he introduced himself, Carlo was rude. For the rest of the evening, he was a perfect gentleman'

The grammaticality of (52) is additional evidence that it is not negation *per se* which salvages the extraction of the modifier, but rather the nature of what is in focus, and thus what questions make up the topic value. The fact that (52) is syntactically identical to (50a) also shows that there is nothing intrinsically ungrammatical in the syntactic derivation of (50a): it is at the interface with semantics that this sentence deteriorates.

Why does lexical focus, as opposed to polarity focus, result in cliticless instances of fronting structures no longer violating Büring's S-topic generalization?
Consider (51): it is fairly transparent how this structure does not resolve all the questions in the topic value: given any set of the form {Carlo usually behaves rudely

[13] The focus sensitive operator *only* is here exclusively to make it explicit that it is a contrastive focus reading of the lexical verb which I am after. The presence of *only* is not necessary for the sentence to be grammatical.

with Paolo, Carlo … with Raj, Carlo … with Eivind} as the focus value for (51), stating that it is with Paolo that Carlo behaves rudely leaves it open how Carlo behaves when he is dealing with Raj and Eivind (i.e., whether he is acting nicely, or simply average).
This is precisely the state of affairs that we do not obtain with polarity focus configurations: stating that a given maximal value on a gradable scale of properties is to be associated with truth value 1 entails the resolution of what truth value is to be assigned to all other values on the scale.

If the effect of polarity on the exhaustiveness of contrastive topics is clear, why the absence of clitic resumption should force a within-the-entailment-scale topic value interpretation is far from being transparent. In article 3, I argue for a post-cyclical analysis of cliticless movement: I take instances of topicalization which are not accompanied by clitic resumption, even though a corresponding clitic would be available, to take place at PF. Substantiating a PF analysis of cliticless movement is the fact that these types of fronting operations always reconstruct the dislocated element, for both binding and scope. For the purposes of syntax and semantics, therefore, it is as if cliticless movement had never taken place. Prosodically, however, the fronting operation helps realign an otherwise misaligned structure: if movement had not applied, the finite verb, which is assigned main stress, would have not occurred rightmost in the main intonational phrase. Clitic-resumed fronting, on the other hand, happens in the syntax: it never reconstructs for binding, and it also generally does not reconstruct for scope, although this may sometimes be an option. Unlike cliticless movement, CLLD also need not be local: the fronted element may be moved more than one left periphery away from its first merge position.
The question is then whether this PF analysis of cliticless movement can also account for the within-entailment-scale interpretation of examples like (41a). Clitic-resumed fronting forces an interpretation of the fronted element outside of its entailment scale, something which is at least partly mirrored by the fact that, in clitic-resumed instances of movement, the fronted constituent actually moves already in the syntax to a position in the left periphery of the clause. I leave the question of how to model this to future research.

Before we move on to the next chapter, a note on contrastiveness is in order. In article 3, I show how not all clitic-resumed topics need to be interpreted as contrastive, contra Arregi (2003). In particular, I present the example below, where it is clear that the fronted PP is not to be interpreted as in opposition to a set of alternative individuals to whom some pieces of clothing might have been given:

(53) A and B have a friend, Paola, who is supposed to come by to borrow one of A's cocktail dresses to wear for the inauguration of her art gallery. Before he leaves to go to work, A tells B she should lend Paola her blue dress, or perhaps the pink one, as those are the prettiest ones she possesses. When A comes home after work, B tells him:

"A proposito, a Paola alla fine le ho dato il
"By the.way, to Paola in-the end to-her(cl) I-have given the
vestito rosa. Quello blu non le stava"
dress pink. That blue not to-her fit"
'By the way, in the end I gave Paola the pink dress. The blue one did not fit'

(From article 3, ex 86)

In article 3, I also show how this observation extends to cliticless fronting: the dislocated constituent need not necessarily be interpreted as contrastive in these configurations either. Yet in this chapter I have developed an analysis of the ungrammaticality of some topicalization configurations which relies entirely on the fact that the fronted element must be interpreted as a contrastive topic, and on how some configurations simply block the required non-exhaustiveness of such topic.

These two claims are not necessarily incompatible. Whereas it is true that being interpreted as contrastive is by no means a required property of fronted topics –whether clitic-resumed or not–, it is also true that a contrastive interpretation is generally salient and hence very readily available.

In her (2009) paper, Lisa Brunetti makes an observation on the nature of fronted topics which I believe to have considerable explanatory power. While discussing examples such as (54) below, she remarks that A's question establishes "Dante" as one of the topics of the communicative exchange. The fact that B goes on to repeat such a referent in her answer is thus unexpected:

(54) A: A Dante, cosa (gli) regalerai? (Italian)
To Dante what (to-him(cl)) you-will-give?
'What will you give to Dante (as a present)?'

B: A Dante (gli) regalerò un LIBRO.
To Dante (to-him(cl)) I-will-give a BOOK.
'To Dante I'll give a BOOK'

(Adapted from Brunetti 2009: 764)

Upon hearing B's answer, Brunetti speculates, A processes the fact that the topicalized PP should not have been given overt realization, since the PP is already maximally salient −by virtue of having been just mentioned by A herself− and the grammatical

role this expression goes to fulfill in B's answer is already clear. Given that it *was* given overt realization, A then assigns it a contrastive interpretation.
The reason why topics are naturally –and, perhaps, predominantly– interpreted as contrastive then follows from these elements being given overt realization even though they are anaphoric.

I believe Brunetti's insight can be modeled even further and be used to capture when a contrastive reading of the fronted element is particularly likely, as opposed to when it is not. In chapter 5 and article 2, I argue that topicalization is a very generic process which targets truly anaphoric elements as well as elements which may not necessarily qualify as old information given the specific context.
Most of the topics which front to the left periphery are indeed anaphoric material; a contrastive topic reading is thus the most salient for them, by virtue of the process just described above. If a constituent which could have very well been elided by virtue of its saliency and accessibility is given overt spell-out, we assume that this must be because said constituent is to be interpreted as being part of a contrastive-pair structure.
Crucially, there are also instances of topicalization where the fronted element is accessible but perhaps not particularly active given the specific context. Since its associated referent is deemed by the speaker not to be active enough for the communicative exchange to go through if the corresponding syntactic phrase is not realized overtly, such phrase is given overt spell-out. This is even though the speaker does not intend for any contrastive interpretation to be assigned to it. I believe this is precisely what is going on in (53); the fronted PP in (53) marks a shift in the discourse, as highlighted by the presence of "by the way", which makes it clear that A and B were presently discussing some other issue. The fronted PP is accessible in that A and B were both aware Paola was to stop by their house to obtain some piece of clothing. At the same time, since the two speakers were not presently discussing such an event, "Paola" is not particularly active in the discourse, hence the overt spell-out. It is precisely constituents like the fronted PP in (53) which may *not* be assigned a contrastive interpretation. For anaphoric constituents such as the fronted PP in (54), on the other hand, the contrastive interpretation is considerably harder to suppress.

7 What is Left of the Left Periphery

Against the background of the different versions of the left-peripheral hierarchy introduced in chapter 2, one of the implicit questions this thesis addresses is the question of which portions of these hierarchies are actually needed, and which ones can be dispensed with.

In this thesis, I offer possible explanations for the way left-peripheral constituents are ordered relative to each other, and for why they are fronted to the left periphery. I also provide some novel empirical data on the distribution of several left-peripheral constituents, in an attempt to gauge to what extent these hierarchies are empirically adequate. In this final chapter before the three articles are presented, I would like to combine these two lines of inquiry and attempt to provide an answer to the question of which bits of Rizzi and Bocci's left-peripheral hierarchy are still justified.

In article 2, I provide empirical evidence against the notion of an absolute position for the different types of topics. The different types of topics certainly do exhibit diverging properties when it comes to their distribution: in this respect, this thesis supports at least partly the findings of Frascarelli & Hinterhölzl (2007). That different types of topics exhibit specific distributive properties is particularly evident along the contrastive/non-contrastive divide line: topics which are to be interpreted as part of a contrastive-pair structure must precede the material in focus. In article 2, we also see how shifting topics tend to be merged high in the structure, as argued by Frascarelli and Hinterhölzl (2007). What this thesis disputes is the idea that these distributional tendencies should be captured in terms of dedicated functional projections, as claimed by Frascarelli (2012) and spelled out again in (55) below. What I have argued for is rather a *relativized* approach to topic typology: the specific pragmatic import a topic may be associated with depends on its relative position with respect to the material in focus. Accordingly, I do not believe it is possible to talk about a hierarchy of different types of topics. I then suggest that the various topic labels in Frascarelli's topic hierarchy should be replaced with generic topic labels, as shown in (56); I highlight the topic projections in bold. This brings the hierarchy back in line with the version suggested in Rizzi & Bocci (2015) (=57), where the various topic projections are unspecified in terms of their pragmatic import:

(55) [ForceP [**ShiftP** [**ContrP** [IntP [FocP [**FamP*** [FinP [IP

(Frascarelli 2012:182)

(56) [ForceP [**TopP** [**TopP** [IntP [FocP [**TopP*** [FinP [IP

(57) [Force [**Top*** [Int [**Top*** [Foc [**Top*** [Mod [**Top*** [Qemb [Fin [IP …]]]]]]]]]]]

(Rizzi & Bocci 2015, ex. 29)

In article 2, I also develop a foot-driven analysis of CLLD. According to this analysis, the landing site of a fronted topic is fully predictable based on the extension of the focus domain of the clause. From article 1, we also know that CLLD topics are the only type of left-peripheral constituent whose distribution follows entirely from RM,

and for which a dedicated functional projection must then not be assumed. Accordingly, we can replace (56) with (58) below:

(58) ForceP < Int < FocP < ModP* < QEmb < Fin

In chapter 5, I have also argued for a topicalization analysis of modifier movement. I have suggested in particular that what is behind the fronting of a modifier to the left periphery is the same process responsible for the fronting of any non-focal lexical element. Evidence in favor of such an analysis comes from similarities between modifiers and topics (as noted in Rizzi 2004a), as well as from the fact that a fully topical interpretation is possible for at least some types of modifiers. I am not presently able to account in a satisfactory manner for the distributional differences which characterize topics and modifiers. I have however sketched a tentative explanation of these facts, which, if on the right tracks, would derive the impossibility for a modifier to precede an element like "perché" on the basis of what counts as an appropriate focus domain for the topicalized modifier.

If this analysis is on the right track, the additional restrictions on the distribution of modifiers can then be derived independently, exactly like one must derive independently the extremely local nature of modifier movement. If a topicalization analysis of modifier fronting can be maintained, there is also no need to preserve the Mod node of Rizzi's (2004a) and Rizzi & Bocci's (2015) hierarchies. From (58), we then arrive at (59):

(59) Force < Int < Foc < QEmb < Fin

Our working model of the left-peripheral hierarchy now only contains the projections needed to host the various kinds of complementizers, plus all projections hosting operators. Let us focus on these latter elements.

In article 1, I argue that (the specific implementation in favor of which I argue for) RM scores better than cartography when it comes to capturing the distribution of these elements, in that it captures the fact that, cross-linguistically, the relative position of these elements with respect to each other is remarkably flexible. In particular, I show how, cross-linguistically, a focus is found to both precede and follow embedded *wh-words*. Sometimes, both options are even found in the same language. I also show how elements merged in Int (i.e., *if* and *why*) may both be followed and preceded by a constituent in focus, again, sometimes even within the same language.

In article 1, I argue that this underlying flexibility can be optimally captured by assuming that elements merged in Int and those merged in QEmb form a natural class, *Wh*, and by assuming that elements in *Wh* and foci are not interveners for each other. Further restrictions on how these elements can be merged in a specific language should

then be derived from independent, language-specific factors. This is precisely what I do when accounting for the local incompatibility of matrix *wh-words* and foci in Italian, as discussed in chapter 4. Rather than have it follow from the way the associated functional projections should allegedly be ordered relative to each other, I provide a prosodic analysis of it, something which allows us to capture how what is ungrammatical in Italian is not ungrammatical in Serbian.

If the relative distribution of foci with respect to Int, and of foci with respect to QEmb is unrestricted, and all apparent exceptions to this flexibility should be captured independently through language-specific principles, no dedicated functional projections should be postulated for foci and embedded interrogative elements. From (59), we then arrive at (60):

(60) Force < Int < Fin

We now have a left-peripheral hierarchy which only consists of those projections which host complementizers. Note that (60) still features a dedicated functional projection for Int, even though, as just mentioned, the relative distribution of Int elements with respect to foci appears to be a matter of language-specific restrictions. This is because Int also hosts the polarity complementizer *if,* whose relative distribution with respect to the different types of declarative complementizers presently does not follow from anything else, and hence must be still stipulated to be encoded in the hierarchy. The Int projection in (60) is for instance necessary to capture those languages where both a declarative complementizer and a polarity complementizer may be realized in the same sentence, as is the case in Spanish. In Spanish, we see that the polarity complementizer follows a declarative complementizer like "que", which can only introduce finite clausal complements and hence is presumably merged in Force. Below is an example from Rizzi and Bocci's (2015) paper:

(61) María preguntó **que** el lunes **si** había periódicos (Spanish)
María asked ***that*** *the Monday* ***if*** *there-were newspapers*
'Maria asked on Monday if there were newspapers'

(Rizzi & Bocci 2015, ex. 30)

Interestingly, the sequence in (61) is also in line with an observation made by Abels in his (2012) article, where he remarks that complementizers might represent cases of elements whose distribution cannot be further reduced to independent factors.

Regarding the purported revision of the hierarchy in (60), it is of course not simply a question of whether there are models other than cartography which can capture the distribution of Int, QEmb and Foc, and of whether these do so more efficiently. We

are also, and especially, interested in determining whether cartographic models of the left periphery could capture such distribution themselves.

In chapter 3, upon discussing what aspects of cartography are genuinely problematic and which ones are not, I identified the predicted rigidity in the way left-peripheral constituents are allegedly merged as the one truly problematic aspect of this framework.

The notion of a sequence of dedicated functional projections crucially relies on the idea that constituents must be rigidly ordered with respect to each other: it is only if this is the case that the sequence has some predictive power. The moment we have to start postulating multiple positions for the same element −as was the case for topics−, the sequence starts losing predictive power. Sequences of functional projections thus have an inherent hard time dealing with flexibility in the distribution of different constituents. To see why, let us try updating Rizzi and Bocci's (2015) hierarchy to accommodate some of the empirical data discussed I present in article 1.

In article 1, I show how there is a subject/object asymmetry in the relative position of Italian embedded *wh*-words and fronted foci. Specifically, whereas subject *wh*-words must precede the focus, indirect and direct object *wh*-words must follow it. In article 1, I tentatively suggest an explanation of this asymmetry in terms of superiority: subjects must always precede internal arguments, regardless of the specific class of elements these are realized as. How to model this asymmetry in cartographic terms? This can either be done by postulating the existence of two projections for *wh*-words (62a), or of two projections for focus (62b):

(62) (a) $\text{QEmb}_{\text{SUBJ}} < \text{Foc} < \text{QEmb}_{\text{OBJ}}$
(b) Foc < QEmb < Foc

Option (62a) is problematic under a head-driven analysis of movement, on which cartography relies: to assume a distinct projection for the two types of *wh*-elements means to assume that each of the QEmb projections in (62a) is specified as probing specifically for subject rather than object *wh*-words, and vice versa. I however do not see why features should be specified as probing for subjects rather than internal arguments. I also cannot think of any reasons why the distinction between subject and object *wh*-words should be grammaticalized in the form of distinct dedicated functional projections. Option (62b) seems conceptually more plausible, but it still needs to be complemented with an explanation of why foci should be able to move past *wh*-elements if these are internal arguments but not if these are external arguments.

Whatever alternative one picks to account for the relative order of QEmb and Foc, this must integrate seamlessly with the portion of the sequence accounting for the distribution of foci with respect to Int elements. This is because it is the same type of focus (mirative or corrective if we follow Bianchi, Bocci & Cruschina (2015, 2016), or

simply emphatic if we follow the argument I made in chapter 4) which features in both. As I show in article 1, cross-linguistically, a focus may be merged both before and after Int. This would yield either (63a) or (63b):

(63) (a) Foc < Int < Foc
(b) Int < Foc < Int

A solution along the lines of (63b) is in fact advocated by Krapova (2002) to account for languages like Bulgarian, where the interrogative complementizer may appear both before and after the focus. Krapova suggests that, in this language, the complementizer may optionally raise to a position preceding the Focus node.

Let us now try merging the two sequences. For reasons of space, and as I think that is the most plausible alternative out of the two described in (62), I will only try to combine the two options in (63) with (62a).
If we were to combine (62b) with (63b), we would presumably obtain something along the lines of (64):

(64) Int < Foc < QEmb < Foc < Int

(64) is problematic. To account for the fact that a focus might both precede and follow QEmb, while at the same time maintaining that a focus may both be preceded and followed by an element merged in Int, we ended up postulating the existence of an Int projection following QEmb. This ends up clashing Rizzi & Bocci's (2015) hierarchy, according to which QEmb is merged quite low in the left periphery, whereas Int is one among the topmost projections.

If merging ((63b) with (62b) is problematic, we may try merging (62b) with (63a) instead. This would yield (65):

(65) Foc < Int < Foc < QEmb < Foc

In (65), we have a Focus projection between any two other clausal nodes, a state of affairs which is reminiscent of the cartographic implementation of the distribution of topics. Note however that if the idea of multiple projections made somewhat sense for topics, as topics can simultaneously be merged in different positions in the clause, at most one focus per left periphery is allowed. Even if we ended up choosing (65) as our model of the left periphery, then, such a hierarchy would still have to be complemented with a set of independent restrictions such as one barring the other Foc projections from hosting foci once one of these has been filled.
The hierarchy in (65) would also have to be complemented with language-specific explanations detailing why in some languages a focus may front all the way to the

topmost Foc projection, whereas in some other languages such position may be precluded. Of course these language-specific explanations must also be modeled into the bare-bones left-peripheral sequence we have developed in (60). This is because with (60) we are assuming that the relative distribution of Int, Foc and QEmb is flexible, and that any apparent exception to such a flexibility should be accounted for independently by invoking language-specific restrictions.

Let us now specifically compare (65) to (60), focusing on the distribution of foci. Let us try in particular to see which model of the left periphery scores better in terms of empirical coverage, and with respect to the amount of theoretical machinery which is needed to obtain such coverage. The sequence in (65) has no more predictive power than (60), in that a focus projection has been postulated in between any two nodes, which is exactly the distribution we would predict for these elements under the assumption they are unordered with respect to Int and QEmb. Both the sequence in (65) and that in (60) must also be complemented with independent explanations of why a given position may be precluded to Focus in a given language. The one assumption which is needed in (65) but which is not equally needed for (60) is an explanation of why two or more focus projections may not be filled simultaneously, resulting in the presence of multiple left-peripheral foci. No such restriction is needed in (60) because, in (60), there are simply no focus projections one has to worry about.

The reduced hierarchy we arrived at in (60) thus has the same predictive power of a heavier sequence like that in (65); crucially, this identical predictive power is achieved in (60) by resorting to fewer independent assumptions, and through a model which is overall simpler and hence to be preferred on the grounds of Occam's razor.

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8 Article 1 - Ordering the Italian Left Periphery: A Revised Theory of Relativized Minimality

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Abstract

This article tests the evidence for Rizzi & Bocci's (2015) hierarchy of the left periphery by investigating the claim that word order in the Italian left periphery can be derived solely from an enriched version of Relativized Minimality, as advocated by Abels (2012). I show that Relativized Minimality can indeed account for most of the ordering phenomena observed in the left periphery, provided however that *wh*-elements and foci are not taken to be interveners for each other, and that the intervention effects generated by intervening

relative clauses are ascribed to the nominal head and not to the relative pronoun.
Keywords: Left Periphery, Cartography, Relativized Minimality, Operators, Topics

I. Introduction

Ever since Rizzi's (1997) seminal work on the Italian left periphery (henceforth, *LP*), the overall consensus among generative linguists has been that "CP" may be too simplistic of a label. Proponents of the so-called *cartographic* research project (see in particular Cinque & Rizzi (2008)) have for instance suggested that what has traditionally been referred to as such in fact corresponds to an articulated hierarchy of functional projections. According to the latest version of such a hierarchy, that of Rizzi and Bocci's (Rizzi & Bocci 2015)[14], the left edge of the clause has the following structure:

(1) [Force [Top* [Int [Top* [Foc [Top* [Mod [Top* [Qemb [Fin [IP …]]]]]]]]]]]
(Rizzi & Bocci 2015, ex. 29)

At the left end of the hierarchy is *Force,* which hosts structurally high complementizers as well as relative pronouns. Following *Force* is the first of a series of *Top(ic)* projections (see also Benincà & Poletto 2004; Frascarelli & Hinterhölzl 2007; Bianchi & Frascarelli 2010; Frascarelli 2012): this is because more than one topic may be merged within a single left periphery (Rizzi 1997). In between the two highest Topic projections is *INT(errogative)*, a functional projection where the interrogative complementizer "if" and the *wh*-word "why" are externally merged. Following the second Topic position is a unique *Foc(us)* projection, where fronted foci are internally merged. The specific type(s) of focus which may be fronted to FocP depends on the specific language: only mirative and corrective foci may be fronted in standard Italian (Bianchi & Bocci 2012, Bianchi, Bocci & Cruschina 2015, 2016), whereas in languages like Sardinian, even information foci may move (Cruschina 2006, 2011). According to Rizzi (1997), FocP is also the projection where *wh*-phrases are moved to in main questions. Right after a third Topic projection is *Mod(ifier)*, where fronted modifiers are hosted. *QEmb* is the latest addition

[14] See also Rizzi (1997, 2001a, 2004a) for earlier versions for the hierarchy. The hierarchy argued for in Rizzi (2004a), which I report below, is particularly important:

(i) Force Top* Int Top* Focus Mod* Top* Fin IP

The sequence in (i) is the one used in Abels (2012) as cartographic template of the hierarchy of the left periphery, as this was the latest available version at the time of publication. In this article I will on the other hand use the sequence in (1) as reference model, as this is the most recent one.

to the left-peripheral hierarchy: according to Rizzi & Bocci (2015), this is the projection where *wh*-phrases are fronted to in embedded questions. Closing off the right edge of the C layer is then *Fin(iteness)*, where structurally low complementizers such as the Italian *di* are merged.

According to Rizzi, the left-peripheral hierarchy is unlikely to be an absolute primitive: rather, it is probably rooted in general underlying principles, such as interpretive requirements (Cinque & Rizzi 2008; Rizzi 2011, 2013a, 2014, 2015, 2017). The existence of underlying explanations for the word order phenomena encoded in (1) does not make it any less real: according to Rizzi, the hierarchy is a full-blown cognitive object, likely to be part of UG just as much as the fundamental operation *merge* is. In this respect, Rizzi describes it as "a real, substantive component" of the language system, "(…) not an ephemeral artifact" (Rizzi 2011:8).

Cartographic hierarchies, like that of Rizzi & Bocci's, are by no means uncontroversial. An issue which has attracted significant attention concerns in particular the richness of sequences like that in (1), and whether this richness in fact motivated. Most researchers would agree on the descriptive merits of (1), in the sense that it is more or less undisputed that the ordering generalizations expressed in (1) do indeed have cross-linguistic explanatory power. What is a matter of debate is however whether the only way to account for these generalizations is to resort to a static hierarchy like Rizzi & Bocci's, or whether other, simpler models can in fact be adopted.

The hierarchy in (1) essentially functions like the sorting top of one of those shape-sorting boxes which are given to toddlers: it features a number of differently-shaped pockets −the dedicated functional projections−, into which only blocks with a shape matching that of the pocket −syntactic elements with a matching featural make-up− can be dropped. Now imagine opening the box after all the pieces have been dropped: what we will observe is that the position of each piece with respect to the others mirrors that of the dedicated pockets on the sorting top. According to cartographic models of the LP, ordering restrictions are thus a direct consequence of the existence of an underlying hierarchy of projections: by restricting the position in which each constituent can be merged, the hierarchy ultimately has an effect on the way these constituents are ordered relatively to each other.

This approach to the LP has however been subject to several criticisms (Szendrői 2001; Emonds 2004; Neeleman & Szendrői 2004; Reinhart 2006; van Craenenbroeck 2006; Neeleman & van de Koot 2008; Neeleman et al. 2009; Newmeyer 2013; Zwart 2009; Fanselow & Lenertová 2011; Samek-Lodovici 2006, 2015; Abels 2017). A first concern relates to the economy of such a system: going back to our toy metaphor, a shape-sorting box serves its purpose only if a dedicated pocket corresponds to each shape.

Similarly, for a functional hierarchy to effectively act as a structural filter, a dedicated functional projection must exist to accommodate each possible left-peripheral element. Moreover, if a given left-peripheral element is found to occur in more than one position, more than one corresponding functional projection must be present to accommodate it. This makes up for potentially lengthy and cumbersome functional hierarchies, something which is hardly in line with current shifts towards a strongly derivational theory of syntax (Trotzke & Zwart 2014; Zwart 2009), as well as with recent trends towards the reduction of the representational format (Culicover & Jackendoff 2005, 2006; Jackendoff 2008).

A number of new models of the LP (Abels 2012; Fanselow & Lenertová 2011; Trotzke & Zwart 2014; Van Craenenbroeck 2006; Zwart 2009) thus dispose of predetermined functional architecture, only to assume that there are no dedicated functional projections. In this article, we will focus in particular on one of such analyses, that of Abels (2012). In his (2012) paper, Klaus Abels argues that sequences like that in (1) represent unnecessary theoretical machinery. He claims that the relative order of left-peripheral constituents follows almost entirely from the crossing possibilities associated with each of these constituents: what cannot be extracted across a given constituent will logically always follow such a constituent. In order to capture the different crossing patterns, Abels resorts to a version of Rizzi's Relativized Minimality which is enriched with Starke's (2001) theory of subclasses and superclasses. I will refer to his analysis as the "Relativized Minimality" (*RM*) account of the LP.

The RM analysis advocated by Abels (2012), and the cartographic one put forward by Rizzi (1997, 2001, 2004a) and Rizzi & Bocci (2015) are clearly incompatible with one another. To determine which model better captures the left-peripheral order, it is necessary to study cases where the two analyses make different predictions. The aim of this article is precisely to focus on such cases. I will also extend on Abels' existing analysis while simultaneously subjecting it to more stringent empirical testing. I will adopt a two-pronged approach: on the one hand, I will enrich Abels' analysis by also examining constituents which were not considered in his original analysis, most notably the different types of left-peripheral topics. On the other hand, I will test the soundness of existing data, questioning whether they do in fact support the feature hierarchy argued for in Abels (2012). It turns out that the different types of left-peripheral constituents interact in a way which is significantly different from what suggested in Abels (2012). Once these differences are taken into account, however, a pure RM analysis appears to score better than a cartographic one in accounting for ordering restrictions in the left periphery.

As Abels' (2012) model is entirely based on Italian, this paper mainly focuses on Italian as well.

This article is organized as follows: in section II, I will discuss a crucial prediction of a RM account, namely the expectation that local extraction patterns will never be more restricted than non-local ones. I will show that the relative distribution of foci with respect to both moved and base-generated interrogative elements, as well as that of relative operators with respect to topics and foci, does not comply with such a prediction. I will argue that this warrants a reorganization of the feature hierarchy suggested in Abels (2012). Once our theory of RM is revised accordingly, we see that it becomes possible to account for a bigger pool of languages. We also see that at least some ordering restrictions are only language-specific. This suggests that an explanation along the lines of the cartographic hierarchy in (1) is not viable to capture these configurations.

In section III, I will discuss what I refer to as *paired ungrammaticality* configurations. Paired ungrammaticality configurations are left-peripheral ordering configurations which are ungrammatical both locally and non-locally, a state of affairs which is taken by Abels (2012) as signaling that a RM analysis is sufficient to account for these orders. I will show that this is not necessarily the case, and discuss two constituents, namely modifiers and relative operators, which prove my point.

In section IV, I will discuss how adopting a finer typology of topics impacts on Abels' model of the left periphery. In particular, I will discuss the distribution of contrastive and familiar topics. I will show that, even if such a finer typology of topic constituents is adopted, the distribution of topics still largely follows from RM, with the grammaticality of constructions featuring multiple familiar topics being the most notable exception.

What emerges (section V And VI) is a revised model of RM, where the different feature classes interact with each other according to a feature hierarchy which is substantially different from what advocated in Abels (2012). For instance, it turns out that *wh-* elements and foci are not interveners for each other, and that contrastive topics block the movement of both foci and *wh*-elements.

Moreover, we see that the following data do not follow from RM, nor from the hierarchy, and are thus in need of an independent explanation:

a) The fact that, in some languages but not in some others, relative operators must locally be adjacent to the associated nominal head.
b) The existence of a subject/object asymmetry (at least in Italian) concerning the relative order of embedded *wh*-elements and foci.
c) The fact that, in some languages but not in some others, base-generated interrogative operators must locally precede foci.

II. The Local/Non-Local Asymmetries

Regardless of whether we believe that the LP should be captured by means of a static hierarchy of functional projections, or whether we are trying to do without such construct, a necessary ingredient of our model of the LP should be an explanation of why the left-peripheral constituents are ordered the way they are. In other words, why is it, for instance, that modifiers follow foci and not the opposite?

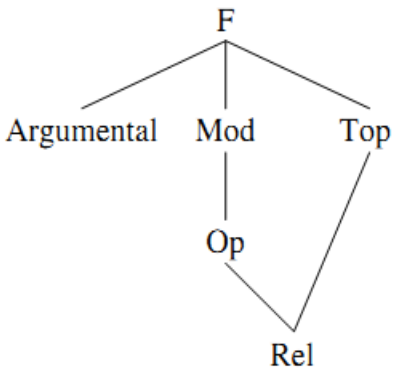
Despite this being an admittedly central question in the study of the LP, it has only recently started getting the attention it deserves. One of the first authors to systematically explore this question is Abels (2012), who also had the merit of raising the issue to the general attention, as well as of showing how the search for the most adequate model of the LP is dependent on understanding the principles responsible for its order.

According to Abels (2012), word order in the left periphery is a function of the crossing possibilities associated with each left-peripheral element. If α −α being any element of the LP− is a stronger island-creating element than β –also a member of the LP−, and either element moves across each other, we predict that β will not be able to move past α, but α will be able to cross over β. It thus follows that the only possible order will be α < β [15]. On the other hand, if α and β create islands which are equally strong −as it is the case, for example, when both α and β are members of an identical feature class−, the two elements will not be allow to co-occur in a single clause.
Abels argues that most of the ordering generalizations expressed in the different versions of Rizzi's left-peripheral hierarchy can be derived in these terms: a static hierarchy of the type of (1) is therefore unnecessary.

As Abels (2012) points out, if a sequence like (1) is the byproduct of the crossing possibilities associated with each LP constituent, it follows that RM can be used to predict word order in the LP. In his article, Abels (2012) provides a refined version of Rizzi's *Relativized Minimality* (Rizzi 1990); following Rizzi, Abels analyzes RM effects as a ban against *likes* crossing *likes*, but resorts to a non-standard classificatory structure. He defines what a *like* is on the basis of five different classes of features: *Argumental, Top(ic), Mod(ifier), Rel(ative) and Op(erator)*; these classes interact with each other according to the logic of superclasses and subclasses dictated by Pāṇini's Principle. The specific way in which these elements interact is schematized in the feature diagram below, where the lower a feature class appears in the structure, the stronger the island it creates:

[15] Following the notational convention adopted in Abels (2012), I use the symbol "<" to express precedence. I therefore write "α < β" to indicate that α precedes β.

(2)



(Abels 2012: 249)

To understand how (2) works, consider the class of Op(erators), of which foci and *wh*-elements are part. Op is a *subclass* of Mod: it follows that all elements which are members of Op will be able to cross over all elements which are members of Mod, but elements which are part of Mod will not be able to move across Op elements. Moreover, no Op element will be able to move over a second Op element (a case of strong Minimality violation). Finally, Op and Top are on two separate branches (in Abels' (2012) terminology, they are *orthogonal* with respect to each other): this means that Op elements and Top elements will be freely interchangeable in order.

According to Abels, a RM analysis of the left-peripheral order is superior to cartographic hierarchies like (1) in two ways: it is both simpler and more general. It is simpler because it derives the left-peripheral order entirely from (a refined version of) Relativized Minimality, a principle that must be posited anyway to account for independent phenomena. Given that cartographic analyses of the LP resort to both Relativized Minimality *and* the hierarchy (see in particular Rizzi 2004a), a RM account is to be preferred on the grounds of overall simplicity.

A RM analysis is also more general than the hierarchy. The hierarchy derives the relative order of LP constituents from the properties of the structure they are plugged into, and as such it is inherently local. A RM account however is not, as it derives the LP ordering from the inherent properties associated with each element, i.e. their featural make-up. As such, the latter can predict the relative position of two LP constituents occurring in a single LP, as well as in two separate clauses.

In the next section, we will focus on this latter property, and discuss some cases where its application is problematic. We will see how this warrants a reorganization of the feature hierarchy in (2).

II.I Local Ordering Restrictions

Abels' model of the left periphery makes the following prediction: if the relative position of two LP constituents is determined by RM, their local distribution should be no more restricted than their non-local one. Let us examine this prediction in more detail. Suppose there are two left-peripheral constituents, α and *β*. Let us assume that at least one of these two elements, say *β*, was not base-generated directly in the left periphery, but was internally merged there. There are two possible configurations in which α and β can occur: a first, *local* configuration, will obtain if both α and β are (internally or externally) merged in the same left periphery ((3)). A second, *non-local* one, will obtain if either element is merged or moved to a LP higher than the one in which the other constituent surfaces ((4)):

(3) Local
$[_{CP1}\ \beta \ldots\ \alpha\ \ldots\ [_{IP1}\ \cancel{\beta} \ldots]]$

(4) Non-local
$[_{CP2}\ \beta\ \ldots\ [_{CP1}\ \alpha\ \ldots\ [_{IP1}\ \cancel{\beta} \ldots]]]$

For simplicity's sake, throughout this paper I will use the notation in (5) to describe cases where β *locally* precedes α (as illustrated in (3)), and that in (6) to describe cases where β *non-locally* precedes α (as in (4)):

(5) Local
$\beta < \alpha$

(6) Non-local
$\beta < < \alpha$

If the relative distribution of two LP elements α and β is determined solely by RM, we predict the following grammaticality patterns: if the non-local order $\beta < < \alpha$ is found to be grammatical, the corresponding local order $\beta < \alpha$ should also be grammatical. If $\beta < < \alpha$ is found to be ungrammatical, on the other hand, RM cannot be used to predict whether the corresponding local distribution, the local $\beta < \alpha$ order, will be grammatical or ungrammatical. This is because the ungrammaticality of $\beta < < \alpha$ might be due to a violation of RM, in which case we expect $\beta < \alpha$ to also be ungrammatical, or it might be due restrictions which only apply to the movement of β outside of a clausal domain, in which case we expect $\beta < \alpha$ to be grammatical. This state of affairs is schematized in (7):

(7)

if ✓$\beta < < \alpha$, we predict that ✓$\beta < \alpha$

if * β < < α,	either	* β < α,
	or	✓β < α

That local orders should not be more restricted than non-local ones follows from both our definition of Relativized Minimality (Rizzi 1990) and our understanding of how intervention effects operate. An intervention effect arises whenever a structural relation between β and its lower copy ~~β~~ cannot be established because of the presence of an intervening element α, where the featural make-up of α is at least partly overlapping with that of β, and β c-commands α:

(8) * …. β … α … ~~β~~ …

We then expect the relative distance of β with respect to both α and ~~β~~ to be irrelevant for the purposes of extraction. If a ban exists which prevents α from intervening between β and its lower copy, it is inconsequential at which point in the structure α intervenes, as long as α does so.

Note that it is also inconsequential whether α was directly merged in the LP or was also moved to the position in which it ultimately surfaces. The structures in (3-4) could have just as easily taken the form of (9-10):

(9) Local
[$_{CP1}$ β… α … [$_{IP1}$ ~~β~~….~~α~~ …]]

(10) Non-local
[$_{CP2}$ β … [$_{CP1}$ α … [$_{IP1}$ ~~β~~….~~α~~ …]]]

All that matters for the purpose of intervention is that at some point in the derivation β has been extracted across (the highest copy of) α.

In his (2012) article, Abels presents several examples which show that the local distribution of various pairs of left-peripheral elements is never more restricted that their non-local distribution. According to the author, this shows that the left-peripheral sequence can be derived (almost)[16] entirely from RM. It also shows that no separate rule is needed to derive the non-local configurations, as both local and non-local orders can be made to follow from a unique underlying principle, RM.
An immediate problem with the claim that local orders are always the least restricted is that it does not hold consistently. In a number of cases, we observe that it is in fact the local order which is subject to ordering restrictions, whereas the corresponding non-local configuration is free. The rest of this section is devoted to discussing such cases.

[16] The one exception being complementizers. See Abels (2012) for some discussion on the issue.

Whenever possible, I have used data already present in the literature; all other examples are mine. Unless otherwise marked, all examples are from Italian.

II.I.I Focalization and Wh-movement in Italian

A first case of local ordering restriction is represented by the interaction of focalization with *wh*-movement. In Abels' feature diagram, foci and interrogative constituents belong to an identical feature class: that of OP(erators). From the fact that foci and WHs both belong to the OP class, we derive the prediction that these two types of element should be mutually incompatible: if a fronted focus were to co-occur with a moved *wh*-phrase, one of them would necessarily be intervening between the other constituent and its trace, causing a RM violation to occur. As will be seen in this section, this expected ungrammaticality is however only partly fulfilled.

Unlike Abels (2012), I will treat root and embedded questions separately, to the extent to which this is possible. There are several reasons behind this choice. The first is because of internal consistency: the latest version the cartographic hierarchy of the left periphery (see again 1), which is the one being evaluated here, takes matrix *wh*-movement and embedded *wh*-movement to target two distinct projections. A second reason –which follows from the first– is that the relative distribution of fronted WHs with respect to fronted foci is fundamentally different depending on the matrix or embedded nature of the clause they both appear in, as will become apparent below. A third reason is that matrix questions display prosodic restrictions which are absent in embedded interrogatives.

Focalization in Matrix Questions

Following Rizzi (1997, 2001), we know that, in matrix questions, foci and moved interrogative constituents can never co-occur locally. This is true independently of their relative order, as can be seen in (11)[17]:

(11) **<u>Local</u> (+ matrix)**

*WH_{matr} < Foc

(a) ***A chi*** IL PREMIO NOBEL dovrebbero dare?
To whom *THE PRIZE NOBEL they-should give?*
(Abels 2012: 242 from Rizzi 1997:298)

*Foc < WH_{matr}

(b) *IL PREMIO NOBEL **a chi** dovrebbero dare?
*THE PRIZE NOBEL, **to whom** they-should give?*
(Abels 2012: 242 from Rizzi 1997:298)

[17] See however Samek-Lodovici (2015) for criticism to the claim that foci and WHs can never co-occur in main questions.

Does the ungrammaticality of each of the two configurations in (11) say anything about whether WH elements are interveners for foci, and vice versa? Not necessarily, as will be discussed in the rest of this subsection.

Let us tackle each configuration in turn, starting from (11a). That (11a) was going to be ungrammatical was expected independently of whether a WH element may or may not cross a focus locally, as the structure in (11a) violates what has been captured by different authors (see in particular Calabrese (1982) and Rizzi (1996); see also Cardinaletti (2007) and Cruschina (2017) for some more recent analyses) as an adjacency requirement holding between the fronted *wh*-element and the inflection node. In Italian matrix questions, nothing can intervene between the fronted *wh*-element and the finite verb or auxiliary. This ban is independent of the presence of foci: it is for instance also responsible for the ungrammaticality of structures like (12), where the subject appears in its base position.

(12) ***Cosa** Gianni ha mangiato?
***What** *Gianni has eaten?*
Intended: 'What did Gianni eat?'

In order to express (12), the subject must be realized in a post-verbal position, as in (13). Alternatively, the subject may be dislocated to the left, as in (14):

(13) **Cosa** ha mangiato Gianni?
What *has eaten Gianni?*

(14) Gianni **cosa** ha mangiato?[18]
Gianni ***what*** *has eaten?*

The ungrammaticality of (11a) is thus not at all informative on whether foci represent interveners for WH movement, because of the confounding effect created by this adjacency requirement. To study the interplay of focus with respect to *wh*-movement in matrix questions, it is more informative to consider the non-local equivalent of (11a), where the WH criterion only applies vacuously. In this respect, consider (15):

(15) **Non-local (+ matrix)**
WH_{matr} << Foc
?A chi *pensi che QUESTO abbiano detto?*
?To whom you-think that THIS they-have said?
(Abels 2012: 242)

In (15), the two left-peripheral constituents under analysis feature the same relative order we had in (11a): the WH has been moved across the fronted focus, thus linearly

[18] See article 2 (chapter 9) for an analysis of subject topicalization as a way to salvage structures like (12).

preceding it. Unlike in (11a), however, the focus no longer intervenes between the WH element and the fronted inflection, since this surfaces in the lowest left periphery. Interestingly enough, the corresponding configuration is, if not perfectly natural, at least marginally acceptable.

What about the relative order in (11b), where it is the focus which has been moved across the WH? Here too, the ungrammaticality of the overall sentence does not necessarily guarantee that a violation of RM is responsible for it. As for (11b), it is instructive to compare the local with the corresponding non-local structure, and see what happens. We see that Foc << WH is acceptable, albeit in order to obtain a configuration of the type of Foc << WH, the WH must necessarily be embedded under an interrogative predicate and is thus no longer a matrix *wh*-word:

(16) **<u>Non-local</u> (+ embedded)**
Foc<< WH_{emb}

QUESTO	mi	domando	**a**	**chi**	abbiano	detto.
THIS	*REFL.*	*wonder*	***to***	***whom***	*they-have*	*said.*

'It is THIS that I wonder to whom they have said'

(Abels 2012: 242)

Examples (15) and (16) originally belong to Abels (2012), who marked them both as being ungrammatical. (16) is however perfectly acceptable to me, as well as to 11 other speakers of Italian to whom I have asked to judge this example. Example (15) is also deemed acceptable by most speakers, although it must be noted that those who do find it acceptable tend to pronounce it without the terminal rise which is typical of matrix questions. If that is the case, (15) takes the intonational contour of a declarative rather than of an interrogative: it is essentially pronounced as (17) below would be pronounced were the matrix verb to be elided. Note that all speakers, even those who find (15) only marginally acceptable, find (17) to be perfectly grammatical.

(17)

Mi	domando	**a**	**chi**	pensi	che	QUESTO	abbiano	detto.
I	*wonder*	***to***	***whom***	*you-think*	*that*	*THIS*	*they-have*	*said*

The acceptability of (15) and (16) shows that the ungrammaticality of the local configurations in (11) cannot be ascribed to a violation of RM. If that were the case, and if focalization did indeed block *wh*-movement −and vice versa−, we would expect (15) and (16) to also be unacceptable. The fact that they are not shows that some other, local factor must be responsible for what we observe in (11).

We have already identified a possible explanation of the ungrammaticality of (11a) in the adjacency requirement holding between fronted *wh*-element and finite verb. Such an explanation is however unavailable for (11b), since in this example the focus no

longer intervenes between the WH and the fronted inflection. Why is (11b) unacceptable, then?

The answer to the puzzle is likely prosodic. In particular, I would like to suggest that underlying the ungrammaticality of (11b) is the fact that the intonational contour associated with Italian fronted focus constructions is simply incompatible with the final rise which is typically associated with matrix questions in this language. Bocci (2013) has conclusively shown that, whenever a corrective focus is fronted to the left periphery, the post-focal material is associated with a low, flat contour, extending for as far as the end of the utterance is reached. As Bocci points out, this intonational contour is systematic and applies to all material following the fronted focus, no matter its type, prosodic weight or length.

The intonation of Italian matrix questions, on the other hand, sees a characteristic terminal rise, as it is the case in most varieties of English. In Italian, this terminal rise generally takes the form of a L-H% contour (see in particular Avesani 1995, D'Imperio 2002). In matrix questions, the verb is also assigned *Nuclear Phrase Accent* (Calabrese 1982; Marotta & Sardelli 2003; Bianchi, Bocci & Cruschina 2017). Both the presence of a nuclear phrase accent on the lexical verb and the presence of a terminal rise are incompatible with the low, flat contour which must be associated with post-focal material in fronted focus constructions, thus explaining why *wh*-elements and foci are incompatible in matrix questions. A prosodic account of the facts in (11b) also explains why these two elements are no longer incompatible in embedded questions, such as in (16) and (17): as shown in Cruschina (2017), embedded questions are not associated with a terminal intonational rise, nor must the verb be assigned nuclear pitch accent. In fact, the authors claim, the intonational contour of embedded questions is remarkably similar to that of any declarative. A prosodic account of the ungrammaticality of (11b) also explains why even those speakers who find (15) to be marginal all accept (17). Finally, also note that this prosodic analysis also extends to (11a): we predict that structures like (11a) will be ungrammatical both because of the WH-inflection adjacency requirement, and because the matrix *wh*-word and the fronted focus are prosodically incompatible.

If the ban on the co-occurrence of Foc and WH in matrix Italian questions is not syntactic, but simply prosodic in nature, we expect to find languages where these two elements can co-occur freely. Indeed, this is the case in Serbian, as can be seen in (18):

(18) (a) Kome si dao BARBIKU? (Serbian)
Whom you-have(cl) given BARBIE?
'To whom did you give the BARBIE?'

(b) BARBIKU kome si dao?
(c) Kome si BARBIKU dao?[19]

Question (18a) features a fronted *wh*-element, and a contrastive focus in situ. In (18b), the fronted focus has been moved across the *wh*-element, a configuration which is perfectly acceptable in this language. Note that the reverse relative order is also possible (18c). Interestingly, matrix questions in Serbian feature no utterance-final rise (Anja Šarić, p.c.), which may explain why foci and matrix *wh*-words are not incompatible in this language.

Note that the grammaticality of the examples in (18) is strong evidence against a competing-position analysis of the ungrammaticality of (11a) and (11b), along the lines of Rizzi (1997). Rizzi (1997) derives the local incompatibility of WH_{matr} and Foc observed in (11) by suggesting that *wh*-elements and foci target an identical projection (allegedly the specifier of FocusP) in matrix questions. If foci and *wh*-elements did target an identical position, however, we would expect their co-occurrence in matrix interrogatives to be cross-linguistically ruled out, which is not.

Focalization in Embedded Questions

Focalization in embedded questions is also sensitive to the local/non-local nature of the precedence relation between the focus and the WH, although the patterns of grammaticality differ from those observed for root interrogatives.

In local configurations, a fronted focus and an embedded *wh*-operator can co-occur, but only in the order Foc < WH_{emb} (Rizzi & Bocci 2015):

(19) **<u>Local</u> (+ embedded)**

Foc < WH_{emb}

(a) Mi domando A GIANNI **che cos'** abbiano detto,
*REFL. wonder TO GIANNI **what** they-have said,*
not to Piero
non a Piero.

*WH_{emb} < Foc

(b) *Mi domando **che cosa** A GIANNI abbiano detto,
REFL wonder **what TO GIANNI they-have said,*

[19] The auxiliary-subject clitic complex must appear in second position in (18c), as can be seen by the ungrammaticality of the example below:

(i) *Kome BARBIKU si dao?

This follows from Wackernagel's law, which is operative in this language. Presumably this law can be violated in (18b) because the fronted focus does not count when counting positions, as clitics can never be focused.

non a Piero.
not to Piero

(Rizzi & Bocci 2015, ex. 27)

Already in (16), we saw how the non-local equivalent of (19a), Foc << WH_{emb}, is grammatical. This is expected, given that the grammaticality of the order Foc < WH_{emb} shows us that the movement of a focus is not blocked by an intervening WH_{emb} element. What about the non-local counterpart of (19b)? Surprisingly, this is configuration is perfectly acceptable. The relevant example was already provided in (17); I repeat it as (20).

(20) **Non-local (+ embedded)**
WH_{emb} << Foc

Mi	domando	**a chi**	pensi	che	QUESTO	abbiano	detto.
REFL.	*wonder*	***to whom***	*you-think*	*that*	*THIS*	*they-have*	*said*

The grammaticality of (20) is surprising because it does not follow from Abels' feature hierarchy in (2), nor is it expected given the ungrammaticality of the local *WH_{emb}< Foc configuration. The grammaticality of (20) is on the other hand perfectly in line with the data reviewed in the previous section pointing to the conclusion that foci and *wh-elements* are not interveners for each other.

If foci are not interveners for *wh*-elements, why is (19b) ungrammatical, though? At first sight, this looks like a case where an explanation in terms of a local hierarchy of projections may not only warranted, but may in fact even be necessary. A restriction is present locally, but not non-locally, a state of affairs which is optimally captured by a system like Rizzi & Bocci's hierarchy. Note however how it is not entirely true that all embedded *wh*-words must follow a fronted focus: the local relative order of WH_{emb} and Foc is characterized by a distinct subject/object asymmetry, with subject *wh*-elements unexpectedly preceding fronted foci.

Subject WH_{emb}:

(21) (a) *Mi domando LA FATTURA chi abbia portato
**REFL wonder THE INVOICE who has(subv) brought*
(non il preventivo)[20]
(not the work-estimate)

(b) Mi domando chi LA FATTURA abbia portato
REFL *wonder who THE INVOICE has(subv) brought*
(non il preventivo)
(not the work-estimate)
'I wonder who brought the invoice, not who brought the work estimate'

[20] I thank Giuseppe Samo for pointing out these data to me.

Object WH_{emb}:

(22) (a) Mi domando L'IMBIANCHINO cosa abbia portato,
REFL wonder THE'PAINTER what has(subv) brought,
(non il falegname)
(not the carpenter)
'I wonder what the painter brought, not what the carpenter did'

(b) *Mi domando cosa L'IMBIANCHINO abbia portato,
**REFL wonder what THE'PAINTER has(subv) brought,*
(non il falegname)
(not the carpenter)

This asymmetry may very well be due to a case of superiority: a fronted subject need always precede a fronted object, regardless of the specific discourse role the subject is realized as. The existence of such an asymmetry, while being problematic for both the cartographic hierarchy in (1), and the feature diagram in (2), provides yet additional evidence in favor of the claim that foci and *wh*-elements are not interveners for each other: we see that at least some types of foci can move over embedded *wh*-elements, and viceversa.

II.I.II Focalization and the INT projection

A third case of local ordering restrictions is represented by the relative position of fronted foci with respect to both the *wh*-phrase "perché" (*why*) and the interrogative complementizer "se" (*if*). Rizzi (2001) observes that the distribution of "perché" differs markedly from that of other *wh*-phrases, most notably with respect to focalization. Whereas "perché" is compatible with a fronted focus, canonical *wh*-phrases are not[21]. Rizzi also notices that, whenever either "perché" or "se" co-occur with a focus, the former must necessarily precede the latter. The relevant contrast is exemplified below:

(23) **<u>Local</u> (+ embedded)**
se < FOC
(a) Mi domando **se** QUESTO gli volessero dire
*REFL wonder **if** THIS to-him(cl) they-wanted to-say*
(non qualcos'altro).
(not something.else).

(Rizzi 2001:289)

*FOC < *se*
(b) *Mi domando QUESTO **se** gli volessero dire
REFL wonder THIS **if to-him(cl) they-wanted to-say*

[21] At least not in matrix questions, see again section II.I.I

(non qualcos'altro).
(not something.else)

(Rizzi 2001:289)

Note that the ungrammaticality of (23b) cannot be dismissed by suggesting that selectional restrictions require adjacency between the interrogative verb and "se". As can be seen in (24), a topic may very well intervene in between *se* and the associated verb:

(24)	Mi	chiedo	a Gianni	**se**	gli	abbiano	parlato
	REFL.	*wonder*	*to Gianni*	***if***	*to-him(cl)*	*they-have*	*talked*

To account for the patterns in (23a-b), Rizzi (2001) postulates the existence of a dedicated functional projection hosting "se" and "perché", *INT*. As discussed in the introduction, INT precedes the Focus projection and follows relative operators as well as at least one Topic position.

Abels (2012) argues that it is possibly to derive the distribution of the two INT elements entirely from RM. In particular, he proposes that since focus movement is sensitive to weak islands (Cinque 1990), and given that both "se" and "perché" create one, foci can only follow them.

Once again, non-local configurations provide evidence against such a conclusion. What is problematic for Abels' analysis is the grammaticality of structures like (25), which shows how a focus can non-locally be extracted across the interrogative complementizer:

(25) **Non-Local**
FOC << *se*

QUESTO	mi	domando	**se**	gli	volessero	dire,
THIS	*REFL*	*wonder*	***if***	*to-him(cl)*	*they-wanted*	*to-say,*
(non	qualcos'	altro).				
(not	*something.else).*					

The grammaticality of (25) is puzzling given the feature hierarchy in (2): if the impossibility of having a focus locally precede "se" was dictated by a ban on the extraction of foci across weak islands, we would expect any structure featuring this type of crossing to be ungrammatical, regardless of the relative distance of the focus with respect to "se". The grammaticality of the non-local configuration in (25), if anything, shows that INT elements do not block the movement of foci to a higher position.

The existence of this local/non-local asymmetry could in principle be accounted for under Rizzi & Bocci's hierarchy in (1): (23b) is ungrammatical because there exists no

focus position above the INT projection. (25) would then be possible because the fronted focus is now targeting the Foc projection of the higher LP. Once again, note that the picture is not as straightforward as it looks initially: the impossibility of having a fronted focus locally preceding the interrogative complementizer is not a cross-linguistic universal. Consider in particular the following example, illustrating how, in Macedonian, both the configuration in (23b) and that in (23a) are perfectly acceptable:

(26)

(a) Не знам **дали** книгите ќе ги купи (или списанијата)
*Ne znam **dali** KNIGITE kje gi kupi (ili SPISANIJATA)*
*Not I-know **if** THE-BOOKS will them buy (or THE-JOURNALS)*
'I don't know whether I should buy THE BOOKS (or THE JOURNALS)'

(b) Не знам книгите **дали** ќе ги купи (или списанијата).
*Ne znam KNIGITE **dali** kje gi kupi (ili SPISANIJATA).*

The same flexibility in the local distribution of a fronted focus with respect to INT is observed in Bulgarian (see Krapova 2002) and Serbian/Croatian. Note that дали (=dali) in (26) is not a clitic but a free morpheme. This excludes the possibility that in Macedonian the order Foc < INT is only grammatical because the interrogative complementizer needs a focalized constituent onto which to encliticize.

II.II Operators and Local Ordering Restrictions

Several interesting conclusions can be drawn from the data discussed so far. The first is that our understanding of how operators interact with each other for the purposes of RM is fundamentally flawed. In both Abels' model of the left periphery, and Rizzi's (2004a) updated version of RM, foci and interrogative operators (whether moved or base-generated) are taken to be part of an identical feature class, and thus to be interveners for each other. Section II.I.I however proved that WH_{emb} can non-locally be extracted across Foc, and vice versa; section II.I.II, that foci can non-locally move across INT elements. This shows that WH or INT cannot possibly be interveners for Foc, and neither is Foc an intervener for WH elements.

What about INT and WH? Since all pairs displaying a relative distribution which is more restricted locally than non-locally feature an interrogative constituent as either member of the pair, the question arises whether the relative distribution of INT elements and fronted WHs is also locally more restricted. An analysis of cases where the two elements co-occur reveals that these two elements interact with each other in exactly the way RM would predict, i.e., by blocking each other's movement.

Example (27) shows that, locally, INT and WH may never co-occur, in either order:

(27) **Local**

*INT < WH_{emb}[22]

(a) *Mi chiedo **perchè** **cosa** tu abbia mangiato
REFL* *wonder* ***why* ***what*** *you* *have(subv)* *eaten.*

*WH_{emb} < INT

(b) *Mi chiedo **cosa** **perchè** tu abbia mangiato.
REFL* *wonder* ***what* ***why*** *you* *have(subv)* *eaten.*

The ungrammaticality of (27), however, is not particularly informative: it is expected given that Italian is not a multiple WH-fronting language. Note that the ungrammaticality of (27) does not immediately follow from the hierarchy in (1), but must be stipulated on top of it: after all, if *wh-* constituents and INT elements target two separate projections in the left periphery, and if INT elements are base-generated in the LP, we would expect at least (27a) to be grammatical.

A more interesting configuration is the contrast between (28) and (29). (28) shows that if either INT moves across WH, or viceversa, the resulting sentence will be ungrammatical. (29) shows that the ungrammaticality of (29) is indeed due to an intervention effect, since corresponding structures where the two interrogative constituents do not move across each other are perfectly acceptable.

(28) **Non-Local** (+ intervention)

*WH_{emb} << INT

(a) *Lea si domanda **cosa** tu ti chieda
Lea* *REFL.* *wondering* ***what* *you* *REFL.* *wonder*
perchè ~~**cosa**~~ io abbia mangiato ~~**cosa?**~~
why ~~***what***~~ *I* *have(subv)* *eaten* ~~***what?***~~

*INT << WH_{emb}

(b) ***Perchè** ti chiedi **cosa** ~~**perchè**~~ io
****Why*** *REFL.* *wonder* ***what*** ~~***why***~~ *I*
abbia mangiato ~~**cosa?**~~
have *eaten* ~~***what?***~~

[22] To investigate the relative distribution of INT elements with respect to WHs, I am only going to consider embedded questions. This is because multiple interrogative words are ungrammatical in main questions (i); they are however perfectly acceptable in embedded questions (ii):

(i) ?*A chi hai dato cosa?
*?*To* *whom* *you-have* *given* *what?*

(ii) Mi domando a chi tu abbia detto cosa.
REFL *wonder* *to* *whom* *you* *have* *given* *what.*

(29) **Non-Local** (- intervention)

Perchè	ti	chiedi	**cosa**	io	abbia	mangiato	~~**cosa**~~?
Why	*REFL*	*wonder*	***what***	*I*	*have*	*eaten*	~~***what***~~*?*

It can be concluded that, whereas INT and WH are indeed interveners for each other, neither of them is an intervener for Foc, nor is Foc an intervener for INT and WH. Instead of Abels' and Rizzi's monolithic OP class (30a), I then suggest the structure in (30b), where OP corresponds to two feature classes: Wh, of which both base-generated (INT) and fronted (WH) interrogative operators are part, and Foc Adopting Abels' (2012) notation, Wh and Foc are *orthogonal* with respect to each other, meaning that they do not interact with each other for the purposes of RM:

(30)

(a)

OP

(b)

Wh (externally or internally merged) Foc

If we revise our theory of RM as suggested in (30b), we are able to capture (i) the Macedonian/Bulgarian/Serbian-Croatian data on the local relative distribution of Foc and INT; (ii) the Serbian data on the local distribution of WH and Foc; (iii) the Italian non-local distribution of Foc with respect to INT, and Foc with respect to WH.

The specific implementation of RM suggested in (30b) goes against not only what claimed in Abels (2012) and in Rizzi (2004a), but also against a long tradition in linguistics, dating back to at least Hamblin (1973) (see also Rooth 1985, 1992; Rullmann & Beck 1998, Ramchand 1997) which analyzes *wh*-words as a special type of focus. This kind of analysis seems justified by the presence of several similarities between focus and *wh*-constructions, both semantically and syntactically. Semantically, both foci and *wh*-elements are taken to operate on set of alternative propositions (Rooth 1985, 1992), something which has led Beck (2006) to argue that the two rely on an identical interpretive mechanism. Intuitively, *wh*-constituents and foci also share the property of not being *presupposed* material[23]. Finally, in languages marking focus morphologically, the marker for focus is often the same marker used to signal the

[23] See however [Article 2] for a counterargument to the claim that *wh*-words can never represent presupposed material.

presence of a *wh*-word. This is for instance the case in Bura and South Marghi, two central Chadic languages (see Hartmann 2013; Gutzmann et al. 2017).

Similar as they are, foci and *wh*-elements are also markedly different. Semantically, whereas a *wh*-element has no ordinary semantic value, a focused element does (Beck 2006). Whereas a question has no truth value, a declarative containing a focus always does. Syntactically, even in languages like Hungarian, whereas all *wh*-words must obligatorily front to the left periphery, only some types of foci –the exhaustive ones– will (Cable 2017).

Note that it is perfectly possible to force an interpretation of a *wh*-constituent as a canonical focus: this is for instance the case when a *wh*-element is interpreted as being modified by a focus-sensitive operator like "only". When that is the case, we see that an intervention effect arises even in Italian, as exemplified in (31) below:

(31)

(a) Mi domando solo cosa abbia mangiato GIANNI, non PAOLO
REFL wonder only what has eaten GIANNI, not PAOLO
'I am only wondering what GIANNI has eaten, not what PAOLO has eaten'

(b) *Mi domando solo cosa abbia mangiato GIANNI, non quando
*REFL *wonder only what has eaten GIANNI, not when*
Intended: 'I am only wondering what GIANNI (and not someone else) has eaten, not when he ate'

In (31b), the focus-sensitive operator associates with the *wh*-element, which licenses a reading by which the speaker wants to know *what* Gianni has eaten, and does not care about *when* he ate. If such an agreement relation between the focus-sensitive *only* and the *wh*-element is realized, the presence of an additional focalized element, such as the focalized object in (31b), is no longer licensed. This is a result of the presence of the intervening focalized *wh*-element, and hence is a case of true intervention. Note the markedly different nature of the *wh*-element in (31b), for which a focal interpretation is enforced, and the one in (31a), where this is not the case. Wh-elements modified by a focus-sensitive operator like "only" evoke a set of alternatives *questions*, i.e. {I wonder *when* Gianni ate, I wonder *for how long* Gianni ate, I wonder *where* Gianni ate}. The focus value of a question whose *wh*-element is not focalized, on the other hand, is a set of possible *answers* to the question itself: {Gianni ate *a pizza*, Gianni ate *a bagel*, Gianni ate *sushi*}. The focalization of the *wh*-element thus results in the creation of a set of alternatives which are of the same type of the focalized *wh*-element, i.e., alternative *wh*-words.

Now that we have investigated the different combinations featuring the three types of constituents which were the focus of this section, it is instructive to consider the bigger

picture. In this respect, the table in (32) offers a bird's-eye view of the ordering patterns discussed in this section. (32) is to be read as follows: the first column specifies the given pair of left-peripheral constituents whose distribution is under investigation. The second column shows which non-local orders are grammatical, and which ones are not; the third column provides the same information, but for local orders. Finally, the fourth column discusses the ordering data in light of the possibility of accounting for the restrictions in terms of (our new version of) RM, or through the hierarchy.

(32) Relative Distribution of FOC, WH_{matr}/ WH_{emb} and INT

LP elements	**Non-Local Order**	**Local Order**	**Can their Relative Distribution be Derived Solely in Terms of RM?**
FOC, WH(matrix)	WH_{matr} << FOC[24]	WH_{matr} & FOC cannot co-occur locally, in either order, in at least Italian. In languages where they can, both WH_{matr} < FOC and FOC < WH_{matr} are grammatical.	Yes, provided (30b) is adopted. The local incompatibility of WH_{matr} and FOC observed in Italian is prosodic in nature.
FOC, WH(embedded = QEmb)	FOC << WH_{emb}; WH_{emb} << FOC	FOC < WH_{emb} (if WH_{emb} is not a subject); WH_{emb} << FOC (if WH_{emb} is a subject)	Yes, provided (30b) is adopted. Some additional explanation is however still needed to account for the subject/object asymmetry observed in at least Italian. This asymmetry does not follow from Rizzi & Bocci's hierarchy.
FOC, INT	FOC << INT; INT << FOC	INT < FOC; FOC < INT is ungrammatical in Italian, but grammatical in Macedonian, Serbian, Croatian and Bulgarian	Yes, provided (30b) is adopted. Some additional explanation is however still needed to account for the ungrammaticality of *FOC < INT in Italian.

[24] Note that the reverse order, FOC << WH_{matr}, is absent from this cell because whenever the wh-constituent non-locally follows the focus, the question is no longer matrix but it is embedded. Please check the cell below for information on this particular configuration.

INT, WH	* WH_{emb} << INT; * INT << WH_{emb} (both orders are fine if no intervention)	Not possible because of ban on multiple WH fronting	Yes, although the potential ban on multiple WH fronting, operating locally, must be stipulated from language to language.

From the table in (32) we see that, if the implementation of RM suggested in (30b) is adopted, almost all ordering facts discussed in this section are compatible with a RM analysis of the LP. The data which presently do not follow from RM, and thus require independent explanations, are the following:

(33)

(a) The local ban against FOC preceding INT in languages like Italian.
(b) That the existence of a subject/object asymmetry in the local relative order of FOC and QEmb, but only if QEmb is not a subject *wh*-element.

III. *Paired Ungrammaticality* and the Single Cause Fallacy

Take any two left-peripheral elements α and β, of which β can never precede α, neither locally nor non-locally. I will refer to this configuration as an instance of *paired ungrammaticality*. For a *paired grammaticality* configuration to be obtained, the following must then hold:

(34) *β < < α, and
*β < α

According to Abels (2012), configurations like (34) are cases for which a RM account is available: the fact that the ungrammaticality of the non-local order is replicated at the local level shows that a violation of a hierarchy of projections cannot be responsible for the ungrammaticality of *β < α. This is because, as discussed in the introduction, hierarchies only have an effect on local configurations.

The aim of this section is to show that paired ungrammaticality configurations are not necessarily the hallmark of a RM account, nor in fact do they necessarily represent evidence against the existence of a local hierarchy. The problem lies in what I refer to as the *single cause* fallacy: to claim that RM underlies (34), one must show that a violation of RM is responsible for the ungrammaticality of both the local and the non-local order. The fact that both orders are ungrammatical in (34) however merely shows that some constraint was violated at both levels: it does not in itself guarantee that the same constraint was responsible for the ungrammaticality of both structures.

Two left-peripheral constituents will be discussed in this section: *modifiers* and *relative operators*. What modifiers and relative operators have in common is that both give rise to configurations like that described in (34), yet neither can be said to support a RM analysis of the left periphery. This is because, for both elements, the ungrammaticality of the non-local configurations is the result of constraints different and additional to the ones responsible for the ungrammaticality of the local configurations.

In the case of modifiers, this results in what I refer to as *untestable pairs*: non-local structures featuring a fronted modifier turn out to always be ungrammatical, regardless of the ungrammaticality of the alleged RM violation. This leaves us with de facto no information on the possibility of accounting for their distribution in terms of RM. In the case of relative operators, it turns out that, once these different constraints are controlled for, relative operators are yet another constituent whose distribution is more restricted locally than it is non-locally.

III.I Modifiers

The first class of constituents whose local and non-local distribution is governed by different constraints is that of *Mod*. Members of the *Mod* class are all fronted adverbs, as well as all fronted modifiers like the expression "yesterday".

As noted by Abels (2012) on the basis of both Rizzi (2004a) and Benincà and Poletto (2004), modifier movement is clause-bound. Consider for instance (35-36): we see that the adverb "rapidly" cannot be moved to the LP of a clause higher than that in which it was first merged.

(35)	[$_{CP1}$*Rapidamente*,	hanno	risolto		il	problema	~~rapidamente~~]
	[$_{CP1}$Rapidly, *t*	*hey-have*	*solved*		*the*	*problem*	~~rapidly~~]
(36)	[$_{CP1}$**Rapidamente*,	Gianni	dice	[$_{CP2}$	che	~~*rapidamente*~~	hanno
	[$_{CP1}$*Rapidly,	*Gianni*	*says*	[$_{CP2}$	*that*	~~rapidly~~	*they-have*
	risolto il	problema	~~*rapidamente*~~]]				
	solved the	*problem*	~~rapidly~~]]				

(adapted from Rizzi 2004a:249)

Stating that no modifier can be moved non-locally is however too strong of a generalization: an adverb can be fronted non-locally, provided that it is either topicalized or focalized. I show this to be the case for focalization in (37):

(37)	RAPIDAMENTE	Gianni	dice	che	~~RAPIDAMENTE~~	hanno
	RAPIDLY	*Gianni*	*says*	*that*	~~*RAPIDLY*~~	*they-have*
	risolto il problema	~~RAPIDAMENTE~~,		non	LENTAMENTE!	
	solved the problem	~~*RAPIDLY*~~,		*not*	*SLOWLY!*	

Modifiers give rise to untestable pairs precisely because of their clause-bounded nature. Consider for example the sentences below, which illustrate the local and non-local interactions of Mod with respect to fronted topics. From Abels (2012), we know that modifiers and topics do not interact for the purposes of RM. Locally, a topic may then either precede or follow a fronted modifier:

(38) *Rapidamente*, i libri, li hanno rimessi a posto.
Rapidly, *the books*, *them(cl)* *they-have* *put* *in* *place.*
'They quickly put the books back'

(Abels 2012:239, from Rizzi 2004a: 239)

(39) I libri, *rapidamente* li hanno rimessi a posto.
The books, rapidly, *them(cl)* *they-have* *put* *in* *place.*
'The books, they quickly put them back'

(Abels 2012: 239)

Logically, we would then expect the same lack of interaction to characterize the corresponding non-local configurations. Yet we see that only the non-local equivalent of (39), (40), is acceptable. Note that in (41), the constituent *domani* ("tomorrow") can only be modifying the embedded predicate, as the verb in the matrix clause is in the past tense:

(40) I libri, credo che, *rapidamente*, li abbiano rimessi a posto
The books, *I-believe* *that*, rapidly, *them(cl)* *they-have* *put* *in place.*

(Abels 2012:239)

(41) **Domani* ho deciso che i libri, li devi
**Tomorrow* *I-have* *decided* *that* *the books*, *them(cl)* *you-must*
rimettere a posto.
put *in* *place.*

Concerning the ungrammaticality of structures like that in (41), Abels (2012) acknowledges that the clause-bounded nature of modifier movement is an issue when testing a RM analysis of the LP, but argues that what is crucial is still that "the local ordering possibilities are no more restricted than the long-distance ones" (Abels 2012:238). While it is certainly true, the fact remains that the relative distribution of modifiers with respect to topics cannot be said to support a RM analysis of the left periphery. In truth, examples (38-41) are simply uninformative for the present analysis: cases where a given order is grammatical locally, but unacceptable non-locally, are compatible both with the hierarchy and with RM.

Now that we are familiar with the clause-bounded nature of modifier movement, let us move on to discussing those pairs which display the "desired" order, namely the paired

ungrammaticality configuration shown in (34). A case in point is represented by the pair *modifiers − foci*. From Rizzi (2004a), we know that fronted modifiers must locally follow left-dislocated foci, hence the ungrammaticality of (43):

Local

(42) QUESTA PROPOSTA, *rapidamente*, tutti i deputati
THIS PROPOSAL, rapidly, *all the representatives*
hanno accettato.
have accepted

(43) **Rapidamente*, QUESTA PROPOSTA tutti i deputati
*Rapidly, *THIS PROPOSAL all the representatives*
hanno accettato.
have accepted.

(Abels 2012:236-237)

The same contrast apparently arises in non-local configurations: non-locally, it is once again impossible for the modifier to precede the focus.

Non-Local

(44) IL DECRETO 23 BIS il presidente ha deciso
THE DECREE 23 BIS the president has decided
che *domani* metterà in atto (non il 24 bis)
that tomorrow *will-put in act (not the 24 bis)*

(45) **Domani* il presidente ha deciso che IL DECRETO
*Tomorrow *the president has decided that THE DECREE*
23 BIS metterà in atto (non il 24 bis)
23 BIS will-put in act (not the 24 bis)

The parallel between (43-45) on the one hand, and (42-44) on the other, is however a false positive: (45) would have been ungrammatical anyway because of the clause-bounded nature of modifier movement.

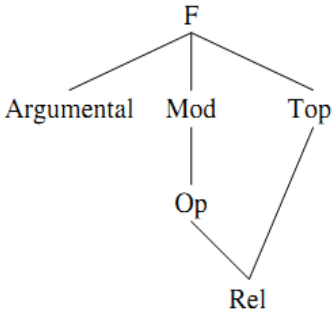
With modifiers, we thus face an impasse. The cases where a modifier has been extracted non-locally across a second LP element are crucial to determine whether a RM explanation is available to account for their low position in the LP. These are however always going to be ungrammatical anyway, regardless of whether such an extraction is *per se* grammatical. This leaves us with no information pertaining to the application of RM in pairs featuring a modifier as either member of the set. In other words, when it comes to modifiers, a RM account is simply untestable.

III.II Relative Operators

Relative operators (henceforth, *RO*s) are a second type of constituent which give rise to paired ungrammaticality configurations and yet cannot be said to support a RM analysis of the left periphery, or at least not the one advocated in Abels (2012).

From Cinque (1990), we know that relativization gives rise to strong islands; as such, we expect that nothing should be able to move outside of a relative clause. This generalization is formalized in Abels (2012) by having the feature class *Rel*, of which relative operators are part, being the lowest class in the feature diagram (2, below):

(2)



(Abels 2012: 249)

As it was already the case for modifiers, if either member of a given LP pair is a RO, treating local and non-local configurations alike is problematic. To see why, let us consider how a typical local/non-local pairwise comparison featuring a relative operator is structured. Below are the examples used in Abels (2012) to describe the distribution of ROs with respect to fronted topics. We will only consider those examples in which the topic has been extracted across the RO, as those are the only cases which are relevant for the present purposes.

Local

(46) *Un uomo, il premio Nobel, **a cui** lo daranno senz'altro
A man, the Prize Nobel, **to whom it(cl) they-will-give undoubtedly*
(Abels 2012: 234, taken from Rizzi 1997:289)

Non-Local

(47) *A Gianni, ti parlerò solo delle persone **che**
To Gianni to-you(cl) I-will-talk only of-the people **that*
senz'altro gli daranno il premio Nobel.
undoubtedly to-him(cl) will-give the Nobel Prize

Intended: 'I will only tell you about those people who will undoubtedly give Gianni the Nobel Prize'

(Abels, 2012: 235)

An important difference between (46) and (47) is that in the latter example, but not in the former, the topic is moved not just across the relative pronoun, but also across the head noun of the relative clause. The movement depicted in (47) is thus in violation of the *Complex NP Constraint* (CNPC), whose classic definition is provided below:

(48) No element contained in an S dominated by an NP with a lexical head noun may be moved out of that NP by a transformation.

(Ross 1967:70)

As can be seen by the definition in (48), the local example in (46) does not equally feature a violation of the CNPC: in (46), the dislocated topic is not extracted *out* of the embedded relative clause, as it is still located within its edge. Also note that the ungrammaticality of (47) is independent of the presence of a relative operator: consider in particular the example below, a standard illustration of the complement-clause case of the CNPC. Note that 'che' in (49) is the complementizer introducing the complement clause, not a relative pronoun:

(49)	*Cosa	hai	sentito	**la**	**notizia**	che	~~cosa~~
	**What*	*did-you*	*hear*	***the***	***news***	*that*	~~*what*~~
	Alessandro	ha	comprato	~~cosa~~?			
	Alessandro	*has*	*bought*	~~*what*~~*?*			

Despite the lack of a relative pronoun intervening between the extracted object and its gap, the example in (49) is nonetheless ungrammatical. Clearly then, what matters in (47) is that extraction across a definite DP has taken place, not whether or not such extraction has crossed a RO in its path. As it was the case for modifiers, it is thus impossible to fully reduce non-local RO configurations to local ones: the non-local extraction of any element across a RO is always going to be ungrammatical −because of the CNPC−, but crucially it is going to be so for reasons different from, or at least additional to, those responsible for the ungrammaticality of the local extraction. This ultimately means that it is both impossible and incorrect to use the ungrammaticality of (47) to argue for a RM analysis of the ungrammaticality of (46).

If different constraints are responsible for the ungrammaticality of (46) on the one hand, and (47) on the other, we expect to find languages where only one configuration is ungrammatical, but the other one is not. On the assumption that the CNPC is a universal restriction (Cinque 2010), it should then be possible to find languages where the local extraction of a topic across the RO is grammatical, but the non-local extraction is not. Indeed, this is precisely the case in Georgian. In Georgian, there are

two types of relative operators: "rom" and "romeli". "Rom" is an invariable subordinating conjunction; it can function as a relative marker but can also introduce other types of subordinates, such as declarative ones. "Romeli" only introduces relative clauses and inflects for gender, number and case. Of particular interest to us is the first type of relative operator, "rom": as can be seen in (50), topics may precede "rom". Even in Georgian, however, topics can never move past the head noun, hence the ungrammaticality of (51):

(50) Bič'i, biblias **rom** namdvilad k'itxulobs. (Georgian)
*Boy.NOM, Bible.DAT **rom** certainly he-reads-it*
'A boy that the Bible certainly reads'

(51) *ǰanis, dagelap'arak'ebi im adaminebze,
**Gianni.DAT, I-will-speak-to-you those.DAT men.DAT+about*
mas **rom** mosc'onan
*he-DAT **rom** they-like-to-him*
'To Gianni, I will talk to you about those people that to him appeal'

If examples (50-51) are of any indication, different mechanisms are then responsible for the ungrammaticality of the corresponding Italian examples in (46) and (47). In particular, only the latter configuration seems to be a genuine case of intervention; crucially, however, the intervention is created not by the relative operator, but by its associated head noun, which is why only the non-local configuration is ungrammatical in Georgian. Additional evidence in favor of such a conclusion comes from relative clauses featuring a syntactically light head noun. Engdahl (1980), Erteschik-Shir (1982), Andersson (1982) and Allwood (1982) were among the first to notice that, in Scandinavian languages, extraction out of relative clauses is not altogether impossible: in some cases, a constituent may be fronted across and outside of a relative clause. Such violations of the CNPC are however only possible under quite rigid conditions: the head noun must be indefinite and non-specific, and the verb which takes the head noun as argument must either be an existential verb, or a verb like *know*, *meet* or *see*. Quite interestingly, the same selective violations of the CNPC are present, under comparable conditions, in Romance languages as well (Cinque 2010), Italian included. The extraction of a topic (here contrastive) across an indefinite head noun is therefore grammatical in (52):

(52) A Babbo Natale, conosco dei ragazzi **che** ci credono
*To Santa Claus, I-know some boys **that** in-it(cl) they-believe*
ancora. A Sinterklaas, non credo ci creda nessuno.
still. To Sinterklaas, not I-think in-it believes no.one.
'I know some guys who still believe in Santa Claus, but I don't think anyone still believes in Sinterklaas'

The corresponding local configuration is yet unacceptable:

(53) *Conosco dei ragazzi a Babbo Natale **che** ci credono ancora.
I-know some boys to Santa Claus **that in-it(cl) they-believe still.*

The same contrast is observed if the extracted PP is a focus, not a topic. The non-local configuration is grammatical:

(54) A BABBO NATALE, conosco dei ragazzi **che**
*TO SANTA CLAUS, I-know some boys **that***
credono ancora (non A SINTERKLAAS!).
believe still (not TO SINTERKLAAS!).

The corresponding local configuration however is not:

(55) *Conosco dei ragazzi A BABBO NATALE **che**
I-know some boys TO SANTA CLAUS **that*
credono ancora (non A SINTERKLAAS!).
they-believe still (not TO SINTERKLAAS!).

If the ungrammaticality of the local movement of a topic or a focus across the RO were due to the crossing of the relative pronoun itself, we would expect examples (52) and (54), which also feature the extraction of such constituents across the RO, to be equally ungrammatical. The fact that they are not shows us once again that different mechanisms are responsible for the (un)grammaticality of local RO configurations on the one hand, and non-local ones on the other. It also shows us that these mechanisms must be independent of one another, which is why we find cross- and intra-linguistic variation concerning which cases are grammatical and which ones are not.

The grammaticality of (52) and (54) shows how ROs are yet another element whose non-local distribution warrants a revision of the feature hierarchy suggested by Abels (2012). In particular, we see that "Rel" has no place in (2), given that it is the nominal head which instantiates the intervention effect, not the relative operator. We also see how a RM explanation of the ungrammaticality of examples like (46), where the topic locally intervenes between the nominal head and the relative operator in Italian, is not available. As always, a cartographic explanation of the data is not as uncomplicated as it might appear initially. Consider the contrast between (52) and (53): the presence of a local restriction, one could argue, straightforwardly follows from the hierarchy in (1), which clearly shows how there is no topic position before Force -where relative pronouns are allegedly merged-. The hierarchy could then be said to account for the ungrammaticality of the Italian configuration in (47), but note that it would fall short of accounting for the grammaticality of the Georgian example in (50), where a topic constituent does appear in between the nominal head and Force. As Georgian "rom" is

arguably not a full-fledged relative pronoun, being both invariable and multi-purpose, one could argue that this is in fact merged in a position other than Force, perhaps somewhere lower in the LP. Since virtually any projection other than Force is preceded by a Topic projection, the grammaticality of (50) would then follow. An account along these lines is however considerably harder to pull off for languages where a topic precedes a full-fledged relative pronoun. Two such cases are represented by Bulgarian (56) and Latin (57):

(56) Tova e ženata, naj- složnit pesni **kojato** peeše (…). (Bulgarian)
This is woman-the, most complex-the songs ***who*** *sang (…).*
"This is the woman who sang the most complex songs".
(Rudin, 1986:127)

(57) Meus vicinus, meo viro **qui** liberum praehibit locum… (Latin)
My neighbor, my husband ***who*** *free offers place…*
'My neighbor, who offers a free place to my husband…'
(Bianchi 1999:97)

Both Bulgarian *kojato* and Latin *qui* inflect for gender and number, and can only introduce a relative clause. To account for the existence of configurations like those in (56) and (57) in cartographic terms, one would either have to assume there is an additional Topic projection in the clausal spine, one located right above Force, or else that relative operators can after all be merged in a position lower than Force. Both solutions are by no means innocent, and would require a revision of the left-peripheral hierarchy.

IV. A Finer Topic Typology

In his (2012) article, Abels does not differentiate among the different types of topics, but treats all kinds of topicalized constituents as belonging to a unique, indistinct class, that of *Top*. His motivation for doing so is twofold: on the one hand, he argues that treating all topics as an indistinct class allows him to better demonstrate the methodological power of his analysis. On the other, he suggests that the locality of the different types of topics might presently not be understood well enough to be able to include any finer typology of topics in his model with a sufficient degree of confidence.

The goal of this section is precisely to expand on Abels' initial analysis by including such a finer typology of topics in his model. In particular, I will investigate the distribution of two different types of topics: *familiar* topics and *contrastive* topics. For each of these topics, I will determine their relative distribution with respect to three operators: elements merged in INT, moved WH operators and foci. Note that this is because these are the left-peripheral elements which are left if we exclude modifiers and relative operators, which give rise to untestable orders (section III). We will see

that topics are the one type of left-peripheral constituent whose actual distribution comes the closest to what is predicted by a pure RM analysis of the LP.

As remarked by several authors (Reinhart 1981; Polinsky 1999; Jacobs 2001; Neeleman & van de Koot 2008; van Bergen & de Hoop 2009, i.a.), providing a good definition of what a topic is exactly is a notoriously difficult task. Defining what the various subtypes of topics stand for is just as difficult. For each topic, I will then refrain from adopting a single definition. Rather, I will present a number of the most accepted definitions present in the literature. As far as the syntax of such topics is concerned, I will mainly refer to Frascarelli and Hinterhölzl (2007), and Frascarelli (2012), which are both based on Italian.

Note that all topics featuring in this section are PPs, never DPs. This is because nominal topics in matrix clauses are ambiguous between a hanging-topic and regular-topic construction (cf. Benincà 2001). As hanging topics are base-generated in the LP, not moved there (also Benincà 2001), these constituents are obviously not good candidates to test RM.
All examples in this section feature a preceding context of varying length. This is because the individuation of a topic as familiar or contrastive crucially relies on the presence of a specific context which licenses the contrastive or familiar reading of the topicalized constituent. A contrastive reading is licensed by the presence of a salient alternative to the topic, with which the topic is explicitly contrasted. A familiar reading is licensed whenever the topicalized constituent has been mentioned before in the preceding context, and has thereby been made very salient and accessible. The repetition of such a salient, activated referent results in its interpretation as presupposed, old information. It is in light of the preceding contexts that the (un)grammaticality of each of the following examples must thus be evaluated. Syntactically speaking, none of the examples below is ungrammatical: the presence of a clitic-resumed constituent, undefined in terms of its pragmatic import, is licensed both before and after each of the constituents reviewed in this section[25]. This was clearly remarked both in Abels (2012), as well as in the original studies by Rizzi (Rizzi 1997, 2001, 2004b). The specific pragmatic imports a topic may be associated with, on the other hand, are dependent on the position such a topic occupies in the clausal structure, as will become apparent in the following subsections.

IV.I Contrastive Topics

Kuno (1976) and Büring (1999) define contrastive topics (henceforth, *CTs*) as topics which create oppositional pairs with respect to other possible topics. As such, they introduce alternatives, exactly like foci. Similarly, according to Krifka (2008), a

[25] With the important exception of relative operators, as seen in III.II.

contrastive topic is what results from the combination of a topic with a focus. Neeleman & Vermeulen (2012) adopt a slightly different approach and suggest the feature 'contrast' to be an information-structure primitive; the authors then claim that contrastive topics are essentially the result of the union of two primitives, 'topic' and 'contrast'.

IV.I.I CTs and INT

According to Frascarelli (2012), contrastive topics are only licensed in a position which precedes Rizzi's (2001) INT, where the *wh*-element "perché" is externally merged. The examples discussed in this subsection however prove that CTs, as a rule, can appear both before and after "perché", although only one option might be available at a time given a specific context.
Let us start by considering cases where a CT must precede INT, like the one below:

Local
CT < INT

(58) Context: Roberto lavora in un'officina. Alcuni dei suoi colleghi compiono 50 anni questo weekend, per cui Luca vuole fare loro un regalo. L'amico Alessandro gli dà dei suggerimenti.
Context: Roberto has a job at the local autobody shop. This weekend, some of his colleagues turn 50, so Roberto wants to buy them a gift. His friend Alessandro is giving him some advice on what to buy.
Alessandro: "Al meccanico potresti regalargli un telescopio. Lo sai che lui è appassionato di astronomia...
Alessandro: *"To the mechanic you could give a telescope, since he is so into Astronomy…*

(a) Al carrozziere, **perché** Lucia non (gli)[26] organizza
To-the repairman, ***why*** *Lucia not (to-him) throws*
una festa a sopresa?
a surprise party?

(b) ?***Perchè*** al carrozziere Lucia non (gli) organizza
?*Why *to-the repairman Lucia not (to-him) throws*
una festa a sopresa?
a surprise party?
…Quel tipo non fa altro che fare festa"
…That guy surely loves a good party."

In (58), the CT must precede "perché". (58b) is not ungrammatical *per se*; rather, it is inappropriate given the preceding context. If we follow Neeleman et al. (2009), and

[26] PP topics need not be associated with an (overt) coindexed clitic (Cruschina 2010; Samek-Lodovici 2015), hence the parantheses.

Neeleman & Vermeulen (2012) in assuming that fronted CTs mark the material to their right as part of their domain of contrast, the reason behind the inappropriateness of (58b) becomes manifest: in (58), we want to contrast a full CP (the clause which represents the comment of *the mechanic* in the context), with another CP (the *why* question which is the comment of the lower CT *the repairman*). As the *wh*-word is part of the domain of contrast of "to the repairman", *perché* must then follow the topic.

If the domain of contrast consists of a smaller sentence chunk, however, a CT will be able to attach lower than INT. Consider in particular the example below, where the domain of contrast of the fronted CT only consists of the verb phrase:

(59) **Perché** al meccanico (gli) hai parlato,
Why *to-the mechanic* *(to-him(cl))* *you-have* *spoken*,
e al carrozziere (gli) hai scritto?
and *to-the repairman* *(to-him(cl))* *you-have* *written?*
'Why did you *talk* to the mechanic, and *write* to the repairman?'

The same situation can be observed at the non-local level: a CT may either precede or follow an element merged in INT, depending on whether the interrogative constituent is part or not of the domain of contrast associated with the CT.

Non-Local

CT << INT

(60) Context: Roberto è il proprietario di un'autofficina locale. In seguito a numerosi problemi sul lavoro, Roberto ha deciso di fare quattro chiacchere con i suoi dipendenti più problematici.
Context: Roberto owns a local autobody. Following a series of problems on the workplace, Roberto has decided to have a word with some of his most problematic employees.
Roberto: "Al meccanico già ieri gli ho consegnato una lettera di lamentele, quello è vero...
Roberto: "To the mechanic, already yesterday to-him I-have delivered a letter of complaints, that's true…

(a) Al carrozziere, non so **perché** tutti credano
To-the repairmen, *not* *I-know* ***why*** *everyone* *believes*
che io (gli) abbia già parlato.
that *I* *(to-him)* *have(subv)* *already* *spoken.*

(b) *Mi chiedo **perchè** tutti credano che
REFL.* *wonder* ***why* *everyone* *believes* *that*
al carrozziere io (gli) abbia già parlato.
to-the repairmen *I* *(to-him)* *have(subjv)* *already* *spoken.*

...Avete tutti visto che ieri neanche si è presentato a lavoro"
…You all saw how he didn't even show up for work, yesterday"

In (60), we are once again contrasting two full CPs: the entire comment associated with the topic "to the mechanic", a declarative clause, with the entire comment associated with "to the repairman", an embedded question. As it was already the case for (58b), note that (60b) is not inherently ungrammatical: it is simply unnatural given the particular context provided, and hence given the domain of contrast warranted in (60). Evidence of the possibility of realizing the order INT << CT is (61), where only the most embedded IPs are contrasted:

INT << CT

(61)	**Perché**	credi	che	al meccanico	Mario	(gli)	abbia	
	Why	*you-believe*	*that*	*to-the mechanic*	*Mario*	*(to-him)*	*has(subv)*	
	parlato, e	che	al carrozziere	Lucia	(gli)	abbia	scritto?	
	spoken, and	*that*	*to-the repairman*	*Lucia*	*(to-him)*	*has(subv)*	*written?*	

IV.I.II CTs and Foci

Let us now turn to the relative distribution of CTs with respect to foci. As already observed by Torregrossa (2014), CTs must always precede left-peripheral foci, hence the ungrammaticality of (62b), where a contrastive topic co-occurs with a mirative focus (Cruschina 2006; Bianchi, Bocci & Cruschina 2015, 2016):

Local

CT < FOC

(62) *Context: A and B are discussing what B's brother bought as a gift for his two friends*

A: Ad Alessia, tuo fratello ha regalato dei calzini, mentre a Sonia le ha regalato una collana d'argento.

A: To Alessia, your brother has given some sock, whereas to Sonia to-her(cl) he-has given a silver necklace.

B: Guarda che ti sbagli! Ad Alessia ha regalato dei calzini, è vero...

You are wrong! To Alessia he has indeed given a pair of socks…

(a) Ma a Sonia, UNA COLLANA D'ORO le ha regalato!
But to Sonia, A GOLDEN NECKLACE to-her(cl) he-has given!

(b) *Ma UNA COLLANA D'ORO a Sonia le ha regalato!
**But A GOLDEN NECKLACE to Sonia to-her(cl) he-has given!*

...Non una d'argento
...Not a silver one.

As predicted by RM, the same ordering restriction is found at the non-local level. Non-locally, we see that the order FOC << CT is ungrammatical, but the reverse order is perfectly acceptable:

Non-Local

CT << FOC

(63) *Context: A and B are discussing what B's brother bought as a gift for his two friends*

A: Ad Alessia, tuo fratello ha regalato dei calzini, mentre a Sonia le ha regalato una collana d'argento.

A: To Alessia, your brother has given some socks, whereas to Sonia he has given a silver necklace.

B: Guarda che ti sbagli! Ad Alessia le ha regalato dei calzini, è vero...

You are wrong! To Alessia he has indeed given a pair of socks…

(a) Ma a Sonia, tuo fratello dice che UNA COLLANA D'ORO le ha regalato!
But to Sonia, your brother says that A GOLDEN NECKLACE to-her(cl) he-has given!

(b) *Ma UNA COLLANA D'ORO tuo fratello dice che a Sonia le ha regalato!
**But A GOLDEN NECKLACE your brother says that to Sonia to-her(cl) he-has given!*
…Non una d'argento
....Not a silver one.

IV.I.III CTs and WH_{emb}s

Finally, let us discuss the relative distribution of CTs with respect to moved interrogative operators. Locally, a fronted CT can only precede moved WH_{emb}s, as attested by the different grammaticality status of the options below:

Local

CT < WH_{emb}

(64)

(a) Mi domando al postino **cosa** (gli) abbiano
REFL wonder to -the mailman ***what*** *(to-him(cl)) they-have*

detto, e al falegname **cosa** (gli) abbiano regalato[27]
*said, and to-the carpenter **what** (to-him(cl)) they-have written*

(b) ?*Mi domando **cosa** al postino (gli) abbiano
*?*REFL wonder **what** to-the mailman (to-him(cl)) they-have*
detto, e **cosa** al falegname (gli) abbiano regalato
*said, and **what** to-the carpenter (to-him(cl)) they-have given*

The same pattern is replicated non-locally. Only CT<<WH_{emb} is fully acceptable:

Non-Local

CT << WH_{emb}

(65)

(a) Al postino mi chiedo **chi** (gli) abbia parlato;
*To-the mailman REFL wonder **who** (to-him(cl)) has(subv) spoken;*
al falegname (mi chiedo) **cosa** (gli) abbiano detto
*to-the carpenter (REFL wonder) **what** (to-him(cl)) they-have said.*

(b) ??Mi chiedo **cosa** tu pensi che, al falegname,
*??REFL wonder **what** you believe that, to-the carpenter,*
(gli) abbiano detto, e **quando** tu pensi che
*(to-him(cl)) they-have said, and **when** you think that*
to-the mailman (to-him(cl)) they-have(subv) spoken
al postino gli abbiano parlato.

IV.II Familiar Topics

The second class of topics whose distribution is discussed in this article is that of familiar topics. Familiar topics (henceforth, *FTs*) are given, d-linked constituents which are typically destressed and which are often realized in a pronominal form (Pesetsky 1987). They are also generally used for topic continuity (Givón 1983). According to Frascarelli and Hinterhölzl (2007), FTs stand clearly apart from CTs, for both properties and distribution: for example, whereas there can only be one CT per sentence[28], multiple FTs can feature in the same clause. FTs are also the only type of topic which can be realized in either periphery: they can either appear in the LP, or be right-dislocated. Finally, clitic-resumption is optional for FTs, whereas it is mandatory

[27] It is only possible to study the relative position of CTs with respect to *wh*-elements in embedded questions; in matrix questions, as already discussed in section II.I, inflection and *wh*-word must be structurally adjacent. As such, no element can appear in between a fronted wh-word and the predicate:

(i) *__A chi__ il libro lo vuoi lasciare?
__To whom__ the book it you-want to-leave?

[28] See however article 2 (chapter 9) for an argument against this claim.

for (nominal[29]) CTs (Frascarelli & Hinterhölzl 2007). As we are only interested in those constituents which surface in the left periphery, in this article we are going to focus exclusively on FTs which are moved to the LP, and not on those which have been right-dislocated[30]. Concerning their distribution in the LP, Frascarelli and Hinterhölzl (2007) argue that FTs must follow foci as well as all other left-peripheral operators; we will see that this prediction is entirely correct.

IV.II.I FTs & INT

We will start by discussing the relative distribution of FTs with respect to INT elements. Familiar topics must always follow elements merged in INT, both locally and non-locally. The relevant examples are reported below:

Local

INT < FT

(66) *Context: Someone is mocking his brother, who has a crush on the queen of the Netherlands.*
"Non fai altro che parlare della regina Maxima. 'La regina è bellissima, la regina è bravissima!'..."
All you do is talk about queen Maxima. 'The queen is beautiful, the queen is amazing!'…"

(a) **Perché** alla regina non (le) fai una
Why *to-the queen* *not* *(to-her(cl))* *you-make* *a*
proposta di matrimonio, allora?
proposal *of* *marriage,* *then?*
'Why don't you propose to the queen, then?'

(b) *Alla regina, **perché** non (le) fai una proposta
To-the queen* ***why* *not* *(to-her(cl))* *you-make* *a* *proposal*
di matrimonio, allora?
of *marriage,* *then?*

Non-Local

INT << FT

(67) *Context: Same as (66)*

(a) Mi domando **perché** tu non mi abbia ancora annunciato
REFL. wonder ***why*** *you* *not* *to-me(cl)* *have* *yet* *announced*
che alla regina (le) vuoi fare una proposta di matrimonio.
that *to-the queen* *(to-her(cl))* *you-want* *to-make* *a* *proposal* *of* *marriage.*
'I wonder why you still haven't announced me you are proposing to the queen'

[29] See note 26

[30] For a comprehensive study of right-dislocated topics, see Samek-Lodovici (2006, 2015)

(b) *Alla regina, mi domando **perché** tu non mi abbia ancora
*_To-the queen_ *REFL. wonder* ***why*** *you not to-me(cl) have yet*
annunciato che (le) vuoi fare una proposta di matrimonio.
announced that (to-her(cl)) you-want to-make a proposal of marriage

In (66-67), "the queen" was first introduced already in the context, where it represents the sentence topic; this ensures that the elicited topic is indeed a familiar one. The sentences containing the tested topic then maintains this constituent as the sentence topic in order to elicit a continuity reading of the topicalized constituent. Note that both (66b) and (67b) would be grammatical under a contrastive topic reading, which is however not the one elicited here.

IV.II.II FTs & FOC

As it was already the case for INT elements, foci must necessarily precede left-peripheral FTs, both locally and non-locally. This is exemplified in (68) and (69) respectively. As in (66-67), to ensure that the fronted topic is interpreted as familiar, this appears already in the preceding context:

Local

FOC < FT

(68) Context:
A: "Il dottore riceve il lunedì e il martedì dalle tre di pomeriggio, e tua madre ha detto che Luca dal dottore ci deve assolutamente andare..."
B: "Ti sbagli!..."
A: "The doctor's visiting hours are Mondays and Tuesdays from 3 p.m., and your mother said that Luca must absolutely go see the doctor…"
B: "You are wrong! ..."
(a) FRANCESCO dal dottore ci deve assolutamente andare!
FRANCESCO to-the doctor there(cl) must absolutely go!
'It is FRANCESCO the one who should absolutely go see the doctor!'
(b) *Dal dottore FRANCESCO ci deve assolutamente andare!
**To-the doctor* *FRANCESCO there(cl) must absolutely go!*

Non-Local

FOC << FT

(69) Context: same as (68)
(a) FRANCESCO la mamma ha detto che
FRANCESCO the mom has said that
dal dottore ci deve assolutamente andare!
to-the doctor there(cl) he-must absolutely go!
'It was FRANCESCO that mom said should absolutely go see the doctor!'

(b) *<u>Dal dottore</u> la mamma ha detto che
*<u>*To-the doctor*</u> *the* *mom* *has* *said* *that*
FRANCESCO ci deve assolutamente andare!
FRANCESCO *there(cl)* *he-must* *absolutely* *go!*

Note once again that there is nothing intrinsically wrong with the structures in (68b) and (69b): these sentences would for instance be perfectly acceptable were the fronted topic to be interpreted as contrastive. This is however not the reading we are after in (68-69): the fronted topics in these examples are not to be interpreted in opposition to some contextually salient alternative. Rather, they simply represent old, presupposed information which is repeated for continuity's sake, but might as well also be dropped entirely.

IV.II.III FTs & WH_{emb}

The distribution of fronted WHs with respect to FTs is identical to that of (FT, FOC): FTs must follow fronted WHs, both locally and non-locally:

<u>Local</u>

WH_{emb} [31]< FT

(70) Context: "Gianni e Luisa mi hanno detto che al direttore ci hanno già parlato, e lo stesso vale per Alessandro e Fabrizio. Eppure Lucia mi dice che qualcuno non si è presentato all'incontro, quindi uno di loro sta mentendo...
Context: Gianni and Luisa told me that to-the director to-him(cl) they-have already spoken, and the same goes for Alessandro and Fabrizio. And yet Lucia tells me that someone didn't show up for the meeting, so one of them must be lying…

(a) ...Mi domando proprio **chi** <u>al direttore</u> non
...*REFL.* *wonder* *really* ***who*** <u>*to-the director*</u> *not*
gli abbia ancora parlato
to-him(cl) *have(subv)* *yet* *spoken.*
'…I truly wonder who hasn't spoken to the director yet'

(b) ...?*Mi domando proprio <u>al direttore</u>
...*?*REFL.* *wonder* *really* <u>*to-the director*</u>
chi non gli abbia ancora parlato
who *not* *to-him(cl)* *have(subv)* *yet* *spoken.*

[31] Here again, note that it is impossible to test the relative position of WH elements and FTs in main questions, because of the adjacency requirement between wh-elements and inflection node discussed in section II.I.

Non-Local

WH_{emb} << FT

(71) Context: same as in (70)

(a) Mi domando proprio **chi** Luisa abbia detto
*REFL. wonder really **who** Luisa has said*
che al direttore non gli ha ancora parlato
that to-the director not to-him(cl) has yet spoken.

(b) ?*Al direttore mi domando proprio **chi**
*?*To-the director REFL. wonder really **who***
Luisa abbia detto che non gli ha ancora parlato
Luisa has said that not to-him(cl) has yet spoken.

IV.II Familiar Topics

Before we start discussing the data reviewed in the preceding subsections, it is interesting to study the distribution of FTs with respect to one final constituent: relative operators. In section III.II, we saw how CTs can only precede ROs if the CT is fronted to a CP higher than that in which the RO appears. In order to get a picture of the distribution of topics which is as comprehensive as possible, it is thus interesting to see whether the same restriction holds for FTs.

Examples (72-73) show that FTs can only follow ROs locally, but are allowed to precede them non-locally. Indefinite head nouns were chosen for both (72) and (73): this is to prevent the non-local extraction of the FT across the RO from being inherently ungrammatical because of a violation of the CNPC, as discussed in section III.II.

Local

RO < FT

(72) Context: "La figlia del presidente è il nuovo idolo dei teenagers. Tuo fratello ne ha persino un poster in camera. Devo dire che persino i più vecchi ne sono ossessionati..."
Context: "The president's daughter is the new idol of all teenagers. Your brother even has a giant picture of her face in his bedroom. I must say that even the elderly like her quite a lot..."

*Conosco un sindaco, alla figlia del presidente,
**?I-know a mayor, to-the daughter of-the president,*
che le ha pure dedicato una scuola
that *after-her he-has even named a school.*

Non-Local

RO << FT

(73) Context: same as (72)

Alla figlia del presidente,			conosco	un	sindaco
To-the daughter of-the president,			*I-know*	*a*	*mayor*
che le	ha	pure	dedicato	una	scuola.
that *after-her*	*he-has*	*even*	*named*	*a*	*school.*

The same local restriction which characterized the distribution of CTs with respect to ROs is then present with FTs: the position intervening in between the relative operator and the associated nominal head is simply unavailable as a landing site for the movement of any type of topic.

Now that we have explored all possible combinations featuring a fronted topic and all testable LP elements, let us take a bird's-eye view at the distribution of topics in the left periphery. Below is a schematic summary of the findings of section IV. (74) details what orders are grammatical and ungrammatical for a specific pair of LP elements, both locally and non-locally, as well as whether such distribution can be captured in terms of RM.

(74) Relative Distribution of CTs and FTs wrt FOC, INT and WH_{emb}

LP elements	**Non-Local Order**	**Local Order**	**Can their Relative Distribution be Derived Solely in Terms of RM?**
CTs, INT	CT << INT INT << CT	CT < INT INT < CT	YES
CTs, FOC	CT<< FOC *FOC << CT	CT< FOC *FOC < CT	YES
CTs, WH	CT << WH_{emb} *WH_{emb} << CT	CT < WH_{emb} *WH_{emb} < CT	YES
FTs, INT	*FT << INT INT << FT	*FT < INT INT < FT	YES
FTs, FOC	*FT << FOC FOC << FT	*FT < FOC FOC < FT	YES
FTs, WH	*FT << WH_{emb} WH_{emb} << FT	*FT < WH_{emb} WH_{emb} < FT	YES

The table in (74) shows that the distribution of both types of topics with respect to FOC, INT or WH follows entirely from RM: local ordering configurations featuring a topic and any of these elements are never more restricted than non-local ones. In fact,

we see that the grammaticality status of a given non-local configuration is always identical to that of the corresponding local structure.

One reason why a pure RM analysis appears to be particularly fitting when it comes to the distribution of topics relates to the fundamental freedom of CTs to either precede or follow INT. We saw from section IV.I.III that CTs must precede fronted WHs; if we want to maintain that INT and WH are members of the same featural class (section II.II), we would then expect that CTs should also always precede elements merged in INT, such as *perché*. This seeming complication is however only apparent: from Rizzi (2001), we know that elements merged in INT are base-generated, not moved to the left periphery. Evidence in favor of a base-generation analysis of *perché* is represented by its behavior with respect to interrogative inversion: as discussed in section II.I, in Italian matrix questions, *wh*-words corresponding to lower adverbials and arguments need to be adjacent to the fronted *WH*. This is not the case for *perché*, as can be seen by the contrast in (75-76): the subject need not be post-verbal when *perché* is present.

(75)	*Che cosa	Gianni	ha	fatto?	
	**What*	*Gianni*	*has*	*done?*	
(76)	Perchè	Gianni	è	partito?	
	Why	*Gianni*	*is*	*left?*	(Rizzi 2001: 287)

If by RM, CTs can move across interrogative operators, but interrogative operators cannot move across CTs, it follows that the only way for an operator to ever precede a CT is if such operator is externally merged in a position above that in which the CT surfaces. The grammaticality of the order INT <(<) CT then follows.

The one aspect of the distribution of topics which does not follow from RM, and where RM makes in fact the wrong predictions, concerns the possibility for FTs to occur more than once within the same LP. As discussed in section IV.II, FTs differ from other types of topics in that more than one FT can be present within the same sentence. That more than one FT should be able to feature within the same clause is unexpected given a RM analysis of the LP: two FTs obviously have an identical featural make-up, hence the movement of one over the other should lead to a strong minimality violation. Yet it does not, as the grammaticality of (77) below shows:

(77)	Non	so	se	MARIO	a Gianni	la conferma	gliel'abbia	data!
	Not	*I-know*	*if*	*MARIO*	*to Gianni*	*the confirmation*	*to-him-it-he-has*	*given!*

V. Pulling the Threads Together

The table in (78) provides a graphic representation of the conclusions reached so far concerning the possibility of accounting for the relative order of a specific pair of left-peripheral constituents in terms of the revised model of RM argued for in this article.

Given this model, (78) provides an answer to the question "for each given combination of LP elements, is their local and non-local distribution accounted for solely in terms of RM?". (78) is organized as follows: on the x and y axes (in bold) is a list of all LP elements. Both lists are ordered starting from the topmost element in the left periphery (ROs), moving on to the lowest (FTs). This means that the list is ordered top-to-bottom in the y axis, and left-to-right in the x axis. The intersection of a given combination of x and y values then represents a specific combination of LP constituents. On the diagonal axis (in italics) are thus those combinations of LP constituents where both elements are identical (e.g. (CT, CT), (WH, WH), etc.).
Note that (78) is tailored on the LP of Italian. This means that a RM explanation of a specific set of ordering facts may be available in other languages (see in particular section II.I.I the relative order of WH and Foc in Serbian, and section II.I.II for the relative order of INT and Foc in Macedonian, Serbian-Croatian and Bulgarian).

There are three possible values that a given combination can be assigned:

i. The combination is marked as "RM" if the relative distribution of the two elements, both locally and non-locally, follows from the specific implementation of RM argued for in this paper.
ii. The combination is marked with "local restriction" if the relative order of the two elements is more restricted locally than it is non-locally. These are cases which call for an explanation other than RM.
iii. The combination is marked as "untestable" if different constraints apply to the local and non-local configurations, such that the two are impossible to compare. These are pairs which, at present, can neither support, nor be evidence against, a RM analysis of the LP.

(78) Combinations of left-peripheral elements and RM

ROs	*RM*						
INT	untestable	*RM*					
CTs	local restriction	RM	*RM*				
FOC	local restriction	local restriction	RM	*RM*			
WH	untestable	RM	RM	local restriction (due to prosody)	*RM*		
MOD	untestable	untestable	untestable	untestable	untestable	*untestable*	
FTs	local restriction	RM	not tested	RM	RM	untestable	*unexplained*
	ROs	**INT**	**CTs**	**FOC**	**WH**	**MOD**	**FTs**

Some of the cells in (78) require some clarification:

- The pairs (RO, INT) and (RO, WH) are marked as "untestable" because a clause cannot simultaneously be a relative clause and a question.
- The pair (FT, CT) is marked as "not tested": this is because, as remarked by Frascarelli & Hinterhölzl (2007), configurations where multiple topics of different types occur are quite rare, and thus difficult to elicit.
- The cells on the table's diagonal (in italics) depict cases of strong Minimality violations: a constituent is moved across another constituent of an identical type. Note that these configurations are correctly predicted to be ungrammatical: almost no left-peripheral element can be iterated, which results in the ungrammaticality of structures containing two LP constituents of the same type, regardless of what their relative order is. The one exception is represented by familiar topics, which, as already discussed in section IV.III, can occur more than once within the same clause[32].

VI. Conclusions

The aim of this article was to test the limits of two diverging models of the LP: Rizzi & Bocci's (2015) cartographic hierarchy, and Abels' (2012) RM-based account. The question this paper addressed was in particular whether the sequence in (1), the most updated version of the hierarchy, can be fully accounted for in terms of Relativized Minimality, or whether some local ordering restrictions must still be stipulated on top of RM. If the latter, the question was then "which ones?". The answer this paper provided is a complex one: RM can indeed account for the majority of the ordering phenomena observed in the LP, provided however that our model of how the different classes of elements interact is partly revised.

A significant portion of this article has been devoted precisely to arguing in favor of a revision of how the various LP constituents interact for the purposes of RM. In section II, I showed how the grammaticality of the non-local orders FOC << INT, and WH_{emb} << FOC, proves that foci and interrogative operators do not interact with each other for the purposes of RM. Rather than having a monolithic Operator class, as it is the case in Abels (2012), I thus proposed that OP should be split into two orthogonal classes, Foc and Wh. Similarly, in section III.II and IV.II, I have argued that ROs do not in fact block the movement of focus and topics; what does is the definite head noun. Once this is controlled for, we see that the presence of a "Rel" class in the feature diagram is no longer warranted; cases where a constituent may not be extracted out of a relative clause are to be derived independently by invoking the CNPC.

[32] The same holds for modifiers according to at least Rizzi (2004a): more than one modifier can be fronted to the LP. As modifiers give rise to untestable pairs (III.I), the pair (Mod, Mod) is however marked as being "untestable".

Even with the suggested revisions, we see that are still some ordering restrictions which do not follow from RM. In sections II, III.II and IV.II, I for instance showed that, in Italian, the local distribution of foci with respect to interrogative constituents, and that of relative operators with respect to foci and topics, behaves in a way which is incompatible with the predictions made by RM. In particular, we saw how non-local configurations featuring these elements are less restricted than the corresponding local ones, showing that some additional mechanism other than RM must be at play locally. I have identified the source of the local incompatibility of WH_{matr} and foci in Italian in prosodic restrictions. The following facts are however still in need of an explanation:

(79)

(a) The fact that, in languages like Italian, INT must locally precede FOC even though INT is not an intervener for FOC;
(b) The existence of a subject/object asymmetry in Italian embedded questions;
(c) That, in languages like Italian, RO must be adjacent to the associated nominal head even though ROs do not block the movement of a topic or focus to a higher position.

An important contribution of this article was showing that at least (79a) and (79c) are language-specific: there are languages where these local restrictions do not hold, and for which a pure RM analysis is then viable. The existence of these languages shows how a RM analysis of ordering phenomena in the LP is indeed on the right tracks.

Additional evidence in favor of the viability of a RM analysis of the left periphery is represented by the distribution of topics, which follows almost entirely from RM alone. In section IV, I showed that, even if a finer typology of topics is adopted, the distribution of topics is still consistent with the predictions made by RM. The one exception is represented by structures where two FTs are present, which are wrongly predicted to be ungrammatical. This latter fact constitutes a fourth observation in need of an independent explanation:

(d) The fact that more than one FT may be allowed to feature in a single clause.

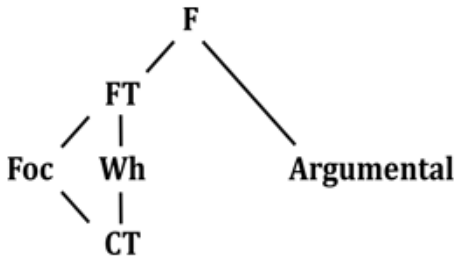
Crucially, if a finer typology of topic is adopted, topics are no longer unordered with respect to left-peripheral operators. CTs turn out to be interveners for both Foc and interrogative operators, which must then always follow CTs; this is unless the interrogative constituent is base-generated higher than the CT. Foc and Wh are in turn interveners for FTs, which thus always follow them.
That the distribution of topics can be fully derived through RM is a particularly interesting result. Several authors (Cinque 1990, Frascarelli 2000, 2004, Frascarelli &

Hinterhölzl 2007, i.a.) have argued that clitic-resumed topics are in fact not moved to the LP, but are base-generated directly in the C-layer. The fact that the distribution of topics follows almost entirely from RM, a theory on movement constraints, is however strong evidence in favor of a movement analysis over a base-generation one.

RM offers a powerful tool to understand word order in the left periphery, but also has its limitations, and it is important to clearly identify what these are. In section III.I, I showed how it is impossible to determine whether the distribution of modifiers complies with RM. The non-local cases, which are crucial to determine whether a RM analysis holds, are ruled out anyway because of the application of additional conditions; this leaves us with no information pertaining to the application of RM with respect to these constituents. As such, these constituents cannot be claimed to support a RM-only model of the LP, nor can they be taken to be evidence in favor of a local hierarchy of projections like that of Rizzi and Bocci (2015)'s.

The various revisions to the theory of RM advocated in this article lead to the feature diagram in (80), which I have modeled after Abels' (2012) implementation of RM in terms of subclasses and superclasses:

(80)



Where Foc= Fronted foci
Wh = Moved and base-generated interrogative operators
CT = Contrastive topics
FT = Familiar topics
Argumental = person, number, gender, case

In (80), Wh and Foc are orthogonal with respect to each other: none of the elements which are part of these classes will then block the movement of the members of the other classes. CT is a subclass of both Foc and Wh: we then derive the fact that CTs will be interveners for both foci and interrogative operators, but not the opposite. Finally, FT is a superclass of all classes other than Argumental: we then predict that the extraction of a FT across all other left-peripheral elements will be blocked.

This article is also evidence against the idea that word order in the left periphery can be accounted for by assuming an underlying hierarchy of functional projections, as seen in cartographic implementations of the left periphery. Several examples were discussed in

this paper where an ordering restriction is present locally but not non-locally. At first, these may appear to be cases which warrant the existence of a local hierarchy of projections: through the hierarchy, we would be able to account for the local nature of the ordering restriction. If we were to adopt a local hierarchy to make sense of these local restrictions, however, we would no longer be able to account for all those languages where such a local restriction is not present. It then becomes a question on whether it makes more sense to assume that languages are inherently flexible, and then account for all exceptions to this flexibility by invoking independent, language-specific explanations, or whether one should in fact pick the more restrictive model as *explanans*, and treat all indications of ordering flexibility as the exception. There is nothing intrinsically wrong with the latter model. As remarked by Rizzi himself (Rizzi 2017), heuristically speaking, this might even be the correct way of approaching a research topic: if we start by assuming that languages are inherently flexible in the distribution of a given set of elements, we might fail to notice the existence of specific cross-linguistic tendencies in such a distribution. Note however that, for the one case of local ordering restriction for which we do have an explanation, namely the local incompatibility of WH_{matr} and Foc in Italian, having assumed that the restriction is part of the grammar would have impeded us from understanding why such a restriction no longer holds in embedded questions, as well as from linking the grammaticality of such an order in Serbian to prosodic differences between the two languages.

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9 Article 2 - A Focus-Driven Analysis of Topic Typology and Distribution

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Abstract

According to cartographic analyses of the left periphery, a topic becomes specified as shifting, contrastive or familiar as a result of being moved to corresponding functional projections hosting these features. Drawing on data from a variety of Romance languages, as well as a spoken language corpus, I argue that these types of rigid analyses of topicalization are unwarranted: if we assume that topics move to escape a domain marked as [+focus], not only can we account for why the distribution of the different types of topics is extremely flexible, but also for why different topic placements are associated with different focal meanings. We also see that the type of a topic is not a function of its absolute position in the clause, but rather of its relative position with respect to the focus, and of the type of such a focus.

Keywords: Topicalization, Left Periphery, Shifting Topic, Contrastive Topic, Romance Languages.

I. Topics and Discourse Features

The aim of this article is to provide a syntactic characterization of the notion of "topic", with particular reference to left-peripheral topicalization and to the different pragmatic imports left-dislocated topics can be endowed with.

Traditionally, (at least) three different types of topics have been distinguished: shifting (or aboutness) topics, contrastive topics, and familiar (or continuity) topics.
According to both Reinhart (1981) and Lambrecht (1994), a shifting (or aboutness) topic (henceforth, ST) essentially denotes what the sentence is about. Strawson (1964) similarly suggests that STs can be characterized as describing "matters of standing" and "currents interests and concerns". According to Givón (1983), STs are also associated with a newness quality: in particular, he suggests that STs are constituents which are "newly introduced, newly changed or newly returned to" (Givón, 1983:3). Frascarelli &

Hintehölzl (2007) further elaborate on Givón's definition and suggest that STs mark a shift in the discourse: their function is to indicate that an entity other than the one functioning as the topic in the previous proposition(s) is now the topic of the sentence.

Kuno (1976) and Büring (1999) define contrastive topics (henceforth, CTs) as topics which create oppositional pairs with respect to other possible topics. As such, they introduce alternatives, exactly like foci. Similarly, according to Krifka (2008), a contrastive topic results from the combination of a topic with a focus. Neeleman & Vermeulen (2012) (see also Torregrossa 2014) adopt a slightly different approach and suggest the feature 'contrast' to be an information-structural primitive. The authors claim in particular that contrastive topics are the result of the union of this primitive with another information-structural primitive, 'topic'.

Finally, familiar (or continuity) topics (FTs) are given, d-linked constituents which are typically destressed and which are often realized in a pronominal form (Pesetsky 1987). They are also generally used for topic continuity (Givón 1983). FTs stand clearly apart from CTs and STs, for both properties and distribution. According to Frascarelli and Hintehölzl (2007), for example, FTs are the only type of topic which can be iterated. The authors also argue that these are the only type of topic which can be realized in either periphery: they can either appear in the LP, or be right-dislocated[33].

Where are these three types of topics merged, exactly? According to proponents of the cartographic research project (Rizzi 1997, 2001, 2004a,b; Benincà & Poletto 2004; Frascarelli & Hinterhölzl 2007 ; Cinque & Rizzi 2008 i.a.), discourse-related features are encoded in the syntax and project their own phrase structure. Given the three types of topics described above, one would then expect to find a corresponding ContrastiveTopicP, FamiliarTopicP and ShiftingTopicP in the clausal spine. Indeed, an analysis along precisely these lines has been suggested by Frascarelli (2012) and Frascarelli & Hinterhölzl (2007)[34]. Frascarelli (2012) in particular argues for the topic hierarchy in (1), which is her implementation of Rizzi's (2004a) suggested hierarchy of the left periphery:

(1) [ForceP [**ShiftP** [**ContrP** [IntP [FocP [**FamP*** [FinP [IP

(Frascarelli 2012:182)

In (1), both the dedicated position associated with STs, and that associated with CTs, precede IntP, where elements like the interrogative complementizer *if* and the *wh*-word

[33] See Samek-Lodovici (2006, 2015) for an analysis of right-dislocation in Italian.

[34] Rizzi (1997) rather treats the movement of a topic to the left periphery as an instance of adjunction. In this paper, as will be discussed in detail in section III, we will provide a similar analysis of the phenomenon.

why are allegedly merged (see Rizzi 2001). FTs are on the other hand merged in a position following both FocP, where fronted foci are moved (Rizzi 1997, 2001, 2004a; Rizzi & Bocci 2015), and IntP. The presence of the " * " sign here indicates that only FTs can be iterated. According to Frascarelli (2012), then, both STs and CTs must precede all *wh*-constituents and foci, but STs are merged higher than CTs. The only type of topic which can be merged lower than a focus are then FTs.
One important aspect of a cartographic model like (1) is the obligatoriness of fronting: the different types of topics *must* move to their corresponding functional projection in the left periphery. This is because any constituent endowed with a discourse feature must be in a local checking configuration with a corresponding criterial head bearing a matching feature (cf. Rizzi 1996, 2006). It is precisely the need for this local checking configuration to be obtained which triggers the movement of the topic. According to this line of analysis, then, a constituent which is to be interpreted as contrastive topic is first externally merged in its thematic position, where it receives whichever theta role it needs to be assigned. It then moves to the specifier of the *ContrT* projection, where it receives the interpretive property of 'contrastive topic'.

In rigid sequences like (1), the pragmatic function associated with a given topic is a function of its *absolute* position in the clausal spine. I will refer to these types of accounts as *rigid* models of topicalization. One of the aims of this article is to show how such rigid models cannot be maintained: we will see that the distribution of the different types of topics is simply too flexible to be captured in terms of dedicated projections. A second aim is to introduce a *flexible* account of topicalization: a model based on the idea that the distribution and the pragmatic specification of a topic is a function of its relative position with respect to the focus, and the nature of such a focus. This article also features a section centered on the analysis of a corpus of spoken Standard Italian. In this section, I explore issues complementary to the analysis which is developed in the rest of the paper, such as the possibility for right-dislocated topics to be interpreted as shifting or contrastive, and the question of which conditions license rightward topicalization.

The paper is structured as follows: in section II, I investigate the locality of contrastive topics. I show how their distribution is extremely flexible, something which is at odds with the cartographic idea that each type of topic is associated with a dedicated functional projection. In section III, I argue that the flexible distribution of the different types of topics follows if we resort to a foot-driven analysis of topic movement: topics move in order to escape a domain marked as [+ focus], not in order to check a matching discourse feature on a corresponding left-peripheral head. Section IV discusses what notions of "topic" and "focus" are relevant to capture topicalization as a syntactic phenomenon. In it, I argue for a privative definition of topic: topic is

everything which is not in focus. I then use this privative definition to revise my model of foot-driven topicalization. Section V features a corpus study on Standard Italian. In this section, I explore the nature of rightward topicalization: the most relevant finding is that right-dislocated topics can also introduce a shift in the discourse. Section VI is devoted to discussing topic typology: in it, I argue that the type of a topic is not a function of its absolute position in the clause, but rather a function of the size of the material in focus. I show how an analysis along these lines allows us to capture the fact that some topics might be simultaneously shifting *and* contrastive. Section VII deals with structures containing multiple topics, and shows why these are not problematic for the focus-driven analysis being advocated in this paper. Section VIII is a concluding section.
The discussion will mostly be focused on Romance languages.

Overall, this article shows that the idea of dedicated topic projections, and of a one-to-one correspondence between syntactic projections and discourse functions, is untenable. This strongly argues against a cartographic model of topic distribution and typology.

II. The Flexible Distribution of Contrastive Topics

The claim that specific discourse roles are encoded in the left periphery in a strict hierarchy of projections does not hold to empirical scrutiny, as will be seen in this section. We will focus in particular on the distribution of contrastive topics, and see how this is considerably freer than what any rigid model of topicalization would predict.

Frascarelli's hierarchy in (1) specifically derives the position of CT with respect to IntP: CTs are argued to be merged higher than elements merged in this projection. It is then interesting to see whether this claim holds to empirical scrutiny. A cross- as well as intra-linguistic analysis of several different Romance languages shows how his prediction is not borne out. We see in particular that a CT can surface both before and after the *wh*-word "why", which is base-generated directly in IntP (Rizzi 2001)[35]. Example (2) illustrates how this is the case in Catalan:

(2) IntP < CT

(a)	**Per què**	el pa	l'has	venut,	(Catalan)
	Why	the bread	it(cl).you-have	sold,	
	i	el peix	l'has	regalat?	
	and	*the fish*	*it(cl).you-have*	*given-for-free?*[36]	

[35] See also Ko (2005) and Buell (2011) for arguments in favor of a different merge position for *why*.
[36] Throughout this paper, topics are marked by means of underlining.

CT < IntP

(b) Entenc per què vols estudiar francès,
I-understand why you-want to-study French,
però anglès, **per què** en vols estudiar?
but English, ***why*** *it(cl) you-want to-study?*

In (2a), we are contrasting "el pa" with "el peix": we see that "el pa" follows the base-generated interrogative "per que". In (2b), we are contrasting "francès" with "anglès": in this case, "anglès" precedes the *wh*-word. The same flexibility can be observed in several other Romance languages: in (3) through (5), I provide examples from Spanish, French and Italian:

(3) IntP < CT

(a) ¿**Por qué** el pan lo vendiste, (Spanish)
Why *the bread it(cl) you-sold,*
y el pescado lo regalaste?
and the fish it(cl) you-gave-for-free?

CT < IntP

(b) Entiendo por qué quieres estudiar Francés,
I-understand why you-want to-study French,
pero Inglés, ¿**por qué** lo quieres estudiar?
but English, ***why*** *it(cl) you-want to-study?*

(4) IntP < CT

(a) **Perchè** il pane l'hai venduto, (Italian)
Why *the bread it(cl)-you-have sold,*
e il pesce l'hai regalato?
and the fish it(cl)-you-have given-for-free?

CT < IntP

(b) Capisco perchè tu voglia studiare il
I-understand why you want to-study the
Francese, ma l'Inglese, **perchè** lo vuoi studiare?
French, but the.English, ***why*** *it(cl) you-want to-study?*

(5) IntP < CT (French)

(a) **Pourquoi** le pain tu l'as vendu, alors que
Why *the bread you it(cl).have sold, whereas*
le poisson tu l'a donnè gratuitement?
the fish you it(cl).have given for-free?

CT < IntP

(b) Je comprends pourquoi tu veuilles apprendre le
I understand why you want to-learn the
Francais, mais l'Anglais, **pourquoi** veux-tu l'étudier?
French, but the.English, ***why*** *you-want it(cl)'to-study?*

Note that the same flexibility in the placement of the CT with respect to *why* is observed if the topic is a PP rather than a DP, as can be seen in the pair below:

(6) IntP < CT (Italian)

(a) **Perché** a Luigi (gli) hai addirittura parlato,
Why to Luigi (to-him(cl)) you-have even spoken,
visto che a Paolo (gli) hai solo scritto?
given that to Paolo (to-him(cl)) you-have simply written?

CT < IntP

(b) Capisco **perchè** tu voglia incontrarti con Fabrizio,
I-understand ***why*** *you want to-meet with Fabrizio,*
ma a Paolo **perchè** (mai) vuoi parlare?
but to Paolo ***why*** *(ever) you-want to-talk?*

The grammaticality of a prepositional CT merged before IntP rules out that the grammaticality of the CT < IntP examples in (2) to (5) is due to the contrastive topic being realized as a *hanging topic*. Hanging topics (Aissen 1992; Benincà 2001; Sturgeon 2006) are left-peripheral topics which are insensitive to islands and which do not display connectivity effects with respect to the host clause. These properties have been taken by Benincà (2001) as evidence of a base-generation analysis of these elements. Crucially, according to Benincà (2001), only nominal phrases can be realized as hanging topics: PPs are excluded from this type of construction. The grammaticality of (6b) thus proves that the acceptability of the order CT < IntP is not due to an external merge derivation of the left-peripheral contrastive topic.

A final aspect of the distribution of contrastive topics which is worth discussing is the status of constituents which do not front, or which only move VP-internally through A-scrambling. According to Torregrossa (2014), only constituents appearing in the left periphery qualify as 'contrastive topics'. I disagree with this assessment. Determining what qualifies as 'contrastive topic' of course depends on what definition of contrastive topic one is using[37], but to the extent to which we define as such constituents which are discourse-old and which can give rise to sets of contrastive pairs, it is clear that such a function is not precluded to constituents which do not appear in the left

[37] See section IV for an in-depth discussion of what notion is relevant to characterize topicalization as a syntactic phenomenon.

periphery. Consider in particular the in situ structure in (7), and its relation to (8), where fronting has occurred:

(7) A: À qui as-tu donné les deux livres? (French)
To whom have-you given the two books?
B: J'ai donné le vocabulaire d'Anglais à Sarah, et
I-have given the dictionary of.English to Sarah, and
le livre d'Histoire à Lucille
the book of.History to Lucille

(8) A: À qui as-tu donné les deux livres?
To whom have-you given the two books?
B: Le vocabulaire d'Anglais, je l'ai donné à Sarah,
The dictionary of.English, I it-have given to Sarah,
le livre d'Histoire, (je l'ai donné) à Lucille
the book of.History (I it-have given) to Lucille

In both (7) and (8), "les deux livres" is mentioned directly in the question, hence the existence of the two books is presupposed. "Le vocabulaire d'Anglais" and "le livre d'Histoire" are thus salient, accessible and discourse-old constituents. In both (7) and (8), these two constituents are also topical in a pragmatic sense: they describe what their respective clauses "are about", in Reinhart's (1981) and Heim's (1982) sense. Are these two expressions contrastive in both examples? I argue that they are: "les deux livres" is a semantically composite unit, something which elicits a contrastive interpretation of both "le vocabulaire d'Anglais" and "le livre d'Histoire", in both examples. Indeed, it would be difficult to interpret the two objects in (7) as *not* being contrastive. In both examples, then, the contrastive constituent licenses a contrastive-pair reading, namely an interpretation of the sentence according to which there is a set of ordered pairs of the form *(book given, person to whom the book was given)* which is relevant for its interpretation.

The fact that a discourse-old constituent need not front to the left periphery in order to be interpreted as contrastive is at odds with the Cartographic idea that movement is triggered by the need to check a formal feature on a corresponding functional projection in the left periphery. If discourse-old constituents which can give rise to contrastive-pair structures are only licensed in a specific projection in the left periphery, we would expect such a contrastive import not to be available for constituents which are merged anywhere else. Of course, it could be postulated that topicalization is in some cases covert −that would be the case in 7−, and in some other cases overt −as is allegedly the case in 8−. Such an account would however need to be complemented with an explanation of why in some instances it is the lower copy of the

moved constituent which is pronounced, whereas in some other case it is the higher copy which does. As far as I know, this kind of explanation is presently missing from the literature. Moreover, an analysis in terms of covert/overt movement is unable to capture how different topic placements are associated with different focal meanings, as will be discussed in section III.

Not only can in situ constituents be interpreted as contrastive topics, those which do move do not need to target a position in the left periphery to be interpreted as contrastive. We see in particular how there are instances of A-scrambling operations which are motivated precisely by the need to interpret the scrambled element as the sorting key (in Kitagawa et al. (2003)'s sense) of the contrastive pair.
Romance languages display some maneuverability when it comes to IP-internal movement, with most Romance languages displaying at least short A-scrambling[38]. Consider for instance the Italian examples below, which show how there is flexibility in the relative order of the two internal arguments:

(9)	(a) Lucia	ha	dato	un	libro	a	Paolo	(Italian)
	Lucia	*has*	*given*	*a*	*book*	*to*	*Paolo*	
	(b) Lucia	ha	dato	a	Paolo	un	libro	
	Lucia	*has*	*given*	*to*	*Paolo*	*a*	*book*	

The structure in (9a) represents the neutral word order, the configuration which is most compatible with a broad focus environment; (9b) is the derived one. A-scrambling of the indirect object is preferred if the indirect object is to be interpreted as the sorting key in the set of contrastive pairs. A structure like that in (10) would for instance be particularly felicitous if the speaker had been asked to detail what was given to Paolo and Lucia as a gift. This is because this type of question establishes a preference for realizing the indirect object as the contrastive topic (the sorting key), and the gift as the focus.

(10) Lucia ha dato [$_{CT}$ a Paolo] [$_{FOC}$ un libro], e [$_{CT}$ a Lucia] [$_{FOC}$ un dizionario]
Lucia has given [$_{CT}$ to Paolo] [$_{FOC}$ a book], and [$_{CT}$ to Lucia] [$_{FOC}$ a dictionary]

What (10) shows is that the licensing of a contrastive-pair structure with a given constituent as the sorting key is possible even if such a constituent only moves VP-internally. The grammaticality of (10) is then additional evidence against a model of topicalization which identifies specific discourse roles, such as contrastivity, with absolute positions in the clausal spine.

[38] At least European Portuguese also displays "middle" scrambling, i.e., movement to a position immediately preceding the verb, for at least deictive locatives (Costa & Martins 2010).

III. Topicalization as Movement Outside of a [+Focus] Domain

In the previous section, we explored the possibility of accounting for the specific pragmatic import a topic may be endowed with by postulating the existence of dedicated functional projections in the left periphery. We saw how this type of account cannot be maintained because an identical pragmatic import may be associated with a constituent which has been externally or internally merged in different positions in the clause. In this section, I will argue that if we are to account for the flexibility in the distribution of topics, an equally flexible model of their derivation must be adopted.

The most problematic aspect of models of the left periphery like that in (1), I believe, is the assumption that movement is head-driven, and hence triggered by a specific discourse feature hosted on the projection said constituent is internally merged into. This approach is problematic because it zeroes out pretty much all possibilities for a flexible distribution of the constituent which moves: if the feature z is hosted on ZP, the only position where we would expect constituents which are to be interpreted as [+z] to be licensed is in the specifier of ZP. Under this kind of analysis, the only way to capture the fact that the same class of constituents may move to more than one position would be to assume that ZP can be iterated. Indeed, this is the approach taken by Rizzi (1997) and subsequent works[39] to account for the flexibility in the distribution of left-peripheral topics: to assume that there are multiple Top(ic)P nodes.

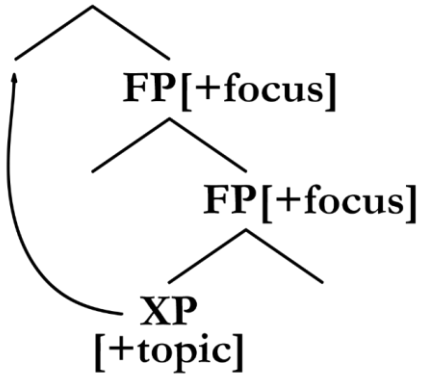
If we were to capture the flexibility in the distribution of CTs that we observed in section II by postulating that the ContrP projection can also be iterated, we would obtain a model of the distribution of CTs so unrestrictive it ends up making no interesting predictions. A projection capable of hosting a CT would have to be postulated before IntP and after IntP. A third projection would have to be postulated for scrambled objects in the VP. A fourth position, as we will see in section VI, would also have to be postulated immediately after fronted modifiers, which are merged lower than left-peripheral foci according to Rizzi (2004a) and Rizzi & Bocci (2015). Not only does this kind of analysis lack explanatory power, it also fails to capture why the distribution of contrastive topics is this flexible.

If postulating that topicalization is head-driven is problematic, one might try with the reverse approach. Following an insight originally presented in Platzack (1996) (see also, and especially, van Craenenbroeck (2006)), I will argue in particular that topicalization is *foot*-driven. In his (1996) paper, Platzack argues that, next to *Attract F* −the standard head-driven type of movement−, there is an operation called *Repel F*. Repel F is the process opposite of Attract F: any constituent marked as [repel F], F being any

[39] See in particular Rizzi (2004a) and Rizzi & Bocci (2015).

syntactic or pragmatic feature, must move out of a domain marked as [+ F]. I will then essentially be following van Craenenbroeck (2006)'s implementation of Platzack's idea in assuming that topics front in order to escape a domain marked as being [+ focus]. We then have a model of topicalization as the one illustrated in (11):

(11)



Given any n number of nodes marked as being [+ focus], if any constituent marked as [+ topic] has its external merge position in any of these projections, such constituent will have to move out of its base position. The movement of the topic will then target a projection which is not marked as being in focus.
Note that in section IV we will discuss exactly which notions of 'topic' and 'focus' are relevant to capture topicalization as a syntactic phenomenon, and hence we will further refine the labels in (11).

The model in (11) makes a series of predictions. The first is that the material to the right of a left-dislocated topic should always be interpreted as being in focus. Indeed, we see that different topic placements might not correlate with different pragmatic imports, but they always correlate with different focal meanings. Consider in particular the two options in (12), from Italian:

(12) Cambiando completamente discorso… (Italian)
Changing topic…

(a)	Il canestro,	**perchè**	non	lo	regali		al	vicino?
	The hoop,	***why***	*not*	*it(cl)*	*you-give*		*to-the*	*neighbor?*
(b)	**Perchè**	il canestro	non	lo	regali	al	vicino?	
	Why	*the hoop*	*not*	*it(cl)*	*you-give*	*to-the*	*neighbor?*	

Both options in (12) are to be read as introduced by the expression *changing topic*, which is present to elicit a shifting-topic reading of the fronted topic "il canestro". Since both alternatives can be grammatically preceded by such an expression, we can conclude that "il canestro" can be interpreted as a shifting topic in both environments. Clearly, then, the relative position of the topic with respect to the *wh*-constituent does not

affect the availability of a shifting interpretation. Note that this is perfectly in line with the data discussed in section II, which showed that the availability of a contrastive reading for the fronted topic is not affected by its relative position with respect to IntP either.

What the relative position of "the hoop" does have an effect on are the presuppositions associated with the event described by the predicate. In particular, whereas (12b) presupposes that the idea of doing *something* with the hoop was already on the table, and it reads as a specific suggestion to *give* the hoop *to the neighbor*, no such a presupposition is necessarily present with (12a). Differently put, whereas (12a) is read as a neutral question, (12b) can also be read as a specific suggestion to *give* the hoop *to the neighbor***.**

The difference between (12a-b) follows if we assume that topics front to escape a domain marked as [+ focus]. Under this analysis, we predict that only the IP is in focus in (12b), whereas in (12a), it is the whole sentence minus the topic that is in focus. Following Rooth (1985, 1992), I assume that material in focus is associated with a set of alternative propositions; the two alternatives in (12) should be associated with different focus values. The structure in (13a) would correspond to (12a), and (13b) to (12b):

(13) (a) Il canestro, [**perchè** non lo regali al vicino]?
*The hoop, [**why** not it(cl) you-give to-the neighbor]*
Topic: the hoop (=x)
Comment: why don't you give x to the neighbor
Focus: [**why** not it(cl) you-give to-the neighbor]
Focus value: {why don't you sell x, where did Tom buy x, …., Mary has bought x}

(b) **Perchè** il canestro [non lo regali al vicino?]
***Why** the hoop [not it(cl) you-give to-the neighbor?]*
Topic: the hoop (=x)
Comment: why don't you give x to the neighbor[40]
Focus: [not it(cl) you-give to-the neighbor]
Focus value: {why don't you give x to your cousin, why don't you give x to your brother, …., why doesn't Tom sell x}

In (13a) (=12a), the topic surfaces as the leftmost element in the clause: the entirety of the rest of the sentence is thus marked as being in focus, as the entirety of the rest of

[40] Note that I am assuming that the comment for both structures is identical, contra Rizzi (1997). Why the comment must be assumed to be identical for both structures is discussed in detail in subsection IV.I.

the sentence follows the fronted topic. In (13b) (=12b), on the other hand, only the IP is to the right of the fronted topic: the *wh*-word precedes the topic, hence it is predicted not to be part of the material in focus. Following Neeleman and Vermeulen (2012), I am assuming that the highest Information-Structural partition is that between topic and comment. The comment may then be further partitioned into what is in focus, and what is background. The background would then correspond to material which is not in focus, but which is not part of the topic phrase either. The *wh*-element in (13b) would then be backgrounded.

The difference in size between the two focus domains in (13a) and (13b) are mirrored by the different focus values associated with the two structures: the alternatives for the focus domain in (13a) are calculated at the level of the CP, and hence the set of possible alternatives comprises sentences of different illocutionary types. The focus value of (13b), on the other hand, only includes possible clausal complements for *why*.

Earlier on, I have characterized (13a) as a "neutral question", as opposed to (13b), which reads as a specific suggestion to *give* the hoop *to the neighbor*. The effect I am describing in (13b) is akin to the one observed with the famous CLYDE MARRIED BERTHA examples discussed in Rooth (1999). Given a question like "Why did Clyde married Bertha?", there are various different positions where main stress can fall. Alongside (14a), which represents the neutral stress pattern, we have options like the ones in (14b) to (14d):

(14) (a) Why did Clyde marry Bertha?
(b) Why did CLYDE marry Bertha?
(c) Why did Clyde MARRY Bertha?
(d) Why did Clyde marry BERTHA?

Each of the questions in (14) asks for different things, and is thus associated with different sets of possible answers. For instance, whereas (14a) simply inquires about the reason for Clyde to marry Bertha, the speaker in (14b) wants to know why it was Clyde, and not some other man, who married Bertha. (14c) calls for an explanation of why marriage was chosen to seal the deal between Clyde and Bertha, whereas with (14d), the speaker is looking into Clyde's reason to marry, out of all people, Bertha. The different readings associated with (14) arise because *why*, unlike other *wh*-words, is a focus-sensitive operator: the set of possible answers to a why-question depends on what material is focalized (see Shlonsky & Soare 2011).

Likewise, the non-neutral reading associated with (13b) arises because the topic only marks part of the clause as being in focus. Another way of representing the structures in (13) would then be (15), where capitals represent material in focus:

(15) (a) **WHY** DON'T YOU GIVE x TO THE NEIGHBOR? → (13a)
(b) **Why** DON'T YOU GIVE x TO THE NEIGHBOR? → (13b)

The only difference between (15a) and (15b) concerns whether the *wh*-word is part or not of the focus domain of the sentence: in (15a), the whole question minus the topic is in broad focus, whereas in (15b) one constituent −the *wh*-element− is marked as being non-focal. The presence of material which is not in focus in (15b) results in the material which is in focus to be associated with a special prominence, the same way "the lamb" stands out in (16b) below by virtue of being contained in a sentence where other material is not in focus:

(16) (a) MARY SAW A LAMB broad focus
(b) Mary saw A LAMB narrow focus

In (16a), on the other hand, the whole question is in broad focus, hence no specific constituent is assigned special prominence. This is why the sentence whose structure corresponds to (16a), namely (13a), is interpreted as being a neutral question, whereas that in (13b) is interpreted as a specific suggestion to *give* the hoop *to the neighbor*.

The analysis just sketched contains some non-standard elements, so it is worth discussing them. The first is the idea that a *wh*-word may not only *not* be in focus, but may in fact be the only element in the clause –other than the fronted topic– which is not focalized. This claim is non-standard because, ever since at least Hamblin (1973) (see also Ramchand (1997), Rooth (1985, 1992) and Rullmann & Beck (1998)), the general consensus has been that *wh*-words are a special type of focus and hence that they are inherently focal[41]. If we were to follow this line of analysis, if anything we would then expect the *wh*-word in (13b) to be the only element in the sentence which really *must* be in focus. As non-standard as this line of analysis may be, note that analyzing the *wh*-word in (13b) as not being focal is exactly how we derive the special set of presuppositions associated with this structure. The *wh*-word in (13b) is not in focus, and cannot be a topic: as argued above, it must then be part of the background. This presupposes the presence in the context of alternatives of the form of "why…with the hoop?". Note that this is exactly what we would expect given the interpretation which is assigned to this kind of structure: that the idea of doing something with the hoop had already been suggested in the past.
The second non-standard notion is the idea that, in (13a), the entire question is in focus. The reason why this may be considered as non-standard ties up partly to the claim just described concerning the focal nature of *wh*-elements, and partly to the observation that, in a *wh*-question, all material other than the *wh*-element is generally

[41] See however Cable (2008, 2017) for some valid counterarguments.

presupposed and therefore, if anything, topical (see Abusch 2010; Abrusán 2016). As indisputable as the latter generalization might be, it must also be noted that there is a dimension in which the entire question can indeed be considered as focalized, and that dimension pertains to the creation of a set of relevant alternatives to it. We will capitalize on such a notion in the next section, where we will refine our model of foot-driven topicalization. As shown in (13), all focus alternatives for (13b) must be *why* questions: no declarative, for instance, can be part of such a set of alternatives, nor can any question other than a *why* one. The ungrammaticality of any structure other than a *why* question as a focal alternative to (13b) is particularly evident in (17):

(17)	*Perché	il gatto	non	lo	regali	al	vicino?	
	*Why	the cat	not	it(cl)	give	to-the	neighbor?	
	E	il cane,	lo	puoi	dare	a	Paolo	
	And	the dog,	it(cl)	you-can	give	to	Paolo	

The set of alternatives which can be computed for (13a) is on the other hand not restricted to a specific type of question, nor to questions more in general. In this respect, compare in particular the acceptability of (18) with the markedness we observed in (17):

(18)	Il gatto	perchè	non	lo	regali	al	vicino?	
	The cat	why	not	it(cl)	you-give	to-the	neighbor?	
	E	il cane,	lo	puoi	dare	a	Paolo	
	And	the dog,	it(cl)	you-can	give	to	Paolo	

Additional evidence in favor of a focus-driven analysis of topicalization comes from the interaction of clitic-resumed topics with focus-sensitive expressions such as *only*. Exactly like the *wh*-word *why, only* is sensitive to the presence of material in focus, with which it combines to generate a set of salient alternative propositions for the constituent in focus. Expression like *only* thus represent a great diagnostic tool to pinpoint the location of a focalized expression. They can then be used to prove that any constituent whose first merge position appears inside what is to be the focus domain in that specific sentence is required to topicalize out of it. One such case is represented by (19), where the verb is in focus:

(19)	(a) *?Ho	solo	PARLATO	a	Paolo		
	*?I-have	only	SPOKEN	to	Paolo		
	(b) A	Paolo	gli	ho	solo	PARLATO	
	To	Paolo	to-him(cl)	I-have	only	SPOKEN	
	(c) Gli	ho	solo	PARLATO,	a	Paolo	
	To-him(cl)	I-have	only	SPOKEN,	to	Paolo	

The structure in (19a), where a non-focal constituent follows the focalized verb, is extremely marginal. To repair the structure, and in order to correctly derive a series of alternative proposition of the type of *I have also X-ed Paolo*, the PP must either be dislocated to the left (=19b), or moved to the right periphery of the clause (=19c).

I have so far argued that topicalization results from the need for a topic which occurs inside of a domain marked as [+ focus] to move out of such a domain. As a result, the position of a topic can be used to determine which portion of the sentence is in focus. Note however that there are limits to how precise such a marking can be, as there are limits to how low a topic can surface in the structure. It would for example be impossible to unambiguously represent the structure in (20) by means of topicalization:

(20) **Why** don't you give the hoop TO THE NEIGHBOR?

In (20), it is only the PP, and not the entire IP, as in (13b), which is in focus. Accordingly, one might want to have the topic surface in a position where this only precedes the PP, as illustrated in (21):

(21)	***Perchè**	non	lo	regali	il canestro	al	vicino?	(Italian)
	***Why**	*not*	*it(cl)*	*you-give*	*the hoop*	*to-the*	*neighbor?*	

The structure in (21) is however ungrammatical because a clitic-resumed topic occurs in its argumental position. This is impossible, because Italian is not a clitic-doubling language. The only way to express (20) is to leave *the hoop* in situ, as exemplified in (22):

(22)	**Perchè**	non	regali	il canestro	AL	VICINO? (Italian)
	Why	*not*	*you-give*	*the hoop*	*TO-THE*	*NEIGHBOR?*

As no movement has taken place in (22), this sentence is however focally ambiguous: it can correspond to several different topic/focus partitions, some of which are listed below.

(23) (a) **Why** don't you GIVE THE HOOP TO THE NEIGHBOR?
(b) **Why** don't you give THE HOOP TO THE NEIGHBOR?
(c) **Why** don't you give the hoop TO THE NEIGHBOR?

Note that, in (22), topicalization is not simply impossible because of the ban on clitic doubling. The fronting of the topical constituent would also be unmotivated, because *the hoop* is not contained *within* the focus domain of the sentence. What triggers the topicalization of *the hoop* in a structure like (13b) is the fact that the entire IP is in focus, resulting in the presence inside of such an IP of a constituent with an incompatible feature, the topic. (22), however, features a narrow focus on the indirect object, hence

the focus domain of this sentence extends only as far as this constituent. No fronting of the topic is required in (22) because this constituent sits outside of such a domain already in its first merge position.

A foot-driven analysis of topicalization also captures why, according to cartographic models of the left periphery (see for instance Rizzi & Bocci 2015), topic projections are so frequent in the left periphery. That there should be multiple positions where a topic might be merged follows from an analysis of topicalization as movement to escape a focus domain: as there are several different ways in which a sentence can be partitioned into what is in focus and what is not, we expect the distribution of topics to mirror such flexibility. In particular, we expect that a possible landing site for a moved topic should be available in between every two pairs of constituents whose first member may be realized as backgrounded, as whose second member may be in focus. Of course a topic cannot simply land *anywhere:* independent syntactic restrictions of a given language must still be respected. A topic could not for instance land in the position in between the *wh*-element and the fronted auxiliary in the example in (24a), from Spanish. This is because Spanish, and in fact most Romance languages[42], exhibits what has been formalized in Rizzi (1996) (see also Cruschina (2017) for some more recent formulations) through the *WH-criterion*: matrix *wh*-questions featuring any *wh*-element other than *why* require the fronting of the finite inflection to C. This restriction also prevents subjects from occurring in their canonical, preverbal position, as can be seen by the ungrammaticality of (24b):

(24) (a) ¿Qué ha comprado Juan? (Spanish)
¿what has bought John?
`What did John buy?'
(b) *¿Qué Juan ha comprado?
**¿what John has bought?*

(Baauw 1998:1)

The foot-driven analysis of topicalization we have been developing (which really is *focus*-driven) thus has the flexibility of an adjunction analysis. Unlike an adjunction analysis of topicalization, however, a focus-driven analysis has already built-in an explanation of where and why a given topic will land exactly.

IV. What is a Topic, Really?

The analysis developed in section III crucially relies on the idea that a constituent marked as 'topic' must evacuate a domain marked as [+focus]. This sort of analysis

[42] French being the most notable exception, see Rizzi & Roberts (1989), Rizzi (1996).

obviously raises the question of what definitions of 'topic' and 'focus' are relevant to trigger the movement. I argue that what underlies topicalization as a syntactic phenomenon has nothing to do with the pragmatic notion of 'topic'; rather, topicalization should be analyzed as a process which fronts anything non-focal outside of a focus domain.

Defining what a topic is exactly has notoriously been an elusive task[43]; as van Bergen and de Hoop (2009) note, several definitions and properties have been suggested to capture the notion of topic, but none of these seems to sufficient, nor necessary, to classify an element as such. According to Reinhart (1981), a topic is what a given sentence is about: it defines a specific entry under which one may store propositions concerning such an entry (see also Hockett (1958) and Lambrecht (1994) for similar definitions. See Heim (1982) for a definition of 'topic' in terms of "file-cards"). According to Erteschik-Shir (1997), topics are necessarily old, presupposed information; a similar view is adopted by Contreras (1976) and Sgall et al. (1986)[44]. Often mentioned is also the characterization of topic as "psychological subject", first suggested in von der Gabelentz (1868) and Paul (1880).
These types of definitions can help us in understanding the relevance of the notion of 'topic' from a semantic-pragmatic point of view, but it is clear that the notion of topic which is involved in the *syntactic* operation of topicalization is something else entirely. The relevant notion underlying topicalization cannot for instance be that of "aboutness", as defined in the sense of Reinhart (1981): this is particularly evident in the case of multiple-topic structures (25) as well as of non-referential topics (26):

(25)	A Lucia, io,	di questa faccenda	non	gliene	ho	mai	parlato		(Italian)
	To Lucia, I,	*of this business*	*not*	*to-her-of-it(cl)*	*I-have*	*ever*	*spoken*		
(26)	Una ragazza	non	l'ho	mai	avuta				(Italian)
	A girlfriend	*not*	*her(cl).I-have*	*ever*	*had*				

Example (25) features two prepositional topics and one subject topic. If we analyze topics as denoting the specific file-card which gets updated thanks to a given statement, we would have to conclude that the utterance in (25) is to be interpreted as updating three such file-cards. As far as I know, nothing rules out the possibility that a sentence may indeed be "about" more than one topic. However, some of the topics in (25) are clearly more "what the sentence is about" than others. For example, whereas it is reasonable to interpret the statement in (25) as predicating something about "this

[43] See Reinhart (1981), Polinsky (2001), Jacobs (2001). See also Casielles-Suárez (2004) and Krifka (2008) for an excellent overview of the notion of '*topic*' in linguistic literature.
[44] See also Mathesius (1975) and Firbas (1964), who however operate within the notions of "theme" and "rheme".

business", it is much harder to see how the statement could be interpreted as a specific predication about "to Lucia".
Example (26) fronts an indefinite DP with a generic referent. If we adopt Vermeulen (2012)'s test to diagnose aboutness, we see that the fronted DP does not qualify as such: it cannot be used to reply to a sentence of the form of "tell me about X".

(27) A: Tell me about a girlfriend
B: *A girlfriend, I never had one

Constituents which undergo topicalization do not need to be discourse-old either, nor are they required to be presupposed content. Frascarelli (2000) for instance remarks how around 66% of the constituents in her corpus are simply semi-active, or even completely inactive constituents[45]. Consider also the following example, from Brunetti (2009):

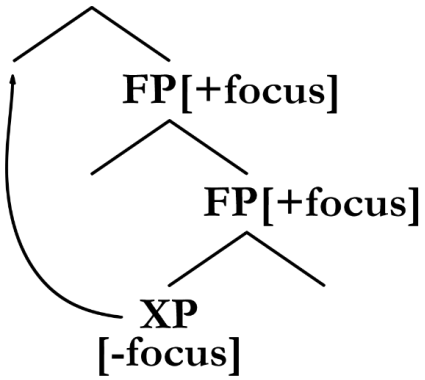
(28) Sai? A mio fratello (gli) hanno rubato la moto
You-know? To my brother to-him(cl) they-have stolen the motorbike
'Guess what? Someone stole my brother's motorbike'
(Brunetti 2009: 760)

Example (28) is uttered out of the blue and consists entirely of non-presupposed material, as shown by the fact that it can be preceded by an expression like "guess what?". Rather than being topical, then, it is quasi-focal. Yet the PP "to my brother", here a malefactive dative, can still be topicalized. Arguably, the fronted PP is not "what the sentence is about" either: if anything, (28) is about *the motorbike*, and the fact that it was stolen.

Topicalization can then clearly target a variety of different constituents, including constituents which are hardly topic-like from a pragmatic viewpoint, such as generic referents and quasi-focal elements. The extremely varied nature of the constituents which can be targeted by topicalization might at first appear to be problematic for the creation of an elegant model of topicalization, but perhaps this elusiveness is rather a clue that a set definition of what counts as 'topic' will not do. In this paper, I will rather argue for a *privative* definition of topic*:* what counts as topical for topicalization, and what all dislocated constituents reviewed in this section minimally had in common, is the property of *not being in focus*. We can thus revise van Craenenbroeck's model of topicalization as follows:

[45] Frascarelli (2000) defines activation in the sense of Chafe (1987).

(29)



Assuming that what syntactically counts as 'topic' is defined with respect to what is in focus raises the obvious question of what exactly counts as focus.
Perhaps not surprisingly, providing a definition for 'focus' is no less challenging than providing a definition for 'topic'. Here again, several different definitions have been suggested. Focus has been defined pragmatically by suggesting that 'focus' is the most informative portion of the utterance, particularly in connection which theories which identify focus in terms of what represent the answer to explicit or implicit questions (Roberts 1996; Büring 2003). It has also been described as the portion of the sentence which encodes new information (see Halliday 1967; Chomsky 1970; Jackendoff 1972). Both definitions face some issues in light of examples like the following:

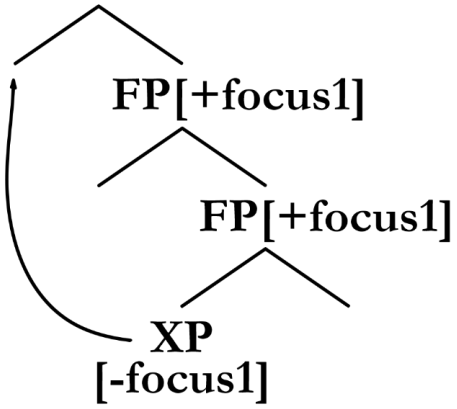
(30) I saw HIM, not HER!

The contrasted pronominal elements in (30) are clearly not new information: their coindexed referent is salient enough for these two constituents to be assigned a pronominal form. Informativeness is an equally slippery notion: it is unclear in what sense the two foci in (30) are more informative than the rest of the IP, especially considering that the entire clause is needed to correctly gauge the import of the corrective focus on the context. In this paper, I will follow Rooth (1985, 1992), Krifka (2008) and many others in assuming that 'focus' is any constituent which is interpreted as being associated with a set of alternatives.
This semantic definition of focus cannot however be all there is to it, in two respects. The first relates to the existence of alternatives for topic constituents too; the second has to do with the prosodic underpinnings of focalization.

The interpretation of contrastive topics −and arguably topics more in general− is also dependent on a set of alternatives (see for instance Neeleman & Vermeulen (2012)'s notion of *topic value*). If both topics and foci are associated with sets of alternatives, what determines which element is to be interpreted as topical, and which one as focal? In this paper, I follow Constant (2012) in assuming that an identical semantics

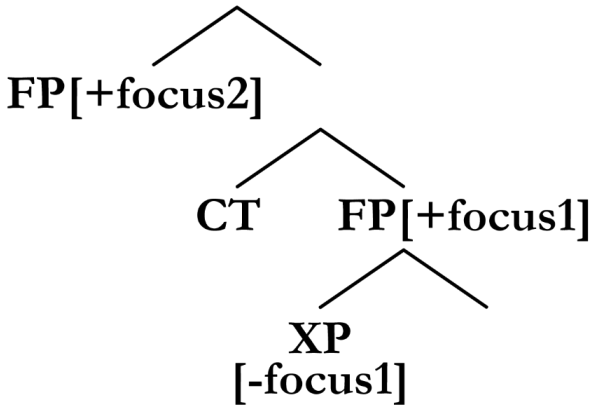
underlies both (contrastive) topics and foci: both are, as just remarked, constituents associated with a set of alternatives (*alt-set* constituents). To the extent to which we define as 'focus' any constituent whose interpretation relies on a set of alternatives, then, a CT + Foc structure is essentially a nested focus structure, where one alt-set constituent (the one generally described as 'topic') scopes higher than the other.
The foot/focus-driven model of topicalization we started sketching in (11) and (29) should then be revised as illustrated in (31):

(31)



The model in (31) states that, given any focal domain FP[+focus1], any constituent which is contained in FP[+focus1], but which should not be part of the set of alternatives which are calculated at this level, must evacuate FP[+focus1].
An advantage of a model like that in (31) is that it is general enough to capture configurations where the constituent marked as [- focus 1] (our 'topic') is itself part of a higher focal domain. The model in (31) is for instance compatible with the following configuration:

(32)



In (32), the XP must evacuate FP[+focus1], the focal domain for which alternatives are calculated at the first level. XP can, however, be part of a focal domain for which alternatives are calculated at a second level, namely FP[+focus2]. Note how the

intermediate node is marked as 'CT': this is because, following Constant (2012), I assume the presence of a topic abstraction operator whose presence is necessary to generate nested alternative structures.
I will illustrate how the model sketched in (32) works by applying it to (33). Consider a sentence like (33), where the direct object is in focus, and the indirect object has been topicalized:

(33)	A	Mario,	Lucia	ha	regalato	un	libro	(Italian)
	To	*Mario,*	*Lucia*	*has*	*given*	*a*	*book*	

We predict the following structure for (33):

(34) $[_{CP}[_{+FOC2}$ A Mario$]$ $[_{IP}$ Lucia ha regalato $[_{+FOC1}$ un libro ~~a Mario~~$]]]$
$[_{CP}[_{+FOC2}$ To Mario$]$ $[_{IP}$ Lucia has given $[_{+FOC1}$ a book ~~to Mario~~$]]]$

Focus Semantic value for IP = {Lucia has given a book to Mario; … ; Lucia has given a flower to Mario}
Focus Semantic value for CP = { { Lucia has given a book to Mario, ... , Lucia has given a flower to Mario } , ... , { Lucia has given a book to Gianni, ... , Lucia has given a flower to Gianni } }

The set of focus alternatives calculated at the level of the IP consists of the propositions that are obtained by taking the original proposition and varying the +FOC1 marked direct object, but keeping the fronted indirect object constant; the alternative set for CP, on the other hand, consists of the sets of propositions that come from the alternative set for IP by varying the +FOC2-marked fronted indirect object. Note that the focus semantic value for CP thus comprises the alternatives in the focus semantic value for IP. Also note that the contrastive topic has been made to land in the left periphery primarily to demonstrate the machinery of the second-order focus; the left-peripheral position of the contrastive topic in (33-34) is thus not to imply that the topic must land in the left periphery. Indeed, a sentence like (33) is also compatible with short A-scrambling of the indirect object, which would thus only move VP-internally. As will be discussed in detail in section VII, an additional advantage of a model like (31) is that it is better equipped to account for recursive topicalization.

With a model like (31), building on Constant (2012), we are deriving both the notion of topic and that of focus through a single mechanism, nested alternative structures. This new system thus gains in simplicity. It also gains in flexibility: by defining topic in privative terms, we can account for why topicalization may target constituents which are not discourse-old, nor topical in a pragmatic sense.

Note that assuming that an identical mechanism underlies the interpretation of both contrastive topics and foci is not to say that these elements are interchangeable in order: the former scopes over the other, and independent considerations will determine what material is articulated as which focal domain. These independent considerations might relate to something as general as the preference towards placing old information first in the sentence (cf. Gundel's (1988) *Given Before New* principle). They might also relate to the tendency to pick as sorting key the constituent whose alternatives are known (Büring 2016), or more limited in number. This latter tendency can be at least partly explained in terms of computational efficiency: if we reason in purely logical terms, all else being equal, given two sets of entities, the one with the smallest cardinality is more likely to be picked as sorting key, as that will result in the lowest number of ordered pairs.

Focalization cannot just be semantics: no characterization of the notion of 'focus' would be complete without also considering the prosodic side of the phenomenon. According to Reinhart (1995, 2006), constituents which are interpreted as being in focus (in the system we have just developed, the lowest-scoping alt-set element) are assigned main stress. Under this analysis, then, it is also constituents which cannot be assigned main stress which must move out of their external merge position. Indeed, an account of topicalization along these lines has been pursued by several authors (see for instance Vallduví & Enghdal 1996; Zubizarreta 1998; Costa 1998; Szendrői 2001, 2002, 2003, 2017; Samek-Lodovici 2006, 2015).

I believe that it is precisely prosody which accounts for some of the instances of topicalization where fronting targets a quasi-focal constituent, as it was the case for Brunetti's example in (28). Recall how, in (28), the malefactive PP *to my brother* was fronted to the left periphery, even though the whole sentence, fronted PP included, is in broad focus. Brunetti correctly identifies examples like (28) as problematic for theories treating topics as discourse-old, but in my opinion fails to capture why topicalization takes place nevertheless. A first thing to note is that the fronting of the dative object is completely optional. (28) could have just as well been uttered as (35) below:

(35)	Sai?	Hanno	rubato	la	moto	a	mio	fratello
	You-know?	*They-have*	*stolen*	*the*	*motorbike*	*to*	*my*	*brother*

Brunetti (2009) adopts Vallduví's (1992) suggested partition of backgrounded material into *link* and *tail*. According to Brunetti, the topicalized dative object in (28) gets interpreted –by virtue of being fronted– as being a *link*: it is an address pointer, directing the speaker's interlocutor to a given discourse file, in this case to the entry "brother of the speaker". It is the dative object which topicalizes because, out of all constituents in (28), this is the one element which comes the closest to being a good

link: this PP is at least somewhat anchored to the common ground, by virtue of the possessive "my".
As far as I can tell, however, if no constituent is anchored enough for it to represent a good link, topicalization should simply not take place: why go to the trouble of syntactically displacing a constituent only to end up with a suboptimal link?
The analysis I suggest for structures like the one in (28) rather relies on the idea that fronting of the dative object is a result of the direct object being assigned extra prominence, and hence being associated with main stress. Italian assigns main stress to the right (Samek-Lodovici 2005, 2015; Bocci 2013), and does so rigidly (Szendrői 2017), meaning that deviations from prosodically right-aligned structures are only reserved for pragmatically marked contexts, and are overall less frequent than in languages like English. If no fronting occurs, as detailed in (35), main stress is then assigned to the malefactive dative, exclusively because this is the constituent which appear rightmost in the main (and only) intonational phrase (see Hamlaoui & Szendrői 2015). Assume now that the speaker wants to highlight that it was a *motorbike*, and not something else, that was stolen from his brother. This conjecture is not particularly far-fetched: after all, in the event of a theft, what we are mostly interested in finding out is what exactly got stolen. In this situation, the speaker may want to assign special prominence to the "the motorbike", and hence assign main stress to this constituent rather than to the malefactive PP. Assigning main stress to the direct object would then cause a process of syntactic reordering: the indirect object, whose external merge position follows that of the direct object, would have to front. This is to avoid that it is the indirect object which is assigned main stress, by virtue of its rightmost position in the sentence. Note that an analysis in terms of prominence also accounts for the presence of optionality with respect to whether the dative object is going to be left-dislocated or not: the presence versus lack of topicalization is dependent on whether or not the speaker wants to assign extra prominence to the direct object.

We have thus identified two triggers for topicalization: the need for a constituent not to be interpreted as part of the set of alternatives calculated for the material part of the (lower) focus, and the need for a constituent not to be assigned main stress. There may not be a way to unify these two triggers: these might need to be kept separate, as structures like (28) would for instance seem to suggest. In (28), it is hard to see which set of alternatives the constituent "to the brother" should not be interpreted as being part of, especially considering the fronted PP is not to be interpreted as contrastive. Even though it may not be possible to unify these two triggers, note that the application of one is perfectly compatible with the application of the other: the fronted structure in (28) would be perfectly compatible with a situation in which the fronted PP is indeed to be interpreted as contrastive, as I illustrate in (36) below.

(36) A mio fratello hanno rubato una moto,
To my brother *they-have* *stolen* *a* *motorcycle,*
e a mio cugino hanno rubato il portafoglio.
and *to my cousin* *they-have* *stolen* *the* *wallet.*

An identical derivation thus underlies at least some instances of fronting as triggered by prosodic reasons, and of fronting as triggered by semantic reasons. Note that this characterization of topicalization as triggered by different, distinct requirements is in line not only with the extremely heterogeneous nature of the constituents targeted by topicalization, but also with the status of topicalization as a strategy to repair syntactically problematic structures. We will see this to be the case with subject topics in Italian, and verb-initial structures in Mexican Spanish, both of which are tackled in section V.IV.

IV.I Why not comment?

According to the analysis we developed in the previous subsection, a fronted non-focal constituent marks the sister of its landing site as being in focus. The idea that topicalization marks the material to the right of the landing site as some unitary domain is in fact quite common in the literature, although different analyses disagree on what this domain might be. In the remainder of this section, we are going to focus on two such analyses, namely that of Neeleman & Vermeulen (2012), and that of Rizzi (1997).

The analysis suggested by Neeleman & Vermeulen (2012) is based on previous work by Neeleman & van de Koot (2008) on A'-scrambling in Dutch. In Dutch, A'-scrambling exclusively targets constituents which are to be interpreted as contrastive, whether these are focal or topical. Given the inherently contrastive nature of A'-scrambling in this language, Neeleman & Vermeulen (2012) postulate that fronting occurs to overtly mark the *domain of contrast* associated with the moved constituent. In the case of a contrastive topic, the domain of contrast would then represent that portion of the utterance which is predicated about the topic and which is overtly contrasted with what predicated about a second contrastive topic.

The idea that topicalization marks the domain of contrast of a fronted topic, although very plausible for languages like Dutch, cannot work for languages like Italian. This is because, in this language, topicalization is not necessarily contrastive in nature. We already saw evidence of this in (28): in this example, the fronted PP "the brother" is clearly not to be interpreted as in opposition to a second, salient individual.

Another option would be to argue that topicalization results in the sister of the landing site of the fronted topic being interpreted as the topic's comment. This line of analysis is adopted in Rizzi (1997), as well as in Neeleman & van de Koot's (2008) original analysis of Dutch A'-scrambling.

At first sight, assuming that topicalization marks the extension of the comment seems an appealing analysis, particularly because it takes care of some of the potentially problematic claims discussed in section III in connection to the idea that topic movement marks the focus domain. If we were to assume that topics mark their comments, for instance, we would no longer have to assume that the whole *why*-question is in focus in structures like (12a), which I repeat below:

(12a)	Il canestro,	perchè	non	lo	regali	al	vicino?
	The hoop,	*why*	*not*	*it(cl)*	*you-give*	*to-the*	*neighbor?*

On a closer inspection, however, this line of analysis turns out to be no less problematic than the analysis being developed in this article. As mentioned in section III, I follow Neeleman et al. (2009) and Neeleman & Vermeulen (2012) in assuming that the topic-comment partition applies at the level of the utterance, whereas the one between focus and background applies at the level of the proposition. This means that the topic-comment partition represents the highest Information-Structural (IS) level of partitioning: everything must either be part of the topic −if a topic is present−, or of its comment. The comment itself may however present a second level of partitioning, namely the one dividing the focus from its background.

The idea that topics mark comments is problematic in light of examples like the one in (12b), repeated below, where a single topicalized constituent appears in the left periphery but is not the leftmost element in the domain:

(12b)	Perchè	il canestro	non	lo	regali	al	vicino?
	Why	*the hoop*	*not*	*it(cl)*	*you-give*	*to-the*	*neighbor?*

If topics marked everything to their right as being part of their comment, we would crucially predict the *wh*-word *perchè* in (12b) not to be part of *the hoop's* comment, as this is merged to the left of the fronted DP. This is problematic for two reasons: first of all, this kind of analysis would essentially entail that the *perchè* in (12b) does not belong to any IS level. In (12b) there is a single topic, and hence a unique comment, and, as discussed above, no partitions higher than the topic-comment one. A second problem is represented by the fact that, intuitively, the *perchè* in (12b) really *should* be part of the topic's comment: semantically, (12b) can also be read off as stating that there exists a predication relation holding between the entity *the hoop* and the suggestion to give such entity to the neighbor. This predication relation is meaningless if the *wh*-element is removed from it.

Note that structures like (12b) are problematic even if we refute the notion that the topic-comment partition applies at the level of the utterance. Assume we were to analyze the clausal complement of the topic in (12b) as its comment. Given the long-

standing tradition of analyzing *wh*-words as focused elements –as discussed in section III–, we could then assign the label of 'focus' to the *wh*-word, as detailed in (37).

(37) [$_{FOC}$ Why [$_{BACKGR}$ [$_{TOP}$ the hoop [$_{COMM}$ not it(cl) you-give to-the neighbor?]]]]

Note however that this structure is problematic if we are also to assume, following Rizzi (1997), that fronted foci mark the material to their right as part of the background (essentially mirroring the behavior of topics). A structure like (37) would imply that an element in focus may have as part of its background a topic-comment structure; this is argued to be impossible in Rizzi (2011, 2013, 2017).

V. The directionality of Focus-Driven Movement: A Corpus Study

The foot-driven analysis of topicalization I developed in section III simply states that any non-focal constituent should evacuate a domain marked a [+focus]: it does not specify in which direction the movement should take place. Indeed, we find instances of topicalization targeting both a left- and a right-peripheral position.

Although this paper focuses primarily on movement to the left, it is worthwhile to at least briefly discuss rightward topicalization, and the mechanisms which underlie it. In particular, we are interested in understanding what properties, if any, render a topical constituent a viable candidate to be the target of right dislocation, or conversely make it impossible for such an element to be dislocated to the left. Overall, this will help us gain a better understanding of topic movement to the left, as well as topicalization more in general.

The subject of study of this section is a collection of 88 utterances containing either a left or a right-dislocated topic, as extracted from actual corpora of spoken Italian. The corpora from which these 88 utterances were extracted are the CLIPS and the VOLIP. The CLIPS[46] (*corpora and vocabularies of spoken and written Italian*) corpus is a collection of written texts and oral conversations in Italian. The oral conversations, from whose files part of the 88 utterances were extracted, were recorded from 1999 to 2004 and are of two types: *difference test* and *maze test*. In a difference test setting, two speakers are presented with two images which are almost identical other than for a number of subtle differences, which the two subjects are tasked to find. As neither speaker has visual access to the image given to the other subject, both must orally describe to their interlocutor the details of their respective image.

In a maze test setting, the two subjects are both provided with an image featuring various drawings of buildings or objects. One of the two images also details a specific path across the various buildings or objects. The subject who is given the image with

[46] http://www.clips.unina.it/it/corpus.jsp

the path must describe where to go to the other subject, whose drawing does not feature any indication of this path. The task is further complicated by the fact that the two images are not entirely identical, i.e., some of the objects or buildings are missing on one of the images, or appear in a different location.

The VoLIP (*Voce del LIP*)[47] corpus is a collection of conversations recorded in five different geographical areas: Milan, Naples, Rome and Florence. Unlike for CLIPS, the conversations which are part of the VoLIP are entirely non-elicited, and therefore are as close to natural, non-guided conversation as possible.
The 88 utterances which are discussed in this section were extracted from files which I chose randomly from both corpora.
The CLIPS corpus indexes files according to the geographical location where the file was recorded. To ensure an equal representation of the different regional varieties of Italian, I selected my files from the following six areas: Venice, Milan, Naples, Rome, Turin and Florence. To ensure that the observed topicalization structures were not simply the output of a specific test modality, I also selected an equal number of files from both the maze-test and the difference-test type or recordings.

V.I Common Misconceptions on Right-Dislocated Topics

Let us start the analysis of the data with some observations pertaining to claims made in previous sections. A first thing to note concerns the status of shifting topics. Several authors (see for instance Brunetti (2009), Frascarelli (2000, 2004, 2012), Frascarelli & Hinterhölzl (2007) and Vallduví (1992)) have claimed that right-dislocated topics can never introduce a shift in the discourse. The analysis of our corpus shows however how this is factually incorrect. Out of the 88 dislocated topics in our corpus, 33 are shifting. The vast majority of these (28 cases) are indeed left-dislocated, but the five cases which are not are nevertheless perfectly grammatical. I provide two examples in (38) and (39) below. Some context is also provided for the reader to gauge how the right-dislocated topic is indeed shifting.
In (38), A and B starts by discussing "the duck" −which is realized as left-dislocated, shifting, subject topic− and then move on to discussing "the kid". This latter DP, a shifting one, is introduced in the discourse as a right-dislocated topic:

(38) A: La paperetta quanti pois ha?
The duck, how many polka dots does it have?
B: Uno due tre quattro....cinque
One two three four...five
A: Anche il mio
So does mine

[47] http://www.parlaritaliano.it/index.php/en/view-corpus

B: Ce ne ha due sul collo
It's got two on the neck
A: Sì , uno sulla testa diciamo e uno sul ... collo?
Yes, one on the head let's say and one on the..neck?
B: Sì, okay
Yeah, okay
A: Uno...
One...
B: E poi due in basso sulla panza
And then two lower down on its belly
A: Sì
yeah

B: E	uno	in	alto.	Senti, ha	l'ombelico,	il tuo bambino?
And	*one*	*on*	*top.*	*Listen, has*	*the.navel,*	*the your kid?*

'And one on top. Tell me, does your kid have a navel?'

CLIPS, DGtdB01V, minute 00:43

In the dialogue in (39), A and B start by discussing the number and the shape of the sea waves in their respective images, and later switch to discussing the appearance of the kid's hair. Once again, this latter referent is introduced in the discourse as a right-dislocated, subject topic:

(39) A: Boh (dialectal) contemo le onde del mar a 'sto punto
Mah let's just count the waves then
B: Sono quindici
They are fiftheen
A: Le hai contate!...1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
You counted them!.... 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
B: Però (dialectal)no stago a dirte a forma de tutti
But I am not gonna tell you the shape of all of them
A: Come?
What?
B: (dialectal) No stago dirte a forma de tutte
I *am not gonna tell you the shape of all of them*
A: No , vabbeh... infatti, no.. beh però, due per due?(unclear)..aspetta che leggo un attimo il foglio per vedere se (dialectal) ghe ze qualche...
No, of course...yeah, no…well but, two for two? (unclear)…wait, let me check the instructions again to see if there is any…

B: Ha	i	capelli	neri,	il tuo bambino	?
Has	*the*	*hair*	*black,*	*the your kid?*	

'Does he have black hair, your kid?'

CLIPS, DGtdB03, minute 06:49

A second common claim concerning the nature of right-dislocated topics is that these can never be contrastive. To show how right-dislocated constituents cannot be contrastive, Benincà (1988, 2001)[48], who is among the first to make such a claim, comes up with the example in (40). (40) shows how "the wine" can only be contrasted with "the cake" if surfacing in a left-peripheral position:

(40)	(a)	*Il	dolce,	lo	porto	io;	lo	porti	tu,	il	vino.
		*The	cake	it(cl)	bring	I;	it(cl)	bring	you,	the	wine
	(b)	Il	dolce,	lo	porto	io;	il	vino,	lo	porti	tu.
		The	cake,	it(cl)	bring	I	the	wine	it(cl)	bring	you
		"I'll	bring	the	cake,	you	bring	the	wine"		

(Benincà 2001: 162)

According to Benincà, the ungrammaticality of (40a) is a consequence of the impossibility for right-dislocated topics to be shifting. Benincà speculates that a contrastive structure like that in (40b) requires two shifting topics; this is because, in the first conjunct, the topic is the cake, but in the second, the topic must be shifted to "wine". The ungrammaticality of (40a) then follows.

The claim that right-dislocated topics can never be contrastive must however be made more precise. Overall, nothing prevents a topic which is to be interpreted in opposition to a second topic to be merged in a right-dislocated position –set interpretation-, as can be seen in the examples below, both taken from CLIPS:

(41) A: L'hai trovato, 'sto maggiolone? E' rosso?
Did you find it, this cabrio? Is it red?
B: No è azzurro, il mio
No it-is blue, the mine

(DGmtA01T, minute 05:54)

(42) Poi vabbeh, c'ha il naso, non ha i baffi, il mio cane
Then well, it-has a nose, not it-has the whiskers, the my dog

(DGtdA03V, minute 04:19)

Example (41) was extracted from a maze-test task file, example (42) from a difference-test task one. The nature of both tasks is such that several of the sentences uttered by the two subjects who are taking the test are contrastive in nature: the two speakers need to find the differences in the images they were given, so that they can either

[48] See also Benincà & Poletto (2004), Brunetti (2009), Frascarelli & Hinterhölzl (2007).

complete the task (in the case of the difference-test task), or understand how to properly provide their interlocutor with indications on how to complete the itinerary. The two examples in (41) and (42) are to be interpreted in this light: in (41), the speaker is saying that *her* cabrio is blue, not red. In (42), the speaker is letting her interlocutor know that *her* dog has a nose but no whiskers. The two right-dislocated subjects in (41) and (42) can thus only be interpreted correctly if they are interpreted as contrastive.

We then see that there is no ban preventing constituents merged in a right-dislocated position to be *interpreted* as contrastive, and indeed, the CLIPS corpus is rife with examples of the type of (41-42). What is indeed impossible for right-dislocated topics to do, and what the test in (40) truly diagnoses, is the possibility to give rise to a list of pairs where either member is the right-dislocated topic, and whose second member is the material in focus (the *contrastive-pair* reading).

V.II Swapping Peripheries

Now that we have explored some side issues relating to previous sections of this paper, it is time to return to our original research question, namely the question of what differentiates right-dislocated topics from left-dislocated ones.

The 88 utterances which make up our corpus feature 40 examples of right dislocation, and 48 examples of left dislocation. At least in this corpus, the incidence of right topicalization is thus around the same as that of left topicalization.

The analysis of the corpus reveals how there is indeed a robust tendency to left-dislocate topics which are less accessible, and to right-dislocate those which are more accessible. This at least partly confirms the findings by Frascarelli (2000, 2012), Frascarelli & Hinterhölzl (2007), Brunetti (2009) and Vallduví (1992) concerning the "familiarity" of right-dislocated topics. A relevant example to illustrate this tendency is (43): the topic "l'antenna" is first introduced as a focus by the first speaker, and then right-dislocated by the second speaker:

(43) A: Poi c'è l'antenna
Then there.is the antenna
B: Eh, come è fatta, l'antenna?
Yeah, how it.is made, the antenna?
'How does the antenna look like?'

(DGtdA03V, minute 00:47)

Indeed, and as has been remarked for instance by Brunetti (2009), right-dislocated topics are generally only licensed if they have a salient antecedent in the discourse. To show how this is the case, Brunetti (2009) provides the following example, which is

meant to show how a right-dislocated topic cannot be referring to a non-discourse-anaphoric entity:

(44) ?? Sai? Ha vinto la lotteria, un mio amico.
?? You-know? Has won the lottery, a my friend.
'?? Guess what? He has won the lottery, a friend of mine.'

(Brunetti 2009: 761)

The analysis of the data in our corpus, and of the context in which each topicalization structure was uttered, however reveals how most of the examples of left dislocation could have just as easily been realized with a right-dislocation structure, and viceversa. Of course these judgments are entirely based on my assessment of the context, and on my personal perception of what is grammatical and what is not. However, at least for one type of structure, we do find evidence that right dislocation and left dislocation are equally plausible and possible in similar contexts. In all examples below, speaker B is stating that they do not have the entity which is topicalized as part of the image they were given. In all of these cases, such an entity is very salient and active by virtue of having been just mentioned by speaker A.

The examples in (45-46) were chosen because they feature the same overt, pronominal, contrastive subject (1st person singular) and the same type of verb. The examples were also paired for definiteness: in (45), the referent of the clitic-resumed topic is first introduced as an indefinite. In (46), it is first introduced in the discourse as a definite object DP. Some context was also provided for the reader to be able to assess that these constructions are indeed uttered in very similar contexts. It is obviously impossible to find equivalent left-or-right constructions which are uttered in identical contexts and feature identical referents, but the pairs in (45-46) come reasonably close to a controlled environment.

(45)

(a) **Left Dislocation, indefinite**

A:Fin quando non arrivo a un deposito
Until I reach a warehouse

B:No, io	'sto deposito	'un[dialectal]	ce	l'ho
No, I	*this warehouse*	*not*	*there(cl)*	*it(cl).I-have*

(B01 Florence, minute 01:54)

(b) **Right Dislocation, indefinite**

A: Se giro a destra c'ho un'altra macchina...ancora più a destra...
If I turn right I have another car...even further to the right…
e un orologio
and a clock

B: No, io non ce l'ho, l'orologio
No, I not there(cl) it(cl)-I-have, the.clock
(CLIPS, DGmtA03V, minute 03:12)

(46)

(a) **Left Dislocation, definite**

A:Ma prima ho la scuola do re mi e l'università
But before that I have the do re mi school and the university
B: Ma la scuola do re mi, io 'un(dialectal) ce l'ho
But the school do re mi, I not there(cl) (it)-I-have

(B01 Florence, minute 05:46)

(b) **Right Dislocation, definite**

A: C'è il bar Mimì
And there's the Mimì coffee shop
B: C'è il bar...?
There's…what coffee shop?
A: Mimì
Mimì
B: …Bar Mimì...??
...The Mimì coffee shop..??
Io non ce l'ho, il bar Mimi, sul mio percorso.
I not there(cl) (it)-I-have, the Mimì coffee shop, on my image
'The Mimì coffee shop..? I don't have it, the Mimì coffee shop, on my image'

(B03, Naples, minute 01:17)

Earlier on I mentioned that most instances of topicalization in the corpus could have just as easily been realized in the opposite periphery. Those instances of topicalization which could *not* have been realized in either periphery come in two sorts: on the one hand, we have constituents which cannot be realized in the right periphery because they are associated with a referent which is not particularly salient, hence not very accessible. We already saw an example of that in (44). On the other hand, we have topics which are to be interpreted as part of a contrastive-pair construction like that in (40b), where the fronted topic is in overt contrast with some other referent.

A particularly interesting example of the latter case is represented by (47). In (47), we see that the third mention of "the red car" is realized in the left periphery, even though this constituent is clearly salient by virtue of having just been mentioned by the

previous speaker[49]. Note also that this constituent is salient enough for it to be realized as righ-dislocated by speaker B (second mention). The reason why the third mention of "the red car" is realized to the left has to do with the fact that, in this third utterance, this constituent is to be interpreted in overt opposition to "the blue car", which is another object part of the difference test.

(47) A: Quando tu hai finito di passare in mezzo alle due macchine, ti trovi con la matita che è dietro la macchina rossa....sì o no?
When you are done passing through the two cars, your pencil will be right behind the red car…yes or no?
B: No, cioè l'ho...l'ho superata, la macchina rossa
No, I mean, I…I went past it, the red car
A: La macchina rossa l'hai in parte a destra del foglio?
The car red it(cl)-you-have on side to right of-the sheet?
'Do you have the red card on the right side of the sheet?'
(CLIPS, DGmtA03V, minute 02:10)

The findings discussed so far concerning the nature of right- and left-dislocated topics can be summarized as in (48):

(48)
(a) Right-dislocated topics *can* be shifting.
(b) Right-dislocated topics *can* be interpreted as contrastive.
(c) Less accessible topics tend to be dislocated to the left.
(d) Topics which are part of a contrastive-pair construction must be dislocated to the *left*, never to the right.

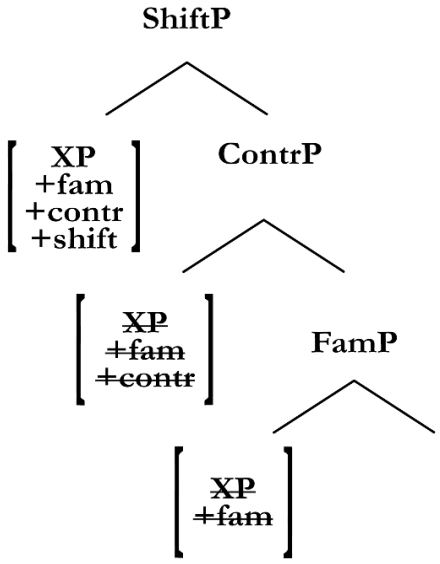
The fact that less accessible topics tend to be dislocated to the left (48c), together with the observation that right-peripheral positions are by no means precluded from marking a shift in the discourse (48a), suggests an alternative explanation for what has been identified by many different authors as a ban on right-dislocated topics being shifting. The reason why right-dislocated topics mostly do not introduce any shift in the discourse, even though they technically could, as seen in (38-39), is a consequence of the fact that the right periphery is precluded from hosting constituents which are not particularly activated. Shifting topics often co-refer with discourse-new entities, precisely by virtue of marking a shift in the discourse: as Frascarelli (2000) remarks, shifting topics can be newly introduced or semi-active constituents. The low incidence of shifting right-dislocated topics then follows.

[49] See in particular example (43), which shows how the neutral position for this type of constituent would be in the right periphery.

In this respect, the CLIPS corpus, from which examples (38) and (39) were taken –and where all other examples featuring a right-dislocated shifting topic are also from– provides an interesting test field to verify our hypothesis. The nature of the recorded conversations in the CLIPS corpus is such that the entities which are being discussed by the two speakers tend to be highly salient and very accessible to both. This is because in both the maze-test task, and the difference-test task setting, the two subjects have visual access to the referents being discussed. They are also aware that the images they were provided with are virtually identical, hence act accordingly.

Note that the grammaticality of examples like those in (38-39) is additional evidence against the idea of a hierarchy of dedicated topic projections: if shifting topics could be only licensed in some structurally high position in the left periphery, we would expect right-dislocated topics to never be able to perform such a function. Examples like those in (38) and (39) are also evidence against a *stacking* analysis of topics which are pragmatically complex, e.g., topics which appear to be both familiar *and* contrastive, or both contrastive *and* shifting. In her (2012) paper, Frascarelli suggests to account for these types of topics by resorting to a stacking analysis: the idea is that a topic which is endowed with both, say, a [+ familiar] and a [+contrastive] feature is first merged in whatever position licenses a familiar reading, and later moved to the dedicated functional projection in the left periphery which licenses a contrastive reading. This way, a one-to-one correspondence between functional projections and pragmatic functions can be maintained, while at the same time allowing the model to account for topics which appear to perform more than one function. This sort of analysis however presupposes that the complexity of a given topical constituent is a function of its position in the clausal spine, with the highest left-peripheral topics being potentially more complex than any topic which is merged lower in the structure:

(49)



The prediction of a stacking analysis of topicalization is thus that the lower a topic appears in the structure, the fewer features such a topic may be endowed with. This is clearly not the case for the topics featuring in the corpus examples in (38) and (39): they are both [+ familiar] and [+shifting], despite being merged in the lowest possible position within the sentence, and despite the [+shifting] feature being allegedly only licensed much higher up in the clausal spine.

V.III Degrees of Activation & Prosodically Prominent Positions

Earlier in this section, I explained the lower overall incidence of right-dislocated shifting topics as a side-effect of the impossibility for non-active topics to be merged in a right-peripheral position. The question is then why there should be a link between the level of activation of a given referent, and its ability to be merged to the right as opposed to being merged to the left. This is a very complex question, to which I cannot expect to do justice in the space of a single section. I will then simply limit myself to remarking how the answer to the puzzle is likely to be partly prosodic, and partly computational.

Prosodically speaking, constituents appearing at the left edge of the clause are associated with higher levels of intensity and feature a more varied pitch contour than constituents which are merged in the right periphery or anyway lower in the sentence (see Bocci 2013). This is presumably cross-linguistically valid, as it is a direct function of how the articulation process works: the intensity of the air flow, which determines the intensity with which sounds are articulated, is the highest at the beginning of the utterance, and then tends to naturally decrease with each word uttered, only to be reset at its initial value once the utterance is completed and/or a pause in the flow of air is made. There is also a presumably universal tendency towards a progressive and cumulative lowering of pitch values as the sentence progresses (see Pierrehumbert 1980, Ladd 2008). Another factor influencing the prominence of constituents appearing in the right periphery is the fact that they all appear in a post-focal position. For all the languages discussed in this paper, the non-marked position to realize main stress −which, according to Reinhart (1995, 2006), must correspond to the focus of the clause− is the rightmost position within the main intonational phrase[50]. Constituents realized in the right periphery naturally follow such a main stress position. It has been remarked by several authors how post-focal constituents are prosodically indistinct, regardless of the position in which focus is realized: according to Bocci (2013), for instance, all material following a left-dislocated corrective focus is realized with a low, flat contour, which progresses for as long as the end of the utterance is reached.

[50] See Hamlaoui & Szendrői (2015), and Szendrői (2017) for an analysis of what represents the main intonational phrase.

According to Frascarelli & Hinterhölzl (2007), the same low, flat contour characterizes right-peripheral topics.

Prosodic realization ties in with processing considerations. From a computational perspective, constituents which have more accessible referents require less processing. Constituents which are associated with a less active referent, on the other hand, are more taxing in terms of the associated working memory load. Several authors have for instance argued how the accessibility of a given constituent has an effect on the possibility of extracting said element in environments which normally do not permit extraction, as it is the case for d-linked elements in *wh*-islands (Kluender 1998; Frazier & Clifton, 2002; Hofmeister 2007, 2011; Hofmeister et al. 2007; Hofmeister & Sag, 2010). Similarly, it could be argued that, as less accessible topics require more processing power, it would be counterproductive for these constituents to be merged in a position which is overall associated with a decreased degree of prominence, as is the case for right-peripheral positions. The correlation between left-peripheral position and discourse-new topics would then follow.

V.IV On Subject Topics and Grammatical Triggers of Topicalization

Out of the 88 instances of topicalization in the corpus, 35 are subject topics, 51 are objects topics, 1 is an indirect object and 1 is a fronted adjunct. Of those 35 cases of subject topics, 25 feature in a matrix question, as opposed to the incidence of object topics in matrix questions, which is much lower: 14 cases out of 51. This state of affairs is schematized in (50):

(50)

Grammatical Role	Total	Appearing in root questions
Subject	35	25
Direct object	51	14
Indirect Object	1	1
Adjunct	1	1
Total	**88**	**41**

The high overall incidence of questions (47% of the total number of dislocated topics feature in a root question) in the corpus is likely a function of the type of files which compose it: the nature of the tasks which were recorded for the CLIPS corpus, whose files make up half of the corpus, requires the two subjects to ask each other several questions. The fact that most of the subject topics should occur in matrix interrogatives is however unexpected, particularly if we compare the figures relating to subject topics to the overall low frequency of object topics occurring in root questions.

Behind the high frequency of subject topics in matrix interrogatives is likely a third type of trigger, one additional to the ones we identified in section III. All instances of topicalization we have reviewed so far occurred in structures which would have been grammatical anyway even if the fronting operation had not applied; this is compatible with the semantic and prosodic characterization of the trigger of movement we have provided in section IV. In the case of subject topics, the trigger seems to be purely syntactic in nature: topicalization occurs as a strategy to avoid word order configurations which would be independently grammatical.
An example of a subject-topic, matrix interrogative structure found in the corpus is provided in (51):

(51) A: E c'ha il cane dentro....almeno pare un cane
And it has a dog inside…or at least what looks like a dog
B: E il cane dentro...il cane com..come ha <u>*il naso*</u> ?
And the dog inside... the dog ho… how has <u>the nose?</u>
'And the dog which is inside it…that dog, what does its nose look like?'
(DGtdA03V, minute 02:30)

Consider the sentence where topicalization occurs in (51). If the subject were not to front, (52) would have obtained:

(52) *Come il cane ha il naso ?
**How the dog has the nose?*

Sentences like (52) are however ungrammatical in Italian, as well as in most Romance languages. This is because they violate the required adjacency between *wh*-word and fronted inflection node, as discussed in section III.
To avoid the violation of such a requirement, the subject can be then topicalized to the left, as observed in (51), or be right-dislocated, as illustrated below:

(53) Come ha il naso, il cane?
How has the nose, the dog?

Note that 4 out of those 10 cases of subject topics not occurring inside a question are clearly hanging topics, which are generated directly in their left-peripheral position (see again section II). This brings down the instances of subject topics which are dislocated to the right or the left periphery even though they do not feature inside a question to a mere 6 cases.

Another instance of a purely grammatical trigger of topicalization is found in Mexican Spanish topicalization. Consider the following examples, which I take from Gutiérrez-Bravo (2013):

(54) A: Quién compró los discos? (Mexican Spanish)
Who bought the records?
B: ?*Compró los discos una muchacha
*?*Bought the records a girl*
B': Los discos los compró una muchacha.
The records them(cl) bought a girl
(Gutiérrez-Bravo 2013:168)

According to Gutiérrez-Bravo (2013), Mexican Spanish does not allow for VOS sentences with an empty preverbal position. If the subject is focal and hence realized post-verbally, as in (54), the direct object must front to the left to fill out the empty pre-V slot. Note that the requirement that pre-verbal positions may not be empty is not present in Peninsular Spanish, where the following structure is perfectly acceptable:

(55) Está buscando la secretaria el jefe de la fábrica (P. Spanish)
Is looking-for the secretary the foreman of the factory
'The person who is looking for the secretary is the factory's foreman'
(Adapted from Zubizarreta 1998: 126)

The findings of this section are unitary with those from section IV in painting a picture of topicalization as a wildcard-like type of operation: topicalization is a type of operation to which the linguistic user can resort when tackling a variety of different scenarios, be they otherwise ungrammatical structures, prosodically misaligned configurations, or semantically suboptimal environments. As I already pointed out in section IV while discussing the semantic and the prosodic sides of topicalization, this wildcard behavior is compatible with the extreme heterogeneity we observe with respect to the constituents which are the target of this process.

VI. The Material in Focus Determines the Type of Topic

In the previous sections, we reviewed several pieces of data showing how there is no one-to-one correspondence between structural position and the discourse roles a topic may be specified with. In section II, we saw for instance how a presupposed constituent may give rise to a contrastive-pair structure both if moved VP-internally and if left in situ. We also saw how both a contrastive and a shifting topic may be merged in a position preceding IntP, or following it. In section V, we then saw how even right-dislocated topics may mark a shift in the discourse.

Even if one rejects the idea of dedicated functional projections for the different types of topics, there *are* some general tendencies in the distribution of the various types of topics one has to account for. Which tendencies are we talking about, exactly? In section V.III, we saw how shifting topics tend on average to be merged in the left

periphery, something which I explain by appealing to notions such as prosodic prominence and processing considerations. In section V.I, we saw how only topics which are dislocated to the left can feature in contrastive pair-list structures. The challenge is to account for them through a model which is flexible enough to capture their flexibile distribution, but rigid enough to capture these tendencies.

In sections III and IV, I developed a model of the distribution of topics which is focus-driven: the movement of a topical constituent −in whatever direction this may proceed− is triggered by the need for such a topic to evacuate a focus domain. To account for the tendencies in the distribution of topics that I have just described, I would like to adopt a model which is equally focus-centric: I will argue that just as the distribution of topics is a function of the (size of) the focus, so is their type. The main insight of this type of analysis is in particular the idea that the type of a topic is not a function of its absolute position in the clause, but of its relative position with respect to the focus, and of the nature of such focus.

Capturing the specific pragmatic import a topic may be specified with in terms of the nature of the focus makes for a relativized approach to topic typology: the discourse features associated with topical material depend on what is in focus, and are hence determined on a case-by-case basis. We will see how this model has precisely the characteristics we need it to possess: its relativized nature makes it flexible enough to capture the equally flexible distribution of the different types of topics. At the same time, anchoring topic typology on a specific element in the clause makes this model rigid in the right dimensions.

We will explore two dimensions in which the focus affects the type of a topic:

A. Presence/Absence of Focused Material in the Scope of the Topic
B. Size of the Focus Value

I discuss each dimension in a separate subsection.

VI.I Presence/Absence of Focused Material in the Scope of the Topic

A first relevant distinction to determine the type of a topic is that between topics surfacing in a position preceding the material in focus, and those following the focus, as it is the case for right-dislocated constituents. This is because I assume that the only structural requirement for a topic to be able to give rise a contrastive-pair structure is that focused material be in its scope[51]. The idea that contrastive elements must scope over the focus follows from the standard assumption that the meaning of a CT is

[51] In [article 3], I show how this does not necessarily correspond to quantificational scope (or semantic scope). See also Constant (2012).

dependent on the presence of a set of alternative propositions (see Büring 2003). Note that I define scope in terms of c-command: right-dislocated topics will thus never be scoping over an in situ focus, as they can never c-command it. Crucially, the absolute height of a contrastive constituent in the clausal spine does not matter: all it matters is that this precedes the material in focus. This accounts for the several different positions in which a contrastive topic may be merged that we identified in section II. It also explains why some topical constituents need not front in order to be interpreted as contrastive. Consider again example (7), reported below:

(7) A: À qui as-tu donné les deux livres? (French)
To whom have-you given the two books?
B:J'ai donné le vocabulaire d'Anglais **à Sarah**,
I-have given the dictionary of.English ***to Sarah,***
et le livre d'Histoire **à Lucille**
and the book of.History ***to Lucille***

The reason why *le vocabulaire d'Anglais* and *le livre d'Histoire* can be interpreted as contrastive even in the absence of overt movement to the left periphery has to do with the fact that, already in their thematic position, these constituents precede the focus (in bold), hence the contrastive-pair reading is already available. Similarly, note how, if the focus does not front to the left periphery, a CT may surface very low in the structure. Consider for instance (56), where the first CT follows a fronted modifier, *ieri*. The position of the CT with respect to the fronted modifier is significative because, according to Rizzi and Bocci (2015), modifiers are merged very low in the left periphery, much lower than where CTs are merged according to Frascarelli (2012).

(56) Hanno detto che *ieri* a Luigi Paolo ha tirato (Italian)
They said that yesterday *to Luigi Paolo has thrown*
un ceffone, e a Luca Salvo ha mollato uno schiaffo.
a punch, and to Luca Salvo has given a slap.
'They said that yesterday Luigi Paolo has punched, and Luca Salvo has slapped.'

A second prediction is that right-dislocated topics, which always follow the material in focus by virtue of their right-dislocated position, will never give rise to a contrastive pair-list reading. This has already been independently proven by a number of different authors (cf. Benincà 1988, 2001; Benincà & Poletto 2004; Cecchetto 1999; Samek-Lodovici 2015, i.a). This finding was also confirmed by the data in our corpus: constituents which are to feature in a contrastive-pair structure must always be dislocated to the left, even if coindexed with a very active referent (see in particular example (47)).

A third prediction concerns the potential for constrastivity of shifting topics surfacing in a prefocal position. If structurally the only requirement for a topic to be able to enter into a contrastive-pair relationship is for it to surface above whatever element in the sentence is in focus, we expect that all prefocal STs could also be interpreted as contrastive. Indeed, this is precisely what we observe. Consider for instance example (57), which is a re-elaboration of example (12b). In section III, I used the first portion of example (57) to argue that shifting topics may also surface in a position following interrogative elements merged in IntP. In (57), I provide a possible contrastive continuation for that example, rendering the fronted topic a CT:

(57) Speaker A (to B):
Cambiando completamente discorso... (Italian)
Changing topic completely…
Perchè il canestro non lo regali a tuo cugino,
Why *the hoop* *not* *it(cl)* *you-give* *to* *your* *cousin,*
visto che il pallone sei deciso a lasciarlo a tuo zio?
given that the basketball you-are set on leaving=it(cl) to your uncle?
(Così facendo, tuo cugino potrebbe giocare con entrambi fino a quando non ritorni.)
(That way, your cousin could play with both until you are back.)

The context in (57) is compatible with a situation in which A and B have been discussing what to do with hoop and basketball at an earlier moment, and are now returning to discussing that same topic. Remember that, according to Givòn's definition of STs, a shifting topic is a topic which is either newly introduced, or newly returned to; in (57), it is the latter definition which applies. In (57), "the hoop" is not only newly returned to, it is also contrasted with a second topic, "the basketball", making "the hoop" not just a shifting topic, but also a contrastive one.

VI.II Size of the Material in Focus

Under dimension A, all topics which precede the material in focus are grouped together in that they all share the property of being *potentially* contrastive. Whether this potential is given overt realization or not −by introducing a second topic in the discourse with which the first topic may be contrasted− is irrelevant for our purposes: all that matters is that, if said second topic were to be introduced, a contrastive interpretation of the first topic would be possible.
We have then replaced Frascarelli's hierarchy, which I repeat below, with (58):

(1) [ForceP [**ShiftP** [**ContrP** [IntP [FocP [**FamP*** [FinP [IP
(Frascarelli 2012:182)

(58) [+ contrastive] focus [- contrastive]

The string in (58) states that all topics preceding the material in focus can be realized as contrastive, and those which follow it never can. Unlike in (1), focus in (58) is crucially *not* defined with respect to a specific dedicated projection in the left periphery, which is how we capture the flexibility in the position where contrast can be realized.

With (58), we are essentially grouping together what Frascarelli considers two separate classes of topics, namely contrastive and shifting topics. This is because, in her hierarchy, these two types of topics always precede the focus. In the previous subsection, we saw how this is in fact a desirable property, as all shifting topics which are pre-focal can always also be assigned a contrastive interpretation. The question I am going to tackle in this subsection is whether we can tell these two types of topics apart, i.e., whether the focus-driven model of topicalization I have developed can predict which topics are likelier to be simply contrastive, and which ones are likelier to also be shifting. I argue that it can: the fact that topics which are merged in the highest possible position within the left periphery can be interpreted as shifting follows from the fact that these topics mark the entirety of the rest of the sentence as being in focus. I thus relate the type of a topic to the size of its associated focus domain: in particular, I argue that the bigger the portion of the sentence which is in focus, the more likely it is for a prefocal topic to be shifting.

That structurally high topics should be more likely to be interpreted as shifting than corresponding lower ones follows from the analysis we developed in sections III and IV of topicalization as movement outside of a domain marked as being in focus. Under topicalization as a focus-driven movement, the height of a fronted topic in the clausal spine correlates with the size of the material in focus: the higher in the structure a given topic is fronted, the bigger the portion of the sentence which is in focus. Topics which appear as the leftmost element in the sentence −as it is the case for many of the topics which are identified as shifting in Frascarelli & Hinterhölzl (2007)[52]−, for example, mark the entirety of the rest of the sentence as being in focus. This situation is compatible with topics which mark a shift in the discourse because when a new sentence topic is introduced, the associated comment is likely going to be entirely new information, and hence entirely in focus. This is because, if speaker A has been discussing referent x for a while, and she now switches to discussing y, whatever the comment associated with y might be, this is likely going to be all new information, as there are no links between the current discourse topic and what said so far in the conversation. This would explain why, according to Frascarelli & Hinterhölzl (2007), STs are often the leftmost element in the sentence: this is the only position a topic might surface in if the entirety of the rest of the sentence is in focus. In other words, it

[52] STs are argued to be a root phenomenon in Bianchi & Frascarelli (2010).

is not the case that topics which are merged in a structurally high position become shifting, it is rather the case that topics which mark a shift in the discourse are associated with all-focus comments, and should thus precede everything else in the sentence.

Note that with this type of analysis we are once again able to capture the interconnectedness of STs with CTs which we already started exploring in the previous subsection. If having the entire sentence in focus is what triggers the interpretation of the topic as shifting, we expect that structurally high CTs will also count as Shifting. Below is the prototypical example of a ST used in Frascarelli & Hinterhölzl's (2007) original article:

(59) From F&H (2007:4)
A student who is talking about her homework:
"Il materiale era tantissimo quindi all'inizio l'ho fatto tutto di corsa (...)
"The material was quite a lot, so at the beginning I did it in a rush (…)
L'ultima unit(ST), [$_{FOC}$ la sto facendo], l'ho lasciata un po' da parte (…)"
The last unit (ST), [$_{FOC}$ *I am doing it now*]*, I put it aside before (…)"*

On the basis of an analysis of the context in which (59) was uttered, as well as of the intonational contour associated with "the last unit", Frascarelli and Hinterhölzl categorize this topic as being shifting. Arguably "the last unit" in (59) is however also contrastive: the presence of the intersective modifier "last", in particular, makes it clear that this constituent is uttered with a specific set of salient alternatives in mind, namely any unit other than the last. The NP "unit" itself, moreover, is an inherently contrastive notion.

If the type of a topic is a function of the nature of the material in focus, we expect that the nature of the focus value will also affect the interpretation of the topic. Indeed, we see that the smaller a focus value, the easier it is for the associated topic to be interpreted as contrastive. Consider a sentence like (60), which features a verum focus:

(60) El pan, Juan sí lo comió (Spanish)
The bread, Juan yes it(cl) ate
Focus value: {Juan ate the bread, Juan did not eat the bread}

When asked to provide a continuation for (60), 8 out of 11 Spanish speakers came up with contrastive continuations of the type of "pero el pescado no" ("but the fish, he did not"). Only 5 out of 11 however came up with a contrastive continuation if the verum focus was removed. I argue that this is because the presence of a verum focus in (60) entails that the sentence is associated with a focus value whose members are both limited in number and predictable. By general Gricean reasoning, the hearer will then

infer that there must be another entity y to which the second proposition in the focus value does apply, and will thus end up interpreting (60) as implying a contrast. This implicature is however cancellable, and indeed, provided an appropriate context, even a topic associated with a closed/restricted focus value can be interpreted as non-contrastive, as it is the case in (61):

(61) Por cierto. Hablé con Juan. Un coche sí lo tiene.
For sure. I-spoke with Juan. A car, yes it(cl) he-has
'By the way. I spoke with Juan. He *does* have a car'

Related to this issue is the link between the length of the fronting operation and the likelihood of a contrastive reading of the topicalized element. In section II, I mentioned how A-scrambling can be used to mark the indirect object as contrastive: I report the relevant example in (62a) below. It seems to me that it is much easier to interpret as non-contrastive a constituent which has been fronted all the way to the left periphery, as in (62b), than it is to interpret as non-contrastive the same constituent if this has only moved VP-internally, as in (62a):

(62) (a) Lucia ha dato a Paolo un libro
Lucia has given to Paolo a book
(b) A Paolo, Lucia ha dato un libro
To Paolo Lucia has given a book

That the more local movement should be more strongly tied to a contrastive implicature than the long-distance one follows from the account being developed here: the set of salient alternatives which can be computed for (62b) is considerably larger than the one which can be computed for (62a). The alternatives for the former example are calculated at the IP-level, whereas those for the latter are calculated at the level of the direct object.

VII. On Multiple topicalization and Nested Focus Constructions

Ever since Rizzi (1997), we know that more than one topic can appear in the left periphery. An example of a multiple-topic construction is provided in (63):

(63) Il vocabolario, a Gianni gliel'ho dato solo ieri (Italian)
The dictionary, to Gianni to-him(cl)-it(cl)'I-have given only yesterday

Note that topicalization can also displace the two or more topics in two separate left peripheries. This is illustrated in (64):

(64) Il vocabolario, Luigi crede che a Gianni (Italian)
The dictionary, Luigi believes that to Gianni

gliel'abbia	dato	solo	ieri
to-him(cl)-it(cl)-I-have	*given*	*only*	*yesterday*

The grammaticality of multiple-topic structures clearly contrasts with the impossibility for more than one focus to feature in a single left periphery, as shown in (65):

(65) *IO A MARIO ho parlato! (Italian)
**I TO MARIO have spoken!*

According to Rizzi (2011, 2013, 2017), that multiple topics may feature within the same CP, but multiple foci may not, follows from the assumption he makes that topic movement marks the material to its right as its comment[53], and that focus movement marks the sister of its landing site as its background. According to Rizzi, nothing prevents a second topic from occurring within the comment of a higher topic, hence the grammaticality of (63-64). Foci are on the other hand banned from occurring inside the background of a higher focus, on the assumption that backgrounded material must be presupposed and hence cannot contain constituents in focus.

This kind of analysis is obviously not available in the account being developed here, since, for reasons discussed in detail in section IV, we rejected the idea that topic movement marks the sister of its landing site as the comment. Our account would rather predict that, in multiple-topic structures, the lower topic occurs inside the focus domain associated with the higher topic. Note that this is precisely a configuration which we would expect to be possible given the specific implementation of foot-driven movement I have argued for in section IV. Recall how in section IV (see in particular example (32)) I have argued that a privative definition of what counts as 'topic', coupled with a characterization of topicalization in terms of foot-driven movement, allows us to capture configurations in which the fronted topic is itself part of a domain for which alternatives are calculated. This is precisely what is going on in structures featuring more than one topic. The lower topics do indeed occur inside a focus domain: this is the portion of the sentence whose associated set of alternatives must not contain any of the higher topics.

In the remainder of this section, we will discuss multiple-topic structures more in detail. The goal is to show that postulating the existence of nested foci structures, and of topics occurring inside focal domains, is something which is needed independently. Since these are needed independently, the focus-driven account of topicalization I have developed in IV can be said to feature a minimal amount of machinery, as no additional assumptions are required to make it work.

[53] See again section IV.

An analysis like Rizzi's hinges on the idea that Italian does not allow more than one focus per clause. This claim must be made more precise: we will see how, while some instances of parallel foci are indeed out, nested foci must be assumed even in this language. The ungrammaticality of multiple-focus structures like than in (65) was first noted by Calabrese (1982, 1987, 1992) who accounted for it by stipulating that languages like Italian have a single projection capable of hosting a Focus constituent. Structures like (65) would then be ungrammatical because the second focused element cannot be merged in the specifier of a matching Focus projection (see also Rizzi 1997 for an analysis in terms of a unique Focus projection).

An explanation of the ungrammaticality of multiple-focus structures in terms of the lack of a second focus projection however cannot be maintained: multiple foci are ungrammatical even when occurring in two separate left peripheries, as shows in (66). In fact, two foci are also ungrammatical even if their movement paths do not cross each other, as can be seen in (67): this also excludes a strong minimality violation as an explanation of the unacceptability of (66).

(66) *A PAOLO credo che LA TORTA Lucia abbia regalato!
**TO PAOLO I-believe that THE CAKE Lucia has given!*

(67) *A PAOLO ho detto ~~A PAOLO~~ che LA TORTA
**TO PAOLO I-have said ~~TO PAOLO~~ that THE CAKE*
ho mangiato ~~LA TORTA~~!
I-have eaten ~~THE CAKE~~!

In [Article 1], I provide a prosodic analysis of some of the restrictions which characterize the distribution of fronted foci, suggesting in particular that the specific prosodic contour associated with fronted focus environments is incompatible with that of matrix questions. An analysis along those lines could also be extended to cover cases such as (66-67) above. Following Bocci (2013), I take post-focal material in fronted focus environments to be associated with a low, flat contour, which crucially extends for as long as the end of the utterance is reached. This low, flat contour is incompatible with the presence of a second focus, on the assumption that constituents in focus must always be associated with main stress (Reinhart 1995, 2006)[54].

Independent prosodic requirements thus rule out the possibility of multiple foci in Italian; even in this language, however, the possibility of having nested foci must be maintained. Consider (68), which shows how a narrow focus can appear within a restrictive because-clause:

(68) *Context: Maurizio and Mirela are a couple*

[54] See article 1, where this argument is developed in detail.

A: Perche' a Maurizio hai regalato un cavatappi?
Why to Maurizio you-have given a corkscrew?

B: (Gli	ho	regalato	un	cavatappi)	perche'	a	Mirela	
(To-him(cl)	*I-have*	*given*	*a*	*corkscrew)*	*because*	*to*	*Mirela*	
avevo	regalato	UN	BOTTIGLIA		DI	VINO		
I-had	*given*	*A*	*BOTTLE*		*OF*	*WINE*		

According to Rutherford (1970) and Hooper and Thompson (1973) (see also Kawamura 2007), restrictive because-clauses like the one in B's reply express the main assertion in the clause, with the information contained in the main clause (in parentheses) being backgrounded. One can easily see how this is the case in (68): the main clause only contains backgrounded material and can in fact be elided altogether. The information contained in the because-clause, on the other hand, is entirely new information and provides as a whole an answer to A's question. As such, we can conclude that the entire because-clause is in focus. Yet this still contains a second, narrower focus: the contrastively focalized "a bottle of wine". Note also that (68) shows how a left-dislocated topic (in this case, the PP "to Mirela") can occur inside a domain marked as being in focus.

The relevant notion to understand what is going on in (68) is that of nested levels. Let us see how this applies to (68).
We already saw how, in B's reply in (68), there are two levels of focalization: a first, higher level, which comprises everything to the left of "because" (topic included), and which gives rise to a series of alternative answers to the *why*-question as a whole. A second level of focalization is then present as the level of the direct object. Focalization at this level gives rise to a series of alternative propositions where only the referent of the direct object is varied. The two levels are shown in (69):

(69) Perche' [$_{FOC2}$ a Mirela avevo dato [$_{FOC1}$ UNA BOTTIGLIA DI VINO]]
Because [$_{FOC2}$ to Mirela I-had given [$_{FOC1}$ A BOTTLE OF WINE]]
Focus value for Foc1:
{because I had given Mirela a bottle of cognac, because I had given Mirela a knife, …, because I had given Mirela two bottles of pinot grigio}
Focus value for Foc2:
{{because I had given Mirela a bottle of cognac, …, because I had given Mirela two bottles of pinot grigio},{because he likes wine, …, because he needed one}}

The PP "to Mirela" only fronts to a position *following* the *wh*-element, rather than landing *above* it, because this topic is part of the set of alternative propositions

computed as possible complements of the because *wh*-element (the higher focus level), but not of the alternative propositions computed for the narrow focus on the direct object (the lower focus level). In other words, at the lower focus level, the referent of the topic remains constant; at the higher focus level, the reference of the topic might change as a result of the creation of set of possible alternative answers to A's question.

Finally, note that the existence of long-distance topicalization, as detailed in (64), is additional evidence that distinct triggers for topicalization must be assumed (see sections IV and V.IV). If topicalization was exclusively motivated by the need to realign a prosodically misaligned structure, we would expect the offending constituent −the topic− to only move as far as it takes for it to escape a main stress position. We would then expect all instances of topicalization to be local, contrary to fact[55].

VIII. Conclusions

Three main themes were discussed in this paper. The first is the claim made by Frascarelli (2012) and Frascarelli & Hinterhölzl (2007) concerning the existence of a one-to-one correspondence between functional projections and specific pragmatic import a given topic may be endowed with. I showed that this claim cannot be upheld: the distribution of the different types of topics is simply too flexible to be captured in terms of a rigid hierarchy of topic projections. A stacking analysis *à la* Frascarelli (2012) will not do either, as this type of analysis crucially predicts that lower topics should be pragmatically less complex. This prediction is proven wrong by the existence of right-dislocated topics which are also shifting.

The second main theme is the notion of foot(focus)-driven movement, and the claim that topicalization as a syntactic phenomenon can be captured precisely in these terms. In particular, I have argued that the dislocation of a topic is triggered by the need for such a topic to move out of a domain marked as [+ focus]. This type of analysis accounts for why different topic placements are associated with different focal meanings, as well as for the extreme freedom exhibited by topics, as opposed to all other left-peripheral elements, to land pretty much anywhere in the clausal spine.
An analysis of topicalization as movement triggered by the foot of the movement chain compels for a characterization of the notion of 'topic' which is equally unrestrictive. I have argued that the notion of 'topic' relevant to account for topicalization is a privative one: topicalization will trigger the fronting of anything which is *not* focal. This privative definition of topic explains why topicalization can front almost any type of constituent, regardless of its activation status, grammatical role or definiteness.

[55] See however [Article 3] for instances of topicalization which are indeed local and likely entirely prosodic in nature.

If what counts as 'topic' is defined in privative terms, providing a correct characterization of what counts as 'focus' is even more crucial. I have suggested to capture focus in semantic terms, i.e. by suggesting that 'focus' is any constituent whose interpretation relies on the presence of a set of alternatives. Topicalization can thus be seen as a strategy to remove from a focal domain a constituent which is not to be interpreted as part of the set of alternatives calculated for such domain. No account of focalization can ignore the link to prosody, and the role this may play in triggering the movement of constituents which are not to be assigned main stress. I have argued that semantic and prosodic triggers of topicalization may not be reducible to a single trigger, but are nevertheless still compatible with each other.

Not only does an analysis in terms of focus-driven movement account for the distribution of topics, it also accounts for their typology. I have suggested that the type of a topic is not a function of its absolute position in the clause, but rather of its relative position with respect to the focus, and of the type of such focus. Two ways in which topic typology is influenced by the material in focus relate to the size of the focus domain, and the relative position of the topic with respect to the focus. I have contended that the only syntactic requirement for a topic to be able to license a contrastive-pair structure is to scope over material in focus; the absolute height of such a focus in the structure is inconsequential. I have also suggested that structurally high topics tend to be interpreted as shifting because they mark the rest of the sentence as being in focus, a state of affairs which is compatible with environments where a new topic has just been introduced.

The third and final theme of this paper relates to the specific nature of topicalization, and the wild-card characterization I have provided of it. I have argued that topicalization functions as a wild-card type of salvage operation: it can be used to repair prosodically misaligned structures, as well as syntactically problematic configurations. It also interacts with semantics in that it visibly marks the different focus layers, and the specific size of the domain for which alternatives must be calculated. Topicalization is thus a primarily syntactic operation which closely interacts with prosody, and which also has an effect on the semantics of the structure it applies to.

This characterization of topicalization as a wild-card type of movement is compatible with our foot-driven account of this process: the heterogeneity characterizing the constituents which can be the target of topicalization -which follows from our privative definition of topic - is mirrored by the heterogeneity of the environments which can be salvaged through the application of topicalization.

This heterogeneity discourages a characterization of topicalization as a pragmatic phenomenon: an analysis of what counts as topic in terms of 'file-cards' and 'what the sentence is about' might account for a lot of cases, but overall is simply too restrictive.

It also represents additional evidence against the idea that the different pragmatic imports a topic may be specified with should be grammaticalized in the form of dedicated functional projections in the left periphery: on the one hand, we see how some instances of topicalization are clearly not triggered by the need to interpret the fronted constituent as being pragmatically a topic. On the other, we also see that constituents which do qualify as topical in a pragmatic sense (by being discourse-old, and by licensing contrastive-pair structures, for instance) need not front, or only need to move IP-internally.

IX. References

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10 Article 3 - Polarity Topicalization

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Abstract
In this paper, I discuss the phenomenon of polarity topicalization, by virtue of which a sentence where syntactic reordering has applied is interpreted as featuring a narrow polarity focus. I compare polarity topicalization to other strategies to achieve a polarity focus interpretation, such as stress shift and the insertion of polarity particles. I conclude that polarity topicalization always correlates with the presence of contrastive polarity focus, and arises as a strategy to repair a prosodically misaligned structure. This sets it apart from strategies such as polarity particle insertion, which always correlates with the presence of verum focus and which results in prosodically marked structures. I also investigate the different types of polarity topicalization, focusing in particular on accounting for properties such as the presence versus lack of clitic resumption. I conclude that those instances of polarity topicalization which are not accompanied by clitic resumption are instances of PF movement, as evidenced by their local nature and their reconstruction properties.
Keywords: Polarity Focus, Clitic Resumption, Syntax-Prosody Interface, Topicalization, Stress Shift.

I. Introduction

Cross-linguistically as well as intra-linguistically, languages possess several different strategies to ensure that a sentence is correctly interpreted as having a narrow polarity focus. In this paper, we are specifically concerned with one such strategy, to which I will refer as *polarity topicalization*. Polarity topicalization dislocates one or more constituents to the left periphery of a sentence, a move which results in the sentence being interpreted as featuring a polarity focus.
Three examples of polarity topicalization strategies are given in (1) to (3), for Italian, Spanish and Trevigiano[56] respectively. The relevant portions are marked in bold:

[56] Trevigiano is a dialect spoken in Treviso, a city in Northern Italy.

(1) Certo, **uno stinco di santo Corona non è**. (Italian)
Of course, ***an angel (lit. "a saint's shin") Corona not he-is***
(From the *Paisa* Corpus)

(2) Distinto sí. Gratificante en otras formas, claro. (Spanish)
Different yes. Gratifying in other ways, of course.
Pero fácil, no. **Fácil no es**.
But easy, no. ***Easy not it-is***.
(From *El corpus del Español*)

(3) A: Sì ma i ze grandetti tuti do par decidar! (Trevigiano)
Yes but both of them are old enough to decide!
B: Sì beh, sicuramente sì, **l'età i la ga...**
Yes well, certainly yes, ***the age they(cl) it(cl) have***[57]

In all of the structures above, it is the fronting operation which makes it possible for the sentence to be associated with a polarity focus interpretation. Consider example (3), where the fronted element has been dislocated through clitic left dislocation (CLLD, Cinque 1990). The non-CLLD equivalent of (3), shown in (4), is only compatible with either a broad focus reading, or a narrow focus reading of the object:

(4) I ga l'età (Trevigiano)
They(cl) have the'age

The goal of this paper is twofold: on the one hand, I wish to account for why the application of polarity topicalization results in the typical polarity focus interpretation that we observe in examples like (1-3). In order to do that, I will investigate what other strategies are available, both intra-linguistically and cross-linguistically, to mark polarity focus, and establish a correlation between polarity focus strategy and the specific type of polarity focus these can associate with.

As can be seen by the nature of the dislocated element in the examples above, polarity topicalization can take many forms. Polarity topicalization can front both adjectives and nominal phrases. In fact, as we will see, most types of constituents can be the target of polarity topicalization. Moreover, the fronted element can be either clitic-resumed, or be fronted without any accompanying clitic resumption. A second goal of this paper is that to account for this diversity. I am in particular interested in accounting for formal properties such as the presence versus lack of clitic resumption, and the effect of sentential negation on the grammaticality of the fronting operation.

[57] This exchange was extracted from an actual conversation between native speakers of Trevigiano, recorded as part of a separate project on the nature of subject clitics (see [Article 2]).

I will argue that polarity topicalization is prosodically motivated: in sentences where the polarity of the proposition is in focus, main stress must fall on the finite verb. Polarity fronting takes place to ensure that this state of affairs is obtained: it removes from a main stress position constituents other than the finite verb. I will argue that polarity topicalization applies mandatorily in stress-rigid languages, namely in languages which must rigidly assign main stress to the rightmost constituent in the main intonational phrase (see Hamlaoui & Szendrői 2015 and Szendrői 2017 for how this is calculated).

I will also argue that when polarity topicalization is not accompanied by clitic resumption, it is because the fronting operation is post-cyclical: it takes place at PF. Evidence of the PF nature of the movement operation is provided by its behavior with respect to reconstruction, and by the locality of the movement.

As already noted in Cinque (1990), negation has a repairing effect on some instances of cliticless fronting. I will account for such an effect by invoking Büring's (1999) generalization on the required non-exhaustivity of contrastive topics. I will then show how negation salvages extraction by ensuring that a fronted contrastive topic is not interpreted exhaustively.

This article is structured as follows: in section II, I discuss the notion of polarity focus in a more formal fashion. I argue that, just as nominal expressions can encode different types of focus, so can polarity focus. I argue in particular that a verum focus reading arises whenever the polarity focus is miratively or correctively marked, and that the added emphasis arises from the rejection of an expectation concerning the specific value of the polarity focus. In section III, I provide a cross-linguistic inventory of what strategies there are, other than polarity topicalization, to realize polarity focus. I focus in particular on prosodic strategies, adverbial strategies, and strategies which resort to the use of polarity particles. In section IV, I discuss three cliticless types of polarity topicalization: Simple Preoposing, Bare Neg Fronting and Quantifier Fronting. As we will see, these fronting operations differ from CLLD, also discussed in this section, by only being licensed in a polarity focus structure. In section V, I present my analysis of polarity topicalization as prosodically driven; I argue in particular that polarity topicalization is a strategy to realign the syntax-prosody interface. In this respect, this strategy differs from operations such as stress shift in Germanic languages, and particle strategies in Romance: these latter operations perform the exact opposite function, namely they create a prosodically misaligned structure. Section VI sheds some light on the formal properties of the different types of polarity focus. I focus in particular on the presence versus lack of reconstruction of the fronted constituent, the interaction with sentential negation, the contrastivity of the fronted element and the locality of the movement operation. In section VII, I present my conclusions.

II. Polarity Focus, Verum Focus and Focus Accents

By *polarity focus* (henceforth, *PolFoc*) I will here and throughout the paper refer to the presence of a narrow focus on the polarity of a proposition.

Not all polarity foci are identical: even when something as standard as a nominal phrase is in focus, there are several different pragmatic imports such a constituent may be associated with. As a matter of fact, although the semantics of the focalized expression always remains constant −with the introduction in the discourse of a set of alternatives to the focalized constituent, as in standard Roothian focus semantics (Rooth 1985, 1992)−, the relation between such a set of alternatives and the asserted focus may vary. As I will argue more in detail later in this section, I take the specific relation between the focus and such a set of alternatives to be what licenses a specific pragmatic reading on the focus.

In the pragmatically most neutral case, the asserted focus alternative −our constituent in focus− will simply be interpreted as the most appropriate, truth-conditionally adequate alternative given a specific world and context. This type of focus is standardly known as *information focus* or *Ifoc* (È. Kiss 1998). A typical environment which licenses the presence of an Ifoc is the answer to a *wh*-question (Halliday 1967; Schwarzschild 1999; Krifka 2001; Reich 2002):

(5) A: What did Usman buy?
B: Usman bought *The Financial Times*

A focalized constituent may also be interpreted as an overt correction to a previously uttered alternative, alternative which the speaker considers to be incorrect. In this case, a corrective focus (van Leusen 2004; Bianchi & Bocci 2012) will obtain:

(6) A: Espen married Tom
B: Espen married ANTON, not Tom!

The focalized constituent might also be contrasted to some other (generally explicitly stated) alternative: this is the case in (7), where *yesterday* is contrasted with *today*. In (7), we then have a contrastive focus:

(7) A: When did you see Tom?
B: I saw him *yesterday*, but I only talked to him *today*

Arguably, all corrective foci are contrastive, but the opposite entailment does not hold. Finally, a constituent can also be miratively focused (Cruschina 2012; Bianchi, Bocci & Cruschina 2015, 2016). A focus has a mirative import if the asserted focus alternative is deemed surprising, or anyway unexpected given the speaker's knowledge of the world, or given the situation at hand. In (8), the DP "a giraffe" is miratively focused by virtue of giraffes being an extremely unlikely pet one could get:

(8) Annemieke just bought A GIRAFFE! Can you believe it?!

I follow Bianchi, Bocci and Cruschina (2015, 2016) in assuming that a mirative reading of the constituent in focus is only licensed if there is at least one focus alternative in the focus value which is deemed to be more likely to lead to a true sentence than the actual asserted content. Likelihood is a relative notion: Bianchi, Bocci and Cruschina (2015, 2016) take this to be calculated with respect to a relevant modal base, and according to a stereotypical ordering source (see in particular Kratzer 2012; see also Grosz 2012 for an alternative proposal). The mirative import of the DP object in (8) is then licensed because there are several other animals which are intuitively more likely for Annemieke to have gotten as pets.

These different types of foci are not only pragmatically distinct, they also differ prosodically: according to Bocci (2013), for instance, in Senese Italian[58] the intonational contour associated with narrow information foci is markedly different from that associated with corrective foci. Whereas the former is generally associated with a high tone followed by a low pitch accent (H+L* contour), the latter features the exact opposite pitch direction, namely a low tone followed by a high pitch accent (L+H* contour). Similar results have been replicated for Portuguese (Frota 2002), Spanish (Face 2001), as well as for other varieties of Italian (see for instance Avesani & Varya (2003) for Florentine Tuscan Italian).

The four types of foci just reviewed also present diverging syntactic behaviors. In several languages, for instance, only corrective and mirative foci can front to the left periphery, whereas information and purely contrastive foci must remain in situ. According to Cruschina (2016), this is case for Italian, Brazialian Portuguese, French, Spanish, Romanian and Catalan. This contrast is exemplified below for French. We see that mirative foci may front (9), but information foci may not (10):

(9) TROIS HEURES il avait de retard, le train!
THREE HOURS it had of delay, the train!
Abeillè et al. (2008: 312)

(10) A:Qu'avez-vous mangé à la fête?
What did you eat at the party?
B: #LE POISSON j'ai mangé.
#THE FISH I-have eaten

Exactly like the same nominal expression may be associated with different types of focus, I argue that so can the polarity of a proposition. Note that polarity focus represents a special type of focalization, as the associated focus value only features two

[58] Senese Italian is spoken in Siena, Tuscany.

elements, the positive and the negative polarity. Unlike other types of foci, the composition of the focus value associated with a polarity focus is thus fully predictable.

Polarity focus can be specified with the same pragmatic imports a regular lexical expression can be specified with. In B's answer in (11), we for instance see an example of information PolFoc. Note that, exactly like its lexical equivalent, information PolFoc is licensed in the answers to questions:

(11) A: Is Sara an engineer?
B: She is.

Polarity focus may also be contrastive in nature. A relevant example is provided in (12):

(12) A: Are the twins coming?
B: Jake *is*, but Kate is *not*.

In (12), a contrastive polarity focus occurs in combination with a contrastive topic structure. In their (2012) paper, Bianchi and Bocci adopt a minimal definition of a contrastive focus: they define as such all types of foci which imply the existence of a second focus alternative which must be salient in the context. The downside of this otherwise very elegant characterization of contrastive focus is the fact that saliency is a slippery notion, in that it is also a function of the size of the focus value. If the focus value associated with the asserted focus is limited in size, as is the case for polarity foci, the rejected alternative automatically acquires special prominence by virtue of being a member of a limited set. This would render all types of polarity foci inherently contrastive, as the rejected focus alternative is always very salient in the context[59]. Contra Bianchi and Bocci (2012), I then take a focus to be contrastive only if it generates the conventional implicature that the rejected focus value may lead to a true proposition when applied to a different topic, or given a different context or conditions.

The polarity of a proposition may also be correctively focalized, as can be seen in (13), or miratively focalized, as shown in both (14) and (15). (14) and (15) show in particular that a mirative polarity focus may occur both inside a declarative and a question:

(13) A: Piet is Dutch.
B: He is NOT!

(14) A: Katy is pregnant.
B: She IS???

[59] Indeed, in [Article 2], I argue that this is precisely what gives rise to the contrastive implicature reading of polarity foci.

(15) A: So, is Katy pregnant?
B: Apparently she IS! And to think she said she didn't want any.

Now that we have reviewed the different types of foci, let us investigate how the relation of the focus with its associated set of alternatives determines the specific pragmatic import this may be associated with. Out of the four pragmatic types of (polarity) focus we have individuated, information focus is the basic, pragmatically neutral type: it minimally states that the asserted focus alternative will result in a true proposition given a specific world and context. Information foci, and indeed foci in general (Büring 2016), are also generally associated with an exhaustiveness conversational implicature: given the newspaper example in (5), for instance, we expect that it is only *The Financial Times* which was bought by Usman. *Mention-some* foci (Cable 2008, 2017) are an obvious exception to this exhaustiveness implicature. Note however that the possibility of a mention-some reading is not a concern with polarity foci: going back to example (11), Sara is either an engineer, or she is not. She obviously cannot be both *an engineer* and *not an engineer*.

To the extent to which we define as Ifoc any focus which presents these two features, mirative, corrective and contrastive foci are also instances of Information focus. This is because, for all these types of foci, the asserted focus value is interpreted as resulting in a true sentence, and as doing so exhaustively. What sets these latter types of foci apart from pure Information focus is the fact that the former types also generate some implicature concerning the nature of the rejected focus alternative(s). This additional information is also why IFoc is pragmatically neutral, whereas all other types of focus are marked and hence only possible in specific contexts.
In the case of mirative foci, this extra information reflects a psychological attitude: the rejected focus alternative is marked as deemed more likely to be true than the actual asserted content. A corrective focus also encodes an attitude: that of the speaker, who, by rejecting a statement by their interlocutor, shows how they deem this to be incorrect.
In the case of contrastive PolFocus, the extra information is not attitude-oriented: it states that the rejected focus alternative may result in a true sentence if applied to some other topic, given a different context, or for a different speaker. Note that corrective foci also perform this function: the presence of a corrective conversational move implies that the corrected statement was deemed to be true by some other speaker.

In table (16) is a summary of the different functions performed by the various types of foci. Each type of focus in (16) is coded for the following properties: (a) whether or not the focus gives rise to an exhaustiveness implicature; (b) whether or not the focus encodes information relating to a psychological attitude towards the asserted content;

(c) whether there is a conventional implicature that the rejected focus alternative may give rise to a true statement given some other topic, context or speaker.

(16) Types of Foci

Type	The asserted focus alternative is interpreted as being the only focus alternative which will render the sentence true.	It encodes info pertaining to a speaker's attitude	The rejected alternative is true given some other topic, context or for some other speaker
Information Foc	✓		
Contrastive Foc	✓		✓
Corrective Foc	✓	✓	✓
Mirative Foc	✓	✓	

In (16), we see that only corrective foci are positively specified for all the three properties. (16) also shows that contrastive and corrective foci partially overlap in term of their properties, and so do mirative and corrective foci. The latter pair overlaps with respect to the encoding of a psychological attitude, the former with respect to the existence a conventional implicature on the rejected focus alternative.

Corrective and mirative instances of polarity focus (examples (13) to (15)) are somewhat special: they are, I will argue, instances of *verum focus*.
Ever since Höhle (1992), it has been noted that the polarity of a proposition may receive special emphasis. Höhle in particular coined the term *verum focus* (VF) to refer to a specific intonational contour which, in German and in the most typical case, consists of a high pitch accent followed by a low tone (H*L). This contour is generally assigned to the V2 verb. B's utterance in (17) illustrates a typical case of VF in German:

(17) A: Hat Karl den Hund gefüttert? (German)
Has Karl the dog fed?
B: Karl HAT den Hund gefüttert, natürlich
Karl HAS the dog fed, of.course.

Höhle's observation is that stressing the auxiliary *hat* in sentences like (17) results in a conversational strategy which consists in emphasizing the truth of the proposition at hand: in this case, that Karl has indeed fed the dog.

The idea that some polarity foci might be interpreted as emphatic is correct, but I believe that this claim can be made more precise, and that the focus typology I have detailed above can help us do so. Unlike contrastive and purely information PolFoci, mirative and corrective polarity foci are inherently emphatic: corrective polarity foci are emphatic in that they bring about a polarity reversal in a proposition in the immediate

context[60], proposition which would have otherwise been added to the common ground (Stalnaker 1978) had a second speaker not corrected it. Mirative foci are emphatic because they signal that is surprising or anyway unexpected that a given polarity value may be set in the direction it is set, a conversational move which is inherently emphatic. Note that the added emphasis has a common source: the rejection of an expectation concerning the polarity setting of the proposition at hand. In the case of corrective PolFoc, this expectation is interlocutor-oriented: it is the expectation of whoever uttered the sentence that the speaker is trying to rectify with their corrective statement. In the case of mirative PolFoc, it may be both speaker- and interlocutor-oriented, as in the giraffe example in (8), or simply speaker-oriented, as in (18) below:

(18) Apparently Mary does NOT have a car, you were right! I was sure she did!

In the next two sections, we will explore what strategies are there to mark the polarity of a sentence as being in narrow focus. We will see that different strategies correlate with different types of polarity focus, and that some strategies can mark more than one type of PolFoc.

III. Polarity Focus Strategies

Other than English do-insertion, which we will not review here, and polarity topicalization, of which we observed three possible realizations in the introduction, there are three strategies to mark PolFoc which appear to be particularly productive cross-linguistically:

a) By means of prosody. This strategy is quite productive in Germanic languages, where it is used to mark verum focus and contrastive PolFoc; in this paper, we will focus mostly on Norwegian. It is also the "to-go" VF strategy in several Slavic languages, where it interacts in interesting ways with independent syntactic and prosodic mechanisms, such as Wackernagel's law and the impossibility of assigning prosodic stress to clitics.
b) By inserting specific types of polarity adverbials. This strategy does not appear to be restricted to a specific language family, nor to a specific type of polarity accent, but rather applies across the board. We will analyze examples of polarity adverbials in Dutch and English. For an example of a polarity adverbial strategy in Latin, the reader is referred to Danckaert (2004).

[60] I follow Bianchi & Bocci (2012), who follow Farkas & Bruce (2010) in assuming that a given proposition only becomes part of the common ground if both speakers agree it is true. A proposition uttered by a speaker simply remains in the immediate context until the second speaker tacitly or explicitly agrees with it.

c) Through the presence of specific polarity particles. This is a strategy which we find in at least some Romance languages. It is also particularly productive in several African languages, where it is used to express VF (Gutzmann et al. 2017).

III.I Polarity Adverbials

Some languages possess specialized adverbials which can be used to mark different types of polarity focus. The use of adverbials to mark polarity focus is compositionally constrained: the semantics of the adverbial must fit in with the semantics of the rest of the proposition. As we will see, the import of these elements on the overall sentence −and hence the type of PolFoc they may mark− is predictable from their lexical meaning.

A relatively well-know example of polarity adverbial is represented by the Dutch particle "wel", which can be used to mark corrective, mirative or contrastive polarity focus. "Wel" is assigned main stress and is inserted before the lexical verb:

(19) A: Je hebt het boek vast niet gelezen
You have that book definitely not read
B: Ik heb het boek WEL gelezen!
I have that book ***wel*** *read!*
'I most definitely *did* read that book!'

According to Hogeweg (2009), "wel" denotes the denial of an implicitly or explicitly stated denial; in other words, it is the *negation of a negation*. This is accounted for if we follow Sassen (1985), who postulates that, historically, "wel" was born as a double denial.
Accordingly, "wel" can feature in positive statements which follow a preceding negative sentence, as we saw in (19), but cannot be used to correct a positive statement with a negative one (20). It also cannot be used to emphatically reassert the polarity of an existing statement (21):

(20) A: Marie is erg saai
Marie is very boring
B: *Marie is **wel** niet saai
* *Marie is* ***wel*** *not boring*
B': Dat vind ik niet
That find I not

(21) A: Marie is erg beleefd
Marie is very polite
B: Dat klopt / Dat is ze
That's right/ That is she

B': *Dat is **wel** ze
That is **wel she*

Provided that *"wel"* occurs in a positive polarity sentence which is taken to be in implicit opposition/overt contrast with a preceding sentence with the opposite polarity, however, there are no limits to the number of environments in which *"wel"* can be occur. *"Wel"* can be corrective, as we saw in (19), or function as a marker of contrastive PolFoc, as in (22) below:

(22) Context: *The situation in Warsaw is not particularly serious…*
…In het zuiden van Polen is de toestand **wel** zorgelijk
*…In the south of Poland is the situation **wel** alarming*
'In the south of Poland the situation is on the other hand alarming'
(Hogeweg 2009: 524)

It can also be found in mirative contexts like the one in (23):

(23) Dat kind lijkt **wel** een beetje op mijn buurvrouw
*That child looks-like **wel** a little at my neighbour*
'That child looks a little like my neighbour'
(Hogeweg 2009: 528)

According to Hogeweg (2009), the use of *"wel"* in (23) is licensed because the speaker is drawing an implicit contrast between the asserted proposition (that the child looks a bit like their neighbor) and the one assertion which is perceived to be more likely, namely that the child does not look like the neighbor given that the two are not related. In this respect, Hogeweg (2009) shows that *"wel"* is not licit in environments like (24) below, where the asserted proposition is in fact very plausible and hence where no implicit contrast arises between observed reality and expectations:

(24) #Dat kind lijkt **wel** een beetje op zijn mouder
*#That child looks-like **wel** a little at his mother*
#'That child looks a little like his mother'
(Hogeweg 2009: 528)

The distribution of Dutch *"wel"* is thus compositionally constrained, but functionally unrestricted. It is compositionally restricted because its distribution is fully predictable given the nature of this element: that "wel" can only be a positive polarity marker, and that it can only follow a negative polarity statement, follows from its double negation nature. That "wel" cannot be uttered out of the blue, but requires some salient proposition on which to operate –however implicit this may be, as we saw in (23) – again follows from its double-negation nature: to negate a negative statement, a negative statement must be present or salient given the immediate context. The

distribution of "wel" is functionally unrestricted because, once these conditions are met, there are virtually no limits to the types of PolFoc functions "wel" may encode: as we saw, "wel" can appear in a corrective, contrastive and mirative PolFoc environments.

English also possesses a lexicalized adverbial strategy which can be used to emphatically mark the polarity of a statement: the adverb "alright", which is inserted sentence-finally. Below are some examples which illustrate its use, all taken from the *Araneum Anglicum Maius* corpus:

(25) Greetings from sunny Florida. I hopped on a plane last Tuesday to surprise my mother for her 75th birthday. She was surprised **alright**. She cried when she saw me, and it was a sweet and touching reunion.

(26) 'I avoid the make-up pads, they have a small amount of glue, probably just starch to help them retain their shape IMO (…)'
'Cheers for that, yeah the pads seem a bit dense **alright**.'

(27) "The United States supported democracy in Egypt."....but we sent $1.3 billion in military aid to the Muslim Brotherhood. Yeah, we picked a side **alright**.

Alright as a polarity marker is roughly used as a synonym of "for sure", i.e. it signals that an expectation −which is either explicitly or implicitly part of the context− concerning the polarity of the proposition under discussion is indeed correct. Note how this gives rise to the sarcasm implicit in (27): the presence of "alright" signals that a side was definitely picked, but what the speakers perceives as two contradictory acts – the US stating that it supports democracy in Egypt, and the sending of billions of dollars in military aid to the Muslim brotherhood− support the opposite conclusion.

In a way, then, "alright" performs a function which is the opposite of that performed by "wel": whereas "wel" denies a preceding proposition, "alright" reaffirms it. The affirmative polarity function performed by "alright" is also mirrored by its etymology: historically, "alright" results from the union of "all" and "right". If we postulate the existence of a covert copula between the quantifier and the adjective, i.e., *all is right*, it then follows that the function of polarity "alright" is that to signal that *all is correct.*

I propose the following distribution for polar "alright":

(28) *Alright*(p) is well formed iff (p) is in the immediate context, if the speaker cS wants to downdate the current QUD, and if cS wants to stress they are certain that (¬p) = 0.

Note that in (28) "downdate" is used in the sense of Engdahl (2006): a question under discussion (*QUD*, cf. Ginzburg 1996; Roberts 1996) is downdated when any given

answer *a* is provided which resolves the QUD. (28) then states that, given a current QUD, the speaker who utters a sentence modified by the polarity adverbial "alright" wants to downdate the QUD in such a way that ¬p is marked as definitely not being true.

The specific mention of ¬p in (28) implies that p must be present in the immediate context, which also explains why "alright"-sentences cannot be uttered out-of-the-blue:

(29) # Mary is Dutch **alright**
"#" if out of the blue

Note that the expectation that "alright" goes to confirm may be extremely implicit in the context: consider (30), uttered by some speaker A upon noticing that the girl mentioned in the sentence behaves very similarly to how her father behaves:

(30) She is an O'Brien alright!

Example (30) resembles the Dutch example (23) with respect to the implicitness of the proposition the adverbial particle goes to target: the implicit assumption in (30) is that a girl will resemble her father to at least some extent, hence the presence of "alright" when this expectation is confirmed.

English "alright" is malleable in exactly the same way "wel" is: as long as (28) is respected, there are no restrictions on the subtype of polarity focus "alright" can mark. Polarity "alright" can for instance feature in a contrastive (31) and in a corrective environment (32):

(31) A: Jane and Poe are Dutch (Contrastive)
B: Jane is not Dutch, but Poe is Dutch **alright**

(32) A: Look… it's not like i complained on their site or intentionally tried to drive people away from listening to the show… I am not that rude… (…) (Corrective)
B: OH, HELLLLLL No. You're RUDE **alright**.
(Araneum Anglicus Maius)

Polarity "alright" is on the other hand marginal in mirative environments. An example is provided in (33), where the speaker wants to convey that Mary being pregnant is somewhat surprising or unexpected:

(33) #Mary is pregnant alright! (Mirative)

The polarity adverbial is not licensed in (33) because "alright" goes to confirm a proposition which is at least implicitly present or salient given the immediate context.

This can hardly be possible in mirative environments, since, as discussed in section II, mirative foci mark the presence of an unexpected focus value.

III.II Polarity Particles

Gutzmann et al. (2017) show how polarity particles are used to express verum focus in several agglutinative languages found both in West Africa and in British Columbia. In these languages, polarity particles may be the only marker of verum focus. This is the case in Gitksan, an Interior Tsimshianic language spoken in North-Western British Columbia. To express VF, Gitskan resorts to the morpheme "k'ap/ap", which is inserted preverbally:

(34) A: Nee=dii siipxw=s Tsaalii.
Neg=FOC *sick=PN* *Charlie*[61]
'Charlie isn't sick.'
B: *Nee,* ***#(ap)*** *siipxw=t* *Tsaalii=ist.*
Neg **#(verum)** sick=DM Charlie=QUDD
'No, he IS sick!'

(Gutzmann et al. 2017: 28)

Polarity particles are also a viable PolFoc strategy in languages like Spanish, which resorts to the particle "sí" to emphatically mark the positive polarity of a statement. Note that *sí* is the morpheme for *yes* in Spanish. Polarity "sí" is always inserted preverbally:

(35) A: Hoy ha llovido
Today *has* *rained*
B: Hoy **sí** ha llovido
Today ***yes*** *has* *rained*
'Today it has rained indeed.'

In example (35), "sí" is used to confirm the polarity of a previously uttered statement and thus performs a function which is similar to that performed by English "alright".

Italian also has the option of inserting the particle "sì" (also the morpheme for *yes* in this language) sentence-internally, but unlike Spanish "sí", Italian "sì" is post-verbal. Italian "sì" also performs a different function: it is a contrastive topic marker rather than a PolFoc one, and it can only feature in concessive structures. An example is provided in (36):

(36) Context:A: *Your mom is always eating pasta*
B: Mia madre mangia **sì** sempre pasta, ma mai quella integrale

[61] For this example, interlinear glosses are as reported in the original.

B: My mother eats ***yes*** *always pasta, but never that wholemeal*
'True, my mom is always eating pasta, but she never eats the wholemeal kind'

The "sì" particle in (36) is interpreted as in opposition to *ever*, which features in the coordinated clause. These two constituents are followed by two contrastive foci, "always pasta" and "the wholemeal type". (36) is a contrastive topic structure: it contrasts the positive polarity with the adverbial "mai" by stating that these are to be associated with different foci.

Structures featuring IP-internal "sì" are always concessive in nature: the first CT+F structure –the one featuring "sì" – shows agreement with what stated by the speaker's interlocutor, but the contrastive topic nature of the particle implies the existence of some concessive statement which goes against the general direction of what stated by the interlocutor In this case, this is the existence of a specific type of pasta which is not being eaten. Note that neither language possesses a negative stand-alone equivalent of "sì"/"sì". In this respect, both Spanish and Italian resemble Dutch in only possessing a lexicalized strategy to mark *positive* polarity focus[62].

Polarity particles may also be used in combination with a non-standard syntactic structure, as exemplified in (37). In this example from Italian, a bi-clausal structure headed by the polarity particle itself is used as a marker of corrective PolFoc:

(37) A: Maria non è in grado di guidare fino a Roma
Mary not is capable of driving till Rome.
B: **Sì** che lo è!
Yes *that it she-is!*

The same structure can also be used in answers to *wh*-questions to mark the fact that the answer to the question is perceived as obvious, and thus that it should have

[62] The negative equivalent of (36) is marginally acceptable in at least some regional varieties of Italian. The example below is acceptable in at least Veneto and some parts of Friuli Venezia Giulia, most likely as a result of the interference with the dialectal substratum:

(i) Mia sorella è **no** gentile, è praticamente santa
My sister is ***no*** *kind, she-is practically saint*

(i) has a fixed structure: in the first conjunct, some property x is negated, only to be replaced by a stronger property ("stronger" as defined within the entailment scale of x) in the second conjunct. Here again we can analyze the particle as contrastive topic. Also note that, even though neither Spanish nor Italian possess a negative stand-alone equivalent of "sì"/"sì", at least Italian displays a negative counterpart of the bi-clausal "sì che" polar strategy. See in particular example (40).

perhaps not been uttered in the first place. Consider (38), where A uses the "sì che" construction to provide an answer to the question he himself has formulated, thereby showing he believes the answer to be obvious:

(38) A: Lo sai che ti amo, vero?
You know that I love you, right?
Also A: **Sì** che lo sai.
Yes *that* *it(cl)* *you-know*

Note how IP-internal Italian "sì" functions as a contrastive topic marker, whereas the "sì" particle in bi-clausal structures, which is presumably merged in the left periphery (see Poletto & Zanuttini 2013), is rather a marker of polarity focus. This suggests that, in this language, the height of this particle correlates with its information-structure role. We will explore this correlation more in detail in section V.

Spanish also possesses a biclausal "sí que" polarity focus strategy. In this language, this is often interchangeable with simple "sí" constructions, which, as we saw in (35), also marks polarity focus. Overall, Spanish "sí (que)" seems to be more flexible than Italian "sì che": Spanish "sí (que)" can either correct or restate the polarity of an existing proposition, whereas Italian "sì che" cannot restate an existing focus. In this respect, compare in particular (39) with (40):

(39) A: Hoy ha llovido (Spanish)
Today *it-has* *rained.*
B: Hoy **sí** **que** ha llovido.
Today ***yes*** ***that*** *it-has* *rained.*
'Today has rained indeed'

(40) A: Oggi ha piovuto (Italian)
Today *it-has* *rained*
B: *__Sì__ **che** ha piovuto!
*__Yes__ ***that*** *it-has* *rained!*
B': **No** **che** non ha piovuto!
No ***that*** *not* *it-has* *rained!*

In the Italian example, an emphatic polarity reply is only grammatical if it goes to correct A's statement. Given that A's assertion in (40) is specified with a positive polarity, B's reply must take the form of the negative, "no che" polarity strategy.

III.III Prosodic Strategies: Stress Shift

In a way, stress shift is the simplest among the PolFoc strategies discussed in this paper in that it does not involve any syntactic reordering, nor does it require the insertion of

a specific polarity particle or adverbial. This strategy consists in assigning main stress to an element which, in a broad focus domain, would have not been associated with main stress, hence the name stress *shift*. Stress shift is a productive PolFoc strategy is Germanic and Slavic languages. Below is an example from Russian, showing how corrective polarity focus may be realized through stress. Main stress is marked through capitals:

(41) A: Ja ne sčitaju Yurija Solomina talantlivym aktiorom (Russian)
I not consider Yurija Solomina talented.INSTR actor.INSTR
B: Net, on BYL talantlivym aktiorom
No, he WAS talented.INSTR actor.INSTR
(Pereltsvaig 2007:100-101)

In (41), it is the copula which is the locus of stress shift. Although stressing the finite verb (or the finite auxiliary) seems to cross-linguistically be the preferred strategy when realizing PolFoc stress shift, this is by no means the only available option. In some languages, for instance, it is possible to stress-shift the complementizer instead. This is the case for at least some speakers of German (Lohnstein 2016), as shown in (42), and for at least some speakers of Norwegian, as can be seen in (43). In the latter language, according to Hetland (1992), it is even possible to stress both the complementizer *and* the verb, although here again this seems to be acceptable only for some speakers:

(42) (Aber Maria glaubt,) DASS Karl in Urlaub gefahren ist (German)
(But Mary believes) THAT Carl in holidays driven is
'(But Mary believes) that Carl DID go on holiday.'
(Lohnstein 2016: 291)

(43) Jeg må tilstå AT jeg dessverre ikke HAR sluttet. (Norwegian)
I must confess THAT I unfortunately not HAVE stopped
'I must confess that I have NOT stopped'
(Lohnstein 2016: 300)

A fourth prosodic option for stress assignment is the one which characterizes Western and South Slavic languages, which, unlike East Slavic languages (see again the Russian example in (41)) do not possess separate auxiliary morphemes where stress may be shifted. In these languages, auxiliaries are realized as clitics, and clitics are incompatible with main stress assignment. Different Slavic languages get around this limitation in different ways. In Czech, for example, the verum focus accent may be realized on the non-finite lexical verb of a sentence:

(44) Context: *A: Everyone is running around you as if you've just won a million pounds* (Czech)

B: Ale já jsem práve VYHRÁLA million liber.
But I AUX:1SG just win.PTCP.F.SG million pounds[63]
'But I HAVE just won a million pounds'

(Jasinskaja 2016: 12)

Polarity focus in Slovenian represents a particularly interesting case of stress shift. Main stress is shifted to the rightmost clitic in the clitic cluster, regardless of the nature of such an element. This means that main stress can be assigned to the finite auxiliary, as in Russian, German and Norwegian, but also to the negation or to a pronominal clitic (Franks and King 2000; Dvorák and Gergel 2004); Jasinsakja 2016). The latter case is exemplified in (45):

(45) Vsak teden GA obiskujem. (Slovenian)
Every week HIM(cl) I-visit
'I DO visit him every week.'

(Jasinskaja 2016: 11)

What types of polarity focus can be expressed through stress shift? To answer this question, let us analyze the application of stress shift in Norwegian.
In Norwegian, it is only information PolFoc which never licenses stress shift. Corrective and mirative PolFoc environments always do, whereas contrastive PolFoc may, but need not. I provide an example of each environment in (46-48).

(46) A: Du har juksa, du! (Corrective)
You have cheated, you!
B: Det har jeg IKKE gjort!
That have I NOT done!
'I did NOT!'

(47) A: Vil tvillingene bli med? (Contrastive)
Will the-twins become with?
'Do the twins want to come along?'
B: Marit VIL bli med, men Mats vil IKKE bli med
Marit WILL become with, but Mats will NOT come with
'Marit does, but Mats does not'

(48) A: Så du ER gravid! Jeg trodde det bare var et rykte, jeg. (Mirative)
So you ARE pregnant! I though it just was a rumor, I.
'So you ARE pregnant! I thought it was just a rumor'

Shifting main stress to the finite verb is part of a more general cross-linguistic strategy which consists in the selection of prosodically heavier forms whenever special

[63] Glosses are as in the original example.

emphasis needs to be encoded. This same strategy can for instance be observed with respect to clitics. As mentioned above when discussing polarity focus in Slavic languages, clitics cannot be assigned main stress. In order to mark the presence of polarity focus in a sentence like (49a), then, Serbian replaces the 1st person copular clitic *sam*, with the morphologically more complex form *jesam*:

(49) (a) Ja sam student (Serbian)
I *am* *student*
'I am a student'
(b) Ja jesam student
I *AM* *student*
'I AM a student'

A similar pattern is observed in Italian. Italian pronominal objects can encliticize onto the verb, as illustrated in (50a). If the pronominal object is to be interpreted as being in narrow focus, however, it is realized as an independent morpheme, as shown in (50b).

(50) (a) Volevo vederti (Italian)
I-wanted *to-see-you(cl)*
(b) Volevo vedere TE
I-wanted *to-see* *YOU*

III.IV Overview of PolFoc Strategies

Below is a table summarizing the main properties of PolFoc strategies reviewed in this section: adverbial strategies, polarity particle strategies, and stress shift. For completeness, I have also included the Italian IP-internal "sì" construction, even though that is not a marker of PolFoc, but of contrastive topicality.

(44)

Strategy		**What is it a marker of?**	**Function**	**Where is the particle /adverbial merged?**	**Other**
Particle	Spanish "sí que"	Polarity Focus	Corrective, Mirative. Can also be used to simply reassert an existing polarity value.	CP	
	Italian "sì che"	Polarity Focus	Corrective, Mirative.	CP	

	Spanish IP-internal "sí"	Polarity Focus	Corrective, Mirative. Can also be used to simply reassert an existing polarity value.	IP	
	Italian IP-internal "sì"	Contrastive Topic	Contrastive	IP	Concessive
Adverbial	Dutch "wel"	Polarity Focus	Corrective, Contrastive, Mirative.	IP	Must negate a negative proposition
	English "alright"	Polarity Focus	Corrective, Contrastive, Reassertive.	IP	Must reassert a proposition in the context
Prosodic	Norwegian Stress Shift	Polarity Focus	Corrective, Contrastive, Mirative.	n.a.	

An interesting correlation characterizes the types of PolFoc Germanic stress shift can associate with, and those which can associate with Romance polarity particle strategies: both strategies correlate with the presence of a mirative or corrective PolFoc, hence of verum focus. Different languages may then be more flexible than others in the specific type of emphasis they can encode; we have for instance seen how Spanish *sí (que*) can be used to simply emphatically reassert existing propositional content, a function which is precluded to the Italian *sì che* equivalent.

It is also interesting to see how, for both types of polarity focus strategies and language groups, the encoding of verum focus results in a prosodically misaligned structure. In both Norwegian on the one hand, and Spanish and Italian on the other, main stress is assigned by default to the rightmost constituent in the main intonational phrase (see Hamlaoui & Szendrői 2015, and Szendrői 2017 on how intonational phrases should be calculated). Stress shift obviously impedes this configuration from being achieved, given that it results in main stress being assigned to a constituent −the finite verb− other than the rightmost one. The same can be said about particle strategies: main stress is assigned to the particle itself, which is merged in the left periphery. Here again, then, the application of the specific PolFoc strategy results in main stress being assigned to a constituent other than the rightmost one.

Note also how the two types of PolFoc which result in a misaligned prosodic structure in Italian are exactly the two types of focus, which, when applied to a lexical constituent, license the fronting of such an element to the left periphery. In both cases, these are the mirative and corrective types of focus.

Another feature which stands out in (44) is the fact that none of the PolFoc strategies which apply in Romance languages can associate with contrastive PolFoc. An association with contrastive PolFoc is on the other hand possible for both stress shift in Norwegian, and the polarity adverbial strategy in Dutch and English.

IV. Types of Polarity Fronting

Polarity fronting strategies are particularly productive in Romance languages; in this paper, we are going to focus in particular on Spanish and Italian. The three polarity topicalization strategies we are going to investigate are *Simple Preposing*, *Bare Neg Fronting* and *Quantifier Fronting*. We are also going to compare these operations with a fourth type of fronting, *clitic left dislocation* (*CLLD*, Cinque 1990). We will see how all four of these movement operations can be used to mark the presence of a narrow polarity focus. Whereas CLLD can also mark other types of focus, however, polarity focus is the only type of focus Simple Preposing, Bare Neg Fronting and Quantifier Fronting can associate with. We will start by discussing the formal properties of each of the four movement configurations I have just listed. The main properties we are going to focus are in particular the presence versus absence of reconstruction, the presence versus absence of clitic resumption, and the scopal interaction of the fronted element with respect to negation.

Before we delve into the different types of fronting operations, a note on the terminology I will adopt is in order. As Abels (2012:234, footnote 3) remarks, it is an "unfortunate terminological tangle" that what is referred to as "topicalization" by Rizzi (1997) is called "CLLD" in Cinque (1990), and what Cinque (1990) describes as "topicalization" is the term used in Rizzi (1997) to describe the fronting of a contrastive focus to the left periphery. In this paper, I would like to resort to a third option. This is not to add to the already existing confusion, but because I believe a different way of categorizing the various types of movement to the left periphery is in order, and that can only be done through a new categorization system.

I will use the term "focalization" the way Rizzi (1997) uses it, i.e. to describe the movement to the left periphery of a lexical constituent in narrow focus. Unlike Rizzi (1997), however, I will use the term "topicalization" as an umbrella term to describe all instances of movement which displace a non-focal constituent to the left or to the right periphery. This means that I will consider all four types of fronting operations which are discussed in this section as instances of topicalization. This is even though they present different formal properties, which, I will argue, must be derived independently. As I will argue in detail in section VI, I believe that an umbrella term for CLLD, Simple Preposing, Bare Neg Fronting and Quantifier Fronting is necessary because I believe that an identical trigger underlies the movement of the fronted constituent in each of these operations.

IV.I Simple Preposing

Simple Preposing (henceforth, *SP*) was first discussed in Leonetti and Escandell-Vidal (2009) for Spanish, who take it to be part of a more general phenomenon to which they refer as "*verum focus fronting*" (VFF). This VFF operation includes instances of Simple Preposing, as well as Quantifier Fronting, which I tackle in subsection IV.III.

I follow Leonetti and Escandell-Vidal (2009) in treating these two types of movement as specific instances of a more general phenomenon, in my case that of topicalization. As we will see in subsection IV.III, however, these two operations exhibit rather different properties, something which lead me to treat them separately. Moreover, unlike Leonetti and Escandell-Vidal, I do not believe that SP and Quantifier Fronting are instances of emphatic polarity focus structures; they are, I will argue, associated with contrastive polarity focus.

In (45) is an example of what I consider an instance of SP, as taken from from Leonetti and Escandell-Vidal's paper. In (46), I provide an example of SP for Italian:

(45) Había que leerse el Quijote, y el Quijote se leyó (Spanish)
S/he-had to read.REFL the Quijote, and the Quijote REFL. read
'S/he had to read the Quijote, and read the Quijote s/he did'
(Leonetti & Escandell-Vidal 2009: 171)

(46) Volevo mangiare un panino, e un panino ho mangiato (Italian)
I-wanted to-eat a sandwich, and a sandwich I-have eaten

SP structures are always biclausal. They require strict identity between the clause where the fronting occurs, to which I will refer as "parasitic", and a preceding clause which functions as its syntactic antecedent, to which I will refer as "host". The only potential exception to this required identity is represented by material in the subject position, which can optionally be replaced by a null, coindexed subject, as shown in (47):

(47) Fatima voleva parlare con Paola, (Italian)
Fatima wanted to-speak with Paola,
e con Paola (Fatima) ha parlato.
and with Paola (Fatima) has spoken.

Nothing else can be modified in the parasitic clause: a nominal object cannot for instance be replaced by a coindexed pronoun, as can be seen in (48):

(48) *Maria voleva mangiare un panino$_i$ con (Italian)
**Maria wanted to-eat a sandwich$_i$ with*
Sara, e con Sara Maria lo$_i$ ha mangiato
Sara, and with Sara Maria it(cl)$_i$ has eaten.

In SP structures, the host always features a non-finite clausal complement, usually the complement of a volitional or modal verb. This clausal complement is rendered finite in the parasitic SP structure, resulting in the expression of a contrast in veridicality: in the host clause, a possible course of action is suggested. In the parasitic clause, this event is rendered perfective, thereby ceasing to represent a simply hypothetical scenario.

In SP, the fronted constituent is not clitic-resumed, nor can it ever be. This is illustrated by the ungrammaticality of (49), where the SP-ed direct object has been clitic-resumed:

(49) *Volevo mangiare un panino, e un panino l'ho mangiato (Italian)
I-wanted to-eat a sandwich, and a sandwich it(cl)-I-have eaten

The fronted constituent in SP structures reconstructs for both binding and scope. Reconstruction for binding is exemplified in (50) for principle A:

(50) Filippo$_i$ voleva riscoprire se stesso$_i$, e (Italian)
Filippo$_i$ wanted to-rediscover him self$_i$, and
se stesso$_i$ Filippo$_i$ ha riscoperto.
him self$_i$ Filippo$_i$ has rediscovered.

In the host clause in (50), *Filippo* can bind the reflexive *se stesso* by virtue of c-commanding it. This binding relationship is maintained in the parasitic clause, showing that the fronted DP must have reconstructed in its base position in order for the right c-command relation to be established. That the fronted constituent must reconstruct at LF is also shown by scopal properties. In this respect, consider the example in (51):

(51) Lucia non voleva dire tutto, e tutto non ha detto (Italian)
Lucia not wanted to-say everything, and everything not has said
'Lucia didn't want to tell the whole story, so she didn't'
(a) * $\forall > \neg$ = Everything was not said (hence: Lucia said nothing)
(b) ✓ $\neg > \forall$ = it is not the case that Lucia said *everything* (hence: she said something, she said a little, …., she said a lot)

With (51), the speaker is asserting that it is not the case that Lucia told *everything*: Lucia might have shared only part of the story, or might have even told almost every detail of it. Crucially, however, she did not reveal *every* detail: she kept at least something to herself. This reading can only be obtained if the universal reconstructs in its base position, where it scopes below the negation (reading 51b). If the universal does not reconstruct (51a), we obtain a reading by which we are stating that Lucia said nothing at all, which is not the reading we are after in (51).

SP is remarkably flexible in terms of what constituents can be targeted by the fronting operation. Virtually any type of constituent can be dislocated through SP: in (52), we see that SP has targeted an adjective. In (53), it has targeted an adverb. In (54), it is even a full IP which gets fronted:

(52) Volevo diventare bravissimo, e bravissimo sono diventato (Italian)
I-wanted to-become super-good, and super-good I-am become

(53) Volevo andare piano, e piano sono andato
I-wanted to-go slowly, and slowly I-am gone

(54) Volevo mettermi a scrivere in spiaggia, e
I-wanted to-start-to-me(cl) to write in beach, and
a scrivere in spiaggia mi sono messa.
to write in beach to-me(cl) have started
'I wanted to start writing something while at the beach, and writing something while at the beach I have started'

Note that the structure of SP environments is always fixed: the parasitic clause only ever consists of the material found in the non-finite complement clause of its host. In the parasitic clause, then, it is always all material following the finite verb which is fronted to the left periphery, regardless of the type and the length of such material.

What type of PolFoci can SP mark? Above, I suggested that SP structures realize a contrast in veridicality: the non-finite clausal complement in the host is marked as being non-veridical, its finite counterpart in the parasite clause as being veridical. It can be concluded that a SP structure marks the presence of a contrastive PolFoc. What SP structures cannot mark are on the other hand mirative and corrective polarity foci. A corrective reading of the focused polarity in SP is out because a correction would imply the lack of identity between host and parasitic clause, which we saw to be a requirement for SP to go through. A mirative polarity accent is incompatible with SP because the polarity value associated with the parasitic clause is in no way unexpected: that the event described in the parasitic clause might be associated with a positive polarity setting is an expectation created by the volitional verb in the host clause.

IV.II Bare Neg Fronting

Bare Neg Fronting (henceforth, *BNF*) is a type of movement operation that fronts several different types of constituents to the left periphery of a negated clause. I provide some examples of BNF below. These are all taken from PAISÀ, a collection of web texts in Italian. The portion of the sentence where the fronting occurs is in bold:

(55) Mi scuso per la domanda cretina che poi **tanto cretina non è**
I apologize for the question stupid, which then ***very stupid not it-is***

'I apologize for the stupid question, which in the end isn't that stupid'

(56) Il paese fa 13.000 abitanti. Quindi **tanto piccolo non è**
This town has 13.000 inhabitants. So ***very small not it-is***
'This town has 13.000 inhabitants, so it's far from being small'

(57) Trattarlo con un farmaco lo etichetta come malato anche se **malato non è**.
Treating-him(cl) with a prescription him(cl) labels as ill, even though ***ill not he-is***.
'Treating him with drugs means labeling him as ill, when ill he is not'

The pragmatics of a BNF construction can be that of a litotes (van der Wouden 1995), as can be observed in (56), where we observe the understatement effect typical of these structures: by claiming that the town "isn't that small", the speaker is actually trying to say that the town is pretty big. The understatement effect is also evident in structures like (58) below, where BNF is used to show weak agreement with what is stated by the first speaker:

(58) (Italian)

A: Raj	è	attraente		
Raj	*is*	*attractive*		
B: Brutto	non	è	di	certo
Ugly	*not*	*he-is*	*for*	*sure*

'Well, he is definitely not *ugly*'

A weak agreement effect is obtained in (58) because B, rather than fully agreeing with A, simply states that the opposite of what asserted by A is false. That of litotes is not the only available pragmatic effect of BNF: this type of fronting can also perform a much more general function, which could be described as simply contrastive. We already saw an example of this purely contrastive function in (57). In (57), "ill" is first introduced as focus and then topicalized through BNF in the concessive clausal adjunct. The first mention of "ill" −the focused one− occurs in a positive polarity structure, even though the statement itself is a non-veridical one. The clause where the fronting occurs then takes this same adjective and assigns it a negative polarity value, hence a contrast in polarity ensues.

This more general contrastive function seems to have a higher incidence than the litotes one, at least in the PAISÀ corpus. This corpus contains 54 instances of BNF; out of these 54 cases, only 18 have the understatement quality typical of litotes. This follows if we take the litotes type of BNF to be a subtype of the more general contrastive-function one. Consider again the sample structure in (58): contrast applies both at the level of the fronted element and the polarity. The fronted element is contrasted with the opposite term on its entailment scale, namely that "attractive" in A's utterance. The negative polarity is then contrasted with the positive polarity

associated with "attractive" in A's statement. The litotes structure in (58) is then doubly contrastive, whereas (57) fetaures a contrast only at the level of the polarity.

The fronted constituent in BNF structures can be shown to reconstruct for binding. An example is provided in (59) for Principle A:

(59)	Se stesso$_i$,	Luigi$_i$	non	ha	visto	di	certo	(Italian)
	Himself$_i$,	*Luigi$_i$*	*not*	*has*	*seen*	*for*	*sure*	

The fronted reflexive in (59) must be bound in its local domain because of Principle A. Since (59) is grammatical, we can conclude that "se stesso" must have reconstructed in its base position at LF, where it can be bound by the coindexed subject *Luigi*.

It is difficult to determine whether BNF also reconstructs for scope without resorting to the presence of a quantified element. To assess the scopal behavior of the fronted element in BNF, the reader is then referred to subsection IV.III, where I investigate Quantifier Fronting. We will see that one type of Quantifier Fronting has both the pragmatics and the syntax of BNF; this type of operation crucially reconstructs for scope. I will then use that particular instance of topicalization to prove that BNF reconstructs for scope as well as for binding.

Note that BNF is extremely local: the fronted constituent can only be displaced up to the first available left periphery, and not any further. This is exemplified in (60) through (62). In (60), the fronted constituent is moved locally to the first available left periphery, resulting in a grammatical structure. In (61), the clause where the fronting operation occurs presents one level of embedding; we see that the fronting of the adjective to the higher left periphery is banned. (62) then shows how the only way to rescue (61) is to clitic-resume the fronted adjective. More on the locality of CLLD structures will be said in subsections IV.IV and VI.V.

(60)	Vuole	essere	gentile,	ma	gentile	non	è
	He-wants	*to-be*	*kind,*	*but*	*kind*	*not*	*he-is*

(61)	*Vuole	essere	gentile,	ma	gentile	non	credo	che	sia
	**He-wants*	*to-be*	*kind,*	*but*	*kind*	*not*	*I-believe*	*that*	*he-is(subv)*

(62)	Vuole	essere	gentile,	ma	gentile	non	credo	che	lo	sia
	He-wants	*to-be*	*kind,*	*but*	*kind*	*not*	*I-believe*	*that*	*it(cl)*	*he-is(subv)*

As it was already the case for SP, and as we saw above, BNF marks the presence of contrastive polarity focus. The contrastive PolFoc may be accompanied by a second level of contrast, realized at the level of the topicalized constituent (see 58), or feature on its own (see 57).

IV.III Quantifier Fronting

Quantifier fronting (henceforth, *QF*) was first discussed for Italian in Benincà (1998) and later in Cinque (1990), who provided the first full-fledged analysis of the phenomenon. In QF structures, a bare quantifier is fronted to the left periphery, crucially without being clitic-resumed:

(63) **Qualcosa** **farò**, non preoccuparti (Italian)
Something ***I-will-do,*** *not* *you-worry*

(Cinque 1990:74)

Unlike in the case of SP, where the clitic resumption of the fronted constituent is always outright impossible, clitic resumption of the fronted quantifier is in fact possible for at least some types of quantifiers. It is however clear that structures where clitic resumption has occurred have little in common with those where resumption is absent: the two differ systematically with respect to a number of properties. Consider the case of "qualcosa" (=*something)*. As already noted in Cinque (1990), if "qualcosa" is clitic-resumed, the gender agreement[64] on the past particle must be feminine, as shown in (64). If "qualcosa" is not clitic-resumed (65), on the other hand, the past particle ends with the marker of masculine agreement *-o*:

(64) Qualcosa l'ha mangiat**a** (Italian)
Something *it(cl)-s/he-has* *eaten(fem)*
(65) Qualcosa ha mangiat**o**
Something *s/he-has* *eaten(masc)*

QF is particularly interesting because it interacts in unexpected ways with negation. Specifically, whereas weak quantifiers such as "qualcosa" can always undergo Quantifier Fronting, universal quantifiers can only do so in negative polarity environments:

(66) *Tutto ha detto[65] (Italian)
**Everything* *he-has* *said*
(67) Tutto non ha detto
Everything *not* *he-has* *said*

There are two types of QF: the negated polarity kind, and the positive polarity one. These differ both in terms of their syntax and of their semantics. The positive polarity

[64] The past participle agrees in gender and number with the direct object, in this case the fronted existential.

[65] Note that this construction is perfectly grammatical if the fronted universal quantifier is interpreted as a mirative or a corrective focus:
(i) TUTTO ha detto!
EVERYTHING he said!

kind can only front existential quantifiers such as *someone/somebody* –as we already saw in (63) and (64) –, and accordingly has a marked *existential* function; this can be appreciated in (68). In (68), the fronting of the existential quantifier is used to convey that the set of people seen by Luisa is minimally not empty.

(68) A: Luisa non ha visto nessuno (Italian)
Luisa not has seen anyone
B: Qualcuno deve aver visto, dai
Someone she-must have seen, come-on
= It definitely *is* the case Luisa saw at least someone

All quantifiers other than existential *someone/somebody* can on the other hand only occur in QF structures if negated; a possible explanation for this fact will be provided in subsection VI.IV. The negated type of QF has the pragmatics of BNF, with which it shares its syntax: fronting takes place inside of a negated clause, and the fronted element is not clitic-resumed. An example of this second type of QF is provided in (69), where the fronted "tanto" takes on the understatement specification which is typical of litotes constructions:

(69) A: Luisa ha mangiato poco (Italian)
Luisa has eaten little
B: Tanto non ha mangiato di certo
A-lot not she-has eaten f or sure

It is impossible to determine whether QF reconstructs for binding, given that the fronted quantifier is not an anaphor and hence need not be bound by any other expression. What can however be shown is that the fronted Q reconstructs for scope. Consider in particular the following example:

(70) A: Luca non ha mangiato nulla (Italian)
Luca not he-has eaten nothing
'Luca ate nothing'
B: Tutto non ha mangiato di certo
Everything not he-has eaten for sure
'He surely didn't eat *everything*'

In (70), B expresses their weak agreement with A by negating the opposite of what A has just stated: B states that it is *not* the case that Luca ate *everything*. Note that this is exactly the pragmatic effect we identified in some instances of BNF (see in particular

example (58)); BNF also shares the syntax of this type of QF in only allowing the fronting operation to go through in negative polarity environments[66].

For the exchange in (70) to make sense, and for the understatement effect to be obtained, the fronted quantifier must scope under the negation. This is illustrated in (71), which details the two logically possible scopal interpretations of B's reply in (70):

(71) Possible scopal relations for (70):
(a) ¬ > ∀ = it is not the case that he ate *everything* (hence: he ate a little, or he ate a lot, ..)
(b) * ∀ > ¬ = Everything was *not* eaten = He ate nothing (= A's utterance)

The only way for the weak agreement interpretation to be obtained in (70) is by having the universal quantifier reconstruct, and hence be outscoped by the negation. If the negation scopes lower than the universal, the reading we obtain is one by which B is stating that Luca ate nothing at all, which is exactly what A also asserted (see also description of the reading in 71b). If (71b) were the correct derivation for (70), then, the weak agreement pragmatics would be lost, as both speakers would be asserting the same thing: recall from example (58) that the weak agreement interpretation is dependent on B negating the opposite of what A has stated.

Not all instances of QF reconstruct, however. Consider in particular the following example, where an existential is fronted across the sentential negation:

(72) (Italian)

A: Mario	ha	mangiato		tutto
Mario	*has*	*eaten*		*everything*
B: Qualcosa		non	ha	mangiato
Something		*not*	*he-has*	*eaten*

(a) * ¬ > ∃
(b) ✓ ∃ > ¬

The only reading B's reply can be associated with is one where the existential scopes over the negation, as shown by the ungrammaticality of (72a). In (72), only the surface reading is then available.

That (72) can only display the surface reading can be explained as a result of the positive polarity nature of the existential *qualcosa* in Italian: this element cannot occur in downward-entailing environments, hence it is prevented from reconstructing in its argumental position.

[66] More on the role of negative polarity in licensing the fronting operation will be said in section VI.IV.

Like BNF, QF is extremely local: the fronted quantifier can only be moved up to the first available left periphery. Compare in particular the ungrammaticality of (73a), where the fronted quantifier has been dislocated to the matrix left periphery, with the grammaticality of (73b), where the movement has taken place locally. As it was already the case for BNF, the only way to salvage a non-local QF structure is to turn it into a CLLD one, i.e., by clitic-resuming the fronted quantifier. This is exemplified in (74). Note in particular the *–a* feminine ending on the past particle, caused by the presence of clitic resumption (see again (64)):

(73) (a) *Qualcosa credo che ~~qualcosa~~ abbia mangiato ~~qualcosa~~
**Something I-believe that ~~something~~ he-has(subv) eaten ~~something~~*
(b) Credo che qualcosa abbia mangiato ~~qualcosa~~
I-believe that something he-has(subv) read ~~something~~

(74) Qualcosa credo che l'abbia mangiat**a**
Something I-believe that it(cl)-he-has(subv) read.fem

Exactly like SP and BNF, QF associates with contrastive polarity focus. This is particularly evident in the weak-agreement type of construction: the contrastive polarity focus is part of a contrastive topic structure, where the fronted quantifier is interpreted as a contrastive topic. This quantifier topic is contrasted with a second quantifier which is part of the immediate context, for which the polarity value opposite of the one featuring as the polarity focus was suggested.

IV.IV Clitic Left Dislocation

What all the fronting operations reviewed so far have in common is the possibility of fronting a constituent to the left periphery without having it resumed by a matching IP-internal clitic. This contrasts with clitic left dislocation (CLLD), which was first discussed in detail in Cinque (1990).

We already saw in subsections IV.II and IV.III how CLLD can be used to salvage non-local applications of both BNF and QF. This shows that another way in which CLLD differs from cliticless instances of movement is in being potentially non-local: a clitic-resumed constituent may be fronted to a left periphery higher than the first one available. Another way in which CLLD differs from cliticless fronting concerns the possibility for the fronted element not to be reconstructed in its base position.

Abundant literature exists on whether CLLD reconstructs or not. According to Frascarelli (2004) (see also Frascarelli & Hinterhölzl 2007), CLLD in Italian never reconstructs for binding, nor does it ever reconstruct for scope. An identical position is taken by Arregi (2003) for Spanish. Cecchetto (2001), however, who discusses CLLD in Italian, argues that the clitic-left dislocation of a DP is always accompanied by

reconstruction for binding, and may or may not be accompanied by reconstruction for scope.

I follow Frascarelli (2004) in taking clitic-left dislocated constituents to not reconstruct for binding. Evidence of the lack of reconstruction is provided in (75), which I take from Frascarelli (2004). In (75), the null subject *pro* is coindexed with Leo, a R-expression which appears within the CLLD topic:

(75) Il libro che mi ha dato Leo_i, pro_i
The book that to-me(cl) has given Leo_i, pro_i
lo ha scritto da giovane
it(cl) has written when young
'The book that Leo_i has given to me, he_i wrote it when he was young'
(Frascarelli 2004:105)

If *the book* were to reconstruct in its base position, as detailed in (76), the R-expression would no longer be free in its local domain, violating principle C of binding theory.

(76) *Pro_i lo ha scritto il libro
*Pro_i *it(cl) has written the book*
che mi ha dato Leo_i da giovane
that to-me(cl) has given Leo_i when young
(Frascarelli 2004:105)

I follow Cecchetto, however, in taking both the surface and the inverse scopal readings to be available for clitic-left dislocated constituents. Overall, the surface reading seems to be the preferred one when the fronted constituent is clitic-resumed, but the reconstructed –inverse– reading is by all means possible, especially if the fronted element is an existential quantifier. This can be seen in (77), where the fronted existential can scope both under and over the universal subject:

(77) Qualcuno lo amano tutti
Someone him(cl) love everyone
(a) ✓ ∀ > ∃ (= everybody loves someone different) → reconstruction
(b) ✓ ∃ > ∀ (= someone specific is loved by everyone) → no reconstruction

As mentioned above, clitic resumption can be used to salvage non-local applications of BNF and QF. It is however important to note that not all type of constituents can be clitic-resumed. Out of the 54 cases of BNF in the PAISÀ corpus, around half of them would also be grammatical were the fronted constituent to be clitic-resumed. The 27 examples which are impossible to transform into CLLD structures all front

constituents which are mass nouns, or anyway non-atomic entities. I provide some examples in (78-80) below:

(78) (...) l'abissale ignoranza (...) di chi evoca premesse "filosofiche" e scientifiche per una disciplina come la medicina...
"(...) The abysmal ignorance (...) of those who resort to "philosophical" and scientific premises to describe a discipline like medicine…

(a) che **SCIENZA NON E'!!**
that ***SCIENCE NOT IT-IS!!***

(b) *che **SCIENZA NON LO E'!!!***
****that SCIENCE NOT IT(CL) IT-IS!!!***

(79) Erroneamente la crema Nivea fluida idratante, così come l'olio Johnson, viene da molti usata per abbronzarsi perchè crea una specie di strato sulla pelle che la fa arrossare incredibilmente, donando un effetto tipo abbronzatura, che...
The Nivea moisturizing cream, like Johnson's oil, is erroneously used by many when sunbathing, because it creates a kind of layer on the skin that makes it become red incredibly fast, giving the appearance of a tan, even though…

(a) **abbronzatura non è.**
tan not it-is.

(b) ***abbronzatura non lo è**
****tan not it(cl) it-is***

(80) Torino, 08 giugno 2001. Siamo sempre di più. Vittime di questo grande male, nel mirino dell' opinione pubblica, nelle mani di una giustizia troppo lenta e burocraticamente complicatissima, che
Turin, 08 June 2001. We are becoming more and more. Victims of this great evil, in the crosshairs of the public opinion, in the hands of a justice (system) which is too slow and too complex, which

(a) a volte **giustizia non é**.
sometimes ***justice it-is not.***

(b) *a volte **giustizia non lo è***
****sometimes justice not it(cl) it-is***

According to Giurgea (2015), what determines whether a fronted topic may or may not be clitic-resumed is its referentiality: Giurgea argues that only referential topics can be grammatically clitic-resumed. As evidence of this claim, he presents the following Spanish examples, which he takes from Fernando-Soriano (1993), showing how non-referential topics are not accompanied by clitic resumption in Spanish:

(81) Niños, Maria dice que no ha visto. (Spanish)
Children, Maria says that not has seen
'As for children, Maria says she hasn't seen (any)'
(Fernando-Soriano 1993:142)

(82) Cerveza, Juan ha traido.
Beer, Juan has brought.
'As for beer, Juan has brought some'
(Fernando-Soriano 1993:142)

However, in Italian, referentiality does not determine whether a constituent can be resumed or not, it simply has an effect on what kind of clitic is used to resume the constituent. In this language, non-referential entities such as those in the Spanish examples above must be clitic-resumed with a partitive clitic, as shown in (83-84):

(83) Bambini, Maria non **ne** ha visti. (Italian)
Children Maria not partit.cl has seen
'As for children, Maria hasn't seen any'

(84) Birra, John **ne** ha portato un po'.
Beer, John partit.cl has brought a bit.
'As for beer, John has brought some'

Partitive clitics, however, are not part of the clitic inventory of Spanish, hence the lack of clitic resumption in (81-82). Additional evidence against the claim that only referential topics can be clitic-resumed is provided by example (85), from Italian. (85) shows how even a non-referential entity such as the generic "a friend" can −and in fact must in this example− be clitic-resumed:

(85) Un amico *(lo) hanno tutti (Italian)
*A friend *(him(cl)) have everyone*
'Everyone has a friend'

What type of polarity focus can CLLD associate with? A very natural interpretation of CLLD constructions in general is a contrastive one: the clitic-left-dislocated constituent is interpreted as being a contrastive topic. A contrastive interpretation of CLLD structures is so natural that Arregi (2003) even goes as far as claiming that CLLDed constituents are always interpreted as being contrastive. This is, however, too strong a claim. It is true that, provided an appropriate context, CLLD constituents can always be interpreted as contrastive, but crucially, they need not be. In this respect, consider the following Italian example:

(86) Context: A and B have a friend, Paola, who is supposed to come by to borrow one of A's cocktail dresses to wear for the inauguration of her art gallery. Before he leaves to go to work, A tells B she should lend Paola her blue dress, or perhaps the pink one, as those are the prettiest she possesses. When A comes home after work, B tells him:

"A	proposito,	a	Paola	alla	fine	le	ho	dato	il
"By	*the.way,*	*to*	*Paola*	*in-the*	*end*	*to-her(cl)*	*I-have*	*given*	*the*
vestito	rosa.	Quello		blu	non	le	stava"		
dress	*pink.*	*That*		*blue*	*not*	*to-her*	*fit"*		

'By the way, in the end I gave Paola the pink dress. The blue one didn't fit her'

The clitic-resumed, fronted PP "a Paola" is clearly not contrastive, as it is not interpreted as in opposition to a set of alternative individuals to whom the dress might have been given. Yet the PP can be grammatically fronted through CLLD.

Can CLLD be used in mirative and corrective? Yes and no. CLLD is certainly compatible with both of these environments. This however does not mean that it is the fronting operation itself which triggers the presence of these specific readings. Consider for example the construction below, a biclausal "sì che" construction which also features a CLLD topic:

(87)

Sì	che	il	pane	l'ho	comprato!	(Italian)
Yes	*that*	*the*	*bread*	*it(cl)-I-have*	*bought!*	

'I HAVE bought the bread!'

As we saw in subsection III.II, this type of biclausal construction is used in Italian as a strategy to realize a corrective or mirative narrow focus on the polarity of the utterance. The CLLD operation has no effect on the availability of this specific reading, given that, if said topic is removed, the corrective/mirative reading is still present:

(88)

Sì	che	ho	comprato	il	pane!	(Italian)
Yes	*that*	*I-have*	*bought*	*the*	*bread!*	

'I HAVE bought the bread!'

IV.V Different Types of Topicalization: Formal Properties Compared

Below is a table summarizing the formal properties of the different types of topicalization reviewed in the previous four subsections. For each of the four types of topicalization, (89) marks the following four properties: (a) presence vs. absence of clitic resumption, (b) locality of movement (c) (lack of) reconstruction of the fronted element, and (d) type of PolFoc the movement operation can associate with:

(89)

Type of Topicalization	**Clitic Resumption**	**Is Movement Obligatorily Local?**	**Reconstruction for Binding**	**Reconstruction for Scope**	**Type of Polarity Focus**
Simple Preposing	No	Yes- Structure is fixed	Yes	Yes	Contrastive
Bare Neg Fronting	No	Yes	Yes	Yes (see QF)	Contrastive
QF – Existential Type	No	Yes	Untestable	Yes, unless sentence is a negative one	Contrastive
QF – Negated Type	No	Yes	Untestable	Yes	Contrastive
Clitic-Left Dislocation	Yes	No	No	Both reconstructed and non-reconstructed readings possible, at least with existentials	Compatible with contrastive, mirative and corrective

Note that SP is marked as "structure is fixed" under locality conditions, in that the parasitic clause in SP environments only ever features a single verb phrase – the non-finite VP copied from the host clause–, and hence a single left periphery[67]. As such, determining whether the fronting operation could ever be non-local is simply impossible.

Two things stand out in (89): the first is the fact that all types of topicalization reviewed in this section are or can be associated with contrastive polarity focus. Recall from subsection III.IV that contrastive PolFoc does not license the application of polarity particle strategies in neither Italian nor Spanish: in these languages, polarity particle strategies can only correlate with the presence of emphatic PolFoc (verum focus). Clearly, then, the mechanism which triggers polarity topicalization must be completely different from the one resulting in the application of polarity particle strategies. A second fact worthy of attention which emerges from (89) is that those types of movement which allow for cliticlessness are also those which are inherently local and which always reconstruct for interpretation. Recall from the beginning of this section that these are also the types of movement that can only be associated with a polarity focus reading: if the fronting operation is not accompanied by the resumption

[67] See again section IV.I, where this is explicitly noted.

of the fronted element, no element other than the polarity of the proposition can be interpreted as being in focus. In this respect, consider what happens if we take an environment which we know to license cliticlessness, such as the BNF context in (58), and add a lexical contrastive focus to B's reply. Clitic resumption becomes mandatory:

(90)	A: Raj	è	scortese				
	Raj	*is*	*impolite*				
	B: Con	me	scortese	*(lo)	è	il	lunedì
	With	*me*	*impolite*	**(it(cl))*	*he-is*	*on*	*Mondays*

V. The *Why*s and *How*s of Topicalization

In the previous two sections, we discussed four possible mechanisms which can be used to mark the polarity of a sentence as being in focus: through the insertion of polarity adverbials, through stress shift, by resorting to the fronting of non-focal elements or through the insertion of polarity particles.

The availability of adverbial PolFoc strategies in a given language is entirely dependent on the presence of lexicalized polarity adverbials. Languages like Dutch and German, for example, present an extremely rich repertoire of discourse particles which can be used in PolFoc constructions. A few examples are *toch, wel,* and *ook* for Dutch, and *doch*, *wohl* and *schon* for German (see Hogeweg 2009; Karagjosova 2006; Van Valin, 1975). None of these particles has a direct equivalent in languages like Italian and Spanish, which explains why adverbial strategies are not as widespread in these latter languages.

Concerning the applicability of prosodic strategies, it is important to note that, even though both Germanic languages like German and Norwegian on the one hand, and Romance languages like Italian and Spanish on the other, normally assign main stress to the rightmost constituent in the main intonational phrase, Italian and Spanish are stress-rigid, meaning they rarely allow stress to be assigned in a position other than on the rightmost constituent in the intonational phrase (Szendrői 2002, 2017; Samek-Lodovici 2015; Ortega-Santos 2016). Germanic languages, on the other hand, are stress-flexible, meaning they do allow stress to be shifted to a position other than rightmost constituent in the intonational phrase, or at least they do so in more environments than Romance languages admit (Szendrői 2017). These differences become apparent if we consider how the two language families deal with sentences with a narrowly focalized subject. In Italian, this triggers syntactic reordering and the presence of post-verbal subjects, even if the language has SVO as the unmarked order. In languages like Norwegian, on the other hand, the subject remains in situ:

(91)	A: Chi	ha	mangiato	la	torta?	(Italian)
	Who	*has*	*eaten*	*the*	*cake?*	

B: L'ha mangiata GIANNI
It(cl)-has eaten GIANNI
'It was Gianni who ate it'

(92) A: Hvem har spist grøten? (Norwegian)
Who has eaten the-porridge?
B: GULLHÅR har spist den
GOLDILOCKS has eaten it
'It was Goldilocks who ate it'

This contrast explains why prosodic PolFoc strategies like the stress shift operation discussed in III.III are practically absent in Romance languages. An operation like stress shift implies assigning main stress to a constituent other than the rightmost one in the main intonational phrase. The application of this type of prosodically misaligned structures is however very restricted in Romance languages.

V.I Topicalization as *Escape Focus*

In this subsection, we will be concerned with understanding how the polarity focus interpretation associated with polarity topicalization comes about. We saw how polarity topicalization in languages like Spanish and Italian correlates with the presence of a type of PolFoc which can be marked simply through stress shift in languages like Norwegian. We also saw how the latter language allows for information focus to be merged in situ even when this does not correspond to the rightmost position in the main intonational phrase, whereas information focus always triggers syntactic reordering in languages like Italian.
In this paper, I will combine these two observations by suggesting that polarity topicalization in Romance languages arises from the need to remove from a main stress position a constituent which is non-focal, and thus must not be assigned main stress. I will refer to this mechanism as "escape focus".
The idea that prosodic requirements may be responsible for at least CLLD has been suggested by several authors (see for instance Vallduví & Enghdal 1996; Zubizarreta 1998; Costa 1998; Szendrői 2001, 2002, 2003, 2017; Samek-Lodovici 2006, 2015). The way this paper differs is in extending such a prosodic explanation to all instances of cliticless fronting as well, and in relating the specific pragmatic type of focus to type of syntactic reordering operation.

What all the polarity topicalization operations reviewed in section IV have in common is that the application of fronting results in the finite verb appearing sentence-finally. In subsection III.III, we saw how languages which possess stress shift as a PolFoc strategy generally tend to shift the main stress onto the finite verb. As remarked in that

subsection, although this is not the only possible locus for stress shift, cross-linguistically this appears to be the preferred option[68].

Assume that we want to mark a sentence as featuring PolFoc in languages like Spanish and Italian. Since it is PolFoc we want, we may want to stress the rightmost constituent in the verbal domain[69]. Doing so in situ would however result in a violation of the prosodic rules characterizing these two languages: Italian and Spanish must assign stress to the rightmost constituent in the main intonational phrase. Given that both languages are SVO, the rightmost constituent generally happens to be an internal argument. The fronting operation can be seen as a way to reconcile these two opposing forces: by fronting any material which would have otherwise appeared in a post-verbal position, topicalization ensures that it is the finite verb which is assigned main stress, and that main stress is assigned to the rightmost constituent in the main intonational clause.

Consider how this process works as applied to the first CLLD example which was discussed in this paper, namely the Trevigiano example in (3). I repeat it below:

(3)	L'età	i	la	g'ha	(Trevigiano)
	The'age	*they(cl)*	*it(cl)*	*have*	

Already in the introduction, we saw how the fronting of the direct object is essential in order for (3) to be interpreted as a PolFoc structure. If no fronting occurs, (3) will be interpreted as a broad focus construction, or as featuring a narrow focus on the direct object. How does *escape focus* account for the presence of a narrow polarity focus in constructions like (3)? Consider (93), where I provide the derivation for (3):

(93)	[$_{CP}$	L'età	[$_{IP}$ i	la	g'HA	~~l'età~~]]
	[$_{CP}$	*The.age*	*[$_{IP}$ they(cl)*	*it(cl)*	*HAVE*	*~~the age~~]]*

In (93), the DP *the age*, being the direct object, is generated below the verb. The verb itself bears a narrow focus accent, given that the speaker is here trying to convey that "they" *do* have the right age (meaning that they are old enough). If the object does not front, the constituent which is in focus, the finite verb, would not occur sentence-finally, violating the prosodic rules of Trevigiano, which, exactly like Italian, is a stress-rigid language: main stress must then always be right-aligned. In order for the structure to converge at the PF interface, fronting of the offending constituent –here in the form of CLLD– occurs. This explains why the fronting of the direct object in (3) is essential to achieve a PolFoc focus reading. If (3) featured no fronting, the direct object would

[68] I provide a possible explanation for this trend in the subsection V.II.

[69] This is to mean that, if both an auxiliary and a past participle are present, it is the past participle which is going to be stressed, even though it is technically the auxiliary which bears the [+finite] specification. This is because it is the past participle which is the verbal element which appears rightmost in the verbal domain.

occur in sentence-final position, where it would be assigned main stress and interpreted as focal.
Note that topicalization simply *enables* the application of the prosodic rules which make it possibile to achieve PolFoc: it does not *trigger* it. For instance, nothing prevents the direct object from simply being elided if very salient in the discourse, as shown in (94):

(94) I la g'ha
They(cl) it(cl) have

The variant in (94) is still compatible with a PolFoc reading; this is because in (94) the finite verb correctly appears as the rightmost constituent in the sentence. The application of topicalization in examples like (3) thus simply ensures that it is the correct constituent which appears righmostly.

Likewise, if the application of topicalization results in a constituent other than the verb appearing sentence-finally, the PolFoc reading is lost in favor of a narrow focus reading of whatever constituent is rightmost in the main intonational phrase. An example is provided in (95). From subsection IV.V, we know that only CLLD is compatible with foci other than PolFoc, hence the presence of clitic resumption in (95):

(95) A Piero gli ho dato LA MAGLIA ~~a Piero~~ (Italian)
To Piero to-him(cl) I-have given THE T-SHIRT ~~to Piero~~

In (95), the indirect object is topicalized. This process results in the direct object appearing as the rightmost constituent in the clause, where it can be assigned main stress and hence be interpreted as in narrow focus. We then see that *escape focus* is a very general mechanism, where it is the nature of those constituents which do not front which determines the specific type of focal construction the sentence is ultimately going to express.
CLLD is one possible strategy available in stress-rigid languages to ensure that the finite verb in PolFoc constructions appears rightmost in the main intonational phrase, and is thus in a position to be assigned main stress. Crucially, all types of fronting operations reviewed in section IV work in the exact same fashion: they remove any constituent(s) which would have otherwise appeared post-verbally, hence preventing the verb from appearing righmostly and thus from being assigned main stress. This is why all the fronting operations we reviewed in section IV, despite displaying formal differences, all result in the finite verb appearing sentence-finally.
It is in this sense that an umbrella definition for the different types of topicalization makes sense: regardless of the formal differences in the specific application of movement, as long as the fronting operations result in the assignment of main stress to an identical constituent, they will all be associated with an identical focus semantic value.

The idea of *escape focus* as a triggering mechanism for topicalization, as well as the idea itself of topicalization as an umbrella term, finds supporting evidence in the fact that fronting operations which are extremely different in terms of type of constituent fronted and mode of fronting may all be associated with an identical semantics. A perfect example is provided by SP. Recall from subsection IV.I that pretty much anything can be fronted through SP. I repeat the relevant examples below:

(52) Volevo diventare bravissimo, e bravissimo sono diventato (Italian)
I-wanted to-become super-good, and super-good I-am become

(53) Volevo andare piano, e piano sono andato
I-wanted to-go slowly, and slowly I-am gone

(54) Volevo mettermi a scrivere in spiaggia, e
I-wanted to-start-to-me(cl) to write in beach, and
a scrivere in spiaggia mi sono messa.
to write in beach to-me(cl) have started
'I wanted to start writing something while at the beach, and writing something while at the beach I have started'

The examples in (52-54) show how SP can front an AP (52), and adverbial prase (53) and even a full non-finite IP (54). If we were to analyze the examples in (52-54) in terms of the constituent which is fronted, they would appear to have nothing in common, given that the target of the SP operation differs every time. If we analyze these examples with respect to the *foot* of the movement chain, however, what they have in common is obvious: in each of these sentences, whatever material stands in between the finite verb and the sentence-final position is removed and fronted to the left, resulting in the finite verb occurring rightmost in the parasitic clause.
In this respect, (54) is particularly interesting: in the parasitic clause, the most embedded IP is fronted in its entirety, to ensure that it is only the tensed verb which appears sentence-finally.

The abundance of topicalization strategies available in languages like Italian can thus be seen as a way to compensate for the impossibility of stressing the finite verb or the finite auxiliary directly in situ, as it is the case in Norwegian. Not surprisingly, in Germanic languages syntactic fronting does not correlate with the locus of sentential focus as strictly as it does in Spanish and Italian. In this respect, consider VP-anaphora fronting in languages like Norwegian and Danish. In English, VPs which are old information and thus need to be destressed are often elided. In Danish and Norwegian, on the other hand, the applicability of VP ellipsis is much more restricted (Bentzen, Merchant, & Svenonius 2013): the to-go strategy for destressing a given VP in these languages is replacing it with "det" (*that*), which functions as an anaphoric expression

for the elided VP. Below is an example for Norwegian. Note that "det" is often fronted to a position preceding the fronted, V2 verb:

(96) A: Kan jeg spise et kakestykke? (Norwegian)
Can I eat a cake.piece?
B: Ja, det kan du.
Yes, that can you
"Det" = "spise et kakestykke" = *eat a slice of cake*

Unlike what happens in Italian and Spanish, in Norwegian there is no mandatory correlation between movement to the left periphery and the availiabilty of a specific narrow focus reading. Consider in particular (97): note that B and B' can both be interpreted as verum focus replies, regardless of whether *det* has fronted or not.

(97) A: Faktisk hadde jeg håpet at du ville være (Norwegian)
In fact had I hoped that you would be
glad for å se meg
happy for to see me
'To be honest I thought you were going to be happy to see me'
B: Å, det er jeg!
Yes, that I am!
'But I AM happy!'
B': Å, jeg er det
Yes, I am that!
'But I AM happy!'

Summing up, Romance languages possess an abundance of syntactic reordering operations correlating with the presence of types of foci which can be simply realized through stress shift in stress-flexible languages. This is because, in Romance languages, prosodically misaligned configurations (i.e., structures where main stress is not right-aligned) are very marked, and hence trigger a syntactic reordering process.

How to reconcile the claim that non-right aligned structures in Romance languages are extremely marked with the existence, even in these languages, of configurations such as the polarity particle strategies, which give rise precisely to misaligned structures?
The key notion lies here in the *type* of focus these different operations correlate with. In section III.II, we saw how particle strategies correlate with the presence of emphatic types of polarity focus, namely corrective and mirative ones. Polarity topicalization, on the other hand, fronts constituents in contrastive polarity environments. The former type of operation thus matches a prosodically marked structure to a pragmatically marked one: the choice of a prosodically marked configuration can be seen as a strategy to highlight that the sentence is to be interpreted as emphatic. The latter type

of operation, on the other hand, is not associated with any kind of pragmatic markedness, hence a marked prosodic structure is simply not licensed.

V.II Simple Preposing: Why Polarity and Finiteness are Linked

SP is a particularly interesting instance of topicalization because it sheds some light on why most of the languages which mark PolFoc through stress shift have the finite auxiliary or the finite verb as the locus of the stress shift operation.
If *escape focus* is responsible for the movement of the fronted constituent in simple preposing structures, then the constituent which is made sentence-final, the finite verb, must be focalized. But why exactly is it the finite verb which is focalized in SP structures? We have already seen that SP requires strict identity between the parasitic SP clause and its syntactic host, which means that every constituent in the parasitic SP clause is old information, and thus, in a sense, topical. The verb is old information as well, given that it is identical to the verb in the host, as can be seen in (98):

(98) Volevo mangiare un panino, e un panino ho mangiato (Italian)
I-wanted to-eat a sandwich, and a sandwich I-have eaten

Does the parasitic clause contain any piece of information which might be legitimately considered as "new"? It does: it is the tense specification on the parasitic verb. This was [- finite] in the host clause, and it becomes [+ finite] in the parasitic clause. Note that this is all there is to it: the number specification of the verb, for example, is also known, as the referent of the subject in the host is the same as that of the parasitic clause (in this case, 1st person singular). Why is the finite tense specification so important in giving rise to PolFoc?

SP takes the non-finite clausal complement of the host's verb and turns it into a proposition which is asserted. The host clause expresses the intention of the subject to complete a specific activity, in (98) that of eating a sandwich; the parasitic clause takes this activity and assigns it a past tense specification, showing how the intention of the subject to complete such activity has been fulfilled. The contrast in finiteness is also how the contrast in veridicality typical of these structures is realized.
If we take polarity focus to be the syntactic equivalent of stressing whether a given proposition is true or false –and consequently, whether it has taken place or not–, it makes perfect sense that a way of creating a PolFoc structure would be through marking the past tense specification of a predicate as being in focus. In syntactic environments where a strong antecedent is present, as is the case for simple preposing, it is then the past tense specification of the parasitic clause which conveys how the subject's wish has been fulfilled, and hence has a truth value equal to 1.

Note that this also explains the specific composition of the examples featuring in Leonetti and Escandel-Vidal's (2009) paper. As already pointed out in subsection IV.I, SP was first discussed in Leonetti and Escandel-Vidal's (2009) paper, where the two authors analyze the application of this phenomenon in Spanish. The authors correctly identify this type of fronting as having to do with polarity focus (although they incorrectly label it as an instance of verum focus, see IV.I), but in my opinion fail to explain how the narrow polarity focus reading arises through fronting. They also fail to notice a pattern with all the examples which license SP: they are all verb-final.

The analysis suggested here also offers a potential explanation for why languages which have the option of fronting a constituent to the left periphery to form an unmarked polarity question always front the finite verb to do so. Consider the case of Russian: Russian, like many other Slavic languages, resorts to the enclitic particle ли (= "li") to form a polarity question. Ли is enclitic and thus requires a syntactic host, which is provided by whatever constituent is in narrow focus, thereby triggering its fronting to a left-peripheral position. An example is (99), where it is the object which is in focus:

(99) Книгу **ли** он читает? (Russian)
The-book ***li*** *he* *reads?*
'Is it THE BOOK that he reads?'

If no argument or adjunct is in narrow focus, it will be the verb which fronts to a pre-ли position, as shown in (100):

(100) Читает **ли** он книгу? (Russian)
Reads ***li*** *he* *the-book*
'Is he reading the book?'

Structures like (100) are said to be 'neutral' polarity questions, and are generally interpreted as featuring the fronting of the verb because fronting any other constituent would result in such a constituent being interpreted as in narrow focus. The idea is then that a neutral polarity question is obtained in (100) because what fronts is the verb, which is not in narrow focus. Another possible explanation however opens up for (100): that the verb, and specifically, its [+finite] specification, may be the element which is in focus in (100). This would bring in line structures like (100) with that in (99): in both cases, the ли particle encliticizes onto a constituent which is in narrow focus. The reason why it is the [+finite] verb which is in focus in (100) would then be the same reason why it is the finite verb which is in focus in SP structures: it is the [+finite] tense specification which marks the event described in the sentence as having actually taken place/being taking place. Note that this is precisely what is being asked in (100): we want to know whether it is indeed the case that a book is being read.

VI. Explaining the Formal Properties of the Different Types of Topicalization

In section V, I have argued that an identical mechanism underlies SP, BNF, QF and CLLD: the need to remove from a main-stress position any material which is not to be assigned main stress. In section IV, however, I have also shown how CLLD differs from SP, BNF, QF in terms of the lack of reconstruction of the fronted constitituent, and with respect to the presence of clitic resumption. If SP, BNF, QF and CLLD are all different manifestations of the same underlying mechanism, then, why do they present different syntactic and semantic properties? Answering this question will be the goal of this section.

In subsections VI.I and VI.II, I will focus on accounting for differences with respect to reconstruction possibilities. In subsection VI.III, I will discuss the availability of a contrastive topic reading for the topicalized constituent. Subsection VI.IV will tackle the nature of the interaction of cliticless movement with respect to negation. Finally, in subsection VI.V, I will provide a tentative analysis of the non-local nature of CLLD.

VI.I Existing Literature on (the lack of) Clitic Resumption

As far as I am aware, this is the first paper which discusses BNF as a separate phenomenon, so no literature exists on why this type of fronting must *not* be accompanied by clitic resumption. No literature exists on why SP structures are cliticless either. What we *do* have abundant literature for, on the other hand, is why quantifiers may be fronted without being clitic-resumed. In this paper, we will focus on two such accounts, Cinque (1990) for Italian, and Arregi (2003) for Spanish.

Cinque (1990) is the first to tackle the question of why quantifiers can appear in a derived, left-peripheral position without being clitic-resumed. According to Cinque, the answer to the puzzle lies in the nature of the fronted element itself: being operators, quantifiers can exploit the same mechanism foci and *wh*-elements −which are also operators, and which are never clitic-resumed− resort to when fronted. When foci and *wh*-elements appear in the left periphery, Cinque suggests, it is because they have been moved from their base position and then connected to their trace through an operator-variable relation. According to Cinque, the mechanism responsible for the fronted position of clitic-resumed elements is completely different from that responsible for the fronting of foci and *wh*-elements: clitic-resumed constituents are generated directly in their left-peripheral position, and then simply linked through a mechanism of mere coreference to a co-indexed pronominal element (the clitic). When a quantifier appears in the left periphery without being clitic-resumed, Cinque argues, it is because it was *moved* to the left periphery, as opposed to when it *is* clitic-resumed, in which case it was simply base-generated directly in the left periphery.

To support his analysis, Cinque (1990) points out that if the QP contains a lexical restriction, and is thus, in a way, no longer "operator-like", clitic-resumption is again mandatory:

(101) Qualche sbaglio, ogni tanto, *(lo) fa anche Gianni (Italian)
Some ***mistake****, every now and then, *(it)* makes even Gianni*
(Cinque 1990: 74)

As we saw in subsection IV.I, however, an analysis in terms of operator movement cannot be correct: SP, which never features clitic resumption, can target lexical DPs. Clearly, then, the lack of clitic resumption is not determined by the operator-like nature of the fronted element.

Arregi (2003) provides a multi-faceted answer to the puzzle of clitic resumption. First, he suggests that CLLD is inherently contrastive, and thus that all constituents which are fronted by means of clitic resumption are interpreted as contrastive topics. In order for an element to be contrasted with some salient alternative, Arregi notes, such element needs to refer to an individual. This individuability requirement is precisely what rules out quantifiers from being targeted by CLLD: a quantifier like *something* cannot be used to refer to individual items, as can be seen in (102).

(102) A: ¿Quién quiere estos libros? (Spanish)
Who wants these books?
B: Juan quieres algunos libros/algunos/#algo
Juan wants some books/some/#something
(Arregi 2003:5)

Arregi presents the following argument as evidence of the validity of his analysis: whenever a quantifier is fronted, he claims, it is only possible to interpret it with respect to a contrast set. The example he uses is reported in (103):

(103) A: Juan no comió nada (Spanish)
Juan not ate nothing
'Juan ate nothing'
B: No, algo, Juan sì (*lo) comió, pero no mucho
*NO, something, Juan yes (*it(cl)) ate, but not much*
'You're wrong, he DID eat something, but not a lot'
(Arregi 2003:4)

Why is the fronted quantifier not clitic-resumed even when it is interpreted as contrastive, as we see in (103)? Arregi notes that constituents which are fronted without clitic resumption reconstruct for scope, but they do not reconstruct for

binding. Following Lechner (1998), he takes the lack of reconstruction for binding as evidence that these constituents only reconstruct semantically. In the case at hand, semantic reconstruction would arise whenever the fronted quantifier (a generalized quantifier, and hence of type (et)t) binds a variable of the same type as the fronted element, something which, according to Cresti (1995) and Rullmann (1995), has the effect of undoing −semantically speaking− the movement operation itself. Whenever the fronted constituent binds a variable of a lower type (such as e), on the other hand, the movement is semantically persistent and no reconstruction occurs. Arregi then speculates that the clitic itself is interpreted as an individuable variable (type e), which forces the lack of reconstruction.

Arregi's account of (the lack) of clitic resumption cannot work either, for several reasons. First of all, it is simply not true that cliticless instances of fronting do not reconstruct for binding: see in particular subsections IV.I and IV.II, where I showed that both BNF and SP reconstructs for binding as well as for scope. Moreover, as discussed in subsection IV.IV, the claim that CLLD is inherently contrastive cannot be correct: see in particular example (86), where it is clear that the fronted PP is not contrastive. From subsection IV.IV, we also know that CLLD, whose distinctive trait is precisely clitic resumption, may or may not reconstruct the dislocated element for interpretation. This shows that Arregi's (2003) analysis of clitics as elements which must be interpreted as individual variables cannot be correct.

VI.II Post-Cyclical Movement and Reconstruction

Recall from section IV that cliticless movement reconstructs for both binding and scope. The only exception to this generalization is represented by instances of existential QF occurring in negated sentences, where the lack of reconstruction is however forced by the PPI nature of the fronted quantifier.

Cliticless instances of movement thus exhibit the property of *total reconstruction* (Saito 1989): the movement operation has a visible effect on the surface structure, but syntactically as well as semantically, it is almost as if movement had never taken place.

I will use the total reconstruction nature of the three movement operations discussed in IV to argue for a post-cyclical analysis of their derivation. Specifically, following Sauerland & Elbourne (2002), I argue that movement of the fronted constituent in cliticless instances of movement takes place at phonological form. The fronting operation thus only has an effect on the prosodic make up of the clause, not on its syntax nor on its semantics. This explains why constituents which would normally be clitic-resumed are not: their movement does not take place in the syntax.

Other than the lack of reconstruction for both binding and scope, two main pieces of evidence support a post-cyclical analysis for BNF, QF and SP.

A first piece of evidence comes from the locality of the movement operation. The parasitic clause in SP environments can only ever feature *one* left periphery, hence SP fronting is always inherently local. A more interesting configuration is represented by BNF and QF environments, whose structure is not fixed the way SP is. For these two types of topicalization, we saw how the fronted constituent can only be moved up to the first available left periphery, and not any further. This supports an analysis of the movement operation as prosodically driven: under our prosodic trigger analysis, topicalization is a last resort operation. Movement is licit only insofar it serves to remove a non-focal constituent from a main stress position, hence any further movement should be disallowed.

A second piece of supporting evidence in favor of a PF analysis of cliticless movement comes from the heterogeneous nature of the target of topicalization. Again, the perfect example is represented by SP structures. As we saw in subsection IV.I, and then again in V.II, SP can front nominal constituents, APs, adverbials, and in fact even entire IPs, of which I repeat the relevant example below:

(55) Volevo mettermi a scrivere in spiaggia, e
I-wanted to-start-to-me(cl) to write in beach, and
a scrivere in spiaggia mi sono messa.
to write in beach to-me(cl) have started
'I wanted to start writing something while at the beach, and writing something while at the beach I have started'

An alternative analysis of (54) would be to suggest that the IP which gets fronted is endowed with a [+ topic] feature, which is probed by a corresponding head in the left periphery, which thus triggers its movement. It is however hard to see how a full IP can qualify as "topic" the same way *the book* does in (104):

(104) The book, I gave to Mary

VI.III Contrastivity and Surface Scope

In section IV, we saw how all three instances of cliticless movement – together with CLLD, which has it as one of its possible functions– correlate with the presence of a contrastive polarity focus. What we have not done, however, is focusing in detail on whether this contrast at the level of the polarity correlates with the presence of a contrastive topic structure.

Concerning QF, I follow Giurgea (2015) in assuming that the fronted quantifier is indeed interpreted as a contrastive topic, both in the negated and in the existential type of QF. In the negated kind, it is easy to see why the fronted QP is interpreted as being a contrastive topic. Consider example (69), which I repeat below: the fronted "tanto" is

interpreted in opposition to "poco", as uttered by A, and which had been associated with a positive polarity value by this speaker.

(69) A: Luisa ha mangiato poco (Italian)
Luisa has eaten little
B: Tanto non ha mangiato di certo
A-lot not has eaten for sure

The litotes-kind of BNF, of which the negated type of QF can be seen as a subtype, also features a topicalized element which is interpreted as contrastive. Consider in particular our prototypical BNF example in (58), which I repeat below. In (58), the fronted constituent, the adjective *ugly,* is interpreted as being contrasted with its opposite, namely the adjective *attractive*:

(58) A: Raj è attraente (Italian)
Raj is attractive
B: Brutto non è di certo
Ugly not he-is for sure
'Well, he is definitely not *ugly*

Again following Giurgea (2015), I take the fronted Q in existential QF constructions to also be interpreted as contrastive. Consider a typical existential QF structure like (105):

(105) Qualcuno deve aver visto
Someone s/he-must have seen

Giurgea provides a characterization of structures like (105) in terms of degree of confidence in the asserted content: according to the author, with (105) the speaker is essentially stating that she is only sure that *at least someone* was seen. It might also be the case that it was in fact quite a few people who were seen, but the speaker feels she is unable to assert any statements stronger than (105) with a sufficient degree of confidence. In structures like (105), the fronted existential is then evaluated in relation to other generalized quantifiers, and hence with respect to a scalar set such as (106):

(106) {λP ∃x P(x), λP MANYx P(x), λP MOSTx P(x), λP ∀xP(x), ...},

The contrastive topic interpretation of the fronted existential arises in that it is only this quantifier which the speaker feels should be associated with a positive polarity; all other quantifiers in the set should on the other hand be associated with a negative polarity value.

In [Article 2], I argue that topics which are to be interpreted as contrastive must scope over the material in focus. Note that the relevant dimension of 'scope' which determines whether a dislocated non-focal element can be contrastive or not is information-structural and not semantic: the topic provides the 'sorting key' in the computation of the CT (contrastive topic) value, in the sense of Büring (1997, 2003), where focus and topic alternative are nested (see Constant 2012): the scope of quantifiers and other scope-bearing elements like negation is another matter. We then see that the topic-focus scope is entirely dependent on the surface order of constituents, and not on their position at LF. Additional evidence in favor of such a conclusion is the fact that even instances of CLLD topics which do reconstruct in their base position for interpretation can give rise to a contrastive-pair structure. Consider in particular (107):

(107) Un bianchetto ce l'hanno tutti. Un righello, invece,
A Tipp-Ex there(cl) it(cl)-have everyone. A ruler, on-the-other-hand,
ce l'hanno solo quei tre studenti in prima fila.
there(cl) it(cl)-have only those three students in first row.
'Everyone has a Tipp-Ex, but only those three students sitting in the first row have a ruler'

Those instance of cliticless fronting where the fronted element is not interpreted as a contrastive topic are the non-litotes type of BNF, of which I repeat an example below, as well as all instances of SP.

(57) Trattarlo con un farmaco lo etichetta come
Treating-him(cl) with a prescription him(cl) labels as
malato anche se malato non è.
ill, even though ill not he-is.
'Treating him with drugs means labeling him as ill, when ill he is not'

Of course the fronted AP "ill" in (57) can in general be interpreted as in opposition to "healthy", but this contrast is hardly relevant in (57).

In [Article 2], I have argued that all is necessary in order for a topic to be contrastive is for it to scope over material in focus. This condition is achieved in both (57) as well as in all instances of SP. Why are those not contrastive, then? The requirement that contrastive topics should scope over the material in focus is to be interpreted as a minimal requirement, and not as a condition which, if met, automatically triggers the contrastive reading of the fronted element. In some environments, a contrastive reading of the fronted topic is simply not warranted. This is particularly evident in SP constructions. Remember that the parasitic clause in SP constructions is a mere copy

of part of its syntactic host, and that all it does is to to render this copied part finite and veridical. The fronted element is then not to be interpreted in opposition to some other entity or property, as the purpose of the overall structure is not to contrast entities or properties with respect to their associated polarity value. An identical explanation holds for (57), which has many elements in common with SP structures. (57) takes a constituent from its antecedent and assigns it a polarity value which is different from the one suggested in the antecedent. The purpose of this latter clause, then, is not to realize a contrastive-pair structure where "ill" is contrasted with other properties, but merely to suggest a different polarity reading to associate with the fronted constituent.

VI.IV The Interaction with Negation

As noted already in Cinque (1990), only weak quantifiers such as *someone/somebody* can undergo QF in positive polarity structures. Universal quantifiers such as "tutto" (all), for instance, can only be fronted in negative polarity sentences. This contrast is exemplified in (108):

(108)	*Tutto	ha	mangiato		(Italian)
	**Everything*	*he-has*	*eaten*		
(109)	Tutto	non	ha	mangiato	
	Everything	*not*	*he-has*	*eaten*	

That negation would repair the grammaticality of the fronting operation is surprising given the fact that, in general, negation either blocks or degrades the grammaticality of fronting operations, something which is referred to as "inner island" (Ross 1984) effect. If anything, then, we would expect the negative polarity structure in (109) to be the one which is ungrammatical, not the the opposite.

Cinque (1990) investigates the repairing effect of negation in combination with fronted QPs with a lexical restriction, such as the one in (101), which I repeat below. Expressions of this sort, Cinque (1990) notes, are generally banned from fronting without being clitic-resumed:

(101)	Qualche	sbaglio,	ogni tanto,	*(lo)	fa	anche	Gianni
	Some	*mistake,*	*(every now and then),*	**(it(cl))*	*makes*	*even*	*Gianni*

If the sentential complement from which the lexical QP is extracted is negated, however, the quantifier can grammatically front whithout being clitic-resumed:

(110)	Pochi	soldi	di	sicuro	*(non)	guadagna
	Little	*money*	*for*	*sure*	*(*not)*	*he-earns*
	'He definitely does not earn little'					

(Cinque 1990: 83)

To account for the grammaticality of (110), Cinque (1990) suggests that a process of *amalgamation* takes place: the fronted quantified phrase amalgamates with the negation, a process by virtue of which the QP gets endowed with the same operator feature negation is endowed with. We already saw in subsection VI.I how Cinque takes the operator nature of bare quantifiers to be what allows these elements to front without being clitic-resumed. In Cinque's system, the fact that a structure like (110) can grammatically lack a clitic then follows.

Already in subsection VI.I, however, we saw how an operator-movement analysis of the lack of clitic resumption in QF structures will not work, as SP grammatically fronts constituents which are not operators without any accompanying clitic resumption. Cinque's account of the repairing effect of negation will thus not equally extend to our analysis. Rather, I would like to suggest, building on notions first presented in Büring's (1997, 1999), that instances of cliticless fronting occurring in positive environments are not strictly ungrammatical, but are rather semantically anomalous, in that they violate a conventional implicature. I then argue that the repairing effect of negation is semantic in nature and is due to the contrastive topic nature of the fronted element.
Consider again our prototypical case of BNF, which I repeat below:

(58) A: Raj è attraente (Italian)
Raj *is* *attractive*
B: Brutto non è di certo
Ugly *not* *he-is* *for* *sure*
'Well, he is definitely not *ugly*'

Example (58) operates on the entailment scale represented in (111) below. In (111), the symbol "✓" symbolizes positive polarity, whereas the symbol "×" symbolizes negative polarity. With his statement, A asserts that the property of being attractive holds of Raj, which entails that neither the property of being ugly, nor the property of being neither attractive nor ugly, holds of him. Speaker B replies by asserting that the property of being ugly does *not* hold of Raj, thus implying that it is either the property of being attractive, or that of being neither attractive nor ugly, which does:

(111)

	Attractive	Neither Attractive Nor Ugly	Ugly
Speaker A	✓(asserted)	× (entailed)	× (entailed)
Speaker B	(left open)	(left open)	× (asserted)

B's assertion thus resolves the question of whether Raj is ugly (by stating that he is not), but not the question of whether Raj is attractive or simply average-looking. The

existence of a question which has yet to be resolved once B has uttered her piece is how the contrastive topic semantics of the fronted AP is maintained. From Büring (1997, 1999, 2003), we know that, for a contrastive topic to be licit, at least one of the questions in the topic value must remain open after the sentence featuring the topic has been uttered. This is because contrastive topics must not be interpreted exhaustively; this is an implicature triggered by the CT. Now, if BNF structures or QF structures with universals were *not* to be negated, this generalization concerning the felicitous usage of contrastive topics would not be met, and the implicature would be violated. Consider (112):

(112) *Brutto è (Italian)
**Ugly he-is*

The statement in (112) asserts that the property of being ugly holds of Raj, and hence entails that neither the property of being attractive, nor that of being neither attractive nor ugly, holds of him. This resolves all questions in the entailment scale, violating the condition on the usage of contrastive topics put forth by Büring (1999).
What can salvage the structure in (112) is clitic resumption, as shown in (113):

(113) Brutto lo è (Italian)
Ugly it(cl) he-is

The insertion of a clitic salvages the structure in (113) because it makes it possible for the fronted adjective to be contrasted with other APs outside of the entailment scale detailed in (111). A possible contrastive-pair structure for (113) is for instance (114):

(114) Brutto lo è, ma simpatico non lo è (Italian)
Ugly it(cl) he-is, but nice not it(cl) he-is

Note that it would not be possible for the cliticless fronted adjective in (58) to be contrasted with "smart", as shown in (115):

(115) A: E' intelligente
He-is smart
B: #Brutto non è di certo
#Ugly not he-is for sure
#'Well, he is definitely not *ugly*'

As appealing as this analysis may be, note that it does not cover all cases of cliticless fronting operations which are salvaged by negation. It is for instance still unclear why quantifiers like "much" cannot be fronted without being negated. Consider a structure like that in (116) below:

(116) *Molto ha detto, ma non ha detto tutto (Italian)
Much s/he-has said, but not s/he-has said everything

What causes the anomaly of (116) is evidently the fact that *much* has been fronted within a sentence which has a positive polarity value. If extraction occurs from inside of a negated sentence, as illustrated in (117), the fronting is on the other hand grammatical:

(117) Molto non ha detto, ma almeno (Italian)
Much not s/he-has said, but at-least
qualcosa ha detto
something s/he-has said

The ungrammaticality of (116) does not however follow from Büring's generalization: the statement "s/he said much" leaves open the possibility that "s/he" might have said everything, so it does not resolve the question of whether the universal quantifier should be assigned a negative or a positive polarity. The question why (115) is infelicitous must be left for future research.

VI.V Locality and the Nature of CLLD

In subsections IV.IV and IV.V, we saw how CLLD is the only type of topicalization which admits the non-local movement of a fronted constituent. The locality of the fronting operation was one of the arguments used in subsection VI.II to argue for a post-cyclical analysis of cliticless instances of movement. In that subsection, I argued in particular that the local nature of the movement operation is evidence of its last-resort nature: fronting takes place uniquely to ensure that the surface structure is prosodically aligned. Given that these are last-resort types of operations, they move the fronted constituent only as far as it takes for it to be out of a main stress position.
This is clearly not the case for CLLD, as the fronted clitic-resumed topic can land in a position other than the first one immediately outside of a main stress position. An example is provided in (118), where we see that the fronted PP has moved non-locally up to the matrix left periphery:

(118) A Mario, credo che ~~a Mario~~ Lucia (Italian)
To Mario, I-believe that ~~to Mario~~ Lucia
gli abbia dato IL LIBRO ~~a Mario~~
to-him(cl) has given THE BOOK ~~to Mario~~

The DP "il libro" sits at the right edge of the innermost intonational phrase, hence it is assigned main stress and can be interpreted as being in (narrow) focus. All it takes for the topical PP "a Mario" to escape a main-stress position is to move to the intermediate left periphery, as shown in (119):

(119)	Credo	che	a	Mario	Lucia	gli
	I-believe	*that*	*to*	*Mario*	*Lucia*	*to-him(cl)*
	abbia	dato	IL	LIBRO	~~a Mario~~[70]	
	has	*given*	*THE*	*BOOK*	~~*to Mario*~~	

Yet we see the fronted phrase is allowed an additional step in the derivation, resulting in (118).

Does the non-local nature of CLLD mean this type of operation is not prosodically triggered? I do not believe this is the case, as the prosodic rule which requires focused constituents to be assigned main stress is inescapable, in the sense that it applies regardless of how the offending constituent is removed from the position where main stress is assigned. In a structure like (120) below, then, the fronted, clitic-resumed AP must move out of its argumental position minimally because it would otherwise be incorrectly assigned main stress:

(120)	Brutto	non	lo	è	~~brutto~~	(Italian)
	Ugly	*non*	*it(cl)*	*he-is*	~~*ugly*~~	

This brings the CLLD structure in (120) in line with its BNF counterpart (121): the trigger of movement for both structures is minimally the need to remove the non-focal AP from a focal position.

(121)	Brutto	non	è	~~brutto~~	(Italian)
	Ugly	*not*	*he-is*	~~*ugly*~~	

In [Article 2], I argue for a multi-trigger analysis of CLLD: I suggest that different types of trigger may be underlying this type of fronting operation, some of which presumably operate simultaneously. One such trigger is prosody: the clitic-resumed topic, a non-focal element, must minimally move in order to evacuate a main stress position. Another such trigger, I argue, is purely semantic in nature: the topic must evacuate a domain marked as focal in order not to be interpreted as part of the set of alternatives which are calculated for such a focal domain. Note that 'focus' here is to be interpreted semantically rather than simply prosodically: with 'focus', I am here referring to that portion of the sentence whose interpretation is dependent on a set of alternatives, as in standard Roothian focus semantics (Rooth 1985, 1992). A focus domain, as defined semantically, can be quite extensive: in the case of a broad focus environment, for instance, alternatives are calculated for the entire sentence. On the assumption that a CLLD topic must evacuate the focus domain whose associated set of alternatives the topic must not be part of, then, the non-local nature of CLLD is

[70] Note that, if it is only the direct object which is in focus, short A-scrambling of the PP to a position immediately preceding the focused object is also possible.

accounted for. The clitic-resumed topic will move as far as it is necessary for it to sit outside of such a focus domain.

What remains to be established is why CLLD can be triggered by different, distinct mechanisms. One possible solution is to postulate that the primary trigger of CLLD is always semantic, and that the need for the topicalized element to also evacuate a main stress position is simply an independent requirement which applies on top of such a semantic trigger. As I remarked above, the need for non-focal elements to evacuate a main-stress position is an inescapable prosodic requirement, as it is a function of the stress-rigid nature of the languages where CLLD applies. It thus makes sense that all types of syntactic reordering operations should be subject to such a constraint, regardless of their specific nature and of their formal properties.

Under this line of analysis, a clitic-resumed topic would then always move primarily in order to escape a semantic focus domain, even in those istances of CLLD where the movement is local and hence where prosodic and semantic factors cannot be told apart, as in (120).

Note that the characterization of CLLD as a type of fronting operation which has a semantic trigger is compatible with the analysis of CLLD I have provided in IV.IV. In IV.IV, we saw how CLLD is the only type of topicalization out of the four reviewed in this paper which never reconstructs for binding, and may or may not reconstruct for scope. Unlike other types of topicalization, then, CLLD takes place already at the syntax; it thus makes sense this type of topicalization may have an effect on the semantics of the construction where this applies.

VII. Conclusion

In this article, several different strategies to realize polarity focus were discussed. We saw how languages may mark the presence of a narrow focus on the polarity of a proposition by inserting specific polarity adverbials, as is the case in Dutch and English. Languages may also insert specific polarity particles, as we see in Spanish and Italian. In languages like Norwegian, stress shift may be used to mark polarity focus. Finally, in Romance languages, several different types of topicalization may be used to achieve this goal.

Not all types of polarity focus strategies are identical with respect to the type of polarity focus they can associate with: I showed in particular how particle strategies correlate with the presence of verum focus, whereas polarity fronting strategies primarily associated with the presence of a contrastive polarity focus. Stress shift strategies can then be associated both with contrastive PolFoc and with verum focus.

I have argued that polarity topicalization strategies arise as an attempt to repair a prosodically misaligned structure: to obtain the correct polarity focus interpretation, main stress must be assigned to the finite verb. Any constituent intervening between the finite verb and the sentence-final position, where main stress is by default assigned

in all the languages reviewed in this paper, must therefore evacuate this position at least in Romance languages. This is because Romance languages are stress-rigid, and therefore deviations from prosodically right-aligned structures are only tolerated in pragmatically marked contexts. Particle strategies, which encode verum focus, presumably perform the exact opposite function: a particle which is assigned main stress is merged in a left-peripheral position precisely to generate a prosodically marked structure, so as to match the markedness on the pragmatic dimension. In this respect, it is telling that those instances of polarity focus which license a prosodically non-standard structure are also the same types of focus which license overt focalization even in stress-rigid languages like Italian and Spanish.

Polarity topicalization can take many shapes. One of the main differences characterizing the various types of fronting operations concerns in particular the presence versus absence of clitic resumption. I have argued that the absence of clitic resumption correlates with the reconstruction of the fronted element, for both binding and scope. I have used the total reconstruction nature of cliticless instances of topicalization as an argument for their post-cyclical nature: whenever the fronted constituent is not clitic-resumed, its movement takes place at PF. As the fronting takes place at PF, the movement has no effect on the syntax, hence the lack of clitic resumption.

Cliticless instances of polarity topicalization require a negative polarity structure to be grammatical. I have argued that this is a side effect of the fronted element being interpreted as a contrastive topic. Specifically, following Büring (1999, 2003) and Giurgea (2015), I assume that contrastive topics must always be interpreted as non-exhaustive. I have shown how the absence of clitic resumption in PolFoc environments forces the identification of the contrast set associated with the contrastive topic with its entailment scale. This results in the infelicitousness of cliticless fronting in positive polarity environments: the contrastive statement leaves none of the questions in the topic value of the CT unresolved, thus violating the required non-exhaustiveness of contrastive topics.

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