# The Italian left periphery: A view from locality

Klaus Abels

University College London

k.abels@ucl.ac.uk

18th January 2011

**Abstract**

In this paper I discuss the interaction of locality phenomena with the left periphery in Italian as elaborated in Rizzi, 1997, 2001*a*, 2004*a*. It turns out that long distance crossing possibilities fully predict the local orderings entailed by Rizzi's left-peripheral template. In fact, descriptive (in terms of topic positions) and explanatory gains (the position and behavior of topics and of Rizzi's 2001 $\text{Int}^0$) can be made if local ordering is reduced to locality. This suggests that the left-peripheral template should be derived from some appropriate theory of locality and should not be taken as a theoretical primitive.

Keywords: cartography, locality, relativized minimality, syntactic feature structure, left periphery

# The Italian left periphery: A view from locality

**Klaus Abels**

## Introduction

Syntactic constraints have the effect of filtering out unwanted structures or derivations. When multiple constraints apply to a given structure or derivation, it must satisfy all of them to count as grammatical. Accurately describing the properties of these constraints constitutes one of the goals of linguistic theory. This paper starts with a remark on the relation between two such constraints: locality theory and cartographic templates. Both have an impact on the shape of the clausal left periphery and both need to be taken into account when constructing theories of the clausal left periphery. Specifically, to determine the nature of locality constraints, we need to be able to observe them independently of templatic effects; to determine the nature of templatic constraints, we need to be able to observe them independently of locality effects. Locality is easy to disentangle from the template. Traditional investigations of locality are already free from templatic contamination, since multiple moving items land in the left peripheries of different clauses. The left peripheral template is much harder to observe without contaminating locality effects because the left periphery is largely occupied by elements that move there. We have potential evidence for a genuine templatic effect only if a structure obeys independently observed locality effects and is still ungrammatical. In other words, evidence for the template must come from filtering effects not attributable to locality.

The second and third sections of the paper study the ramifications of this single methodological observation. The empirical domain is the structure of the clausal left periphery in Italian as developed in Rizzi, 1997, 2001*a*, 2004*a*. I will take more or less for granted that the set of syntactic categories employed by Rizzi is complete, that

Rizzi's description of the possible and impossible orders is correct, and that the description of the locality-behavior of the various operations involved given in Cinque, 1990; Rizzi, 1980, 2004*a* is essentially correct. On these assumptions it turns out that Rizzi's (1997; 2001; 2004) left peripheral template does not, as a matter of empirical fact, have any filtering effect. The elements that reach the left periphery through movement behave exactly as though their behavior was dictated by locality alone without any templatic structure imposing further constraints. The left-peripheral template, in other words, cannot be detected empirically because, if it exists, its effects are masked completely by locality effects. It seems like a natural move then to give up the template for the left periphery as a theoretical construct.

None of the empirical assumptions mentioned in the previous paragraph are innocent by any means. In particular, various scholars have argued that Rizzi's notion of topic is too coarse (see Belletti, 2004; Beninca' and Poletto, 2004; Bianchi and Frascarelli, 2009; Frascarelli and Hinterhölzl, 2007; Samek-Lodovici, 2006, 2008, for relevant discussion). I set these objections aside and adopt Rizzi's description of the categories involved and of the locality behavior of the various operations here for two reasons. The first is that this allows me to demonstrate the power of the methodological point made in the first section. The second reason is that the the locality behavior of the subtypes of topics posited by the authors just mentioned has not been studied in sufficient detail to allow the methodological principle to be applied. Preliminary results suggest that the picture painted here is confirmed nicely if more fine-grained distinctions between topics are made. The same comments apply, mutatis mutandis, for the finer-grained typology of relative clauses discussed in Bianchi, 2004.

Section four of the paper contains a discussion of what a theory of locality that yields the desired result might actually look like.

The starting point for the present investigation is Rizzi, 2004*a*, which presents a considerable refinement and elaboration of two theoretical tools, locality and the templatic structure of the left periphery, on both of which Rizzi had previously published seminal

work (Rizzi, 1990, 1997). Rizzi, 2004*a* introduces modifications and refinements of the original proposals in both areas: In the domain of locality Rizzi refines the classification of phrasal types underlying Rizzi, 1990; thus, instead of the monolothic $\overline{\text{A}}$-type of Rizzi, 1990, Rizzi, 2004*a* posits three separate categories: modifiers, quantificational elements, and topics. The class of modifiers contains all adverbs, possibly even all adverbials no matter what their syntactic category may be. The class of quantificational elements encompasses various syntactic operators (*wh*, focus, negation, and quantificational adverbs – the latter two are simultaneously also members of the modifier class). Topic (in Italian) picks out phrases that have undergone clitic left dislocation (CLLD). I discuss and revise this classification below in section 4.

The templatic structure of the left periphery i.e., the hierarchy of functional projections, is also refined in Rizzi, 2004*a*. The second and third section of this paper are concerned with Rizzi's claim in this area. The following provides a complete statement of Rizzi's 2004 template. As in Rizzi, 1997, the topmost head, Force, hosts the complementizer 'che' – *that* in the head position and relative operators in the specifier position, while the lowest head, Fin(iteness), hosts the non-finite complementizer 'di' – *of*. Sandwiched between these are positions for unstressed fronted modifiers (Mod, a position introduced in Rizzi, 2004*a*), a position for fronted foci and fronted *wh*-phrases (Foc), the position of the interrogative complementizer 'se' – *if* and a few exceptional *wh*-phrases (Int – on which see Rizzi, 2001*a*), and a number of topic positions (Top). (The asterisk on Top and Mod indicates that these positions are recursive.)

(1) Force Top* Int Top* Foc Mod* Top* Fin IP

# 1 Locality proposes – the template disposes.

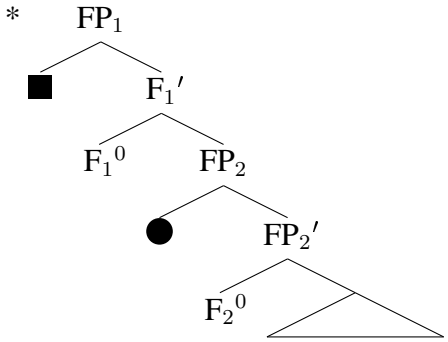
Suppose that in a particular domain two kinds of elements can appear, squares (■) and circles (●) and that in this domain squares never precede circles, that is, suppose that descriptively the following holds.

(2) * ■ ● . . .

Assuming that ■ and ● are both moved to their position, there are (at least) two factors that could give rise to the generalization in (2). On the one hand there could be a templatic prohibition against having ■ locally precede ●. Such a prohibition would standardly be implemented as a ban against ■'s host $F_1^0$ taking ●'s host $FP_2$ as its complement. Alternatively, the ban might be attributable to a locality ban against ■ crossing ●. Both of these options are schematized below.

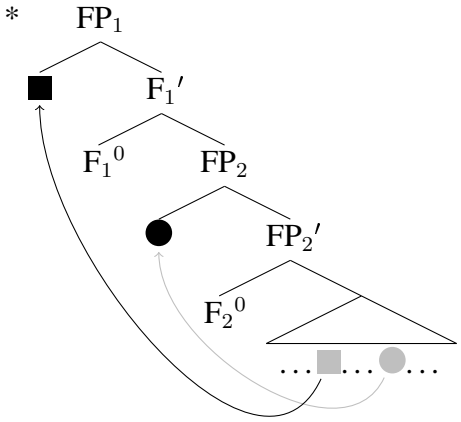
(3) Violation of the template:

$F_1$ does not select $FP_2$.




Violation of locality:

■ cannot cross ●




In other words, in any situation where both ■ and ● move to the same domain, locality factors and templatic factors are confounded. To unconfound them, ■ and ● simply have to be placed in different templatic domains, i.e. in different CPs. This unconfounding procedure is based on two assumptions: (i) templates impose local rather than global ordering constraints and (ii) the clause (CP) is the local domain to which templates apply. Both assumptions are standard.

First, it is a common assumption in current syntactic research that templates regulate local structure building but do not constrain global structure (see Cinque, 1999; Grimshaw, 2000, 2005 among many others). I.e., for (2) to count as a templatic effect, the ban against ■ preceding ● holds if ■ and ● appear in the same local domain and does not hold when ■ and ● appear in different domains, (4).

(4) ✓■ ...■... [$_{\text{domain boundary}}$ ... ●... ●... ]

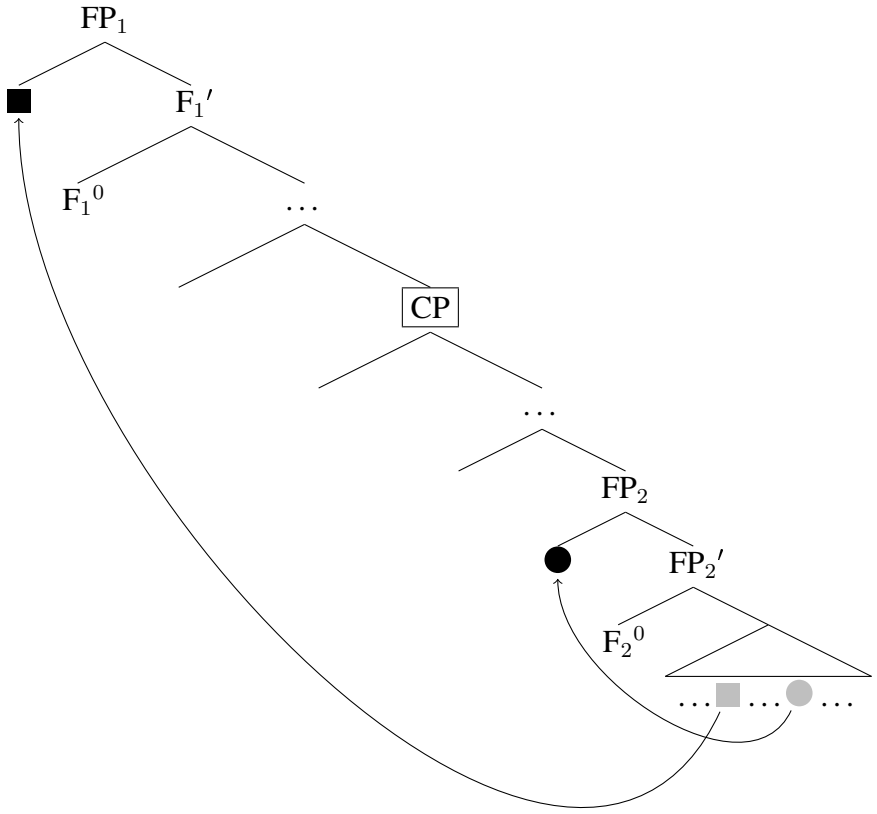
Factually, this state of affairs is the norm rather than the exception. Thus, while a focus cannot precede a relative pronoun within the left periphery of the same clause, a focus in a higher clause is compatible with a relative operator in a lower clause, etc.

Second, it is an equally common assumption that the templatic domain is the extended projection of the relevant lexical head. The CP is therefore usually considered the verb-related templatic domain.

Assuming then that empirically we are faced with a local ordering effect (i.e., both (2) and (4) hold), templatic and locality factors can be unconfounded by the following simple experiment: If ■ can cross ● (both originating in the same domain) without violating locality, then the configuration in (5) will be grammatical. On the other hand if ■ cannot cross ● without violating locality, the configuration in (5) will be unacceptable.

This experiment unconfounds templatic factors and locality factors for the following reason. If (5) is acceptable, then the locality explanation in (3) is not available and the templatic explanation might be indicated. On the other hand, if (5) is unacceptable, then the locality explanation for (2) is viable, and hence the templatic explanation is not necessary.

(5)




Observe the asymmetry between the two approaches to the effect in (2). The locality approach is the stronger approach, as it generalizes from (2) to (5). The templatic explanation on the other hand is strictly local and makes no global predictions.[1] Because of the asymmetry between the two types of explanation sketched in (3), a templatic explanation will need to be invoked only in cases where a locality explanation is unavailable. The slogan that locality proposes and the template disposes is to be understood in this way. The template is an additional strictly local filter, necessary only to capture constraints not already captured by locality. In the following two sections of the paper I will go through Rizzi's template for the left periphery and show that, as far as the moving elements are concerned, it adds no further restrictiveness.

Before engaging with the empirical facts, let us sum up by considering the space of logical possibilities.

(6)

| | ■ ≫ ● locally? | ■ crosses ● non-locally, (5)? | Argument for template? |
|---|---|---|---|
| (I) | * | * | no |
| (II) | * | ✓ | yes |
| (III) | ✓ | * | no |
| (IV) | ✓ | ✓ | no |

Possibilities (III) and (IV) in (6) are inherently uninformative regarding the template: The function of the template is to restrict local orders.[2] Possibilities (I) and (II) in (6) instantiate restriction (2). Because of the locality/template confound, however, only the state of affairs in (II) provides an argument for a templatic explanation while the state of affairs in (I) is properly explained by locality alone.

# 2 Relatives, foci, topics and modifiers according to Rizzi

In this section we will look at symmetries and asymmetries in the ordering of elements in the left periphery as described in Rizzi, 1997, 2004*a*. The discussion of *wh*-related elements will be postponed for the most part until the next section.

The discussion is structured as follows. Each element with a unique position in the template (i.e., all but topics) is discussed in its own subsection starting at the top with relative operators in SpecForce and working out way down from there.

## 2.1 The position of relative operators

Since relative operators occupy the highest specifier position in Rizzi's template, they asymmetrically precede all other material in the left periphery.

In particular, relative operators may locally precede topics.[3] This is shown in (7).

(7) Rel ≫ Top

a. Un uomo a cui, il premio Nobel, lo daranno senz'altro
"A man to whom, the Nobel Prize, they will give it undoubtedly"

Rizzi, 1997, p. 289 ex. 12a

b. *Un uomo, il premio Nobel, a cui lo daranno senz'altro
"A man, the Nobel Prize, to whom they will give it undoubtedly"
Rizzi, 1997, p. 289 ex. 12b

The non-local interactions between relative operators and topics are discussed for example in Cinque, 1990, who claims that relativization can cross topics, (8a). Topicalization by contrast is strong-island sensitive and can therefore not escape from a relative clause, (8b).[4] (Here and throughout I use the terms strong and weak island as synonymous with absolute and selective islands (see Cinque, 1990; Szabolcsi, 2006; Szabolcsi and Dikken, 2003, a.o. for discussion). The strength of the island in this usage does not necessarily correlate with the perceived strength of the violation.)

(8) Rel ≫ Top

a. Questo é l'uomo, a cui tu pensi che, il premio Nobel, lo daranno senz'altro.
This is the man to whom you think that the Nobel prize it they will give undoubtedly.

b. *A Gianni, ti parleró solo delle persone che senz'altro gli daranno il premio Nobel.
to Gianni, I will talk to you only about people who undoubtedly will give the Nobel Prize.

Example (8) shows that the templatic explanation for the asymmetry in (7) is redundant with the locality explanation independently needed for (8).

The next set of examples shows that relative operators asymmetrically precede foci in the local condition.

(9) Rel ≫ Foc

a. Ecco un uomo a cui IL PREMIO NOBEL dovrebbero dare (non il premio X)
"Here is a man to whom THE NOBEL PRIZE they should give (not prize X)."
Rizzi, 1997, p. 298 ex. 44a

b. *Ecco un uomo IL PREMIO NOBEL a cui dovrebbero dare (non il premio X).
"Here is a man THE NOBEL PRIZE to whom they should give (not prize X)."

Rizzi, 1997, p. 298 ex. 44b

This asymmetry in the local condition is matched by an asymmetry in the long-distance condition, (10).

(10) Rel ≫ Foc

a. ?Tuo fratello, a cui crediamo che MARIA abbiano presentato
your brother, to whom (we) believe that MARY (they) have introduced
(non Francesca)
(not Francesca)
(Vieri Samek-Lodovici, p.c.)

b. *MARIA abbiamo incontrato tuo fratello, a cui avevano
MARY, (we) have met your brother, to whom (they) had
presentato
introduced

Example (10a) is as expected under Cinque's (1990) characterization of relativization as sensitive to strong but not weak islands. Given this characterization, we correctly expect relative operators to move past fronted foci. Similarly, in his classic discussion of subjacency in Italian, Rizzi, 1980 states that relativization can escape (single) *wh*-islands, (11). Since fronted foci tend to create the same type of weak islands produced by *wh*-operators, (10a) is again as expected. In contrast to relative operators foci are both strong- and weak-island sensitive. Relative clauses create strong islands; hence, (10b) is sharply ungrammatical.

(11) Tuo fratello, a cui mi domando che storie abbiano raccontato, era molto preoccupato.
Your brother, to whom I wonder which stories they told, was very troubled.
Rizzi, 1980, p. 50 ex. 6b

We see again that a templatic explanation for the asymmetry in (9) is redundant with the locality explanation independently needed for the asymmetry in (10).

Finally, relative operators precede non-topical, non-focal, fronted modifiers according to the template in (1). This is illustrated below.

(12) Rel ≫ Mod

a. Questo è il libro che, ieri, hanno portato a Gianni.
"This is the book that, yesterday, they brought to Gianni"
Rizzi, 2004*a*, p. 241 ex. 56b

b. *Questo è il libro, ieri, che hanno portato a Gianni.

That relativization can cross fronted neutral (non-topical, non-focal) modifiers in the long distance case as well is shown in (13). The reverse case, a structure where a neutral modifier is fronted across a relative operator is ungrammatical. Indeed, Beninca' and Poletto, 2004; Rizzi, 2004*a* claim that modifiers in this use never leave the clause whose predicate they modify: all types of CPs are islands for neutrally fronted modifiers. (See the next subsection for further discussion.)

(13) Rel ≫ Mod

Questo è l'uomo a cui hai detto che domani io dovrei parlare
This is the man to whom (you) have said that tomorrow I should speak

(Vieri Samek-Lodovici, p.c.)

This subsection has shown that, once templatic effects are disentangled from locality effects, the positioning of the relative operator follows entirely from locality; there is nothing left for the template to do.

## 2.2 The position of focus

In this subsection, the result reached above for relative operators will be replicated for foci: Once locality effects are taken into account, all ungrammatical examples are accounted for and we are left with no evidence for the template as an additional filter.

We have already seen how the long distance condition for relative operators and foci predicts their relative local ordering. We now turn to the ordering of foci with respect to topics and neutrally fronted modifiers.

The examples in (14), based on Rizzi, 1997, illustrate that topics may either precede

or follow fronted foci.

(14) Top ≫≪ Foc

a. Credo che a Gianni QUESTO gli dovremmo dire.
"I believe that to Gianni THIS we should say."
(Based on Rizzi (1997, p. 295 ex. 37a))

b. Credo che QUESTO, a Gianni, gli dovremmo dire.
"I believe that THIS, to Gianni, we should say."
(Based on Rizzi (1997, p. 298 ex. 37b))[5]

It will not come as a surprise that focus fronting and topicalization do not interact for purposes of locality in the long-distance condition either. As already mentioned, Cinque, 1990 claims that topicalization is strong- but not weak-island sensitive. Topics themselves do not create islands for foci. The judgments in (15) confirm this characterization.

(15) a. A Gianni, credo che QUESTO gli dovremmo dire.
"To Gianni, I blieve that THIS we should say."
(Vieri Samek-Lodovici, p.c.)

b. QUESTO credo che, a Gianni, gli dovremmo dire.
"THIS I believe that, to Gianni, we should say."
(Vieri Samek-Lodovici, p.c.)

Again, the long-distance condition fully predicts local ordering without the need to invoke an additional template.

The interaction of neutral modifier fronting and focalization gives the following results. In the local condition, neutral fronted modifiers may follow foci but must not precede them. When a modifier precedes a focus, the modifier is interpreted and pronounced as a contrastive topic (Rizzi, 2004*a*, see also the discussion of adverbs in Benincа' and Poletto (2004, p. 55, p. 72 fn. 3)):

(16) Foc≫Mod

a. QUESTA PROPOSTA, rapidamente, tutti i deputati hanno accettato.
"THIS PROPSAL, rapidly, all the representatives have accepted."
(Vieri Samek-Lodovici, p.c.)

b. Rapidamente, QUESTA PROPOSTA tutti i deputati hanno accettato.
Rapidly, THIS PROPOSAL all the representatives have accepted.

✓with *rapidamente* a contrastive topic
* with *rapidamente* an unstressed modifier (Vieri Samek-Lodovici, p.c.)

In the long-distance condition, we find that foci may cross fronted neutral modifiers, (17), while fronted neutral modifiers may not cross foci (no example given here). The facts therefore show, once again, that the relative orders in the local and in the long-distance condition are the same and that the local template doesn't impose restrictions not already present in the long-distance condition.

(17) Foc≫Mod

QUESTA PROPOSTA credo che, rapidamente, tutti i deputati hanno accettato.
"THIS PROPOSAL I believe that, quickly, all the rerpresentatives have accepted."
(Vieri Samek-Lodovici, p.c.)

As an aside note that the case of modifier movement is different from the other types of movement discussed here in that the others allow unbounded movement in principle. Thus, in the pairwise comparisons any locality effect is due to the intervention, specifically, of the second member of the pair. This is not the case for neutrally fronted modifiers. As mentioned above, Rizzi (2004) characterizes modifier movement as clause bound. For example in (18a), 'rapidamente' – *rapidly* cannot be moved from the clause it modifies unless it is focal or topical (see also Beninca' and Poletto (2004, p. 55 ex. 6, p. 72 fn. 3 )), although there is no obvious intervener here at all. A context that makes the modifier topical is provided in (18b). It is therefore not the intervention of a focus, specifically, that constrains modifier movement. The striking descriptive fact remains that the local ordering possibilities are no more restricted than the long-distance ones.[6]

(18) a. Rapidamente, (*Gianni dice che) hanno risolto il problema.
Rapidly, (Gianni says that) the solved the problem. (Rizzi, 2004*a*, p. 249, fn. 10, ex. i-a)

b. A: C'e quelche problema che hanno risolto rapidamente?

Is there a problem that they solved rapidly?

B: Rapidamente, Gianni dice che hanno risolto il primo problema, ma non gli altri.
Rapidly, Gianny says that they have risolved the first problem, but not the others. (Rizzi, 2004*a*, p. 249 fn. 10, ex. ii)

To summarize, once the effects of locality disentangled from the effects of the template, we find that the positioning of foci with respect to relative operators, topics, and neutrally fronted modifiers follows directly from locality interactions. There is no evidence in this domain that would motivate the existence of a template.

## 2.3 The position of Mod

The preceding subsections have already shown that the positioning of neutrally fronted modifiers with respect to relative operators and foci is identical in the local and the long-distance conditions. Locality theory should therefore explain these facts without having to invoke additional templatic assumptions. Concerning the relative position of modifiers and topics, we observe that the template makes no restrictive claim at all, since it allows them in either order.

(19) Top $\gg\ll$ Mod

a. Rapidamente, i libri, li hanno rimessi a posto
"Quickly, the books, they put them to place"
Rizzi, 2004*a*, p. 239 ex. 49

b. I libri, rapidamente li hanno rimessi a posto
"The books, quickly, they put them to place"
(Vieri Samek-Lodovici, p.c.)

Example (19b) suggests that topics may cross neutrally fronted modifiers, a supposition supported by the acceptable status of the long-distance case in (20). Example (19a) suggests that neutrally fronted modifiers may cross topics. This supposition must be true to allow (19a) but cannot be independently verified in the long-distance condition because of the general clause-bounded nature of modifier movement discussed above.

(20) I libri, credo che, rapidamente, li hanno rimessi a posto.
The books, I believe that, quickly, they put them to place
(Vieri Samek-Lodovici, p.c.)

As with relative operators and foci, the template adds no restrictions on modifier placement not independently needed to account for the non-local cases.

## 2.4 Interim conclusions

So far we have considered the pairwise interactions between relative operators, topics, foci, and fronted modifiers. When the possible and impossible orders in the local and the long-distance conditions are compared, we see that there is no evidence for a templatic left-peripheral structure. It seems natural at this point to ask whether the template has *any* effect on the ordering of the elements under consideration that does not follow the pattern of the long-distance interactions.

To investigate this question, we have to move from pairs of elements to more complex patterns. In the discussion above we saw, on the basis of strictly cross-clausal interactions, that Rel, Foc, and Mod enter into the transitive, asymmetric order Rel $\gg$ Foc $\gg$ Mod and that Top may not cross Rel but is unordered with respect to the remaining two elements. A complete, ordered list of possible elements implementing these constraints and no others is given as the first line of (21). The second line is the order of specifiers that emerges from Rizzi's template, (1).

(21)

| | | | | | | |
|---|---|---|---|---|---|---|
| From locality: | Rel | Top | Foc | Top | Mod | Top |
| Rizzi, 2004*a*: | Rel | Top | Foc | | Mod | Top |

It is a stark illustration of the paucity of truly independent evidence for the template that the two lines are almost identical. The only difference is the topic position between Foc and Mod. What (21) means is that, if locality were the only constraint impinging on the shape of the left periphery, we would expect there to be a topic position in between the position for foci and neutrally fronted modifiers. Rizzi's template entails

that this position does not exist. We have thus identified a new potential test case for the existence or otherwise of templatic effects.

The question is probed empirically by the examples below (Luigi Rizzi, p.c., see also Beninca' and Poletto (2004, p. 54 ex. 5a), though they classify the phrase between the contrastive focus and the modifier as a second focus). The examples fail to support Rizzi's specific template and are exactly as expected if locality alone shapes the left periphery of the clause.

(22) a. QUESTO, a Gianni, ieri, gli hanno raccontato
THIS to Gianni yesterday they to-him told
Foc Top Mod

b. IL TUO LIBRO, a Gianni, improvvisamente, gli hanno tirato
THE YOUR BOOK, to Gianni, suddenly they to-him threw
Foc Top Mod
in faccia, non la sedia
to the face, not the chair

To my mind the facts discussed in this section strongly suggest the idea that left-peripheral ordering arises as an effect of locality and that there is no templatic structure there at all. I call this hypothesis the locality approach to the left periphery. The existence of a position for Top between Foc and Mod is the approach's first novel prediction. I hasten to add that the template could of course be enriched to accommodate the additional topic position. This would not strengthen but weaken the templatic approach, since it would remove a constraint. Notice also that the additional topic position is *expected* under the locality approach, while a templatic approach never gives rise to expectations of this sort; it merely provides a description of the facts.

# 3 Left peripheral interrogative syntax

We now turn to the syntax of left-peripheral interrogative elements. The situation for these turns out to be slightly more complicated than for the elements considered so far because some *wh*-elements move to the left periphery while others are externally

merged there. As we will see, some of the complexities fall into place rather neatly under the locality approach but remain outside of the reach of a templatic explanation.

## 3.1 Moved *wh*-phrases

We begin the discussion with *wh*-phrases that reach their left-peripheral positions through movement. In terms of the classic description, *wh*-movement is subject to weak (selective) and strong (absolute) islands. Relative clauses are strong islands, foci give rise to weak islands. The standard description of locality therefore entails the following cross-clausal interactions:[7]

(23) Cross-clausal locality interactions

a. **wh* ≫ FOC
b. *FOC ≫ *wh*
c. **wh* ≫ Rel
d. Rel ≫ *wh*

(23a-c) are exemplified in (24a-c) respectively, an example of (23d) was already given as (11).

(24) a. ?*A chi pensi che QUESTO abbiano detto?
to whom do you think that THIS they have said
(Chiara D'Ippoliti, p.c.)

b. *QUESTO mi domando a chi hanno detto.
THIS myself I ask to whom they have said
(Chiara D'Ippoliti, p.c.)

c. *A $\text{chi}_i$ hai conosciuto [$_{NP}$ qualcouno [$_{CP}$ che folesse parlare $t_i$]]?
to whom have you met someone who wanted to speak
(Cinque, 1990, p. 28, ex. 79a)

From the cross-clausal interactions in (23) the locality approach derives the expectation that *wh*-phrases and foci cannot co-occur in the same clausal periphery, since, whichever of the two precedes would have to have crossed the other in violation either of (23a) or (23b) (see already Chomsky, 1977, p. 92–3 for this mode of explaining local

incompatibilities between elements from locality theory). According to Rizzi, this expectation is borne out, (25).[8] Furthermore, we derive the false expectation that relative operators and *wh*-phrases do co-occur within a single left periphery – but only in the order Rel $\gg$ *wh*.

(25) * Foc $\gg\ll$ Wh

a. *A chi IL PREMIO NOBEL dovrebbero dare?
"To whom THE NOBEL PRIZE should they give?"
Rizzi, 1997, p. 298 ex. 45a

b. *IL PREMIO NOBEL a chi dovrebbero dare?
"THE NOBEL PRIZE to whom should they give?"
Rizzi, 1997, p. 298 ex. 45b

It will be no surprise that the template in (1) sheds no further light on these questions. It encodes the incompatibility of foci and *wh*-phrases, albeit in a somewhat unsatisfactory way: by stipulating that foci and *wh*-phrases move to the same position (SpecFocP). Furthermore – just like the pure locality approach advocated here – the template also sets up the false expectation that relative operators and *wh*-phrases can co-occur and that when they do, they do so in that order.

As before in section 2, the data provide no independent evidence for the specific template. What remains a stipulation under both approaches is the local incompatibility of *wh*-phrases and relative operators with each other.[9]

We have seen in the last section that topicalization does not interact with focalization or modifier movement for the purposes of locality. The same lack of locality interactions also characterizes the relation between topicalization and *wh*-movement (Rizzi, 2004*a*), (26).[10]

(26) a. ?Non so come pensi che, a Gianni, gli dovremmo parlare.
"I don't know how you think that, to Gianni, we should talk to him."
Rizzi, 2004*a*, p. 232 ex. 27a

b. ?Non so a chi pensi che, queste cose, le dovremmo dire.
"I don't know to whom you think that, these things, we should say them."
Rizzi, 2004*a*, p. 232 ex. 27b

Since topics can therefore cross *wh*-phrase and vice versa, the locality approach predicts that both orders are possible also in the local case. This expectation is indeed borne out, (27).

(27) *wh* ≫≪ Top Rizzi, 1997, p. 289, ex. 14

a. Mi domando, il premio Nobel, a chi lo potrebbero dare
"I wonder, the Nobel Prize, to whom they could give it"

b. ?Mi domando a chi, il premio Nobel, lo potrebbero dare
"I wonder to whom, the Nobel Prize, they could give it"

Finally neutrally fronted modifiers can be crossed by *wh*-elements both in the long and in the local conditions, while the modifiers themselves are characteristically sensitive. They do not cross *wh*-phrases locally or, given the clause-bound nature of the fronting involved, in the long-distance condition.

## 3.2 Int: On the position of base generated *wh*-elements

This subsection is based on observations in Rizzi, 2001*a*, a paper in which Rizzi studies the positioning of the interrogative complementizer 'se' – *if*, and the *wh*-phrases 'perché' – *why* and 'come mai' – *how come*. The positioning of these elements differs markedly from that of other *wh*-phrases. The main difference lies in the fact that these elements may co-occur with foci and when they do, they precede them.[11]

We start the discussion with the complementizer 'se' – *if*. Given the template in (21), which reproduces the relevant aspects of the structure proposed in Rizzi, 1997, we might entertain two hypotheses about the co-occurrence and relative ordering of foci and interrogative complementizers: either (i) foci and interrogative complementizers can co-occur (the former in $\text{Foc}^0$, the latter in SpecFoc) and they occur in the order focus ≫ $\text{C}^0_{\text{Int}}$ or (ii) foci and interrogative complementizers cannot co-occur because they would have to be hosted in the same phrase as head and specifier, but they are featurally incompatible. Neither of these expectations is borne out. Foci do co-occur with 'se' – *if* and when they do, the complementizer precedes the focus.

(28) SE ≫ Foc

a. Mi domando se QUESTO gli volessero dire (non qualcos'altro)
'I wonder if THIS they wanted to say to him, not something else'

b. *Mi domando QUESTO se gli volessero dire (non qualcos'altro)
'I wonder THIS if they wanted to say to him, not something else'
Rizzi, 2001*a*, ex. 7a-b

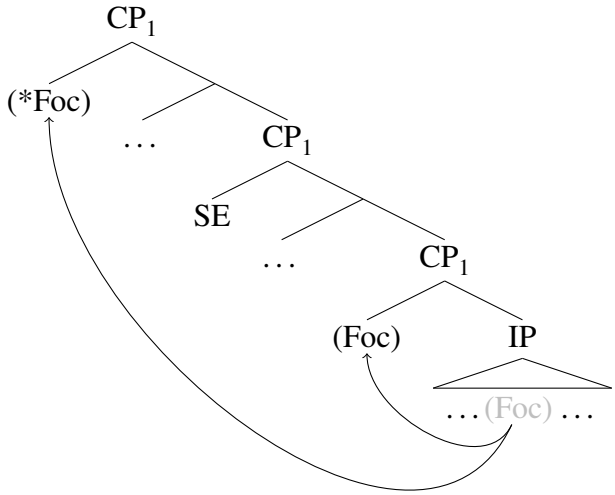
Rizzi solves this problem by introducing a new position in the template, Int in (1).

If we consider the issue from the perspective of locality, expectations change. Recall that focus-movement is weak-island sensitive. In particular, foci cannot be extracted from indirect questions, including those introduced by 'se' – *if*. From the weak-island sensitivity of focus movement, we deduce (29).

(29) * Foc ≫ SE

Notice however that in contrast to the *wh*-phrases considered above, 'se' – *if* is base generated in its surface position rather than being moved there. In the cases discussed above, we deduced the incompatibility of foci with *wh*-phrases from the fact that both were moved. Since 'se' – *if* is externally merged in the left periphery, a focus moving to a position below 'se' – *if* will not give rise to a locality violation while a focus moving to a position above 'se' – *if is* a locality violation. The situation is schematized in (30).

(30) Predicted interaction between base-generated 'se' – *if* and focus.




In other words, the observed co-occurrence and linear order of foci and 'se' – *if* is exactly as expected by considerations of locality.

According to Rizzi, 2001*a*, 'perché' – *why* and 'come mai' – *how come* occupy the same position in the template that is occupied by 'se' – *if*. Both elements therefore asymmetrically precede foci, (31) and (32). Rizzi accounts for the difference between regular *wh*-phrases and 'perché' – *why* and 'come mai' – *how come* by endowing 'perché' – *why* and 'come mai' – *how come* with a special feature that allows them to occur in SpecInt. This feature cannot be assigned to other *wh*-phrases.

(31) *perché* Rizzi, 2001*a*, ex. 23–24a

a. Perché QUESTO avremmo dovuto dirgli, non qualcos'altro?
'Why THIS we should have said to him, not something else?'

b. *QUESTO perché avremmo dovuto dirgli, non qualcos'altro?
'THIS why we should have said to him, not something else?'

(32) *come mai* Rizzi, 2001*a*, ex. 23–24b

a. Come mai IL MIO LIBRO gli ha dato, non il tuo?
'How come MY BOOK you gave to him, not yours?'

b. *IL MIO LIBRO come mai gli hai dato, non il tuo?
'MY BOOK how come you gave to him, not yours?'

The locality approach accounts for this behavior if both 'perché' – *why* and 'come mai' – *how come* can be externally merged in the left periphery. The idea that certain *wh*-

elements including *why* and/or *how come* are externally merged in the left periphery of the clause they modify semantically is not new of course (see Buell, 2010; Ko, 2005; Rizzi, 1990; Starke, 2001 among others).

When it comes to the interactions with topics and modifiers, 'se' – *if*, 'perché' – *why*, and 'come mai' – *how come* behave exactly like other *wh*-words. The lack of relevant interactions is illustrated below for 'se' – *if* and topics.

(33) $\text{WH}_{\text{externally merged}} \gg\ll \text{Top}$

a. Non so se, a Gianni, avrebbero potuto dirgli la veritá
'I don't know if to Gianni, they could have said the truth'

b. Non so, a Gianni, se avrebbero potuto dirgli la veritá
'I don't know, to Gianni, if they could have said the truth'

c. Mi domando se questi problemi, potremo mai affrontarli
'I wonder if these problems, we will ever be able to address them'

d. Mi domando, questi problemi, se potremo mai affrontarli
'I wonder, these problems, if we will ever be able to address them'
Rizzi, 2001*a*, ex. 9a-d

Given that topicalization is not sensitive to *wh*-islands, this is as expected under the locality approach, the template does not add anything to the description of the facts.

To strengthen my case further, let me point out an observation in Rizzi, 2001*a* which remains ultimately unexplained under his account. 'Come mai' – *how come* and 'perché' – *why* may appear in the left periphery of a clause higher than the one whose predicate they modify. A relevant example is given in (34a). The example is ambiguous between a reading that asks about the reason of saying and a reading that asks about the reason of resigning. For the latter reading, we may assume that 'perché' – *why* has moved from the lower clause. The locality approach predicts that, when 'perché' – *why* moves, it should interact with foci like all other moved *wh*-phrases do: the two should be incompatible. This is indeed true. The addition of a focus in (34b) disambiguates the sentence; only the reason-of-saying reading remains. The derivation of this reading, of course, does not require movement of the *wh*-phrase.

(34) Moved 'perché' – *why*

a. Perché ha detto (a Gianni) che si dimetterà?
'Why did he say that he will resign?' Vieri Samek-Lodovici (p.c.), based on (Rizzi, 2001*a*)
b. Perché A GIANNI ha detto che si dimetterà (non a Piero)?
'Why TO GIANNI he said that he will resign (not to Piero)?' (Rizzi, 2001*a*)

Under an approach like Rizzi's where the appearance of 'perché' – *why* and 'come mai' – *how come* in Int depends on a feature, i.e., on an inherent lexical property of these items, the behavior in (34b) is unexpected. Why should movement block these elements' inherent ability to appear to the left of foci in SpecInt? On the locality approach, the key to the puzzle is a relational property of the elements in question: when they are externally merged in a position, they may co-occur with and precede foci without incurring any crossing violations; when they are moved, they are incompatible with foci for the same locality-derived reasons that other *wh*-phrases are.

With the additional assumption that the elements discussed in this subsection ('se' – *if*, 'perché' – *why*, and 'come mai' – *how come*) are externally merged in the left periphery of the clause they modify, the locality approach makes strikingly correct predictions. The facts might be describable in terms of a left peripheral template – though with significant difficulty as 'perché' – *why* and 'come mai' – *why* show – but they cannot be predicted.

# 4 Locality behavior and theories of locality

What I have presented so far are sets of local ordering behaviors and sets of long-distance crossing behaviors, 'locality behaviors'. On the assumption that locality is essentially a theory of what elements can cross which other elements (Relativized Minimality, Attract Closest), I have claimed that the non-local crossing behavior predicts the local ordering but not the other way around. I have not presented a theory of locality that would derive the set of crossing behaviors discussed here.

In this section I sketch a theory of locality to fill this gap. It is a standard version of Relativized Minimality enriched with a non-standard classificatory structure. This is the kind of theory whose existence was presupposed in the discussion of the previous sections.

Following among others Boeckx and Jeong, 2004; Chomsky, 1995; Rizzi, 1990, 2001*c*, 2004*a*; Starke, 2001, I have assumed that syntactic locality should be handled in terms of a ban against likes crossing likes (Relativized Minimality). Such a ban requires a definition of what it means for one element to cross another element; it also needs to be supplemented by a categorization of items into classes to answer the question of what elements count as 'likes'. The standard definition of 'crossing' in syntax is in terms of c-command: In a movement chain of type $\tau$, the head of the chain may not c-command any elements of type $\tau$ that (asymmetrically) c-command the foot of the chain.[12]

As mentioned, this needs to be supplemented by a suitable classification of moving elements or movements into structural types, i.e., we need to specify what types $\tau$ ranges over in the definition above and how these types are constituted. The classification has to make sure that elements that do not interact with each other in terms of crossing are in orthogonal classes, elements that block each other are in the same class. Rizzi's classic formulation of Relativized Minimality approaches this issue by assuming three classes (A, $\overline{\text{A}}$, and heads) that are orthogonal to each other.

As mentioned in the introduction, Rizzi, 2004*a*, p. 243 #61 proposes the following refinement, (35), of this classification. Instead of a unified $\overline{\text{A}}$-class, he suggests three different classes: Quantificational, Modifier, and Topic.

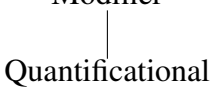
(35)
a. Argumental: person, number, gender, case
b. Quantificational: Wh, Neg, measure, focus ...
c. Modifier: evaluative, epistemic, Neg, frequentative, celerative, measure, manner,...
d. Topic

By and large Rizzi's three classes are orthogonal to each other, though, some elements

are classified both as modifiers and as quantificational elements: Neg and measure.

Starke, 2001 makes an important addition to the logic of Relativized Minimality. According to him, syntactic elements are not only classified into orthogonal classes, rather, he suggests that some classes have subclasses and superclasses (see also Boeckx and Jeong, 2004). The construction of movement dependencies and the application of Relativized Minimality can then be understood in terms of the elsewhere or Pānini principle: The application of a more specific process preempts the application of a less specific one. Thus, an element that belongs to a superclass only, will always move as a member of that superclass and this movement will be blocked by any intervener from that superclass. An element that belongs to a subclass, however, will be able to undergo the more specific rule of moving elements in that subclass and be able to circumvent blocking by elements in the superclass. Itself, it will block elements in the superclass and in the subclass.

The fact that Rizzi crossclassifies certain elements as both modifiers and quantificational suggests arranging these two classes in a subclass-superclass relationship, (36). (The classification probably though not necessarily reflects the organization of features in a syntactic feature hierarchy (see Bianchi (2004); Boeckx and Jeong (2004); Starke (2001) for comparable ideas).)

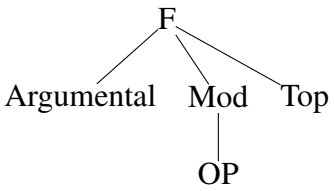
(36)



Together this makes the reasonable claim that quantificational properties instantiate a particular kind of modification. The organization in (36) has three consequences of interest here. First, since foci and *wh* elements are in the same class and since likes cannot cross likes, we derive the fact that moved foci and moved *wh*-elements do not co-occur. Second, since foci and *wh*-phrases are quantificational, they are also modifiers (by the logic of subclasses and superclasses).[13] Therefore, foci and *wh*-phrases block the movement of neutrally fronted modifiers, deriving the fact that modifiers cannot

appear in front of foci or *wh*-phrases. Third, modifiers do not block the movement of foci and *wh*-phrases. Though foci and *wh*-phrase are modifiers they are also, more specificially, quantificational. By the Pānini principle, when they move, they move as quantificational elements and this movement is not blocked by non-quantificational modifiers. We therefore derive focus/*wh*-phrase $\gg$ modifier. Adjusting terminology slightly, I will refer to the Modifier class henceforth as Mod and to the Quantificational class as OP(erator).

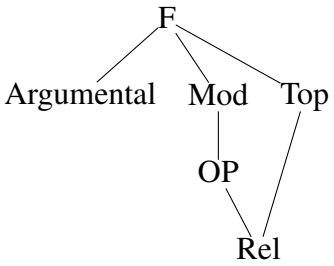
Topics are correctly characterized in Rizzi's classification as orthogonal to Mod and OP; as we have seen, neither Mod nor OP interact for locality with topics. A more complete classification thus looks as follows, (37), where F is simply the class of all syntactic classes.

(37)




This leaves the issue of classifying relative operators (Rel). We have seen that Rel asymmetrically blocks movement of Mod and OP, suggesting that Rel is a subclass of OP. At the same time, we have seen that Rel asymmetrically blocks movement of topics, which suggests that Rel is also a subclass of Top. The complete classification needed to derive the order of elements in the Italian left periphery is given in (38).

(38)




The structure encodes that topics do not interact for locality with modifiers or operators but are asymmetrically blocked by relative operators. Modifiers are asymmetrically

blocked by operators, which, in turn, are asymmetrically blocked by relative operators.[14][15]

One may wonder whether there is independent motivation for the particular classification given in (38). In particular, are there independent reasons to think of Rel as a subclass both of Top and of OP. The idea that Rel is a special kind of OP should not meet with much resistance. At least since Chomsky, 1977 it has standardly been assumed that relative clause formation is an application of the more general process of *wh*-movement, which includes *wh*-question formation and focus movement. Cyclicity effects along the path of all types of *wh*-movement (Irish McCloskey, 1979, Kikuyu Clements, 1984,...) are usually taken as evidence in favor of classifying relative claus formation together with focalization and *wh*-movement. An additional reason reason to believe Rel is a special case of OP comes from the observation that resumptive pronouns may in some languages occur in all *wh*-movement constructions while in other languages they are restricted only to relative clauses (see Boeckx, 2001, for discussion and references). Indeed, there appears to be an implicational universal according to which every language that shows resumption in *wh*-questions also exhibits resumption in relative clauses but not the other way around. These facts strongly support the organization in (38).

Following the other branch of (38), the idea that there is a close connection between topicalization and relative clause formation has a tradition going back at least to Kuno, 1976, who argued that a particular element can be relativized if and only if it is possible to construe that element as the topic (more recently comparable claims about a relation between topicalization and relativization have been made in Bianchi (2004, p. 93–94) and Bayer and Salzmann, 2010 – both building on Rizzi's (2001) treatment of D-linking. The following paradigm from Williams, to appear also groups topicalization with relativization. The examples are particularly telling, as they show relative clause formation patterning not only with topicalization but also against *wh*-question formation.

(39) a. Baseline
(i) John is the mayor.
(ii) The mayor is John.
b. Question formation
(i) I wonder who the mayor is.
(ii) ?I wonder who is the mayor.
c. Topicalization
(i) John I think is the mayor.
(ii) *John I think the mayor is.
d. Relativization
(i) I met the man who is the mayor.
(ii) *I met the man who the mayor is.

In (39a-i) the subject precedes the predicate, while in (39a-ii) the predicate precedes the subject. According to Williams, to appear, the order in (39a-ii) requires focus on *John*. Both orders allow questioning the subject, but when the predicate precedes the copula, relativization and topicalization of the subject are blocked, (39c-ii) and (39d-ii).

Considerations of this type lend independent plausibility to the classification in (38). If it is accepted, Relativized Minimality together with the Pānini principle derive the local and non-local ordering of phrases without the need to stipulate a specific left-peripheral template. The predictions include some very specific ones discussed above: (i) the locality approach correctly predicts the existence of a topic position between foci and neutrally fronted modifiers, (ii) the locality approach correctly predicts the complex interaction between left peripheral foci, scope, and the interrogative elements 'se' – *if*, 'come mai' – *why*, and 'perché' – *why*. Finally, (38) directly expresses the fact that Top is orthogonal to OP and Mod, a standard templatic structure with its linear order cannot do so.

Notice that the discussion here has centered exclusively on the relative positioning of phrases rather than heads in the left periphery – with the one exception of 'se' – *if*. The relative order of heads in the left periphery and the relative order of phrases and heads has not been considered. These elements pose obstacles for the full reduction of the left peripheral template to locality. For example, both complementizers 'che' – *that*

and 'di' – *of* may be crossed by moving elements. They should therefore be able to freely intersperse with left peripheral material. As a matter of fact, 'che' – *that* always precedes all the elements discussed here and 'di' – *of* always follows. At this stage of inquiry, these elements therefore require residual templatic stipulations. The reader is referred to Manzini, 2010; McCloskey, 2006 for relevant discussion compatible with the approach taken here.

# 5 Conclusion

I have argued that Rizzi's (1997; 2001; 2004) left peripheral template is undermotivated as a theoretical construct. Relativized Minimality combined with a suitable classificatory structure provides a more explanatory account of the relative positions and behavior of Rel, INT, FOC, TOP, and for the most part MOD. The ordering predicted by unconfounded locality considerations alone can be compared to Rizzi's template in (40).

(40)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Here: | Rel | Top | $WH_{base}$ | Top | Foc/ $WH_{moved}$ | Top | Mod | Top |
| Rizzi, 2004*a*: | Rel | Top | INT | Top | Foc | | Mod | Top |

I have argued that the slight differences between Rizzi's template and the "map" of the left periphery presented here are forced by the locality approach and represent descriptive improvements. The template itself has nothing to add to the description of these facts. One of the two, locality or the tamplate, will have to be retired from the theory by Occam's razor. The following considerations force our hand: First, there is independent support for the classification in (38) but no independent support for the templatic structure. Second, the locality approach is more predictive (and hence more easily falsifiable) than the templatic approach. Third, even theories that have a template typically invoke Relativized Minimality, i.e., the idea that likes do not cross likes. It appears then that the left peripheral template in (1) needs to be retired from the theory until a strong argument for it has been made.

The present paper is silent on the question whether movement to the left periphery is to the specifiers of dedicated functional heads or not. Such heads may still be assumed. They do not need to be ordered by selectional requirements but can be merged freely. Derivations where the heads are merged in the wrong order will be filtered out because the heads will then not be able to attract their appropriate specifiers without violating locality.

# Notes

[1]An important background assumption in this discussion is a particular view of locality, namely, that locality is concerned with the possibility or impossibility of certain classes of elements crossing over certain other classes of elements, essentially, Relativized Minimality or Attract Closest.

[2]Notice that possibility (III) in (6) is puzzling from the current perspective: locality must allow ■ to cross ● to account for the local order, but must prevent this crossing in the long-distance case. If faced with this situation we are virtually forced to assume that the violation in the long-distance case has a source different from ■ crossing over ●. For a concrete example, see the discussion of the interactions between modifiers and topics in section 2.3 and related discussion in fn. 6.

[3]It is an unfortunate terminological tangle that what Rizzi calls topicalization is called clitic left dislocation by Cinque and what is called focalization by Rizzi is called topicalization by Cinque. I adopt Rizzi's terminology except in a few cases where there is a good reason not to.

[4]Example (8b) falls far short of forming a minimal pair with either (7b) or (8b). The reason is that the minimally paired example (41) is grammatical – but under the

irrelevant construal called ‘left dislocation’ (LD) in Cinque, 1990 and ‘hanging topic’ in Beninca’ and Poletto, 2004.

(41) Il premio Nobel, questo é l’uomo a cui lo daranno senz’altro.
The Nobel prize, this is the man to whom it give.3pl.fut undoubtedly
The Nobel prize, this is the man to whom they will undoubtedly give it.

Left dislocation is distinguished from clitic left dislocation (CLLD) by the inability of LD to appear in embedded contexts, the possibility of replacing the resumptive clitic with a full pronoun only in LD, and the impossibility of pied-piping the preposition introducing indirect objects only in LD – such pied-piping is obligatory in CLLD. On all these tests, structures like (41) behave like LD rather than CLLD (Chiara D’Ippoliti, p.c.). Thus, when the initial preposition is dropped in (8b), the example becomes unambiguously a left dislocation structure and is grammatical, (42).

(42) Gianni, ti parleró solo delle persone che senz’altro gli
Gianni, to.you spoke.3sg.fut only about.the people that undoubtedly to.him
daranno il premio Nobel.
give.3pl.fut the Nobel prize
Gianni, I will talk to you only about people who undoubtedly will give the Nobel Prize. Chiara D’Ippoliti (p.c.)

Failure to properly distinguish LD from CLLD is presumably at the heart of Samek-Lodovici’s (2008) claim that CLLD is totally island insensitive, a claim exemplified there Samek-Lodovici, 2008, ex. 9 with an example structurally like (41).

[5]Recall that I am assuming for the sake of the argument that Rizzi’s characterization of the phrase following the contrastively stressed focus as a topic on a par with the topic preceding the focus is correct. There is mounting evidence that this is not quite correct. Thus Belletti, 2004; Beninca’ and Poletto, 2004; Frascarelli and Hinterhölzl, 2007; Samek-Lodovici, 2006, 2008 all agree that, like focus-moved phrases and unlike

clitic left-dislocated phrases, post-focal preverbal phrases do not give rise to obligatory clitic doubling with direct objects. Beninca' and Poletto, 2004 also argue that these phrases give rise to weak-crossover effects, unlike clitic left-dislocated phrases. Beninca' and Poletto, 2004 and Frascarelli and Hinterhölzl, 2007; Samek-Lodovici, 2006 disagree regarding the exact information-structural properties of such phrases.

[6]Rizzi (2004*a*, p. 249 fn. 10) tentatively suggests a way of deducing the locality of modifier movement from Relativized Minimality. If the deduction is workable, it will bring modifier movement fully in line with the other movements considered here.

[7]Strictly speaking, we expect D-linked *wh*-phrases to be somewhat more liberal than non-D-linked ones in their ability to cross foci non-locally and to co-occur with them locally. I ignore this complication in what follows.

[8]The picture in the text is painted with a somewhat broad brush. A number of factors influence whether foci and *wh*-phrases may or may not cross each other and whether they may or may not co-occur. For example, Samek-Lodovici, 2006 disputes the claim that foci cannot co-occur with *wh*-phrases locally based on corrective foci, i.e., altered repetitions of question that the other interlocuter has misheard. In such contexts both orders appear to be possible in the cross-clausal as well as the local condition, (43) (Chiara D'Ippoliti, p.c.). (In matrix questions there are additional restrictions on what may appear immeditately after the *wh*-phrase (see Rizzi, 1997), a factor not properly controlled in Samek-Lodovici (2006).)

(43) a. Mi chiedo a chi GIULIO l' ha prestata la macchina, non Giulia.
myself ask to whom Giulio it has lent the car, not Giulia.
b. Mi chiedo GIULIO a chi l' ha prestata la macchina, non Giulia.
myself ask Giulio to who it has lent the car, not Giulia.
c. GIULIO mi chiedo a chi l' ha prestata la macchina, non Giulia.
Giulio, myself ask to whom it has lent the car, not Giulia
d. A chi pensi che GIULIO l' ha prestata la macchina, non Giulia.
to whom do you think that Giulio it has lent the car, not Giulia

The above examples illustrate the situation for subject and indirect objects. When it comes to indirect and direct objects the data appear to be somewhat more complex (see Rizzi, 2001*a*). More empirical work is needed here, but there is no indication in the data I have seen that the local condition is more restrictive than the non-local, i.e., there is no data to favor a templatic over a locality approach.

D-linking of the *wh*-phrase further influences the acceptability of such cases both in the local and the long distance condition.

[9]The fact that relative operators can cross *wh*-phrases in the long-distance condition while the two cannot co-occur in the local condition, is an illustration of type (II) in (6). In other words, the local incompatibility of relative operators with foci, maybe surprisingly, is is a case where a templatic explanation might actually do some work: If a template were stipulated in which *wh*-elements are placed above relative operators, the template together with locality could be invoked to rule out their co-occurence; alternatively, both could be assigned the same landing site and be blocked from co-occurring that way.

An alternative approach in terms of a semantic incompatibility between relativization and question-formation seems plausible, however, to explain the complementarity without recourse to a templatic explanation. Questions are sets of propositions, semantically, while relative clauses are predicates. As far as I know, *wh*-in-situ languages disallow relative- and *wh*-operators taking scope in the same CP, too. This further points to the conclusion that a semantic rather than a templatic constraint is at work.

[10]Main clauses are somewhat more restricted than embedded clauses. According to Rizzi, 1997 main clauses do not permit *wh*-phrases to precede topics, (44). Notice that the structure in (44) is a candidate for a templatic explanation according to the logic laid out in (6). Of course, Rizzi's template encodes the facts in (43) not those in (44). In fact, Rizzi, 1997 argues the failure of *wh* $\gg$ Top in main clauses is part of a

larger generalization (something akin to V2) by which even non-topical subject cannot intervene between the *wh*-phrase and the verb. It appears then that there are independent interfering factors in main clauses.

(44) Main clauses: Top $\gg$ *wh*

a. A Gianni, che cosa gli dovremmo dire?
To Gianni, what we should say?
(Based on Rizzi (1997, p. 299 ex. 47))

b. *Che cosa, a Gianni, gli dovremmo dire?
"What to Gianni we should say?"
(Based on Rizzi (1997, p. 299 ex. 47))

[11]These statements will be qualified slightly below.

[12]This move aligns syntactic locality closely with phonological locality (the line crossing constraint of autosegmental phonology). The only substantive difference between the two is that intervention is defined linearly in phonology and hierarchically in syntax (Nevins, 2008; Rizzi, 2004*a*; Starke, 2001).

[13]A possible implementation is to view syntactic features as feature structures along the lines of Pollard and Sag, 1994. The modifier feature would then have – as possibly atomic values – the non-quantificational items on Rizzi's list in (35c) and the structured value 'quantificational'. Quantificational in its turn would have the values Neg, Wh, Foc,... The presence of the quantificational feature on an element asymmetrically entails the presence of the modifier feature on the same element.

On the assumption that modifier movement accesses the feature Mod and focus movement accesses the feature Quantificational, intervention can be computed as in Boeckx and Jeong, 2004; Starke, 2001, deriving the symmetric intervention effects between quantificational elements and the asymmetric intervention created by quantifiers for modifiers.

[14]Clearly this is no more than a first approximation. I argued above that several moved instances of OP block each other. The same is true for Rel. However, according to Rizzi, 2004*a*, multiple modifiers do not block each other as long as they are moved to the front in an order-preserving fashion and multiple topics are possible in any order. These properties do not follow from the classificatory structure given here.

While Rizzi captures the difference between the unique OP and Rel on the one hand and the multiply occurring Top and Mod on the other, by making the latter recursive (Top* and Mod*), the further difference between topics and modifiers does not follow from his template either.

[15]Abrusan, 2007; Fox and Hackl, 2006 give a number of strong arguments for a semantic rather than a syntactic analysis of the standard set of weak islands. This would allow deleting the OP-node from (38).

# References


Abrusan, Marta (2007). "Contradiction and Grammar: The case of weak islands". PhD thesis. Cambridge, Mass.: MIT.

Bayer, Josef and Martin Salzmann (2010). That-*trace effects and resumption as the result of Improper Movement*. Ms. University of Konstanz.

Belletti, Adrianati (2004). "Aspects of the Low IP Area". In: *The Structure of CP and IP - The Cartography of Syntactic Structures, Volum 2*. Ed. by Luigi Rizzi. Vol. 2. Oxford studies in comparative syntax The cartography of syntactic structures. Oxford: Oxford University Press, pp. 16–51.

Beninca', Paola and Cecilia Poletto (2004). "Topic, Focus, and V2: Defining the CP Sublayers". In: *The Structure of CP and IP - The Cartography of Syntactic Structures, Volum 2*. Ed. by Luigi Rizzi. Vol. 2. Oxford studies in comparative syntax The cartography of syntactic structures. Oxford: Oxford University Press, pp. 52–75.

Bianchi, Valentina (2004). “Resumptive Relatives and LF Chains”. In: *The Structure of CP and IP - The Cartography of Syntactic Structures, Volum 2*. Ed. by Luigi Rizzi. Vol. 2. Oxford studies in comparative syntax The cartography of syntactic structures. Oxford: Oxford University Press, pp. 76–114.

Bianchi, Valentina and Mara Frascarelli (2009). *Is topic a root phenomenon*. Ms. University of Siena.

Boeckx, Cedric (2001). “Mechanisms of Chain Formation”. Doctoral Dissertation. University of Connecticut.

Boeckx, Cedric and Youngmi Jeong (2004). “The Fine Structure of Intervention in Syntax”. In: *Issues in Current Linguistic Theory: A festschrift for Hong Bae Lee*. Ed. by Chungja Kwon and Wonbin Lee. Kyungchin, pp. 83–116.

Buell, Leston Chandler (2010). “Zulu *ngani* [‘]why’: Postverbal and yet in CP”. In: *Lingua* In Press, Corrected Proof, pp. –. ISSN: 0024-3841. DOI: DOI : 10 . 1016 / j . lingua . 2010 . 11 . 004. URL: http : / / www . sciencedirect . com / science / article / B6V6H - 51R51JW - 1 / 2 / 3fbc60e448bb531de11ecabf4eda37f0.

Chomsky, Noam (1977). “On wh-movement”. In: *Formal syntax*. Ed. by Peter Culicover, Thomas Wasow, and Adrian Akmajian. New York: Academic Press, pp. 71–132.

— (1995). “Categories and transformations”. In: *The Minimalist Program*. Cambridge, MA: MIT Press. Chap. 4, pp. 219–394.

Cinque, Guglielmo (1990). *Types of A’-dependencies*. Cambridge, MA: MIT Press.

— (1999). *Adverbs and Functional Heads - A Cross-Linguistic Perspective*. New York and Oxford: Oxford University Press.

Clements, George N. (1984). “Binding Domains in Kikuyu”. In: *Studies in the Linguistic Sciences* 14.2, pp. 37–56.

Fox, Danny and Martin Hackl (2006). “The universal density of measurement”. In: *Linguistics and Philosophy* 29.5, pp. 537–586.

Frascarelli, Mara and Roland Hinterhölzl (2007). "Types of Topics in Italian and German". In: *On information structure, meaning and form*. Ed. by Susanne Winkler and Kerstin Schwabe. Amsterdam & Philadelphia: John Benjamins, pp. 87–116.

Grimshaw, Jane (2000). "Locality and Extended Projection". In: *Lexical Specification and Insertion*. Ed. by Peter Coopmans, Martin Everaert, and Jane Grimshaw. Amsterdam: John Benjamins, pp. 115–135.

— (2005). *Words and Structure*. CSLI lecture notes 151. CSLI.

Ko, Heejeong (2005). "Syntax of *why-in-situ*: Merge into [Spec,CP] in the overt syntax". In: *Natural Language and Linguistic Theory* 23, pp. 867–916.

Kuno, Susumo (1976). "Subject, Theme, and the Speaker's Empathy–A Reexamination of Relativization Phenomena". In: *Subject and Topic*. Ed. by Charles N. Li. New York, San Francisco, London: Academic Press, pp. 417–444.

Manzini, Maria Rita (2010). "The Structure and Interpretation of (Romance) Complementizers". In: *The Complementizer Phase*. Ed. by E. Phoevos Panagiotidis. Vol. 30. Oxford Studies in Theoretical Linguistics. Oxford, UK: Oxford University Press, pp. 167–199.

McCloskey, James (1979). *Transformational Syntax and Model Theoretic Semantics: A Case Study in Modern Irish*. Synthese Language Library. Dordrecht, Boston, and London: D. Reidel Publishing Company.

— (2006). "Questioning and Questions in a Local English". In: *Crosslinguistic Reserach in Syntax and Semantics: Negation, Tense, and Clausal Architecture*. Ed. by Raffaella Zanuttini et al. Washington, D. C.: Georgetown University Press, pp. 87–126.

Nevins, Andrew Ira (2008). *Locality in Phonology*. ms. Harvard University.

Pollard, Carl and Ivan A. Sag (1994). *Head-Driven Phrase Structure Grammar*. Chicago, Ill.: University of Chicago Press.

Rizzi, Luigi (1980). "Violations of the wh-island constraint and the Subjacency condition". In: *Journal of Italian Linguistics* 5, pp. 157–195.

Rizzi, Luigi (1990). *Relativized minimality*. Vol. 16. Linguistic Inquiry Monograph. Cambridge, MA: MIT Press.

— (1997). "The Fine Structure of the Left Periphery". In: *Elements of Grammar: Handbook in Generative Syntax*. Ed. by Liliane Haegeman. Dordrecht, Netherlands: Kluwer, pp. 281–337.

— (2001*a*). "On the Position of Interrogative in the Left Periphery of the Clause". In: *Current Studies in Italian Syntax. Essays Offered to Lorenzo Renzi*. Ed. by Guglielmo Cinque and G. P. Salvi. Oxford: Elsevier North-Holland.

— (2001*b*). "Reconstruction, Weak Island Sensitivity and Agreement". In: *Semantic Interfaces : Reference, Anaphora and Aspect*. Ed. by Carlo Cecchetto, Gennaro Chierchia, and Maria Teresa Guasti. CSLI Publications, pp. 145–176.

— (2001*c*). "Relativized Minimality Effects". In: *The Handbook of Syntactic Theory*. Ed. by Mark R. Baltin and Chris Collins. Oxford: Blackwell.

— (2004*a*). "Locality and left periphery". In: *Structures and Beyond: Cartography of Syntactic structures*. Ed. by Adriana Belletti. Vol. 3. New York: Oxford University Press, pp. 104–131.

— ed. (2004*b*). *The Structure of CP and IP - The Cartography of Syntactic Structures, Volum 2*. Vol. 2. Oxford studies in comparative syntax The cartography of syntactic structures. Oxford: Oxford University Press.

Samek-Lodovici, Vieri (2006). "When right dislocation meets the left-periphery. A unified analysis of Italian non-final focus." In: *Lingua* 116, pp. 836–873.

— (2008). *Topic, Focus, and Background in Italian Clauses*. ms. v. 3, University College London.

Starke, Michal (2001). "Move Dissolves into Merge: a Theory of Locality". Doctoral dissertation. University of Geneva.

Szabolcsi, Anna (2006). "Strong vs. Weak Islands". In: *The Blackwell Companion to Syntax*. Ed. by Martin Everaert and Henk van Riemsdijk. Malden, MA: Blackwell Publishers. Chap. 64.

Szabolcsi, Anna and Marcel den Dikken (2003). “Islands”. In: *The Second State-of-the-Article Book*. Ed. by Lisa Cheng and Rint Sybesma. Mouton de Gruyter, pp. 213–240.

Williams, Edwin S. (to appear). “Islands Regained”. In: *Regimes of Derivation in Syntax and Morphology*. Routledge. Chap. 7.

Klaus Abels

Linguistics

University College London

2 Wakefield St.

London, WC1N 1PF

email: k.abels@ucl.ac.uk