The Italian left periphery: A view from locality

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Comments welcome

Abstract

In this paper I discuss the interaction of locality phenomena with the left periphery in Italian as elaborated in Rizzi, 1997, 2001, 2004a. 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 Int^0) can be made if local ordering is thus 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

Introduction

This paper starts with a remark on the logical relation between two types of inquiry into word order in domains that are constituted by movement. The remark can be summa-

rized by the following slogan: Locality proposes – the template disposes. What this is intended to say is that locality (understood as a set of constraints against crossing elements of certain types) puts a filter on the output of syntax which is logically prior to the filter that (local) templates put on the output of syntax.

The second, much longer section studies the ramifications of this single methodological observation. The empirical domain to which I will apply the methodological observation is the structure of the clausal left periphery in Italian, as developed in Rizzi, 1997, 2001, 2004*a*. I will take for granted that the set of syntactic categories employed by Rizzi is essentially exhaustive, that Rizzi's description of the possible and impossible orders is correct, and that the description of the locality-behavior of he various operations involved given in Cinque, 1990; Rizzi, 1980*b*, 2004*a* is essentially correct. On these assumptions it turns out that the template does not, as a matter of fact, dispose of any orders proposed by locality. 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. This suggests giving up the template as a tool in explaining left-peripheral order.

None of these are trivial or innocent assumptions 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; Frascarelli and Hinterhölzl, 2007; Samek-Lodovici, 2006, 2008, for relevant discussion). I set these aside and adopt the classical 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.

Section four of the paper contains a discussion of what a theory of locality that yields the desired result might actually look like. It also contains a brief discussion of a possible alternative view, where the entailment relation goes the other way and some

observations about a templatic residue: facts about the order in the Italian left-periphery that cannot be explained in terms of locality. Curiously, only a subset of these is treated as following from the template in Rizzi's own work, while the others are relegated to other parts of syntactic theory.

Rizzi, 2004*a* considerably refines and elaborates two theoretical tools, locality and the templatic structure of the left periphery, on which he had previously published seminal work (Rizzi, 1990, 1997). In both areas modifications and refinements of the original proposals are made: In the domain of locality, Rizzi, 2004*a* refines the typology of structural types underlying Rizzi, 1990. He suggests that instead of the monolothic $\overline{\text{A}}$-type of Rizzi, 1990, there are three separate types: Mod, OP, and Top.

Of more central concern to the purposes of this paper is the assumption that Rizzi makes about the template governing the order in which elements appear in the left periphery of the clause. The following is a complete statement of this template. As in Rizzi, 1997, the topmost head, Force, in Italian hosts the complementizer 'che' – *that* in the head position and relative operators in the specifier position, while Fin hosts the non-finite complementizer 'di' – *of*. Sandwiched between these are various positions for topics (Top), foci and *wh*-phrases (Focus), unstressed modifiers (Mod, on which see Rizzi, 2004*a*), and the interrogative complementizer 'se' – *if* and a few exceptional *wh*-phrases (Int) – see Rizzi, 2001.

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

I shall now turn to a methodological question that arises when investigating the nature of a syntactic template in a domain that is constituted by moving elements to that domain.
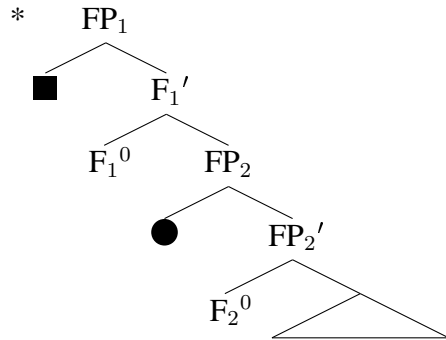
1 Locality proposes – the template disposes.

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.
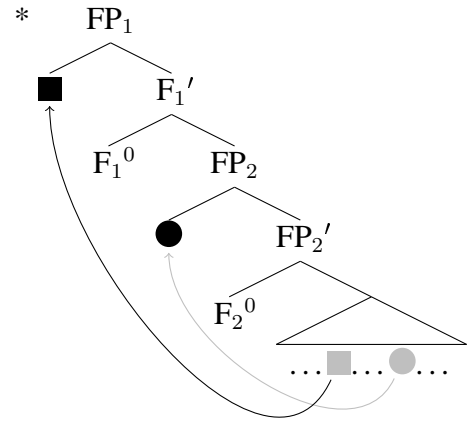
(3)   Violation of the template: Violation of locality:
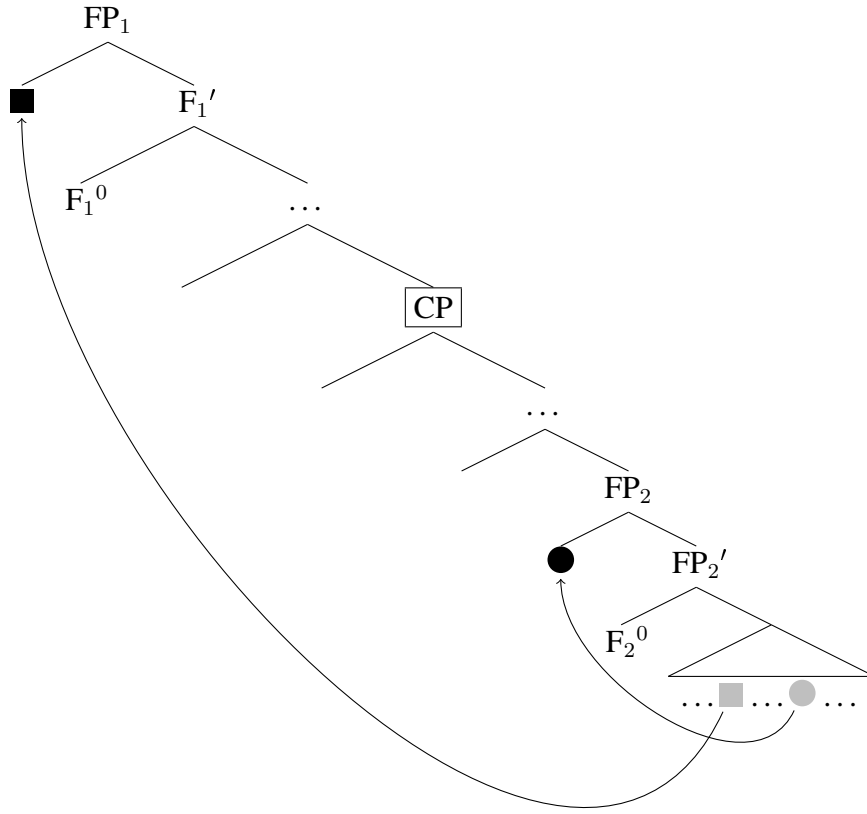 F_1 does not select FP_2.   ■ cannot cross ●

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, that is, in separate clauses. By common assumption in current syntactic research into the structure of syntactic templates, templates regulate local structure building but do not constrain global structure. If (2) is a templatic effect, then the ban against ■ preceding ● holds only if ■ and ● appear in the same local domain; there is no global constraint banning ■ from preceding/c-command ● at a distance, (4).

(4)   ✓■ . . . [$_{CP}$ . . . ● . . .]

Factually, this state of affairs is the norm rather than the exception. Thus, while Rizzi's template (1) is incompatible with a focus (SpecFoc) preceding a relative pronoun (Spec-Force) within the left periphery of the same clause, a focus in a higher clause is of course compatible with a relative operator appearing in a lower clause, etc. Assuming then that empirically we are faced with a combination of the local ban in (2) which does not hold globally, (4), templatic and locality factors can be unconfounded by the following simple experiment: If ■ can cross ● (both originating in the same domain) without leading to a violation of locality, then the configuration in (5) will be grammatical. On the other hand if a ■ cannot cross a ● without violating locality, then the configuration in (5) will be unacceptable, just like the local configuration described in (2).

(5)

$$
\begin{array}{c}
\text{FP}_1 \\
\blacksquare \qquad \text{F}_1' \\
\text{F}_1{}^0 \qquad \ldots \\
\boxed{\text{CP}} \\
\ldots \\
\text{FP}_2 \\
\bullet \qquad \text{FP}_2' \\
\text{F}_2{}^0 \\
\ldots\ \blacksquare\ \ldots\ \bullet\ \ldots
\end{array}
$$

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

Observe that there is an asymmetry between the templatic approach and the locality approach. Under the locality approach, unacceptability of (5) entails (2) – locality being understood as a ban against crossing ■ over ●.[1] Under the templatic approach on the other hand, the fact that (2) holds entails nothing about (5). Put differently, locality is the more powerful explanation since it may give rise to local ordering asymmetries and to

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[1] Section 4 will briefly consider an alternative view of locality.

non-local ones. For that reason, 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 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 in tabular form.

(6)

	■ before ● locally?	■ before ● 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 according to the description given 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 of the elements that have a fixed position in Rizzi's template (i.e., all but topics) will be discussed in a separate subsection

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[2]Notice that possibility (III) in (6) if attested, is very 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 ●.

starting with the highest elements (relative operators in SpecForce) and ending with the lowest (modifiers in SpecMod).

2.1 The position of relative operators

Relative operators occupy the highest specifier position in Rizzi's template. This entails that they may asymmetrically precede all other material of the left periphery.

In particular, relative operators may precede topics.[3] This is shown in (7) for the local case.

(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 long-distance interactions between relative operators and foci are discussed in the literature on Italian. Thus, Cinque, 1990 claims that relativization can cross topics, (8a), and that topicalization is strong-island sensitive, (8b).[4] We see in this example that the templatic explanation for the asymmetry in (7) is redundant with the locality explanation independently needed for (8).

(8)   Rel ≫ Top

    a.   Questo è il libro che tu pensi che a Gianni io dovrei dare
           This is the book that you think that to Gianni I should give
           (Vieri Samek-Lodovici, p.c.)
    b.   *A Carlo, ti parleró solo del le persone che gli piacciono.
           to Carlo I will talk to you only about the people that to him appeal
           Cinque, 1990, p. 59 ex. 1f

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[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]Samek-Lodovici, 2008 disputes Cinque's claim about the island sensitivity of topicalization (i.e., clitic left dislocation), but the examples might involve a different strategy such as Beninca' and Poletto's *hanging topics* or a resumptive/intrusive pronoun strategy

The next set of examples show that relative operators 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

The classic description of the locality behavior of relativization in Italian (Rizzi, 1980*b*) says that relativization can escape (single) *wh*-islands. An example is reproduced in (10a). Given the oft-observed great similarity in behavior between focalization and *wh*-movement, we expect focalization to behave similarly. Indeed this is suggested by the description in Cinque, 1990, where relativization is characterized strong but not weak-island sensitive. A relevant example is given in (10b). Focalization by contrast is strong and weak island sensitive, hence the status of (10c).

(10)   Rel ≫ Foc

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

    b. ?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.)

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

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

(11)   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 (12). The reverse case, a structure where a neutral modifier is fronted across a relative operator is ungrammatical. Indeed, Rizzi, 2004*a* claims that movement of such modifiers is clause-bound in general, so that we cannot questions about their long-distance locality behavior.

(12)   Rel ≫ Mod

    a.   Questo è l'uomo a cui   hai   detto che domani   io dovrei
            This   is the man to whom (you) have said that tomorrow I should
            parlare
            speak
            (Vieri Samek-Lodovici, p.c.)

This subsection has shown that, once we unconfound templatic effects from locality effects, the positioning of the relative operator follows entirely from locality.

2.2   The position of foc

In this subsection, the result reached above for relative operators will be replicated for foci: once unconfounded from locality, templatic effects disappear. We have already seen how the long distance condition for relative operators and foci predicts their relative ordering in the template. We now turn to the positions of topics and neutrally fronted modifiers with respect to foci.

The relevant data for the local condition are cited in (13), based on examples in

Rizzi, 1997. The examples illustrate that topics may either precede or follow fronted foci.

(13)   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. The characterization of topicalization in Cinque, 1990 says that it is strong- but not weak-island sensitive, (14a), and that topics themselves do not create islands for foci, (14b). The judgments given below confirm this characterization.

(14)   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.)

The interaction of netural modifier fronting and focalization gives the following results. In the local condition, fronted neutral modifiers may follow fronted foci and may not precede them. When a modifier precedes a focus, it must be topical or contrastive. This characterization is given by Rizzi, 2004*a*, it is corroborated by the examples below.

(15)   Foc≫Mod

    a.   QUESTA PROPOSTA, rapidamente, tutti i deputati hanno accettato.

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[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 is correct. There is mounting evidence that this is not quite correct, though. 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 information-structural properties of such phrases.

"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, (16), while fronted neutral modifiers may not cross foci. This latter fact already follows from Rizzi's (2004) characterization of modifier movement as clause bound.

(16)   Foc≫Mod

a.   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.)

To summarize, once the effects of locality are unconfounded from the effects of the template, we find that the positioning of foci with respect to relative operators, topics, and neutrally fronted modifiers follows entirely from locality. 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 follows from locality without the need to invoke a template. We observe that the template makes no restrictive claim about the relative position of modifiers and topics at all, since they are allowed to come in either order.

(17)   Top ≫≪ 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 (17b) suggests that topics may cross neutrally fronted modifiers, a supposition supported by the acceptable status of (18). Example (17a) suggests that neutrally fronted modifiers may cross topics, however, this supposition cannot be independently verified because of the general clause-bounded nature of modifier movement.

(18) 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.)

A theory of locality that claims that relative operators and foci asymmetrically block neutral modifier movement and that assumes that there is no locality interaction between neutral modifier movement and topicalization makes the correct predictions.

2.4 Interim conclusions

So far we have considered the pairwise locality interactions between relative operators, topics, foci, and fronted modifiers. It was shown that for these elements Rizzi's template in (1) makes no predictions about pairwise ordering possibilities beyond those already entailed by locality. The pairwise interactions provide no grounds for postulating a left-peripheral template.

Differences between the approach taken here and the template in (1) emerge, once we look beyond pairwise interactions. A clausal left periphery that is exhaustively populated by relative operators, topics, foci, and modifiers has the maximal structure given in the first line of (19), which differs slightly from a maximally populated left periphery according to Rizzi, the second line of (19).

(19)

	Here:	Rel	Top	Foc	Top	Mod	Top
	Rizzi, 2004*a*:	Rel	Top	Foc		Mod	Top

The locality approach to the left periphery predicts that topics can be positioned in between foci and modifiers, while the template in (1) prohibits this. The examples below indicate, that the prediction that emerges from the locality approach to left peripheral order is correct.

(20)   a.   QUESTO, a Gianni, ieri,   gli hanno raccontato
                THIS   to Gianni yesterday they to-him told
        b.   IL   TUO LIBRO, a Gianni, improvvisamente, gli hanno tirato in
                THE YOUR BOOK, to Gianni, suddenly   they to-him threw to
                faccia,   non la sedia
                the face, not the chair
                (Luigi Rizzi, p.c.)

This prediction, minor though it may be, provides independent corroboration of the approach taken here, since it correctly predicts the shape of the left periphery rather than just recording it. A purely templatic approach is condemned to being, at best, a faithful catalogue.

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. Again, these complications can at best be described under a templatic approach, while they can be explained and derived under a locality approach.

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 and strong islands. Relative clauses are strong islands, foci give rise to weak islands. From locality we can therefore derive the ordering statements (21a-b). Since focus movement is weak-island sensitive, we can derive (21c). Finally, Rizzi, 1980*a* observed that

relative-clause formation is possible out of embedded questions, (10a), i.e., locality predicts (21d).

(21) a. *$wh \gg$ Rel
      b. *$wh \gg$ FOC
      c. *FOC $\gg wh$
      d. Rel $\gg wh$

The above is exactly the same claim made in (1). Foci and *wh*-phrases are claimed to compete for the same position, SpecFoc, and are therefore incompatible with each other. This claim is illustrated in (23).[6] Relative operators, although locally incompatible with *wh*-phrases, occupy a position above that for *wh*-phrases in (1). The advantage of the current approach over Rizzi's is that the incompatibility of moved foci with moved *wh*-phrases is predicted rather than stipulated (see already Chomsky, 1977*b*, for this mode of explaining local incompatibilities between elements from locality theory). What remains a stipulation under both approaches is the local incompatibility of *wh*-phrases and relative operators with each other.[7]

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[6]Samek-Lodovici, 2006 disputes this generalization for both direct and indirect questions. While Samek-Lodovici's examples do control relevant intonational factors, no control is given to show that the direct question does not contain a contrastively stressed topic (for which possibility see Beninca' and Poletto (2004, p. 56)). From the current perspective, it would also need to be shown that the corrective foci used by Samek-Lodovici obey the locality constraints that regular focus is subject to (strong and weak island sensitivity).

Rizzi, 2001 also contains the following paradigm. I have not studied the locality interactions involved here to see whether these examples might provide an argument for a template or not.

(22) a. *?Mi domando a chi QUESTO abbiano detto (non qualcos'altro)
          'I wonder to whom THIS they have said (not somethin else)'
      b. *?Mi domando QUESTO a chi abbiano detto (non qualcos'altro)
          'I wonder THIS to whom they have said (not something else)
      c. Mi domando A GIANNI che cosa abbiano detto (non a Piero)
          'I wonder TO GIANNI what they have said (not to Piero)
      d. *?Mi domando che cosa A GIANNI abbiano detto (non a Piero)
          'I wonder what TO GIANNI they have said (not to Piero)

Notice that (22a-b) involve a direct object. For direct objects it is easiest to differentially diagnose focalization vs. topicalization, a.k.a. clitic left-dislocation, because with direct objects the clitic is obligatory in clitic left-dislocation structures. The fact that both orders in (22a-b) are ungrammatical might then suggest that the acceptable (22c) might involve misdiagnosed clitic left-dislocation rather than focalization. Clearly, the examples would need to be studied more carefully.

[7]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). This is a case where a templatic

(23)   * Foc ≫≪ 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

We have seen in the last section that topicalization does not interact with focalization or modifier movement for the purposes of locality. According to Rizzi, 2004*a*, there is also a conspicuous lack of locality-interactions between *wh*-movement and topicalization, (24).

(24)   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, a locality approach correctly predicts that both orders are possible also in the local case, (25).

(25)   *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"

Main clauses are somewhat more restricted: they do not permit *wh*-phrases to precede topics, (26). Notice that the structure in (26) is a candidate for a templatic explanation according to the logic laid out in (6). Of course, Rizzi's template encodes the facts

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explanation might actually do some work: If a template were stipulated which orders *wh*-elements above relative operators, locality could be invoked to rule out their co-occurence; alternatively, they 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.

in (25) not those in (26). In fact, Rizzi, 1997 argues the failure of *wh* ≫ Top in main clauses is part of a larger generalization 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.

(26)   Main clauses: Top ≫ *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))

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 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.[8]

We start the discussion with the complementizer 'se' – *if*. Given the template in (19), 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 Foc^0, the latter in SpecFoc) and they occur in the order focus ≫ C_{Int}^0 or (ii) foci and interrogative complementizers cannot co-occur because they

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[8]These statements will be qualified slightly below.

would have to be hosted in the same phrase as head and specifier, but they are featurally incompatible because of a clash between the Q-feature on the complementizer and the focus feature on the focus. Neither of these expectations is borne out. Foci do co-occur with 'se' – *if* and when they do, the complementizer precedes the focus.

(27)   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, 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, the predictions change. Recall that focus-movement is weak-island sensitive. In particular, foci cannot be extracted from indirect questions. From the weak-island sensitivity of focus movement, we deduce (28).

(28)   * Foc ≫ SE

Notice however that in contrast to the *wh*-phrases considered so far, 'se' – *if* is base generated in its surface position rather than being moved there. In the cases discussed before foci and *wh*-phrases were incompatible because either the focus would have to cross over the *wh*-phrase or the other way around leading, either way, to a locality violation. Since 'se' – *if* is base generated, 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 (29).

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

CP₁
(*Foc)
...
CP₁
SE
...
CP₁
(Foc)   IP
...(Foc)...
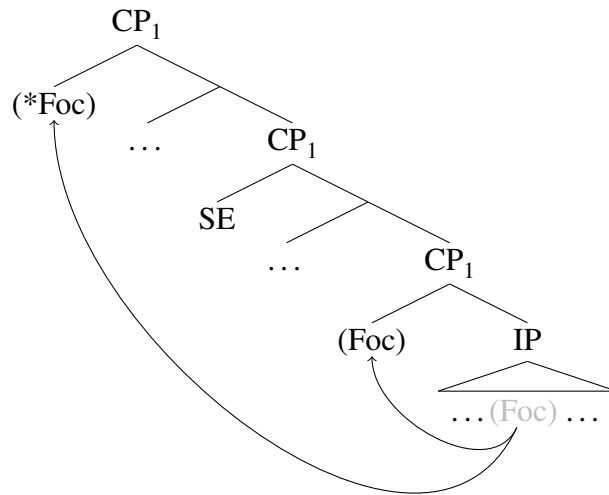
In other words, the observed co-occurrence and linear order of foci and 'se' – *if* is exactly as predicted by locality.

According to Rizzi, 2001, 'perché' – *why* and 'come mai' – *how come* occupy the same position in the template that is occupied by 'se' – *if*, (30) and (31). Rizzi accounts for this difference between regular *wh*-phrases and 'perché' – *why* and 'come mai' – *how come* by endowing the latter but not the former intrinsically with a special feature that allows them to occur in SpecInt.

(30) *perché*   Rizzi, 2001, 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?'

(31) *come mai*   Rizzi, 2001, 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?'

We can account for this behavior if both 'perché' – *why* and 'come mai' – *how come* can be base-generated in the left periphery. The idea that certain *wh*-elements including *why* and/or *how come* are base-generated in the left periphery of the clause they have

in their scope is not new of course (see 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.

(32) WH$_{\text{base generated}}$ ≫≪ 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, ex. 9a-d

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 which remains ultimately unexplained in his account: When 'come mai' – *how come* and 'perché' – *why* move, they behave like regular *wh*-phrases. A relevant example is given in (33a). The example is ambiguous between a reading that asks about the reason of saying and a reading that asks about the reason of resigning. In the latter case, 'perché' – *why* has moved from the lower clause. In this particular case, the locality approach gives rise to the expectation that 'perché' – *why* 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 (33b) disambiguates the sentence; only the reason-of-saying reading remains.

(33) Moved 'perché' – *why*   (Rizzi, 2001)
  a. Perché ha detto che si dimetterà?
      'Why did he say that he will resign?'
  b. Perché A GIANNI ha detto che si dimetterà (non a Piero)?
      'Why TO GIANNI he said that he will resign (not to Piero)?'

Under an approach like Rizzi's where the appearance of 'perché' – *why* and 'come mai' – *how come* depends on an inherent lexical property of these items, this behavior is unexpected. Why should movement block these elements' inherent ability to appear in SpecInt? On the locality approach, the key to the puzzle is a relational property of the elements in question: when they are base generated 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 are base-generated in the left periphery, the locality approach thus makes strikingly correct predictions. The facts might be describable in terms of a left peripheral template – though with 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. 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 crossing behavior predicts the ordering behavior 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 feature structure. This is the theory that was tacitly presupposed in the discussion of the previous sections. I then present an alternative theory of locality that has essentially the same coverage. This theory assumes a cartographic template and a version of the escape hatch proviso assumed in much of Chomsky's work on locality (Chomsky, 1977a, 1986, 2001) and built into

the architecture of TAG (Frank, 2002; Joshi, Levi, and Takahashi, 1975; Kroch, 1989). The relative merits and demerits of both approaches will be discussed.
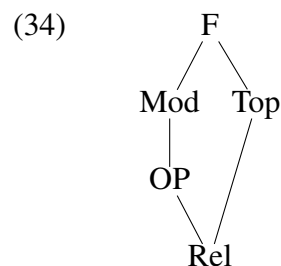
Following Rizzi, 2004*a*; Starke, 2001, I have assumed that syntactic locality should be handled in terms of a ban against likes crossing likes (Relativized Minimality). Such a ban needs to be supplemented by a definition of what it means for one element to cross another element; it also needs to be supplemented by a categorization of items into classes. The standard definition of 'crossing' in syntax is in terms of c-command: In a movement chain of type τ, the head of the chain may not c-command any elements of type τ that (asymmetrically) c-command the foot of the chain.

This needs to be supplemented by a suitable classification of moving elements into structural types. 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 guarantees this result by assuming three classes (A, $\overline{\text{A}}$, and heads) that are orthogonal to each other.

Starke, 2001 makes an important addition to this logic. According to Starke, syntactic elements are not only classified into orthogonal classes, rather, he suggests that some classes have subclasses and superclasses. The construction of movement dependencies and the application of Relativized Minimality can then be understood in terms of the Pāṇini principle: 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.

As a first pass, the locality interactions discussed here can be represented in the feature structure in (34). F represents the class of all classes. Mod contains all elements that are of that category in Rizzi's work including also, as more specific subclasses, the

syntactic operators (including negation, the *wh*-operator, focus-operator, and the relative operator). OP is the class of syntactic operators involved in weak islands (negation, *wh*, focus, quantificational adverbs,...). Top is the orthogonal class of topics. Finally, Rel is a subclass of both the operators and the topics.

(34)

$$
\begin{array}{c}
F \\
\diagup\diagdown \\
\text{Mod}\quad\text{Top} \\
| \quad\quad \diagdown \\
\text{OP} \quad\quad | \\
\diagdown\quad\diagup \\
\text{Rel}
\end{array}
$$

This 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.[9]

While the structure in (34) simply recapitulates the hierarchical ordering between Rel, OP, and Mod from Rizzi's template, the fact that Top is orthogonal to OP and Mod is stated here in a compact and perspicuous way. Furthermore, the interaction between different members of the OP class, whether moved or base-generated, can be derived from the logic of crossing alone.[10]

An alternative approach might be to jettison the entire machinery of Relativized Minimality introduced above. Under such an approach the template might be taken to be primitive and it could be supplemented by a principle like the Phase Impenetrability Condition to the effect that only the highest filled specifier in the the extended CP domain is accessible for movement. In different structures, different elements will consti-

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[9]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 feature 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.

[10]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 a simplification of the feature structure, which would then end up with F the least specific, Rel the most specific class, and Mod and Top as the two bulges. This is, of course, a boolean algebra and it might be possible to derive its properties.

tute the highest filled specifier position in the extended CP domain. On the assumption that on an intermediate step of movement, an element can only move to positions of the same type as the final landing site, the locality interactions between different elements can now be derived from the template: an element will only be able to move on if it occupies the highest specifier position in the template. The higher an element moves in the template, the fewer elements will block its long-distance extraction.[11]

The main objection to this type of approach is that it is purely descriptive. As an approach, it is difficult to falsify and it fails to make interesting predictions. The locality approach, as noted in sections 2.4 and 3, takes the pairwise interactions of elements and predicts the shape of the template from them. The purely templatic approach does not and cannot do this. Unlike under the locality approach, finding an additional topic position between ModP and FocP is no more expected than not finding one. Finding a position for Int above Foc is no more expected or unexpected than finding Int below Foc. For this reason, the locality approach, it seems to me, ought to be the theoretical null-hypothesis to be discarded only in the face of strong counter-evidence.

Notice that the discussion here leaves an apparently irreducible templatic residue. The complementizers 'che' – *that* and 'di' – *of* do not have the freedom of positioning expected under a pure locality approach. As far as I can see, their relative position to the moving elements discussed in this paper must be stipulated in some kind of template. Similarly, while the relative positions of the elements discussed here fall out from locality, the fact that there is a left periphery of the clause where relative operators, topics, foci, *wh*-phrases, and modifiers move remains templatic.[12]

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[11]The logic changes somewhat but not dramatically so if more than one specifier is accessible by the Phase Impenetrability Condition, so long as it is guaranteed that a particular specifier can only move if all of the ones above it within that particular domain also move. This move seems necessary to accommodate multiple clitic left dislocation discussed in Cinque, 1990 or cases where a relative operator and a *wh*-phrase are both moved more than one clause.

[12]It might be curious to note that further regularities in the left periphery, like the generalization that in matrix questions in Italian nothing can intervene between the *wh*-phrase and the auxiliary – see example (26) above – is treated by Rizzi (1997, p. 299) in terms of a very local, template-like criterion that demands the clausal *wh*-feature borne by T^0 to move to Foc^0 and the *wh*-phrase itself to move to Spec-Foc. If needed, this type of templatic/criterial explanation remains available under the locality approach suggested here.

5 Conclusion

I have tried to argue that in the present theoretical context, **Rizzi**'s (1997; 2001; 2004) left peripheral template is undermotivated as a theoretical construct. Relativized Minimality combined with a suitable feature 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 (35).

(35)	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 "maps" 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. For the time being, the fact that the locality approach is more predictive (and hence more easily falsifiable) forces our hand: the left peripheral template shown in (35) needs to be retired from the theory until a strong argument for it has been made.

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