

ON THE CARTOGRAPHY OF OPERATOR POSITIONS IN MOCHENO LEFT PERIPHERY

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1 Introduction

In this article¹ I focus on the high left periphery of Mòcheno, a Tyrolean dialect spoken in the Fersina valley in Eastern Trentino (North of Italy).

In Cognola (2007) I gave a first sketch of the structure of the left periphery in this language, starting out from the work on the split-CP by Benincà (2001, 2006) and Benincà/Poletto (20004). For Romance, Benincà/Poletto (2004) proposed the structure of the high periphery given in (1). According to this structure two main areas can be detected in the high periphery: its lowest portion hosts a focus field composed of three subfields, whereas its highest portion hosts the topic positions. The topic field can be further split up in two sub-areas: an highest portion composed of the hanging-topic projection and the position for scene setters which the authors call "frame", since it gives information concerning when and where the event takes place. The lowest portion of the Topic field is dedicated to themes.

- (1) $[_{Frame}[HT][SceneS][_{Theme}[LD][List.inter.][_{Focus}[Contr.CP1][Contr.CP2][Inform.CP2]]]]]$

Capitalizing on the structure in (1), which allows to have a detailed typology of the types of XPs showing up in the left periphery, Benincà (2006) puts forward an hypothesis on V2 in Old Romance. Analysing the typology of XPs showing up in the left periphery of Old Romance languages and their occurrences with V2 together with proclisis and enclisis, she puts forth the idea that V2 is always triggered in the focus field. This means to say that only an XP with operator properties can trigger V2. A simplified structure of Old Romance from Benincà (2006:32) is given in (2).

- (2) $[Force [Relwh]/_{Frame} [ScSett][HT] Topic[LD][LI]_{Focus}[I Focus][II Focus] / [Interr wh- V2][Fin]]]$

¹I would like to thank Cecilia Poletto for having discussed so many times data and analysis with me and Paola Benincà and Chiara Zanini and the audience of the XIV Giornata di Dialettologia for useful comments and discussion.

The data presented here refer to the dialect spoken in the village of Palù del Fersina. I would like to thank my excellent informant Leo Toller for his patience and concern in answering my questions correctly.

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Differently from Old Romance, for which it is assumed that V2 is triggered in the Focus field, I concluded that Operators in Mòcheno move to different OperatorPs (from here on OpP), triggering V2 in two different positions of the high periphery. This was concluded basically on the basis of the analysis of the syntactic behaviour of *wh*-elements on the one hand and of foci on the other. As shown in (3a), a *wh*-element is compatible with several XPs preceding on its left: this follows straight from the assumption that *wh*-elements move to the Focus field found in the lower portion of the high periphery and can be preceded by topicalised items, as shown in the structure in (2). Foci, though, cannot be preceded by several XPs (3b), but are grammatical with no XP preceding (3c). This is unexpected under the assumption that foci are operators and behave in the same way as *wh*-elements, that is should move to the Focus field.

- (3) a. *Hait der Mario petn Nane bo hot-er pakemmt de sai muam?*
today the Mario with-the John where has-SUBJ CL met the his aunt
‘Where did Mario meet his aunt with John today?’
- b. **Hait der Mario petn Nane VOUR DE KIRCH hot-er pakemmt de sai muam*
today the Mario with-the John in front of the church has-SUBJ CL
met the his aunt
- c. *VOUR DE KIRCH hot-er pakemmt de sai muam*
in front of the church has-SUBJ CL met the his aunt
‘It was in front of the church where he met his aunt’

Basing on this evidence, I proposed that in Mòcheno the V2 constraint can be triggered in two OpPs of the high left periphery, namely in a highOpP by foci and in a lowOpP by *wh*-elements. Following Poletto (2002), who reached the same conclusions for the distribution of V2 with *wh*-elements and foci in the Rhaetoromance dialect of San Leonardo, I assumed that foci move first to the lowOpP and then higher up to SpecForceP; the finite verb moves then to the head of ForceP. Differently from Benincà (2006), ForceP is assumed to be below scene setters. A *wh*-element only has to reach a Spec position of lowOpP in the Focus field to whose head the finite verb has to raise.

This is shown below in (4).

- (4) [_{Frame}[HT][SceneS.][Force V2][_{Theme}[LD][List.inter.][_{Focus}[Contr.CP1][Contr.CP2][interr.*wh*- V2]]]]

In this work I will develop my analysis further and I will examine in detail the two OpPs found in the CP of Mòcheno in relation to the Topic

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positions available above them. New data collected in recent field work hint straight at the fact that the structure given above in (4) can be further refined. In particular it can be shown that i) inside the area dedicated to interrogative wh-elements, there exist dedicated positions for wh-elements with different thematic roles, just like in those Slavic languages allowing for multiple wh-fronting (among others Krapova/Cinque 2008)²; and that ii) the OpP hosting focalised XPs is to be found immediately below hanging topics and not below scene setters as assumed in the structure in (4).

As far as the first point is concerned, that is the structure of the layer hosting wh- elements, I will show that two big areas for wh-elements are found: a lower one activated by simple wh-elements and a higher one activated by wh-phrases (Munaro 1994, Obenauer 1994). Inside one and the same area wh-elements with different theta roles – direct object (from here on DO), indirect object (IO), subject (SUBJ) and temporal adjunct – move to dedicated positions activating different Topic projections on their left, as can be seen in the structure in (5):

$$(5) \quad [Topicfield[TopP \mathbf{XP}][OpP \mathbf{wh2}]/- [Topicfield[TopP \mathbf{XP}][TopP \mathbf{XP}][OpP \mathbf{wh1}]]]$$

All Topic sublayers activated by one wh-element end up with what I informally call a frame³, that is with two projections with the function of setting the event in time and space.

$$(6) \quad [Frame[TempP \mathbf{XP}][LocP \mathbf{XP}]]$$

In the second part of the work, I will deal with the OpP hosting focalised XPs showing that, differently from what concluded in Cognola (2007), a focalised XP is actually compatible with an XP on its left. I will claim that the XP preceding a focus shows up in the hanging-topic position, even though it does not share all properties of hanging topics, for instance i) also PPs can show up in the position and ii) doubling with an epithet is possible with all XPs. It will be shown that doubling with an epithet is possible only for bare nouns, which occupy another, namely lower, hanging-topic position.

²A similar idea has been recently proposed also by Aboch/Pfau (2008), who point out that wh- elements with adjunct theta role behave differently from wh- elements with argumental theta role in a language such as French. My proposal represents, I think, a refinement of this line of research, since I show that in a language without multiple wh- fronting, also wh-elements with argumental theta roles have dedicated positions and behave differently from each other.

³Notice that here I use the label “frame” only to indicate two projections setting the event in time and space, which can only show up above TopicPs. The collocation of the hanging-topic projection with respect to the frame will be handled with below.

The data provided hint straight at the fact that the hanging-topic projection is composed of at least two projections: the highest one dedicated to arguments with case (also PPs) and the lower one dedicated to bare nouns.

The article is organised as follows: in section 2, I will take into consideration simple wh-elements with different theta roles, showing that they occupy different OpPs, since they allow for a different number of topicalised arguments to their left. In 2.4 I will examine one wh-phrase, showing that it activates a different Topic field and occupies a different (probably higher) position with respect to other wh-elements.

In section 3 I will come to the OpP dedicated to contrastively focalised XPs.

2 Wh-main interrogative clauses

Before examining in detail the characteristics of the topic field activated by the different wh-elements, it is worth saying two words on topicalization of arguments in Mòcheno.

As is to be seen in the examples in (7) below, subject and DO are always resumed by a clitic pronoun in Mòcheno (7a,b), whereas IOs are not obligatory resumed (7c).

- (7)
- a. *Gester der Mario bos hot-*(er) kaft en de boteig?*
yesterday the Mario what has-SUBJ CL bought in the shop
'What did Mario buy in the shop?'
 - b. *Gester der Nane ber hot-*(en) zechen?*
yesterday the John who has-ACC CL seen?
'Who saw Mario yesterday?'
 - c. *Gester en de Maria bos hoso-(en) trog?*
yesterday to the Mary what have-SUBJ CL-DAT CL brought
'What did you bring Mary yesterday?'

In what follows we will see that the presence of the resumptive clitic with IOs is only apparently optional, in particular: i) IOs with and without clitic display different syntactic properties; ii) IOs without resumption are possible only with the wh-element with DO theta role *what*; iii) verb arguments with resumptive clitic show up before IOs without resumption in positions dedicated to Topics with resumption.

In the following subsections I will take into consideration three simple wh-elements with different theta roles and one wh-phrase describing their

occurrences with Topics⁴.

2.1 Wh-element with DO theta role

The -human wh-element with DO theta role *what* allows for an IO to be topicalised above it without resumptive clitic (8a) and is also compatible with a scene setter and a subject on its left (8b) and with non-argumental PPs showing up in their basic constituent order (8c,d).

- (8) a. *En de Maria bos hoso trog?*
to the Mary what did-SUBJ CL brought
'What did you bring Mary?'
- b. *Der Nane en de Maria bos hot-er trog?*
the John to the Mary what has-SUBJ CL brought?
'What did John bring Mary yesterday?'
- c. *Om 3 vour de kirch bos hoso gem en Nane?*
at three in front of the church what have-SUBJ CL given to John
- d. **Vour de kirch om 3 bos hoso gem en Nane?*
'What did you give John at three o'clock in front of the church?'

Let's examine the properties of the Topic position located immediately above the wh-element *bos*. As can be seen in (9), an IO can be combined with a non-argumental PP but their order is IO - PP and cannot be changed.

- (9) a. *En de Maria om 2 bos hoso trog?*
to the Mary at two o'clock what have-SUBJ CL brought
- b. **Om 2 nomitto en de Maria bos hoso trog?*
'What did you bring Mary at two o'clock in the afternoon?'

In principle, it could be possible to have more than one non-argumental PP below the IO in a sentence like (9a) but, crucially, the order of these PPs i) cannot be changed (10a,b) and ii) corresponds to the one found in the lower area of the clause above VP (Schweikert 2004, Cinque 2006) where they show in the same fixed order with no possibility of changing (10c,d).

- (10) a. *En de Maria om 2 vour de kirch bos hoso trog?*

⁴As pointed out by Krapova/Cinque (2008), in Bulgarian also the feature +/-human on the wh-element seems to play a role in the distribution of wh-elements in multiple wh-fronting. My research have shown that the same is valid also for Mòcheno, for instance a wh-element with DO theta role has a different syntactic behaviour according to the +/-human feature, therefore *what* behaves differently from *who*. For reasons of space, I will not go into the details of this.

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- to the Mary at two o'clock in front of the church what-SUBJ CL brought
- b. **En de Maria vour de kirch om 2 bos hosu trog?*
 'What did you bring Mary at two o'clock in front of the church?'
- c. *En de Maria bos hosu trog om 2 vour de kirch?*
 to the Mary what have-SUBJ CL brought at two in front of the church
- d. **En de Maria bos hosu trog vour de kirch om 2 nomitto?*
 to the Mary what have-SUBJ CL brought in front of the church at two
 'What did you bring Mary at two o'clock in front of the church?'

Even if the first impression is that there are two positions for Topics above *bos*, the higher one for IO-*res* and the lower one for non-argumental PPs, I think that the pattern found in (10a) has to be analysed in terms of movement of IO to the Spec position of a projection immediately above *bos*, together with a chunk containing the non-argumental PPs.

This analysis is motivated by the case in which also a topicalised subject is taken into consideration. As shown (11), it cannot in any case follow an IO without clitic doubler.

- (11) **En de Maria der Nane bos hot-er trog?*
 yesterday to the Mary the John what has-SUBJ CL brought
 'What did John bring Mary?'

What we have seen so far leads me to the conclusion that the projection found immediately above *bos* can only host a remnant, as shown in the structure in (12)⁵.

- (12) [_{GroundP} **rem.VP**][_{OpP} **bos**]

Let's come now to the case in which also a scene setter is present in the interrogative clause.

We saw above in (9b), repeated below as (13), that a non-argumental PP cannot precede an IO not resumed by a clitic.

- (13) **Om 2 nomitto en de Maria bos hosu trog?*
 at two o'clock in the afternoon to the Mary what did you bring
 'What did you bring Mary at two o'clock in the afternoon?'

If a scene setter is present, a non-argumental PP is actually forced to precede a verb argument (14a,b).

⁵Following Poletto/Pollock (2004 and subsequent work) I label this position *GroundP*.

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- (14) a. *Gester vour de kirch en de Maria bos hoso trog?*
yesterday in front of the church to the Mary what-SUBJ CL brought
b. **Gester en de Maria vour de kirch bos hoso trog?*
yesterday to the Mary in front of the church what have-SUBJ CL
brought
‘What did you bring Mary yesterday in front of the church?’

This happens also in the case a topicalised subject is present in the sentence (15a,b).

- (15) a. *Gester vour de kirch der Nane en de Maria bos hot-er trog?*
yesterday in front of the church the John to the Mary what have-SUBJ
CL brought
b. **Gester der Mario vour de kirch en de Maria bos hot-er trog?*
yesterday the Mario in front of the church to the Mary what has-SUBJ
CL brought
‘What did Mario bring Mary yesterday in front of the church?’

Basing on the data seen so far, I conclude that in the case a scene setter is present, that is if the frame is activated, a locative PP has obligatoriness to show in the frame and cannot follow a IO_{-res}.

- (16) [_{Frame} [_{TempP} **Gester**][_{LocP} **vour de kirch**] [_{Topicfield}[_{TopP}
SUBJ][_{GroundP} **rem. VP**][_{OpP} **bos**]]]

In the structure I sketched in the introduction I showed that in Mòcheno Topics with or without resumption occupy different positions in CP. If this idea is correct it is to be expected that i) an IO can show up also with a resumptive clitic; ii) in this latter case it admits Topics below it.

As shown in (17) both predictions are borne out. If an IO resumed by a clitic is followed by two PPs the order of the latter can be inverted (17a,b), which was ruled out in the case no clitic was not present (17c)⁶.

- (17) a. *En Nane om 3 vour de kirch bos hot-er-en trog?*
to John at three in front of the church what has-SUBJ CL-DAT CL
brought
b. *En Nane vour de kirch om 3 bos hot-er-en trog?*
to John in front of the church at three what have-SUBJ CL-DAT CL
brought

⁶For the moment I do not make precise what positions are occupied by the PPs showing up below IO; this point will be made clear at the end of the section dedicated to wh-elements.

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- c. **En Nane vour de kirch om 3 bos hot-er trog?*
 to John in front of the church at three what has-SUBJ CL brought
 ‘What did he bring John at three o’clock in front of the church?’

An IO doubled by a clitic is compatible with a subject in the case of *bos*. Though, their order is always subject - IO (18a,b) and they both have to show up below the frame (18c,d).

- (18) a. *Gester der Nane en de Maria bos hot-er-en trog?*
 yesterday the John to the Mary what has-SUBJ CL-DAT CL brought
 b. **Gester en de Maria der Nane bos hot-er-en trog?*
 yesterday to the Mary the John what has-SUBJ CL-DAT CL brought
 ‘What did John bring Mary yesterday?’
 c. *Gester om 3 vour de kirch der Mario en Nane bos hot-er-en trog?*
 yesterday at three in front of the church the Mario to John what
 has-SUBJ CL-DAT CL brought
 d. **Gester der Mario en Nane om 3 vour de kirch bos hot-er-en trog?*
 ‘What did Mario bring John yesterday at three o’clock in front of the
 church?’

As far as the structure of the topic field activated by the wh-element *bos* is concerned, I have shown so far that IOs without resumption are moved above the wh-element through remnant movement to a position for remnant (GroundP) found immediately above *bos*. IOs with resumption, on the contrary, occupy a dedicated position when showing up in the Topic field activated by *bos* and found above GroundP. Therefore, it cannot be said that IOs are optionally doubled by a clitic: its presence or absence is linked to two different positions in the Topic field. I showed, then, that the Topic field activated by *bos* ends with a frame containing two projections for XPs setting the action in time and space; below it two dedicated positions for subject and IO with resumption are to be found.

The structure we can derive is the following one given in (19)⁷:

- (19) $[_{Frame} [_{TempP} \mathbf{XP}] [_{LocP} \mathbf{XP}] [_{Topicfield} [_{SubjP} \mathbf{SUBJ}] [_{IOP} \mathbf{IO}_{+res} [_{GroundP} \mathbf{rem. VP}] [_{OpP} \mathbf{bos}]]]]]$

In the next section I will take into consideration the syntactic behaviour of another wh-element, namely the one with subject theta role.

⁷I label the projection dedicated to the subject *SubjP*, which has nothing to do with the one proposed by Cardinaletti (2004) and found in the IP layer.

2.2 Wh-elements with subject theta role

In this subsection I will take into examination the syntax of the + human wh-element with subject theta role *who*, showing that it does not share the syntax of a wh-element with DO theta role. In order to do so, I take into consideration a sentence with a topicalised IO without resumption and see if it is grammatical with a wh-element with subject theta role.

As is to be seen in (20a), it is impossible to have a topicalised IO without resumptive element *ber*, whereas a non-argumental PP is perfectly grammatical above it (20b).

- (20) a. **En de Maria ber hot kaft a puach?*
to the Mary who has bought a book
‘Who bought Mary a book?’
b. *Gester om 3 nomitto ka Trient ber hot kaft a puach en de Maria?*
yesterday at three o’clock in the afternoon in Trento who has bought
a book to the Mary
‘Who bought Mary a book in Trento yesterday at three?’

Above the wh element *ber* an IO is incompatible also if it shows up together with a PP: both orders IO - PP (21a) and (21b) are ruled out.

- (21) a. **En de Maria ka Trient ber hot kaft a puach?*
to the Mary in Trento who bought a book
b. **Ka Trient en de Maria ber hot kaft a puach?*
in Trento to the Mary who has bought a book
‘Who bought Mary a book in Trento?’

These few examples allow already to draw some conclusions.

First of all, *ber* is incompatible with an IO without resumption, that is it does not display of the position for remnant VP which I called GroundP. Secondly, *ber* has to occupy a different, namely higher, position in comparison to *bos*, since, if it were lower than *bos*, it would “see” GroundP:

This is summarised below in (22).

- (22) [_{Frame} [_{TempP} **XP**][_{LocP} **XP**] [_{OpP} **ber**][_{GroundP} **rem. VP**][_{OpP} **bos**]]

As it was the case of *bos*, the wh-element *ber* is compatible with resumed Topics on its left; in (23) I give the cases of DO and IO.

- (23) a. *Gester der Luca ber hot-en zechen?*

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- yesterday the Luca who has-ACC CL seen
 ‘Who saw Luca yesterday?’
 b. *Gester en Luca ber hot-*(en) gem a puach?*
 yesterday to Luca who has-DAT CL given a book
 ‘Who gave Luca a book yesterday?’

Topics doubled by a pronoun are found below the frame field.

- (24) a. *Gester vour de kirch der Luca ber hot-en zechen?*
 yesterday in front of the church the Luca who has-ACC CL seen
 b. **Gester der Luca vour de kirch ber hot-en zechen?*
 ‘Who saw Luca in front of the church yesterday?’
 c. *Gester vour de kirch en de Maria ber hot-en gem a puach?*
 yesterday in front of the church to the Maria who has-DAT CL given
 a book
 d. **Gester en de Maria vour de kirch ber hot-en gem a puach?*
 yesterday to the Mary in front of the church who has-DAT CL given
 a book
 ‘Who gave Mary a book yesterday in front of the church?’

As far as the relative order of DO and IO is concerned, both orders are admitted in the case of *ber*; this suggests that the projections above *ber* are to be considered unspecialised Topic projection which can possibly host any argument.

- (25) a. *Gester s puach en de Maria ber hot-z-en gem?*
 yesterday the book to the Mary who has-ACC CL- DAT CL given
 b. *Gester en de Maria s puach ber hot-z-en gem?*
 yesterday to the Mary the book who has-ACC CL-DAT CL given
 ‘Who gave Mary the book yesterday?’

Sentences in (25) are extremely interesting as far as the position of the sublayer activated by *ber* is concerned, since they hint at the fact that *ber* is not only higher as GroundP, but also as the TopicPs dedicated to topicalised SUBJ and IO which we found above *bos*.

The structure seen so far is given in (26).

- (26)
$$[Frame [TempP \mathbf{XP}][LocP \mathbf{XP}] [Topicfield [TopicP \mathbf{XP}][TopicP \mathbf{XP}][OpP \mathbf{ber}]/ [Topicfield [SubjP \mathbf{SUBJ}][IOP IO_{+res}] [GroundP \mathbf{rem. VP}][OpP \mathbf{bos}]]]]]$$

In the next section I will take into consideration a wh-element with an adjunct theta role, showing that it has a different syntactic behaviour from both argumental wh- elements considered so far.

2.3 Wh-elements with temporal theta role

The syntactic behaviour of wh- elements with temporal theta role will be illustrated with *when*, even if the same behaviour is displayed also by *at what time*.

As can be seen in (27), any argumental XP preceding *benn* has to be doubled by a pronoun; the fact that doubling is obligatory also with an IO (27c) already hints at fact that this wh-element occupies a different position in comparison to *bos*⁸.

- (27) a. *Gester der Mario benn hot-*(er) zechen der Nane?*
 yesterday the Mario when has-SUBJ CL seen the John
 ‘When did Mario see John yesterday?’
 b. *Gester der Mario benn hoso-*(en) zechen?*
 yesterday the Mario when have-SUBJ CL-ACC CL seen
 ‘When did you see Mario yesterday?’
 c. *Gester en de Maria benn hoso-*(en) gem a puach?*
 yesterday to the Mary when have-SUBJ CL-DAT CL given a book
 ‘When did you give Mary a book yesterday?’

In the case an XP of the frame is present, it has to precede verb arguments (28a,b,c,d); the only exception to this pattern is represented by the behaviour of the subject (28e,f) which can show up before or after the PP.

- (28) a. *Gester vour de kirch der Mario benn hoso-en zechen?*
 yesterday in front of the church the Mario when have-SUBJ CL-ACC
 CL seen
 b. **Gester der Mario vour de kirch benn hoso-en zechen?*
 yesterday the Mario in front of the church when have-ACC CL seen
 ‘When did you see Mario in front of the church yesterday?’
 c. *Gester vour de kirch en de Maria benn hoso-en gem a puach?*
 yesterday in front of the church to the Mary when have-SUBJ CL-
 DAT CL given a book
 d. **Gester en de Maria vour de kirch benn hoso-en gem a puach?*
 yesterday to the Mary in front of the church when have-SUBJ CL-
 DAT CL given a book
 ‘When did you give Mary a book in front of the church yesterday?’
 e. *Gester vour de kirch der Mario benn hot-er pakemmt der Nane?*
 yesterday in front of the church the Mario when has-SUBJ CL met
 the John

⁸I give here only examples beginning with *gester* in order to avoid the hanging Topic construction.

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- f. *Gester der Mario vour de kirch benn hot-er pakemmt der Nane?*
 yesterday the Mario in front of the church when has-SUBJ CL met
 the John
 ‘When did Mario meet John in front of the church yesterday?’

Above *benn* and below the frame there is only one projection for Topics in which in turn verb arguments can show up. This can be seen in the examples in (29), in which any combination of subject, DO and IO below a non-argumental PP is ruled out; also sentences with the subject following the scene setter and an argument below would be ungrammatical.

- (29) a. **Gester vour de kirch der Nane de Maria om biaule hot-er-za zechen?*
 yesterday in front of the church the John the Mary at what time
 has-SUBJ CL-ACC CL seen
 b. **Gester vour de kirch de Maria der Nane om biaule hot-er-za zechen?*
 yesterday in front of the church the Mary to John at what time has-
 SUBJ CL-ACC CL seen
 ‘Yesterday at what time did John see Mary in front of the church?’
 c. **Gester om 3 nomitto der Nane en de Maria om biaule hot-er-en gem a puach?*
 yesterday at three o’clock in the afternoon the John to the Mary
 has-SUBJ CL-DAT CL given a book
 d. **Gester om 3 nomitto en de Maria der Nane om biaule hot-er-en gem a puach?*
 yesterday at three to the Mary the John at what time has-SUBJ
 CL-DAT CL given a book
 ‘Yesterday at what time did John give Mary a book?’

The layer of Topics found with the wh-element *benn* is built up in the higher part by the frame and in the lower one by one position for one argumental XP with clitic doubler, as summed up in the structure below in (30).

- (30) [_{Frame} [_{TempP} **XP**] [_{LocP} **XP**]] [_{Topicfield} [_{TopicP} **XP**]] [_{OpP} **benn**]

As far as the position of *benn* and its Topic layer is concerned, I assume that it shows up above wh-elements with argumental position, even though no clear evidence in this sense is present⁹.

In (31) I give the structure identified so far.

⁹Krapova/Cinque 2008 show that wh- elements with temporal theta role show up below argumental wh- elements.

- (31) $[_{Frame} [_{TempP} \mathbf{XP}] [_{LocP} \mathbf{XP}] / [_{Topicfield} [_{TopicP} \mathbf{XP}] [_{OpP} \mathbf{benn}]$
 $[_{Topicfield} [_{TopicP} \mathbf{XP}] [_{TopicP} \mathbf{XP}] [_{OpP} \mathbf{ber}] / [_{Topicfield} [_{SubjP}$
 $\mathbf{SUBJ}] [_{IOP} \mathbf{IO}_{+res}] [_{GroundP} \mathbf{rem. VP}] [_{OpP} \mathbf{bos}]]]]]$

In the next section I will take into consideration wh-phrases, which, as expected, show up in a different position in comparison to all wh- elements considered so far.

2.4 Wh-phrases

The behaviour of wh-phrases is illustrated using a -human wh-phrase with DO theta role; again, further research have shown that variation is found also among wh-phrases according to two different parameters i) the different theta roles and ii) the +/- human nature of the wh-phrase. These new data will not be discussed here.

As is to be seen in (32) both arguments showing up before the wh-phrase with DO theta role *how many books* have to be resumed by a clitic pronoun.

- (32) a. *En de Maria bivaie piacher hoso-*(en) kaft?*
 to the Mary how many books have-SUBJ CL-DAT CL bought
 ‘How many books did you bring Mary?’
 b. *Der Nane s beil dierndel hot-*(er) trog?*
 the John the which girl has-SUBJ CL taken
 ‘Which girl did John take?’

(32a) is enough proof in favour of the claim that a -human wh-phrase with DO theta role does not move to the same projection as a -human simple wh-element, since it does not allow for the remnant VP. My claim is that it moves higher up to a layer dedicated to wh-phrases, as already claimed in the literature (among others Munaro 1997, Obenauer 1994, 2004).

Evidence in favour of the claim that wh-phrases move to a different layer with respect to simple wh- elements comes from the fact that with wh-phrases the resumptive element is obligatory even in the case of topicalization of a PP which generally does not require resumption (33).

- (33) *Gester petn Nane bivaie piacher hoso kaft *(pet im)*
 yesterday with-the John how many books have-SUBJ CL bought with
 him
 ‘How many books did you buy John yesterday?’

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In the case a locative PP is present, it has to obligatory precede the verb argument; notice that even the subject cannot precede the PP¹⁰.

- (34) a. **Der Nane en fest s beil dierndl hot-er trog?*
the John to the party the which girl has-SUBJ CL taken
b. *En fest der Nane s beil dierndl hot-er trog?*
to the party the John the which girl has-SUBJ CL taken
‘Which girl did John take to the party?’
c. **En de Maria vour de kirch biavle piacher hoso-*(en) trog?*
to the Mary in front of the church how many books have-SUBJ CL-DAT CL brought
d. *Vour de kirch en de Maria biavle piacher hoso-*(en) trog?*
in front of the church to the Mary how many books have-SUBJ CL-DAT CL brought
‘How many books did you bring Mary in front of the church?’

As far as the order of arguments above the wh-phrase is concerned, in (35) can be seen that the subject has always to precede the IO; as it was the case of *bos*, dedicated positions for the subject and IO are to be found above it.

- (35) a. *Gester vour de kirch der Mario en Luca s beil dierndl hot-er-en vourstellt?*
yesterday in front of the church the Mario to the Luca the which girl has-SUBJ CL-DAT CL introduced
b. **Gester vour de kirch en Luca der Mario s beil dierndl hot-er-en vourstellt?*
yesterday in front of the church to Luca the Mario the which girl has-SUBJ CL-DAT CL introduced
‘Which girl did Mario introduce to Luca in front of the church?’

In 36 I give the structure identified so far.

- (36) $[_{Frame} [_{TempP} \mathbf{Gester}] [_{LocP} \mathbf{vour\ de\ kirch}] / [_{Topicfield} [_{SubjP} \mathbf{SUBJ}] [_{IOP} \mathbf{IO}_{+res}] [_{OpP} \mathbf{biavle\ piacher}] / [_{Topicfield} [_{TopicP} \mathbf{XP}] [_{OpP} \mathbf{benn}] / [_{Topicfield} [_{TopicP} \mathbf{XP}] [_{TopicP} \mathbf{XP}] [_{OpP} \mathbf{ber}] / [_{Topicfield} [_{SubjP} \mathbf{SUBJ}] [_{IOP} \mathbf{IO}_{+res}] [_{GroundP} \mathbf{rem. VP}] [_{OpP} \mathbf{bos}]]]]]]]$

¹⁰This last observation raises again the question of the possibility of having a subject in the Spec position of the hanging Topic projection.

2.5 Partial conclusions

In the first part of this article I have shown that in Mòcheno *wh*- elements with different theta roles move to dedicated OpPs, activating dedicated Topic layers for topicalised arguments. All Topic layers end up with what I called a “frame”, that is two projections setting the time and the place of the event. As we have seen, the frame has to show up in the left-most position, since no topicalised verb argument can precede XPs belonging to the frame nor intervene between the two XPs of the frame.

The structure shared by all *wh*- elements is given below in (58).

$$(37) \quad [_{Frame} [\mathbf{TEMP}][\mathbf{LOC}][_{Topicfield}[\mathbf{VERB} \quad \mathbf{ARG.}][_{Interrwh} \quad \mathbf{wh-element}]]]$$

The structure above shows that in Mòcheno topicalised elements belonging to different constituent categories cannot show up in free order, as is the case of Romance, but occupy fixed positions according to constituent categories, with argumental topics following XPs belonging to the frame.

As far as the different Topic layers for arguments activated by *wh*- elements with different theta roles are concerned, the data presented above have shown that they differ with respect to the number and type of TopicPs dedicated to verb arguments. The observation that *wh*- elements with different theta roles allow for a different number and type of argumental TopicPs leads to the conclusion that they do not show up in the same OpP, but occupy dedicated OpPs found in a dedicated Topic field.

The position of the different OpPs hosting *wh*-elements with their Topic layer hosting topicalised argument is given in (38).

$$(38) \quad [_{Topicfield} [_{TopicP} \mathbf{XP}][_{TopicP} \mathbf{XP}] [_{OpP} \mathbf{ber}]/ [_{Topicfield} [_{SubjP} \mathbf{SUBJ}][_{IOP} \mathbf{IO}_{+res}] [_{GroundP} \mathbf{rem. VP}][_{OpP} \mathbf{bos}]]]$$

The last observation made in this section was that *wh*-phrases occupy a dedicated layer, different from the one of simple *wh*- elements. This was concluded on the basis of the observation that all topicalised arguments (also PPs) found above *wh*- phrases have to be doubled by a pronoun, which never occurs with simple *wh*- elements.

The hypothesis in order to make sense of this is that *wh*-phrases occupy a dedicated layer found above the layer occupied by simple *wh*- elements (see also Obenauer 1994, 2004 and Munaro 1997).

The positions of these areas, each of them containing OpPs dedicated to *wh*-elements with different theta roles, in left periphery of Mòcheno is summarised in the structure in (39); again variation is found only in the Topic

fields, namely in the number and type of topicalised arguments activated by different *wh*- elements.

- (39) [Frame [Topicfield [interrog.*wh*-phrases [Topicfield [interrog.*wh*-]]]]]

In the next section I will take into examination the OpP dedicated to foci.

3 On sentences with a focus

In Cognola (2007) I concluded that focalised XPs in Mòcheno do not occupy the same Spec position as *wh*-elements but have to move higher up in the structure to another OpP.

This conclusion was reached on the basis of the impossibility of having multiple topics above a focussed constituent, whereas a *wh*-element can be preceded by several topicalised items. As shown in (40a), a focussed XP is not compatible with a topicalised PP, whereas a *wh*-element can be preceded by the same topicalised item (40b).

- (40) a. **Petn Nane A PUACH UND NET A PENNA hone kaft*
with-the John a book and not a pen have-SUBJ CL bought
'It was a book that I bought with John, and not a pen'
b. *Petn Nane bos hoso kaft?*
with-the John what have-SUBJ CL bought
'What did you buy with John?'

The only XPs that can precede a focus are a scene setter (41a) and a hanging-topic (41b).

- (41) a. *Gester DER MARIO hot der Nane pakemmt*
yesterday has the Mario has the John met
'Yesterday it was Mario who met John'
b. *Der Mario OLLBE klofft der Luca va im*
the Mario always speaks the Luca of him
'As for Mario, Luca always speaks of him'

Following Poletto (2002), I assumed that foci in Mòcheno have to move higher in the structure to SpecForceP, as shown in (42); this was concluded on the basis of the fact that foci are compatible with both hanging-topics and scene setters.

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$$(42) \quad [_{HT} [_{SceneS} [_{ForceP} [_{SpecForce} \mathbf{XP}_{foc}] [_{Force0} \mathbf{V}_{fin}]] [_{Topic} [_{Topic} [_{OpP} [_{SpecOP} \mathbf{wh}] [_{Op0} \mathbf{V}]]]]]]]]]$$

This structure predicts that both scene setters and verb arguments in the hanging-topic position can precede a focus and can show up together before it.

In what follows I would like to present new data which allow to implement this hypothesis on the structure of Mòcheno left periphery; in particular I will show that a focalised XP is actually compatible with a topicalised argument, such as a PP, on its left under certain conditions: i) the argument has always to be resumed in IP by a clitic or a pronoun; ii) only verb arguments and semi-argumental PPs can occupy this position and iii) the position is not for bare nouns.

The syntactic behaviour of the XPs preceding a focus will be compared with the one of hanging topics, in order to see if these new data are compatible with the structure proposed above.

3.1 On the position(s) above focus

As we saw in the previous section, a focalised XP is incompatible with a topicalization (43).

- (43) a. **Petrn Luca OLLBE klofft der Mario*
with-the Luca always speaks the John
‘John speaks of Luca all the time’
b. **En de Maria A PUACH UND NET A PENNA hone trog*
to the Mary a book and not a pen have-SUBJ brought
‘To Mary I brought a book and not a pen’

As can be seen in (44), however, if the arguments on the left of the focus are doubled by a pronoun (simple or with a preposition) the sentences become grammatical.

- (44) a. *Petrn Luca OLLBE klofft der Mario *(pet im)*
with-the Luca always speaks the John with him
‘John speaks of Luca all the time’
b. *En de Maria A PUACH UND NET A PENNA hone-*(en) trog*
to the Mary a book and not a pen have-SUBJ CL DAT CLIT brought
‘To Mary I brought a book and not a pen’

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This behaviour is unexpected in Mòcheno, since we saw above in (40b), repeated here as (45), that in this language resumption is not obligatory with all topicalised arguments above a wh-element¹¹.

- (45) *Petn Nane bos hosò kaft (pet im)?*
 with-the John what have-SUBJ CL bought with him
 ‘What did you buy with John?’

The structure in (42) predicts that the left-most constituent in the sentence is a hanging-topic which can be followed by a scene setter.

This prediction is not borne out, since, as I show in (46a,b), a focussed item is not compatible with both an argument and a scene setter on its left. As shown in (46c,d), a focus can be preceded only by one constituent (scene setter or argument, but not both together).

- (46) a. **Petn Luca gester A PUACH hone kaft pet im*
 with-the Luca yesterday a book have-SUBJ CL bought with him
 b. **Gester petn Luca A PUACH hone kaft pet im*
 with-the Luca yesterday a book have-SUBJ CL bought with him
 ‘It was a book that I bought with Luca yesterday’
 c. *Petn Luca A PUACH hone kaft pet im*
 with-the Luca a book have-SUBJ CL bought with him
 ‘It was a book that I bought with Luca’
 d. *Gester A PUACH hone kaft*
 yesterday a book have-SUBJ CL bought
 ‘It was a book that I bought yesterday’

The data above in (46) constitute counterevidence to the structure in (42), since they show that a focus can be preceded by either a scene setter or a topic but not by both.

In (47) I give a hypothesis of a new structure. In this new structure it is assumed that highOpP is found immediately below the hanging-topic position and is followed by the projection for scene setters.

- (47) $[_{HT}[_{highOpP}[_{Spec_{highOp}} \mathbf{XP}_{foc}] [_{highOp0} \mathbf{V}_{fin}]][_{SceneS} [_{Topic} [_{Topic} [_{lowOpP}[_{SpecOP} \mathbf{wh}]][_{lowOp0} \mathbf{V}]]]]]]]$

The predictions made by this structure are the following: i) the left-most position is a position for hanging-topics; ii) scene setters move to the hanging-topic position when showing up before a focus.

¹¹Except for wh-phrases.

In what follows I will try to bring evidence in favour of both claims, in particular I will begin with showing that the position above highOpP is actually dedicated to hanging-topics, even though it can also host PPs. We will see that this is possible because the hanging-topic projection has to be split up in two positions: a higher one (above highOpP) dedicated to constituents with case, and a lower one (below highOpP) dedicated to bare nouns.

3.2 Syntactic characteristics of the position above Focus

In this section I will take into examination the syntactic behaviour of XPs showing up before foci and compare it with the one of hanging topics.

It is known from the literature (among others Benincà 1988, 2001) that hanging-topics are not recursive. The same can be said for the position above focus: only one XP can precede a focus, as shown in (48a,b).

- (48) a. **Petn Nane en de Maria A PUACH UND NET A PENNA hone-en trog pet im*
with-the John to the Mary a book and not a pen have SUBJ CL brought with him
- b. **En de Maria petn Nane A PUACH UND NET A PENNA hone-en trog pet im*
to the Mary with-the John a book and not a pen have-SUBJ CL-DAT CL brought with him
'In front of the church to Mary I brought a book, not a pen'

Another characteristic of the hanging-topic construction is that it is allowed only by arguments; the same is true for Mòcheno. As shown in (49), a focus can be preceded by a subject, (49a), a DO (49b), a comitative PP (49c) and an IO (49d); all these XPs have to be doubled by a pronoun.

- (49) a. *Der Mario, A PUACH hot-*(er) trog en Nane, ont net a penna*
the Mario, a book has-SUBJ CL brought to John, and not a pen
'It was a book that Mario brought John, and not pen'
- b. *A puach OLLBE hot-er-*(z) gem en de Maria*
a book always has-SUBJ CL-ACC CL given to the Mary
'It was always a book that he gave Mary'
- c. *Petn Luca OLLBE klofft der Mario *(pet im)*
with-the Luca always speaks the John with him
'John speaks of Luca all the time'
- d. *En de Maria A PUACH UND NET A PENNA hone-*(en) trog*
to the Mary a book and not a pen have-SUBJ CL DAT CLIT brought
'To Mary I brought a book and not a pen'

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A focus is incompatible with a non-argumental XP, such as a locative PP, even if a doubler such as the pronoun *there* is inserted (50).

- (50) a. **Vour de kirch A PUACH UND NET A PENNA hone (zem) trog (zem) en de Maria (zem)*
 in front of the church a book and not a pen have-SUBJ CL brought to the Mary
 b. *A PUACH UND NET A PENNA hone trog en de Maria vour de kirch*
 a book and not a pen have-SUBJ CL brought to the Mary in front of the church
 ‘It was a book that I brought Mary in front of the church, not a pen’

One last point that I want to mention is that the judgements of the informant about this construction hint at the fact that we have pragmatically to do with an “aboutness topic” or a hanging-topic, since an XP can precede a focus only if it is the topic people are talking about.

To sum up the characteristics of the XP showing up above a focus seen so far, which are shared with hanging topics:

- obligatory resumption;
- lack of recursivity;
- only arguments and semiarguments (PPs);

There are though two crucial differences with respect to hanging topics.

The first one concerns the possibility for bare nouns to show up above foci. Differently from hanging topics, in Mòcheno bare nouns doubled by an IO clitic or by a preposition followed by a pronoun cannot precede foci, as shown below in (51)¹².

- (51) a. **Der Luca DER MARIO klofft pet im*
 the Luca always the John speaks with him
 ‘As for Luca, Mario speaks of him’
 b. **De Maria A PUACH UND NET A PENNA hone-en trog*
 the Mary a book and not a pen have-SUBJ CL DAT CL brought
 ‘As for Mary, I brought her a book and not a pen’

The second difference regards doubling with an epithet, which is typical of hanging-topics. Well, in Mòcheno not all verb arguments preceding a focus

¹²In this respect, there seems to be an asymmetry between focussed arguments and other focussed constituents. I will not consider this problem here.

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can be doubled by an epithet: as shown below in (52a,b), PPs cannot be doubled by an epithet, whereas bare nouns (52c,d) can¹³.

- (52)
- a. **Petn Luca DER MARIO klofft petn sell tepp*
with-the Luca the John speaks with-the that stupid
'As for Luca, Mario speaks of that stupid'
 - b. **En Mario A PUACH UND NET A PENNA hone-en trog en sell tepp*
to the Mario a book and not a pen have-SUBJ CL DAT CL brought to that stupid
'As for Mario, I brought a book and not a pen to that stupid'
 - c. *Der Mario, A PUACH hot-er mer trog der sell tepp, ont net a penna*
the Mario a book has-SUBJ CL-DAT CL brought the that stupid and not a pen
'As for Mario, that stupid brought me a book and not a pen'
 - d. *Der Mario, GESTER hone-en zechen der sell tepp ont net hait*
the Mario yesterday have-SUBJ CL-ACC CL seen that stupid and not today
'As for Mario, it was yesterday that I met that stupid and not today'

To sum up the characteristics seen so far for XPs preceding a focus compared with those of hanging-topics:

- obligatory resumption (also hanging topic);
- lack of recursivity (also hanging topic);
- only arguments and semiarguments (also hanging topic);
- not bare PP (not hanging topic);
- PPs cannot be doubled by an epithet (not hanging topic).

The properties shown so far are puzzling and do not help to shed light on the nature of the position above focus. Some evidence hint at the fact that the position is actually the hanging-topic position, but the behaviour of bare nouns and doubling with an epithet does not fit into the picture.

In order to make sense of the data presented so far, it is worth having a look at what happens with wh-elements with respect to the possibility of doubling an XP with an epithet.

¹³A PP nor an IO showing up as bare nouns as in (51) above could be doubled by an epithet.

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As shown in (53), in Mòcheno doubling a SUBJ with an epithet (53a) is not possible with a *wh*-element (differently from 52a), whereas doubling a bare IO (53b) is possible with a *wh*-element, differently from (52d). Notice, though, that a DO can be doubled by an epithet also with a *wh*-element (53c).

- (53) a. **Der Mario, gester bos hot er kaft der sell tepp?*
the Mario yesterday what has-SUBJ CL bought the that stupid
‘As for Mario, what did that stupid bought?’
b. *Der Mario, gester benn hoso-en gem a puach en sell tepp?*
the Mario, yesteday when have-SUBJ CL-DAT CL given a book to
that stupid
‘As for Mario, when did you give a book to that stupid?’
c. *Der Mario, gester benn hoso-en zechen der sell tepp?*
the Mario yesterday when have-SUBJ CL-ACC CL seen the that
stupid
‘As for Mario, when did you see that stupid yesterday?’

For the moment I can only conclude that there seems to be two positions for hanging topics: a higher position (activated only by foci) able to host also PPs and which is not compatible with doubling with an epithet as far as PPs are concerned, and a lower one activated by *wh*-elements and where bare nouns can show up and be doubled by a clitic with dative case or by a preposition+pronoun.

The structure derived so far is summarised below in (54). I label the highest hanging-topic position *HT+case*, since it can host PPs, as well as SUBJs and DOs, and the lowest one *HT+bareN*, since bare nouns showing up there can be doubled by a pronoun with role of IO or PP.

- (54) $[HT+case [highOpP [SpechighOp \mathbf{XP}_{foc} [highOp0 \mathbf{finV}][HT+bareN [SceneS [Topic [Topic [lowOpP [SpecOP \mathbf{wh}][lowOp0 \mathbf{V}]]]]]]]]]$

Relevant with respect to the hypothesis of the presence of two positions for hanging topics are Garzonio’s (2004) data from Fiorentino main *wh*-interrogative clauses. In this language bare nouns and PPs can show, according to his analysis, in the left-most position of the clause, that is in the hanging topic projection, as shown in (55).

- (55) a. *O Gianni, o quando tu *(ci) parli?*
PART John PART when SUBJ CL-DAT CL speak
b. *O con Gianni, o quando tu *(ci) parli?*
PART with John PART when SUBJ CL-DAT CL speak

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‘When are you talking to John?’

The structure derived for Mòcheno predicts that the two arguments in (55) show up in two different positions: the PP is higher than the bare noun, even if this is not visible in this language¹⁴.

In (56) I give the two positions of hanging topics in Fiorentino according to the findings from Mòcheno. Notice that, given that Fiorentino has probably only one OpP corresponding to the lowest one found in Mòcheno (and showing up in the Focus field of Benincà 2001 and Benincà/Poletto 2004), the two hanging-topic positions are adjacent. This is a wellcome result, since it hints at the fact that the hanging-topic projection can actually be split up in at least two positions and is a field just like other areas of CP¹⁵

(56) $[_{HT+case} \text{ Con Gianni } [_{HT+bareN} \text{ Gianni } [_{SceneS} [_{Topic} [_{Topic}[_{lowOpP}[_{SpecOP} \text{ wh}][_{lowOp0} \mathbf{V}]]]]]]]]]$

The last point I want briefly to take into consideration is the possibility for scene setters to show up before a focus, as repeated below in (57).

(57) *Gester A PUACH UND NET A PENNA hot der Nane kaft*
 yesterday a book and not a pen has the John bought
 ‘A book and not a pen did John buy yesterday’

Scene setters are the only constituents without a pronominal doubling which can show up before a focus. I tentatively assume that scene setters in (57) show up in the highest hanging-topic position and have moved there from their dedicated projection in CP found below highOpP.

3.3 Conclusions

In this work I examined Mòcheno left periphery taking into consideration the syntax of the two OpPs where interrogative wh-elements and foci show up.

As far as the lowest OpP is concerned, that is the one dedicated to wh-elements, I showed that wh-elements show up in different dedicated OpPs according to their thematic role, as in Slavic languages allowing for multiple wh-fronting (Krapova/Cinque 2008).

¹⁴Unfortunately, we do not know how the highest arguments in (55) behave with respect to the possibility of being doubled by an epithet, since no data are provided by the author.

¹⁵The idea that also the hanging-topic position is a field composed of at least two positions opens the question concerning why only one position at the same time can be occupied. I leave this problem open for further research.

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All interrogative wh-elements share a common structure: immediately to their left positions for topicalised arguments are found and above topics two positions for XPs setting the event in time and space are found. A topicalised argument cannot show up in the frame.

$$(58) \quad [_{Frame} [\mathbf{TEMP}][\mathbf{LOC}][_{Topicfield}[\mathbf{VERB} \ \mathbf{ARG.}][_{Interrwh} \ \mathbf{wh-element}]]]$$

All variation between wh-elements can only be found in the Topic fields dedicated to arguments.

The order of wh-elements according to their thematic role together with their Topic fields is summarised in (59).

$$(59) \quad [_{Frame} [\mathbf{TEMP}][\mathbf{LOC}][_{Topicfield} [_{TopicP} \ \mathbf{XP}][_{TopicP} \ \mathbf{XP}] [_{OpP} \ \mathbf{ber}]/ [_{Topicfield} [_{SubjP} \ \mathbf{SUBJ}][_{IOP} \ \mathbf{IO}_{+res}] [_{GroundP} \ \mathbf{rem.} \ \mathbf{VP}][_{OpP} \ \mathbf{bos}]]]]]$$

In the second part of the work I examined the characteristics of the highest OpP, showing that a focus allows only for an XP on its left. This XP can either be one argument doubled obligatory by a pronoun or a scene setter.

Taking into consideration several data I showed that this position can be considered the hanging-topic position, which has though to be split up in two projections: a higher one dedicated to hanging-topics marked for case, and a lower one for bare nouns. In a language as Mòcheno these two projections are separated by the highOpP.

The structure is summed up in (60).

$$(60) \quad [_{HT+case} [_{highOpP} [_{SpecHighOp} \ \mathbf{XP}_{foc}] [_{highOp0} \ \mathbf{finV}][_{HT+bareN} [_{SceneS} [_{Topic} [_{Topic} [_{lowOpP} [_{SpecOP} \ \mathbf{wh}][_{lowOp0} \ \mathbf{V}]]]]]]]]]$$

The possibility for scene setters to show up above focus is made sense of assuming that scene setters can move to the hanging-topic position from their dedicated projection below HT+bareN.

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