The mixed OV/VO syntax of Mocheno main clauses: on the interaction between high and low left periphery

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In this paper, I address the syntax of the direct object in the Tyrolean dialect Mòcheno, a mixed OV/VO language, and provide a novel account for the coexistence of the two word orders. The traditional view (a.o. Rowley 2003), which makes sense of Mòcheno mixed syntax through the assumption that speakers have access to two grammars with different parameter settings due to contact, will be challenged by showing that variation emanates from one single grammar and is ruled by information structure. In order to capture the connection between syntax and information structure, I propose an antisymmetric (Kayne 1994) and cartographic (a.o. Rizzi 1997, Cinque 1999) account, whose core idea is that the linear word order of all sentences is the result of the interaction between the high left periphery and the low left periphery (Jayaseelan 2001, Belletti 2004) both assumed to be characterised by hosting functional projections encoding discourse-related features and by having a V2 rule, relating to the finite verb and the past participle, respectively (Poletto 2006).

1 Introduction¹

In this article, I take into consideration the syntax of Mòcheno (German: *Fersentalerisch*), a Tyrolean variety spoken in the speech island *Valle dei Mocheni* (German: *Fersental*), in Northern Italy (Eastern Trentino)². This dialect is of extreme interest for the theories of linguistic change and linguistic variation since it sets itself between Romance and Germanic as far as two core syntactic phenomena are concerned: V2 and OV word orders. Focusing on OV/VO word orders, Mòcheno can be defined as a mixed OV/VO language, since in main clauses the *Satzklammerstruktur* typical of continental Germanic is possible (1a), but not obligatory (1b), and in embedded clauses, strict OV (1c) coexists with the same orders as main clauses (1d,e).

- (1) a. Gester hòn-e s puach kaft
 yesterday have-cl-subj-i-sing the book bought
 'Yesterday I bought the book'
 - b. Gester hòn-e kaft s puach
 yesterday have-cl-subj-i-sing bought the book
 'Yesterday I bought the book'
 - c. Er hôt mer pfrok, benn as der Nane a puach kaft hôthe has to me asked when that the John a book bought has'He asked me when John bought a book'
 - d. Er hòt mer pfrok, benn as der Nane hòt a puach kaft str-subj-iii-sing-masc has to me asked when that the John has a book bought 'He asked me when John bought a book'
 - e. Er hòt mer pfrok, benn as der Nane hòt kaft a puach str-subj-iii-sing-masc has to me asked when that the John has bought a book 'He asked me when John bought a book'

The linguists who worked on the syntax of Mòcheno (among others, Zamboni 1979:90, Heller 1979:119, Togni 1993:172, Rowley 2003:251,289,291) tried to capture the facts in (1) through the idea that all orders divergent from those of standard German are the result of contact with Romance varieties. This hypothesis is fully compatible with the double-base hypothesis proposed by Kroch (1989) and applied to the syntax of mixed languages such as Old English (OE, Pintzuk 1999). According to the proponents of the hypothesis of contact for Mòcheno, the mixed character of this language is a direct consequence of the history of the settlement of the valley (Rogger 1979), in particular of the early contact of Tyrolean settlers with Romance-speaking populations. Contact with a language with different parameters led to a situation of language competition, whose effect was to lead to a resetting of parameters. With respect to OV/VO word orders, the contact effect manifests itself in the possibility of having VO syntax, which is an innovation with respect to the (assumed) original Tyrolean grammar brought by the settlers.

In this paper, relying on the observation that the word orders in (1) are not identical with respect to information structure - which speaks against the fact that the position of constituents with respect to the lexical verb is a matter of parameter setting³ - I propose a novel account of Mocheno syntax, which is able to capture the distribution of OV/VO word orders within a single grammar, in which the two word orders distribute according to rules internal to the system⁴.

My account sets itself in recent research on language variation and change that has tried to make sense of the mixed OV/VO character of older stages of modern languages in terms of information structure (among others Hinterhölzl 2009 on Old High German, OHG, Taylor & Pintzuk 2009 on OE, Polo 2004 on Latin)⁵. In this chapter, it has been shown that the position of main sentence constituents with respect to the lexical verb (OV/VO)⁶ is to be connected

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with its information status; in particular, discourse-given XPs tend to precede the lexical verb and discourse-new XPs tend to follow it, coherently with the observation (among others Gundel 1989) that, crosslinguistically, given information tends to appear in the higher portion of the clause, whereas new information is hosted in its lowest part. In the Old Germanic languages considered, XPs made heavy by a modification, such as a relative clause or AP and PP modifications, tend to appear after the lexical verb, in accordance with Behaghel's (1932) *Gesetz der wachsenden Glieder*, which states that light elements (pronouns and unmodified nouns) precede the finite verb, whereas heavy elements tend to follow it. According to Hinterhölzl (2009), there is a correlation between the syntax of heavy XPs and their information status (see also Benincà 1988 for the same claim): heavy XPs appear postverbally because they are more likely to be new information foci, since they are richer in terms of the information they convey than light XPs. According to Taylor & Pintzuk (2009), on the contrary, no connection between the information status of heavy XPs and their syntactic position can be detected in OE.

The structure of the clause proposed for OHG and OE is sketched in $(2)^7$.

(2) C background - V - presentational focus/heavy XPs OHG/OE

Also in the case of Latin there seems to be strong evidence in favour of the idea that the distribution of word orders in the period in which it was a mixed OV/VO language was ruled by "pragmatically and structurally driven contraints" (Polo 2004:92) operating at the interface between pragmatics and semantics on the one hand and syntax on the other. Polo (2004:136ff) convincingly shows that in the majority of sentences with VO syntax appearing in her corpus (141/188, 75%), XPs follow the lexical verb when they are either old or new

information; only in a minority of cases (47/188, 25%) is the XP following the lexical verb not pragmatically marked. Interestingly, in the cases in which the XP following the verb is pragmatically unmarked, it is either made heavy by a modification, or marked positively for definiteness and human features (see also Magni 2000 for similar findings for the emergence of VO syntax in the Pompeian inscriptions).

The structure of the clause identified for Latin by Polo (2004) is given in (3).

The article is organized in the following way. In section 2, I present the relevant empirical facts concerning OV/VO word orders in Mòcheno main clauses, focusing first on the position of direct objects (DOs) in main clauses and showing that in Mòcheno there is a strong correlation between syntax and information structure, since new information foci have to appear before the past participle (OV), whereas topics have to appear either in the high left periphery or after the past participle (VO). I will also show that heaviness actually plays a role in Mòcheno, albeit one which is independent of information structure. In section 3, I will propose a cartographic (Cinque 1999, 2006, Rizzi 1997, 2004b) and antisymmetric (Kayne 1994, 1998) account of the empirical facts which is able to capture the distribution of both types of information in Mòcheno main clauses and of OV/VO word orders. The core of my proposal is that the properties of Mòcheno are immediately captured if we assume that the linear word order of this language is determined by the interaction between the high left periphery (henceforth: *high periphery*) and the low left periphery (henceforth: *VP periphery*, see Jayaseelan 2001, Belletti 2001, 2004, Poletto 2006). Specifically, the proposal is that both of these peripheries i) have the same structure and ii) have a V2 rule, relating, respectively, to

the finite verb in the higher phase and the past participle in the lower one (cf. Poletto 2006 for a similar proposal for Old Italian).

2 On the structure of Mocheno main clauses

In this section, I discuss the structure of Mocheno main clauses, focusing on i) the position of old and new information with respect to the lexical verb (the past participle) and ii) the effect of heaviness. For reasons of space, I only consider the syntax of main declaratives exhibiting the *Satzklammerstruktur* – i.e. the structure in which the second-position finite and finally placed non-finite verbs form a "brace" around the principal sentence constituents – not considering the derivation of embedded clauses.

Furthermore, I only look at the syntactic distribution of DOs realized by DPs, leaving aside the syntax of object pronouns⁸. All the conclusions arrived at for DOs are valid also for all other XPs, given that they realize old or new information; the present analysis, however, does not account for the syntax of sentences in which several main-sentence constituents are present: for those cases, the analysis would need to be refined, which could not be done within the confines of this chapter (see Cognola 2010 for relevant discussion). Instead of talking of old/given and new/relevant information, in what follows I will make reference to the categories of topic and focus in order to refer to old/given and new/relevant information respectively. This change in terminology involves a precise theoretical implementation, since it implies that constituents can be interpreted as old or new information only if they check the relevant discourse-features in dedicated peripheral projections (TopicP and FocusP), as proposed among others by Belletti (2001, 2004), Benincà (2001), Benincà/Poletto (2004) and Rizzi (1997). The theoretical implementation offered by the cartographic approach, from

which I will in this section only borrow the terminology without making precise reference to the syntactic derivation (see section 3), implies that it is possible to draw a precise map between discourse-properties on the one hand and syntax on the other.

2.1 On the syntax of new information focus

In this section, I will consider the position of new information foci in Mòcheno, in order to determine whether new information foci have a fixed position with respect to the lexical verb. In order to identify new information foci in Mòcheno, I will consider, following among others Belletti (2001, 2004) and Cruschina (2006), main declarative clauses that are answers to wh-main interrogatives: in each case, the wh-element is thought to introduce the new information focus.

As can be seen in (4b), the only appropriate answer to (4a) is a main declarative clause in which the new information focus precedes the past participle (OV); the post-participial (VO, 4c) and the sentence-initial (4d) positions are ruled out for the new information focus.

- (4) a. Bos hòs-o kaft?
 what have-cl-subj-II-SING bought
 'What did you buy?'
 - b. I hòn a/s puach kaft STR-SUBJ-I-SING have a/the book bought 'I have bought a/the book'

c.#I hòn kaft a/s puach str-subj-i-sing have bought a/the book

d.#A/s puach hòn-e kaft a/the book have-cl-subj-i-sing bought

New information foci have to appear before the past participle (OV) also when [+human] common nouns and proper names are involved, as can be seen in the examples below (5):

(5) a. Ber hòt-er pakemmp?
who has-cl-subj-iii-sing-masc met
'Who did he meet ?'

b. Er hòt der pustin/der Mario pakemmp str-subj-iii-sing-masc has the postman/the Mario met 'He met the postman/Mario'

c.#Er hòt pakemmp der pustin/der Mario STR-SUBJ-III-SING-MASC has met the postman/the Mario d.#Der pustin/der Mario hòt-er pakemmp the postman/the Mario has-cL-SUBJ-III-SING-MASC met 'He met the postman/Mario '

The data discussed so far are extremely clear: in Mocheno new information foci, to be

distinguished on the basis of the wh-main interrogative test, have to obligatorily appear before the past participle in OV syntax.

Let us consider the position of the new information focus with respect to sentential and manner adverbs, in order to determine whether DOs in Mòcheno undergo long or short scrambling (Kratzer 1989, Diesing 1992, Hinterhölzl 2006). As shown in (6b), the unmarked position for new information focus in OV syntax is before manner adverbs and after sentential adverbs⁹. I take this to mean that in Mòcheno DOs undergo short scrambling and not long scrambling (6c,d), differently from German.

- a. Bos hòt-er òlbe schia galesn?
 what has-cl-subj-iii-sing-masc always well read
 'What did he always read well?'
 - b. Er hòt òlbe s/a puach schia galesn str-subj-iii-sing-masc has always the/a book well read 'He has always read the book well'
 - c.#Er hòt s puach òlbe schia galesn str-subj-iii-sing-masc has the book always well read
 - d.*Er hòt a puach òlbe schia galesn str-subj-iii-sing-masc has a book always well read

The data discussed so far are summed up in the descriptive generalizations in (7).

(7) a. New information foci have to appear in OV syntax;b. new information foci undergo short scrambling.

As the last topic of this subsection, I consider the syntax of new information foci made heavy by a modification, in order to determine whether heaviness i) has a syntactic effect on the position of new information foci and ii) whether this effect is dependent on information structure. Here, for reasons of space, I focus on modifications realized by relative clauses and I leave aside the syntactic behaviour of DOs made heavy by APs or PPs. In order to check for information structure, I consider again only main clauses that are answers to wh-main interrogatives: on the basis of this test, the DOs modified by relative clauses can be considered unambigous new information foci

In Mòcheno, heaviness has a different effect according to the semantic class the modified noun belongs to. As shown in (8), a new information focus realized by a [-human] common noun and modified by a relative clause can appear in both OV (8b) and VO syntax (8c); the VO position is ruled out if the new information focus is realized by a light XP (see 4 above).

- (8) a. Bos hòso kaft en de boteig?
 what have-cl-subj-ii-sing bought in the shop
 'What did you buy in the shop?'
 - b. I hòn kaft s/a puach as mer der Mario konsigliort hòt str-subj-i-sing have bought the/a book that to me the Mario recommended has 'I bought the/a book that Mario recommended'

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c. I hòn s/a puach as mer der Mario konsigliort hòt kaft str-subj-i-sing have the/a book that to me the Mario recommended has bought 'I bought the/a book recommended by Mario'

In (9), I consider the case in which proper names and [+human] common nouns are new information foci and are modified by a relative clause. As shown in (9b,c), with these nouns the modifying relative clause has the effect of forcing VO syntax for the new information focus¹⁰; again, VO syntax is ruled out when the new information focus is realized by a light XP (see 5 above).

- (9) a. Ber hòt-se pakemmp?
 who has-cl-subj-ш-sing-fem met
 'Who did she meet?'
 - b. Si hòt pakemmp der Mario/der pustin, as mai kamarot ist va str-subj-iii-sing-fem has met the Mario/the postman, that my friend is of drai jor

three years

'She met Mario/the postman, who has been a friend of mine for three years'

c.*Si hòt der Mario/der pustin as mai kamarot ist va drai jor str-subj-III-sing-fem has the Mario/the postman, that my friend is of three years pakemmp

met

The data above point to the fact that heaviness has an effect on the syntax of DOs, by favouring or forcing the postverbal position; this effect is, however, independent of information structure, since all heavy DOs considered above are unambiguously new information foci. In the next subsection, I consider the syntax of topics.

2.2 On the syntax of topics

The scope of this section is to describe the syntax of topics in Mocheno, in order to determine whether topicalized XPs have a different distribution from that of new information foci. I will consider both main declaratives and sentences with fronted operators. With the label "topic", I refer to a constituent realizing old/given information; following Lopez (2009) and Cruschina (2010), I assume that the core property of all types of topics is their presuppositional character, that is their being part of the presupposition of the speaker (D-linking in Pesetsky 1987). I further assume that topics are split into two classes according to the property of [givenness]¹¹: some topics are compatible with an out-of-the-blue sentence, in which they are simply presupposed, whereas other topics are grammatical only if they have already been introduced into the linguistic context. Following the cartographic approach adopted in this chapter, I assume that all the discourse-features connected to topicality are encoded in dedicated functional projections and are checked through movement in overt syntax (Rizzi 1997)¹².

As shown in (10), in Mòcheno there are two types of constructions expressing topicality: constructions with pronominal resumption, that I call clitic left dislocation (CLLD) (Benincà 1988, Cinque 1990, Rizzi 1997) and clitic right dislocation (CLRD) (Benincà 1988, Kayne 1994, Cecchetto 1999), which in Mòcheno can only realize [+given] topics, on the one hand, and constructions without pronominal resumption, such as simple preposing (SP)¹³ (Benincà 1988, Cinque 1990), which in Mòcheno is compatible with [+/-given] topics, and marginalization (Antinucci/Cinque 1977, Benincà 1988, Cardinaletti 2002), which in Mòcheno is compatible only with [-given] topics¹⁴.

- (10) a. S puach_j hòt-er-s_j kaft CLLD; [+given] topics
 the book has-cl-subj-iii-sing-masc-cl-obj-iii-sing-neu bought
 'The book, he bought it'
 - b. Er hòt-s_j kaft s puach_j CLRD¹⁵; [+given] topics str-subj-iii-sing-masc has-cl-obj-iii-sing-neu bought the book

'He bought it, the book'

- c. S puach hòt-er kaft SP; [+/-given] topics the book has-cl-subj-III-SING-MASC bought 'The book he bought '
- d. Bo hòso kaft s puach? marginalization; [-given] topics where have-cl-subj-ii-sing bought the book
 'Where did you buy the book?'

From the typology of topic constructions in Mocheno given in (10), it can already be inferred that topics are ruled out from the pre-participial OV position. In what follows, I will provide

evidence in favour of this claim by taking into consideration the syntactic realization of [+/given] topics and focusing only on the syntax of topics lacking pronominal doubling. This choice is motivated by the fact that the scope of this chapter is not to give a complete account of all constructions expressing topicality in Mocheno , but to make sense of the syntactic distribution of DOs with respect to the past participle, defending the idea that when a connection between information structure and syntax is missing, as in those topic constructions lacking a pronominal doubling, it is the syntactic position of the XP that allows to distinguish between topic or focus.

2.2.1 On the syntax of topics in main declaratives

Beginning with [-given] topics, in (11) I show that a [-given] topic can be realized by SP (11a) and is incompatible with the pre-participial (11b) and the post-participial (11c) positions.

The constructions in which a topic without pronominal doubler follows the past participle, I take as instances of marginalization¹⁶.

- (11) (Context: My friend was supposed to buy a book, but was always finding an excuse for not buying it. Finally he buys the book and I can say to another friend who knows the facts:)
 - a. S puach hòt-er gester kaft [-given; SP] the book has-cl-subj-iii-sing-masc yesterday bought 'The book, he bought yesterday'

b.#Er

hòt gester

kaft s puach

*[-given; marginalization]

STR-SUBJ-III-SING-MASC has yesterday bought the book

c.#Er hòt gester s puach kaft *[-given; OV] str-subj-iii-sing-masc has yesterday the book bought

Now, (11c) is inappropriate for a context in which the DO has a topic reading but it would be felicitous if the DO were a new information focus, as we saw above; (11b), on the other hand, would be grammatical only if the DO were modified by a relative clause, as in (12). The heavy DO in (12) can be interpreted both as a new information focus and as a topic (see below).

(12)	Er	hòt gester	kaft	s puach	
	str-subj-iii-sing-masc has yesterday bought the book				
	aso-en		du	konsigliort	hòst
	that-cl-subj-ii-sing-cl-ind-obj-iii-sing you			recommended have	
	'Yesterday he bought the book that you recommended'				

The facts in (11) and (12) strongly indicate that in Mocheno one word order corresponds to one type of information; this point is crucial in the light of the present account, since it indicates that OV and VO syntax cannot be connected to a different setting of one single parameter due to contact, but rather relates to rules of information structure internal to a single grammar.

Let us now consider [+given] topics. As shown in (13), a [+given] topic can be realized through SP (13a) and cannot appear in OV syntax (13b,c) nor be marginalized (13d).

(13) (My friend asks:

Benn	hòt-er	kaft	s puach?			
when	has-cl-subj-iii-sing-masc	bought	the book			
'When did he buy the book?')						

- a. S puach hòt-er gester kaft [+given; SP] the book has-cl-subj-iii-sing-masc yesterday bought 'The book, he bought yesterday'
- b. #Er hòt s puach gester kaft *[+given; OV] str-subj-iii-sing-masc has the book yesterday bought
- c. #Er hôt gester s puach kaft *[+given; OV]
 STR-SUBJ-III-SING-MASC has yesterday the book bought
 d. #Er hôt gester kaft s puach *[+given; marg.]

str-subj-iii-sing-masc has yesterday bought the book

In (14), I sum up what we have seen in this subsection.

a. SP can realize both [+/-given] topics;
b. [+/-given] topics cannot be marginalized (VO) nor appear before the past participle (OV).

The last issue to be tackled this subsection is whether i) heaviness has an effect on the syntax of topics and ii) there is a connection between heaviness and information structure. In

(15), I consider clear cases in which DOs are [+/-given] topics, in order to check for the information status of the Dos involved. As shown in (15a), a heavy [-given] topic can be marginalized, a possibility that is ruled out for light topics (see 11a,b above) or appear as a SP (15b); heavy [+given] topics, on the contrary, cannot appear after the past participle (15c) but only in the left periphery as SP (15d).

- (15) (Context: We know that he was supposed to buy a book that was recommended by Mario. A friend who knows the facts can say:)
 - a. Schau, as er hòt gester kaft s puach
 look that str-subj-iii-sing-masc has yesterday bought the book
 as-en der Mario konsigliort gop hòt
 that-cl-ind-obj-iii-sing the Mario recommended had has [-given; marg.]
 'Look, he yesterday bought the book that Mario had recommended to him'
 - b. Schau as s puach as-en der Mario konsigliort gop hòt, look that the book that-cl-iND-OBJ-III-SING the Mario recommended had has, hòt-er gester kaft
 has-cl-subj-III-SING-MASC yesterday bought [-given; SP]
 'Look, the book that Mario had recommended to him he bought yesterday'

(Context:

Benn hòt-erkaftspuachas-ender Mariowhen has-cl-subj-iii-sing-mascbought the bookthat-cl-ind-obj-iii-singthe Mario

konsigliort gop hòt?

recommended had has

'When did he buy the book that Mario recommended?')

c.#Er hòt gester kaft s puach str-subj-iii-sing-маsc has yesterday bought the book as-en der Mario konsigliort gop hòt that-cl-ind-obj-iii-sing the Mario recommended had has

*[+given; marg.]

d. S puach as-en der Mario konsigliort gop hòt,
the book that-CL-IND-OBJ-III-SING the Mario recommended had has
hòt-er gester kaft
has-CL-SUBJ-III-SING-MASC yesterday bought [+given; SP]
'The book recommended by Mario he bought yesterday'

The data in (15) point to the fact that heaviness has an effect only on the syntax of [-given] topics, which can appear after the past participle if made heavy by a relative clause; whereas, heavy [+given] topics, on the other hand, have to appear in the left periphery, just like their light counterparts. Also for the case of topics, heaviness does not interfere with information status.

2.2.2 Wh-main interrogatives and sentences with a fronted focus

In this subsection, I consider the distribution of [+/-given] topics in sentences with a fronted operator. Beginning with [-given] topics, in (16), I show that in a main interrogative clause a [-given] topic can be realized through marginalization (16a), and thatthe OV position is not only inappropriate (#) for this topic, but ungrammatical (16b). Also SP is not only ruled out, but ungrammatical in wh-main interrogatives (16c).

- (16) (Context: Last class I asked the students to buy the textbook; in the next class, I ask:)
 a. Ber hot schua kaft s puach? [-given; marginalization]
 who has already bought the book
 'Who has already bought the book?'
 - b.*Ber hot schua s puach kaft? *[-given; OV]
 who has already the book bought
 c.*S puach ber hot kaft? *[-given; SP]
 the book who has bought

The fact that the examples in (16b,c) are not only inappropriate, but fully ungrammatical represents a great difference with respect to the syntax of main declarative clauses considered in the previous subsections; in those cases, different word orders were shown to be compatible with different types of information. I take this asymmetry indicates that when an operator is present, there is less syntactic freedom.

Now let us consider [+given] topics. As illustrated in (17), it is impossible to express a [+given] topic through SP (17a) nor in the asbence of pronominal doubler in an OV structure (17b): these constructions are not only inappropriate, but ungrammatical. Also

marginalization is ruled out for the expression of [+given] topics $(17c)^{17}$.

(17) (My friend says: I hòn der Mario pakemmp)

I have the Mario met 'I have met Mario'

a.*Der Mario bo hòs-o pakemmp? *[+given; SP] the Mario where have-cL-subj-II-sing met

b.*Bo hòs-o der Mario pakemmp? *[+given; OV] where have-cL-SUBJ-II-SING the Mario met

c.#Bo hòs-o pakemmp der Mario? *[+given; marg.] where have-cL-subj-II-sing met the Mario

Moving to the syntax of sentences with fronted focus, one expects sentences with a fronted focus share the syntactic behaviour of wh-main interrogatives described above; that is, they involvefoci and wh-elements, which are both operators, and which thereforecannot co-occur in the same sentence (Belletti 2001, Calabrese 1982), and are thought to appear in the same area of the left periphery (Rizzi 1997, Benincà 2001, 2006).t. This prediction is borne out.

As was the case for wh-main interrogatives, in (18) it can be seen that in sentences with fronted focus, a [-given] topic has to be realized through marginalization (18a) and cannot appear in OV position (18b) nor is it compatible with SP (18c).

- (18) (Context: My brother says he is going out to buy a book in the bookshop, which would take him at least one hour, After ten minutes he is back because he has found the book in the village shop. My mum is amazed that he was so quick, since she thinks that he had gone to the bookshop. I say:)
 - a. EN DE BOTEIG hòt-er kaft a/s puach, (ont net en de in the shop has-cl-subj-iii-sing-masc bought a/the book, and not in libreria)

the bookshop

'It is in the village shop where he bought the book, and not in the bookshop'

[-given; marg.]

b.*EN DE BOTEIG hòt-er a/s puach kaft (ont net en de libreria) in the shop has-cl-subj-III-SING-MASC a/the book bought and not in the bookshop *[-given; OV]

c.*S puach EN DE BOTEIG hòt-er kaft (ont net en de libreria) the book in the shop has-cl-subj-III-SING-MASC bought and not in the bookshop *[-given; SP]

In sentences with fronted focus, [+given] topics cannot be realized through SP (19a) nor through marginalization (19b) nor appear in OV syntax (19c).

(19) (Context: Der Mario hot s puach en de boteig kaft the Mario has the book in the shop bought

'Mario bought the book in the shop')

a.Na, *S puach_j EN DE BOTEIG hòt-er kaft no, the book in the shop has-cL-sUBJ-III-SING-MASC bought ont net en de libreria and not in the bookshop *[+given; SP]

b.#Na, EN DE BOTEIG hòt-er
 kaft s puach ont net en de
 no, in the shop has-cL-subj-III-sing-Masc bought the book, and not in the
 libreria
 bookshop
 *[+given; marginal]

c.*Na, EN DE BOTEIG hòt-er s puach kaft ont net en de libreria no, in the shop has-cL-subJ-III-SING-MASC the book bought, and not in the

bookshop *[+given; OV]

The last issue to be dealt with is the syntax of sentential and manner adverbs in sentences with VO word order. As shown in (20), all adverbs have to precede the past participle in sentences with VO syntax (for the ungrammatical sentences, see Cognola 2010).

(20) a. Ber hot efter schia galesn s puach?who has often well read the book'Who has often read the book carefully?'

b. DER MARIO hot efter schia galesn s puach ont net der Nane the Mario has often well read the book (and not the John)'Mario has often read the book carefully (and not John)'

c. Der Nane hòt efter schia galesn s puach as-en the John has often well read the book that-cl-ind-obj-iii-sing der Mario konsigliort gahopt hòt der Mario recommended had has

'John has often read the book that Mario recommended carefully'

In (21), I sum up what we have seen in this subsection.

(21) a. In sentences with fronted operator, VO word order is obligatory;b. the XP following the past participle is a [-given] topic (marginalization).c. in all sentences with VO word order, adverbs have to precede the past participle.

2.3 Partial conclusions

In this section, I have described the distribution of word orders in Mocheno main clauses, focusing on the syntax of DOs realizing new information foci and topics. For main declaratives, it can be concluded that constituents show up according to a topic-comment articulation, as in the majority of languages (Gundel 1989) including standard Italian (Benincà 1988, Rizzi 1997). Specifically, topics are realized via SP, appearing in sentence-initial position, and new information foci precede the past participle in OV syntax, as

schematised in (22a). This configuration can be changed in case the new information focus is made heavy by a modification (22b). In main declaratives, marginalization is not possible for light XPs, but only for [-given] heavy topics (22c); a [+/-given] topic can never precede the past participle in OV syntax.

(22) a. Topic – finite verb – new information focus – past participle
b. Topic – finite verb – past participle - new information focus+heavy
c. Topic – finite verb – past participle – [-given] topic+heavy

Sentences with a fronted operator obligatorily have VO word order and the DO following the past participle has to be analyzed as a [-given] topic, realized syntactically as a marginalization (23). In sentences with a fronted operator, a topic (without doubler) cannot appear in the left periphery (SP is ruled out) nor can it appear in OV structures.

(23) Wh-element/focus – finite verb – past participle – [-given] topic

The description of empirical data already allows us to take a position with respect to the results of work on language variation and change (Hinterhölzl 2009, Taylor/Pintzuk 2009, Polo 2004) discussed in the introduction. Mocheno data confirm the crosslinguistic observation that in languages with mixed OV/VO syntax, heaviness favours the VO position; with respect to the competing proposals that have been set forth for OHG (heavy XPs are postverbal because they are new information foci, Hinterhöhlzl 2009) and OE (heavy XPs are postverbal independently of their information status, Taylor & Pintzuk 2009) Mocheno patterns with OE, where heaviness has an effect on syntax, which is, however, independent of

information structure. Moreover, Mòcheno data provide support for an approach to wordorder variation in terms of information structure by pointing to a connection between the position of XPs with respect to the past participle and type of information. Differently from the cited earlier work, though, the connection between syntactic position and type of information does not seem to hold universally for any sentence, but differs according to sentence-type: in main declarative clauses, a [-given] topic cannot be marginalized, but has to be realized as SP in the left periphery, whereas in sentences with a fronted operator, a [-given] topic has to be marginalized (VO). In the same way, OV syntax is restricted to main declarative clauses in which the XP preceding the past participle is a new information focus and the XP in sentence-initial position is a topic. This is summed up in the descriptive generalizations in (24).

- (24) a. Word order is determined by the relations between constituents in the whole sentence;
 - b. the XP in sentence-initial position determines the position (pre- or postverbal) of other XPs.

In the next section, I will propose a cartographic analysis of Mòcheno main clauses able to capture the distribution of new information foci and topics in main clauses and in sentences with a fronted operator. I set forth the idea that this analysis can potentially make sense of all sentences of Mòcheno , given that – as we saw above – it can be considered a configurational language and each order corresponds to only one type of information.

3 Proposed analysis

3.1 On the connection between V2 and OV/VO

We saw above that in Mòcheno word-order patterns are connected to information structure and that the position of DOs depends on the type of XP in sentence-initial position (23). Considering that Mòcheno is a V2 language (Rowley 2003, Cognola 2010), the connection between sentence-initial position and the distribution of DOs (OV/VO) can be restated as a relation between V2 and word order, as illustrated in (25)¹⁸.

(25) a. When V2 is triggered by a topic, OV is obligatory and the XP preceding the past participle is a new information focus;

b. When V2 is triggered by an operator, VO is obligatory and the XP following the past participle is a topic (marginalization).

The fact that there is a connection between V2 and word order has been known since den Besten's (1983) classical work on German and Dutch: den Besten's (1983) analysis draws a clear connection between the distribution of strict OV in continental Germanic and the type of constituent appearing in CP by assuming that OV is only possible in embedded clauses, where the complementizer blocks movement of the finite verb to the head of CP. Now, in Mòcheno, the connection between V2 and word order does not manifest itself in the same way as in Dutch and German, since, as we saw in (1), Mòcheno cannot be said to have a Continently West Germanic-type asymmetry between main and embedded clauses. The lack of a main-embedded asymmetry of this type can be taken as a clear piece of evidence against an analysis of Mòcheno syntax along the same lines as that proposed by den Besten (1983); in particular, the idea that finite verb and complementizer in Mòcheno compete for the same position, the head of CP, does not seem to be valid. The details of a analysis of Mòcheno embedded clauses fall beyond the scope of this paper. The approach I would like to advocate, however, assumes that i) Mòcheno has a split-CP; ii) the finite verb is in the IP-domain in all clauses and iii) movements of XPs or of the whole VP above the finite verb (Haegeman 2000) can take place independently of information-structural factors.

Even though Mòcheno cannot be compared to continental Germanic as far as the relation between V2 and word order is concerned, I think that the connection between the two phenomena also exists in this language. The remainder of this chapter is devoted precisely to showing how the relation between V2 and word order manifests itself in Mòcheno main clauses and how it can allow us to make sense of the distribution of OV/VO word orders. In the remainder of this section, I will sketch out the analysis I propose to connect Germanic-type V2 with Mòcheno-style V2.

The analysis that I propose relies on the following theoretical assumptions. Following, among others, Kayne (1994, 1998), Cinque (1999, 2006, 2008) and Hinterhölzl (2006), I assume that the universal underlying word order is VO and that all other word orders have to be derived syntactically through leftward movements. Following Jayaseelan (2001), Belletti (2001, 2004) and Poletto (2006), I assume the presence of a VP periphery above VP. In the cited literature, it is assumed that the VP periphery has the same structure as the higher left periphery¹⁹: for the case of Mocheno, I specifically assume that the VP periphery involves a TopicP-FocusP articulation²⁰. Above we saw that in the high periphery both [+/-given] topics and operators can be hosted, whereas i) new information foci and ii) [-given] topics (in sentences with operators or with heavy XPs) appear in the lower phase. Therefore, I assume that the VP periphery only hosts a TopicP for [-given] topics and a FocusP for new information foci, as in (26)²¹. I assume that the VP periphery is located below sentential adverbs, given that i) topics and foci always follow these adverbs when they appear in the lower phase and not in the high periphery, and ii) the past participle can never precede

adverbs of this class. For the moment, I leave aside the position of manner adverbs with respect to the VP periphery.

(26) [_{FP} sentential adverbs [_{LOW-TOPIC-P} -given topic [_{LOW-FOCUS-P} new information focus [_{VP}]]]]

The Mocheno facts can be captured within a theory that posits the presence of a single grammar in which OV and VO word orders are the result of the interaction between the high periphery and the VP periphery. If we assume that any XP extracted from the lower phase and moved to a TopicP or a FocusP in the high periphery has to make an in-between step in the corresponding position of the VP periphery, saturating it, we have an immediate account of the connection between the information status of the XP in sentence-initial position and of the XP appearing in the lower phase. Saturation of one of the FPs with discourse-features leads to the fact that only the other lowFP is available, which gives rise to the Operator-topic or topicoperator articulations. This idea, which allows us to make sense of the distribution of information in Mocheno main clauses, does not, however, make sense of the fact that a new information focus has to appear in OV word order, whereas, in sentences with a fronted operator, a topic has to follow the past participle (VO, marginalization). My proposal to account for the distribution of word orders is that i) VO has to be derived by assuming that the past participle moves (Kayne 1998, Cinque 2006, 2008) and ii) this movement takes place within the VP periphery in compliance with a low V2 rule comparable to the one associated with the CP periphery (cf. Poletto 2006 for a similar proposal for Old Italian)²².

In order to illustrate how my hypothesis works, I will, in the next section, consider the syntax of the V2 rule involving the finite verb and the high periphery: the idea is that the

same V2 mechanism has to be replicated for the past participle in the VP periphery.

3.2 Mòcheno as a V2 language

As discussed in Cognola (2010), the V2 system of Mòcheno is very different from that of standard V2 Germanic languages and much more similar to that of Old Romance languages (Benincà 2006), Rhaetoromance (Poletto 2002), Old English (Roberts 1996) and Cimbrian (Bidese 2008, Grewendorf & Poletto 2010). All asymmetries between Mòcheno and Germanic V2 can be reduced to the fact that in Mòcheno, as in Old Romance and the other systems mentioned above, the obligatory movement of the finite verb to CP in all sentences co-exists with a split-CP. This can give the impression that the verb has not moved, if the DP subject is topicalized within the left periphery. In this subsection, I recall the most important properties of the Mòcheno V2 rule, focusing on two aspects of it: i) the EPP feature and ii) the relation between V2 and the split-CP.

Following Haegeman (1997) and Roberts (2004), Cognola (2010) analyzes the V2 rule as a property of the lowest projection of CP, FinP, whose head is associated with an EPP feature that forces i) the finite verb to raise to Fin⁰ and ii) an XP to move through Spec,FinP. As in Old Romance (Benincà 2006), there are three types of constructions in Mòcheno that can check the EPP feature associated with Fin⁰ in Spec,FinP: simple preposed XPs, interrogative wh-elements and foci. This is illustrated in (27), where it can be seen that when one of these constituents is in sentence-initial position, subject-verb inversion is obligatory.²³

(27) a. A puach (*si) hòt-se gester kaft [SP]
a book str-subj-iii-sing-fem has-cl-subj-iii-sing-fem yesterday bought
'A book she bought yesterday'

b. Bos (*si) hòt-se kaft gester ? [Wh] what str-subj-iii-sing-fem has-cl-subj-iii-sing-fem bought yesterday 'What did she buy yesterday?'

c. A PUACH (*si) hòt-se kaft gester, ont net
a book str-subj-iii-sing-fem has-cl-subj-iii-sing-fem bought yesterday, and not a
a penna
a pen
'It was a book that she bought yesterday, not a pen'

All three of these constructions are incompatible with each other: SP is incompatible with both wh-elements (28a) and fronted foci (28b). In (28c,d), I show that a wh-element and focus cannot co-occur in the same sentence.

(28) a.*Der Mario bo hòs-o pakemmp? *[SP-wh] the Mario where have-cL-subj-II-sing met

 b.*S puach_j EN DE BOTEIG hòt-er kaft ont net avn morkt the book in the shop has-cl-subj-iii-sing-masc bought and not at-the market *[SP-focus]
 c.*A PUACH ber hòt kaft ont net a penna? *[focus-wh] a book who has bought and not a pen

d.*Ber hot kaft a puach ont net a penna? *[wh-*in-situ* focalization]

who has bought a book and not a pen

The data in (28) above point to the fact that two XPs able to move through Spec,FinP cannot co-occur in the same sentence. For the case of wh-elements and foci, this is expected, since – following Rizzi (1997) and Benincà (2001), they are both operators; the case of SP is more problematic. One way out would be to assume that SP involves wh-movement (as in Cinque 1990), but I reject this analysis for Mòcheno on the basis of three facts. First of all, SP expresses topicality, which, following the cartographic approach adopted in this chapter, has to be encoded in TopicPs and not in FocusPs. Then, as we saw above, when SP satisfies V2, a new information focus has to be realized before the past participle creating a topic-focus articulation, which can only be realized if the lower FocusP has not been saturated (see below). This means that SP has not been extracted as an operator from the lower phase, but as a topic. Finally, SP, unlike structures featuring fronted foci, does not give rise to weak cross-over effects (Rizzi 1997). This is shown in (29)²⁴:

- (29) a. En Hons_j hòt de sai schbester_{j/k} a puach gem to John has the his sister a book given 'To John, his sister gave a book'
 - b. EN HONS_j hòt-se*_{j/k} gem a puach de sai schbester*_{j/k},
 to John has- cl-subj-iii-sing-fem given a book the his sister,
 ont net en Luca
 and not to Luca

'To John, his sister gave a book, not to Luca'

On the basis of these considerations, I put forth the hypothesis that SP is hosted in a TopicP above FocusP and the EPP feature associated with the Fin⁰ is satisfied by a null operator in Spec,FinP, as proposed by Rizzi (1997) for English topicalization and by Benincà (2006) for Old Romance anaphoric anteposition. In (30), I give a simplified version of the complete structure of the Mocheno left periphery: operators appear in the lowest part of the periphery and are preceded by other constituents that i) are not able to move through Spec,FinP, are ii) pragmatically topics, and iii) are doubled by a clitic (CLLD)²⁵ or require a null operator (SP). CLLDs are multiple (I indicate this with the star: TopicP*)²⁶. The highest FP of the Mocheno left periphery is ForceP, where complementizers are hosted:

(30) [FORCE-P complementizer [TOPIC-P* CLLD [TOPIC-P SP [FOCUS-P wh-/focus [FIN-P $[SPEC-FINP wh-/focus] [F^0 V_{+fin}]]]]]$

I propose that the V2 rule involving the finite verb can be replicated for the past participle in the VP periphery. As sketched in (31), I assume that the VP periphery has the same articulation as the higher one and that the past participle has to rise to the head of the lowest FP of the VP periphery - which, for the moment, I call *LowFinP* (see section 3.5 below)- to check the low EPP. Extracted operators and new information foci are able to move through Spec,Low FinP in the same way as in the high periphery. Topics, on the other hand, cannot move through Spec,LowFinP and are therefore compatible with operators in the order topic-operator:

(31) [TP ... [FP sentential adverbs [LOW-FORCE-P [SPEC][LOWFORCE⁰] [LOW-TOPIC-P [SPEC-LOW-TOPIC **XP**] [LOW-TOPIC⁰] [LOW-FOCUS-P [SPEC-LOW-FOCUS **wh-/focus**] [LOW-FOCUS⁰] [LOW-FIN-P [SPEC **wh-/focus**] [LOW-FIN⁰ past participle][VP [Spec-VP] [V⁰ past participle]]]]]]]] In this subsection, I have introduced the core ideas of my analysis of Mòcheno main clauses as involving interaction between peripheral areas. The idea that any XP extracted from the lower phase and moved to CP has to make an intermediate stop-off in the corresponding position of the VP periphery, saturating it, allows us to make sense of the distribution of information in the sentence as a whole, whilehe idea of the presence of a lowV2 rule introduces a technical device in order to make sense of the syntax of the past participle. In what follows, I reconsider the syntax of main clauses in the light of this hypothesis.

3.3 On the derivation of main declaratives

In this subsection, I focus on the syntax of light DOs in main clauses and try to capture the distribution of information in main clauses and the syntax of DOs summed up in (25). In section 2, we saw that Mocheno main declarative clauses have a fixed structure according to which topics are realized as SP in the left periphery, whereas light new information foci have to be realized before the past participle, as summed up in (32).

(32) a. Topic – finite verb – new information focus – past participle

b. En de Maria hòt-er òlbe a puach kaft
to the Mary has-cl-subj-iii-sing-masc always a book bought
'To Mary he has always bought a book'

Let us see how the hypothesis of the presence of a VP periphery connected through movement to the higher one can allow us to make sense of the syntax of a main declarative such as (32b). The idea is that in a Mòcheno sentence, the derivation starts with movement of an XP to the high left periphery (see the generalization in 25: OV/VO word order is parasitic on V2): if the XP moved to the left periphery is a topic, it moves first to LowTopicP, skipping Spec,LowFinP since topics are not able to satisfy the EPP associated with V2. The past participle raises to the lowest head of the VP periphery, LowFinP in all sentences in order to check the EPP feature associated with LowFin⁰. An operator has to move through Spec,LowFinP as a second requirement of the V2 rule: a new information focus is realized in the VP periphery, as sketched in (33).

(33) [CP en de Maria ...[TP ... [FP òlbe [LOW-FORCE [SPEC][LOWFORCE⁰] [LOW-TOPIC-P [SPEC-LOW-TOPIC ender Maria] [LOW-TOPIC⁰] [LOW-FOCUS-P [SPEC-LOW-FOCUS s puach] [LOW-FOCUS⁰] [LOW-FIN-P [SPEC s-puach] [LOW-FIN⁰ kaft][VP [Spec-VP] [V⁰ kaft] [VP [Spec-VP s-puach] [V⁰ kaft] [PP en de Maria]]]]]]]]]]

In the next section, I will consider the derivation of sentences with fronted operator, which constitute evidence for my account. Then, in section 3.5, I will come back to two issues that I have left unsolved: the nature of the lowest FP of the VP periphery (which I have informally called LowFinP) and the role of heaviness.

3.4 On the derivation of sentences with fronted operator

I consider the syntax of sentences with a fronted operator the strongest and most convincing evidence in favour of the idea that the structure of Mòcheno clauses is the result of the interaction between the two peripheries, both of which are associated with a V2 rule.

Above we saw that sentences with a fronted operator only have VO syntax and that the

XP following the past participle is a [-given] topic.

(34) a. Wh-element/focus – finite verb – past participle – [-given] topic

Following the hypothesis sketched above, it is to be expected that any XP extracted from the lower phase and moved to one of the high left periphery's FPs must first move through the corresponding projection of the VP periphery. This intermediate movement has the effect of saturating the low FP targeted by the extracted XP, blocking movement of another XP to its Spec: this means that if a wh-element is extracted and moved to the high periphery, it will first move to lowFocusP, saturating it and preventing the realization of a new information focus in the lower phase. In this configuration, the only FP encoding discourse-features available in the VP periphery is the TopicP dedicated to [-given] topics. An extracted operator, though, has not only an effect at the level of information structure, by saturating lowFocusP and forcing the presence of a [-given] topic in the lower phase, but also a syntactic effect, since operators are able to satisfy the EPP feature responsible for V2. Given the properties of the V2 rule inMòcheno , it has to be assumed that an operator (differently from a topic) can also move to the lowest Spec of the VP-periphery for EPP reasons. This is illustrated in (35) for an object wh-element:

(35) [CP wh- ... [TP ... [FP sentential adverbs [LOW-TOPIC-P -given topic [LOW-FOCUS-P wh-[LOW-FIN-P [SPEC wh] [F⁰ past part][VP [Spec-VP] [Spec-VP] [V⁰ past part] [NP wh-]]]]]]]

The mechanism set out in (35) for Mocheno allows us to derive in a straightforward way the ban on having two operators (wh-element and focus, or two foci) in the same sentence

(Belletti 2001, Calabrese 1982, Rizzi 1997). It might therefore alsobe valid for other languages which show this restriction. The derivation in (35) does not make sense, though, of the linear word order of Mòcheno, since sentences with fronted operators are VO, whereas in the structure in (35), the past participle is in the same position (head of LowFinP) as in sentences involving a new information focus, which all have OV word order.

In (36), I propose that the obligatory VO syntax in sentences with an extracted operator has to be made sense of by assuming that the past participle in sentences with fronted operators first movesto the head of the lowest projection of the VP periphery (lowV2), and then rises further to the head of the highest projection of the VP periphery, LowForceP. According to this hypothesis, the operator, after having satisfied V2 in LowFinP, moves to lowForceP in order to be extracted. LowForceP corresponds to the edge of the lower phase (Chomsky 2001) and functions in the same way as highForceP, which, according to Rizzi (1997:283), is a projection that "faces the outside": with respect to the VP periphery, "outside" means the higher phase:²⁷

(36) [CP wh- ... [TP ... [LOW-FORCE [SPEC wh-][LOW-FORCE⁰ past participle] [LOW-TOPIC-P -given topic [LOW-FOCUS-P [SPEC wh-] [LOW-FOCUS⁰ past participle] [LOW-FIN-P [SPEC wh] [LOW-FIN⁰ past participle][VP [Spec-VP] [V⁰ past participle] [NP wh-]]]]]]

In the next section, I will discuss two issues that I have left unsolved: the nature of the lowest FP of the VP periphery and the effect of heaviness.

3.5 On low adverbs and LowFinP

In this section, I discuss the nature of the lowest FP of the VP periphery, to whose head I
claim the past participle has to rise in compliance with the lowV2 rule. In order to tackle the issue of past participle movement, I have to consider the syntax of low adverbs, which I have left aside so far. According to Cinque (1999:101ff), low adverbs are hosted in the Spec position of VoiceP, which he analyzes as the projection encoding the passive voice. In Italian, active past participles have to rise above VoiceP (after having checked the marked features in Voice⁰), as evidenced by the fact that the active past participle has to precede low adverbs; passive past participles, on the other hand, can follow low adverbs (that is remain in Voice⁰), or move above them, depending on the presence or the absence of a precise time reference (Cinque 1999:103).

If the distribution of Italian low adverbs can be interpreted as signalling a difference between active and passive structures, this does not seem to be so in Mocheno: as can be seen in (37), where Cinque's (1999:102) examples are translated into Mocheno, both active (37a,b) and passive (37c,d) past participles in this language obligatorily follow low adverbs:

- (37) a. Sei alua hòn der spektakel schia uganommen they only have the show well sep-pref-taken'They alone have received the show well'
 - b.*Sei alua hòn der spektakel uganommen schia they only have the show sep-pref-taken well
 - c. Der spektakel ist van olla schia uganommen kemmen
 the show is of everyone well sep-pref-taken passive-aux
 'The show has been received well by everybody'

37

d.*Der spektakel ist van olla uganommen (schia) kemmen (schia) the show is of everyone sep-pref-taken well passive-aux well

In Mòcheno , both active and passive past participles remain below manner adverbs (a similar pattern is found also in French, Cinque 1999: 211, fn71) and it cannot be determined whether they move to two separate FPs or to the same one. For Mòcheno , I would like to propose that both active and passive past participles move to the same FP, VoiceP, and that VoiceP is the lowest FP of the VP periphery. The idea that VoiceP corresponds to the lowest head of the VP periphery has an immediate consequence for Cinque's (1999) claim that manner adverbs are hosted in Spec,VoiceP: for Mòcheno it has to be assumed that Manner adverbs are hosted in a dedicated FP and not in Spec,VoiceP. The FP hosting Manner adverbs necessarily has to be higher than VoiceP, given that manner adverbs in Mòcheno obligatorily precede the past participle. The derivation is given in (38):

(38) [CP wh-/focus [TP ... [FP sentential adverbs [LOW-FORCE [SPEC][LOW-FORCE⁰] [LOW-TOPIC-P [LOW-FOCUS-P [SPEC wh-/focus] [LOW-FOCUS⁰] [FP manner adverbs [VOICE-P [SPEC wh/focus] [VOICE⁰ past participle] [VP [Spec-VP] [V⁰ past participle] [NP]]]]]]]

There are two aspects of (38) that I want to briefly discuss. The first one regards the syntax of Manner adverbs, in particular the idea that i) Manner adverbs can be hosted in a dedicated FP, and that ii) this FP is in the VP periphery, higher than VoiceP. The idea that Manner adverbs are not hosted in Spec, VoiceP is implicit in Belletti's (2006) analysis of past participle agreement in modern Italian. Belletti assumes this agreement to be realized as the

consequence of a Spec/head relation between DO and past participle hosted in Spec, VoiceP and Voice⁰ respectively. If Spec, VoiceP hosted Manner adverbs, the Spec/head configuration between DO and past participle could not be created in VoiceP. The Mocheno data point to the fact that manner adverbs in this language always precede the past participle, which moves to VoiceP: they therefore have to be hosted elsewhere in the lower periphery²⁸. The second issue to be dealt with is the correlation between lowV2 and past participle agreement morphology, which is missing in Mocheno, but is present in Italian, despite the fact that for both Mocheno and Italian (Belletti 2006) it has been claimed that the projection involved in past participle movement is VoiceP. Here, I would like to propose that lack of past participle agreement in Mocheno is precisely what is expected in a Germanic V2 language, in the light of what we find in the higher phase. Movement of the finite verb to CP in Germanic V2 languages has been connected to richness of CP (den Besten 1983, Tomaselli 1990, Haegeman 1997, Roberts 2004,), in particular to the fact that V2 languages have to check the finiteness feature in CP, whereas non-V2 languages check the same feature in TP. This asymmetry between V2 and non-V2 languages seems to correlate with a richness in morphology in the latter ones. The same facts seem to hold for the lower phase: non-V2 languages, such as modern Italian, have past participle agreement, in the same way that they have i) rich morphology (TP) and ii) no V2; a V2 language such as Mocheno i) does not have rich morphology nor past participle agreement and ii) is V2. These facts indicate that the features connected to diathesis might be checked by the past participle in two different positions in V2 and non-V2 languages, analogously to the finiteness feature in the higher phase: in V2 languages the past participle rises to the VP periphery, in the same way the finite verb moves to CP, whereas in non-V2 languages it moves to an FP where Spec-head agreement with DO can take place, in the same way that the finite verb moves to TP.

Now, the derivation proposed in (38) is challenged by the syntax of low adverbs in sentences with VO word order, since, as we saw in (20), VO syntax in these sentences is obligatory (the past participle is in LowForce⁰) and all classes of adverbs (including manner adverbs) obligatorily precede the past participle. There are two ways out of this problem: either we propose that i) low adverbs in sentences with fronted operators move to the edge of the lower phase, or that ii) low adverbs move together with the past participle. Both ideas are problematic for the theoretical account proposed here, since the former implies that i) manner adverbs can move (a departure from Cinque 1999) and ii) an FP dedicated to manner adverbs is available above LowForceP, which could be thought of as a field (see Haegeman (2004:168) and references there, and also Padovan (2010) for a similar idea for the higher ForceP). The latter implies that in sentences with VO syntax, low adverbs have moved together with the past participle to the edge of the lower phase, which is incompatible with my account, since movement of remnant VP is incompatible with my account of VO syntax in terms of V2. Here, I am not in a position to decide between these two hypotheses due to the lack of empirical evidence and I leave this issue open for future research.

3.6 On the role of heaviness

Having considered the derivation of unmarked main declaratives (SP-new information focus) and of sentences with a fronted focus (operator-topic), I want to reconsider the role of heaviness in the light of the derivation proposed for Mocheno main clauses. In this subsection, I will propose that, from the point of view of syntactic derivation, the syntax of sentences involving a heavy topic or a heavy new information focus instantiate a new syntax for Mocheno , characterized by a change in the lowV2 rule, according to which any extracted XP has to move directly to the edge of the periphery, forcing past participle movement and

VO syntax. Except for new information foci realized by proper names and [+human] common nouns, which can only have the new VO syntax, all other heavy XPs examined in this chapter have both the same syntax as light XPs and an innovative syntax, which points to the fact that new and old (the one described above for light XPs) systems coexist.

3.6.1 Heavy topics

In section 2, we saw that heaviness does not interfere with information structure, but does have an effect on syntax, by favouring VO word order. When realized by light XPs, [+/- given] topics have to appear in the left periphery as SPs,except for [-given] topics in sentences with fronted operators, which are obligatory postverbal (marginalization). Heaviness has the effect of allowing a [-given] topic to be marginalized in main declarative clauses, that is the syntax of [-given] topics in sentences with fronted operators becomes grammatical in main declaratives if the topicalized XP is heavy. Yet, the fact that only heavy [-given] topics can be marginalized in main declaratives is predicted by the hypothesis of the presence of a VP periphery, in particular by the idea that it can only host a TopicP for [-given] topics, wh-elements and foci are all permitted to appear. Given the proposed structure of the VP periphery, the syntactic effect of heaviness is that of allowing a [-given] topic to appear in the VP periphery, avoiding movement of the heavy XP to the high periphery.

From the point of view of the derivation proposed above, the possibility of having VO word order in a main declarative clause remains mysterious onmy account, since in main declaratives the sentence-initial constituent is generally a topic, which is not supposed to interfere with lowV2 and past participle movement to LowForceP. Here, I tentatively put forward the idea that VO word order in sentences in which the XP in sentence-initial position

is a topic and the postparticipial XP is a heavy [-given] topic has to be made sense of by assuming that i) the topic appearing in the high periphery has not been extracted via lowTopicP, but has moved directly to the edge of the VP periphery; ii) since lowTopicP has not been saturated, a lowTopic can be realized as a heavy XP. This is shown in (39).

(39) [CP en de Maria ...[TP ... [FP sentential adverbs [LOW-FORCE [SPEC en de Maria][LOWFORCE⁰ kaft] [LOW-TOPIC-P [SPEC-LOW-TOPIC s puach+heavy] [LOW-TOPIC⁰] [LOW-FOCUS-P [SPEC-LOW-FOCUS] [LOW-FOCUS⁰] [ACTIVE-VOICEP [SPEC] [ACTIVE-VOICE⁰ kaft][VP [Spec-VP] [V⁰ kaft] [VP [Spec-VP s- puach+heavy] [V⁰ kaft] [PP en de Maria]]]]]]]]]]

3.6.2 Heavy new information foci

With respect to the effect of heaviness on new information foci, we saw in section 2 that a modification realized by a relative clause i) favours the postparticipial position for a new information focus where [-human] common nouns are involved (thisis ruled out when the new information focus is a light XP) and ii) forces the postparticipial position for the new information focus in the case of [+human] common nouns and proper nouns, which are OV when no modification is present. This state of affairs is completely unpredicted by the theory proposed above, since in my account, a new information focus is always able to trigger lowV2 and is in complementary distribution with a topic in the left periphery.

Starting with the derivation, the presence of VO word orders with a new information focus showing up in the lower phase has to be made sense of by assuming that i) the topic appearing in the VP periphery has been extracted through the edge (as in 39 above), forcing past participle movement to LowForce⁰; ii) the new information focus is in LowFocusP. It cannot be determined whether the new information focus has moved through Spec, VoiceP or not.

Why this derivation is possible only in sentences with heavy new information foci cannot be made sense of in this chapter. What has to be understood in future work is why heaviness has a different effect according to the semantics of the modified noun, which seems to point to the fact that it is not heaviness *per se* that plays a role in the syntactic position of heavy XPs, but rather the interaction between the semantics of the modified noun and the semantic contribution made by the modification. This constitutes, according to me, a main difference between the effect of heaviness on the syntax of topics and of new information foci: with topics, heaviness simply favours the realization of a topic in the VP periphery (marginalization), avoiding movement of the heavy XP to the left periphery, where all topics have to appear (as SPs) when light XPs are involved; new information foci, on the other hand, have to appear in the VP periphery, regardless of whether they are realised by light or heavy XPs. In the latter case, heaviness does not seem to play any role.

4 Conclusions

In this paper, I have provided an account of the mixed OV/VO syntax of Mocheno main clauses which allows us to make sense of variation as emanating from a single grammar in which OV and VO word orders are determined by the interaction of i) information structure and ii) syntactil constraints. In order to account for the interdependence of these two components, I started out from the observation that the two areas of the clause are connected, and in particular the possibility of having OV or VO orders depends on the type of XP appearing in the high periphery. This led to the descriptive generalization repeated in (40). (40) a. When the EPP feature is checked in Spec,FinP by a null operator, OV is obligatory and the XP preceding the past participle is a new information focus;
b. When the EPP feature is checked in Spec,FinP by a moved operator, VO is obligatory and the XP following is a [-given] topic (marginalization).

The descriptive generalization in (40) was captured through the idea of the presence of a VP periphery (Jayaseelan 2001, Belletti 2001,2004, Poletto 2006) that i) is connected to the higher one through movement, representing a domain through which any XP extracted from the lower phase and moved to a TopicP or a FocusP of the high periphery has to move, and ii) has a lowV2 rule that involves the past participle in the same way as the finite verb in the higher phase, i.e. the past participle must rise to the lowest head of the VP periphery just as the finite verb does in relation to the higher periphery. Movement to the edge, which leads to VO syntax, can only take place if an operator is extracted. This hypothesis has allowed us to make sense of both the information-structure facts and of the syntactic derivation. Within the proposed account the effect of heaviness has been shown i) not to depend on information structure and ii) to instantiate a shift in the system, according to which the past participle can rise to the edge of the VP periphery despite the XP in sentence-initial position is a topic.

In my view, the account proposed for Mòcheno is of great relevance for both the work on language variation and change and for theoretical linguistics more generally. As for the former area of research, Mòcheno provides evidence in favour of analysis of mixed OV/VO in terms of information structure, rather than in terms of different parameter settings as a result of contact. This is even more relevant, if we consider that Mòcheno is indisputably spoken in a contact situation. Moreover, the derivation proposed for Mòcheno, which points on the one hand at a relation between V2 and OV/VO and at a connection between word orders and information structure on the other, might turn out to be useful also for other languages with mixed systems. From the point of view of theoretical linguistics, the work on Mocheno has also led to a refinement of the cartography of the lower portion of the clause and of the VP periphery. The VP periphery has been shown to be pragmatically different from the higher one and to encode a TopicP for [-given] topics and a FocusP for new information foci, whereas the higher one allows for both [+/-given] topics, wh-elements and contrastive foci. The identification of clear differences between the two peripheries is a welcome result, since it speaks in favour of the hypothesis of the presence of a VP periphery, by pointing out that the VP periphery is different from and complementary to the higher one. If the two peripheries were identical, the presence of the lower one would be challenged. The second important result for the theory of the presence of a VP periphery emerging from the analysis of Mocheno concerns the identification of a mechanism of lowV2 that affects the lowest head of the periphery, thought to be connected to Voice. Even though a lot of work remains to be done, especially on the syntax of low adverbs and on the properties of LowForceP in comparison to those of the ForceP of the high periphery, I think that the parallel drawn between FinP and VoiceP, on the one hand, and the identification of LowForceP, on the other, are promising areas of research and might lead to a better understanding of the VP periphery in future work.

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1 I would like to thank the organizers and the participants of the TAWDO conference in Newcastle, in particular Josef Bayer, Theresa Biberauer, Guglielmo Cinque, Sonia Cyrino, Roland Hinterhölzl, Richard Kayne, Susan Pintzuk, Michelle Sheehan, Ann Taylor and Jan-Wouter Zwart for the interest they have shown in my work and for useful comments and suggestions. To Paola Benincà, Theresa Biberauer, Andrea Padovan, Cecilia Poletto, Michelle Sheehan, Chiara Zanini and two anonymous reviewers, I want to express my gratitude for precious suggestions and indications that helped me to shape my ideas and to organize them in the clearest way. Finally, I would like to thank my main informant, L.T., who contributed a great deal with his fine intuitions to the analysis proposed here, Carol Morris and the editors of this volume for checking and improving the English of this paper. All shortcomings are my own.

2 Mòcheno is still spoken the villages of Palù/Palai, Fierozzo/Vlaruz and Roveda/Oachlait, by around 580 people (as discussed by Alber 2010:2,fn2, this is only an estimation: the exact number of speakers of Mòcheno is unknown). All data in this paper refer to the variety spoken in Palù/Palai by middle-aged speakers.

3 I also reject an account of Mòcheno word orders that tries to connect syntax with morphology, in particular with case morphology on DPs (see Meillet 1903 and Magni 2000 for Latin and Roberts 1997 for Old English). The connection between word order and case morphology has proved to be very weak: Weerman (1997) points out that Dutch has OV base word order despite its lacking case morphology on DPs; Icelandic, on the other hand, has maintained a rich case morphology but is a VO language (Hroarsdottir 2000). Polo (2004) shows that in all instances of VO word order in Latin, the direct object is case-marked (see, though, Magni 2000 for the opposite result for the Pompeian inscriptions). For Mòcheno, too, a correlation between case morphology and syntax cannot be claimed because, despite the fact that Mòcheno does not have case morphology on NPs (Rowley 2003:133ff), OV word order is possible.

4 The validity of the double-base hypothesis has been challenged on both theoretical (Svenonius 2000:280) and empirical grounds. With respect to the role of competing grammars in language

variation and change, it has been pointed out (Hinterhölzl 2009:49f and references cited there) that Old High German was also a language with mixed OV/VO word orders, even though this cannot be due to contact with languages with different parameters. Similar considerations hold for other languages that have undergone a shift from OV to VO, passing through a period of mixed OV/VO syntax, such as Icelandic (Hroarsdottir 2000), Swedish (Delsing 1997) and also the Romance languages, which all stem from Latin (Magni 2000, Polo 2004).

5 I have decided to focus mostly on these studies, leaving aside the work on modern languages with mixed OV/VO syntax such as Yiddish (Diesing 1997), Hungarian (among others Kiss 1987) or Finnish (Vilkuna 1995), because the mixed OV/VO syntax of Mocheno is more similar to that of Old Germanic varieties, which makes the comparison with those varieties more interesting.
6 The cited studies focus on the position of main-clause constituents with respect to the finite lexical verb, given that in the older stages of the examined languages no analytical verb forms had appeared yet. In this work, by contrast, I consider the position of the direct object (DO) with respect to the past participle in a so-called *Satzklammerstruktur* (brace construction).

7 Hinterhölzl (2009:50) also identifies a dedicated position for contrastive foci before the finite verb.

8 In Mocheno object pronouns are enclitic to the finite verb and do not enter the pattern of OV/VO alternations described for DPs in this work.

9 A comment on the data in (6c,d) is in order. (6c) shows that long scrambling of a definite DO is inappropriate if the DO is a new information focus, whereas (6d) illustrates that long scrambling of an indefinite DO is ungrammatical. In Cognola (2010), I discuss these facts, showing that in Mocheno i) definite DOs can undergo long scrambling; ii) long scrambling of indefinite DOs is restricted to the double-object construction. The DO receives a [+given] topic reading in both cases, which is incompatible with the new information reading forced here by the wh-main interrogative test. In the subsection dedicated to the syntax of topics I do not consider the syntax of long scrambling, even though it has to be considered an instance of topicalization; this choice is

motivated by the fact that long scrambling is restricted to definite DOs and ruled out with all other XPs. Since everything shown in the paper is valid for all constituents, given that they are either new information foci or topics, I prefer to leave aside the analysis of Mocheno long scrambling and to consider patterns shared by all constituents in order to reach more reliable and stronger conclusions. 10 In Cognola (2010), I have pointed out that heaviness might have a different effect on the syntax of an XP according to the type of relative clause (appositive or restrictive) modifying it. This is tightly linked to the asymmetries between [-human] common nouns on the one hand and [+human] common nouns and proper names reported in this section. As far as I know, this fact has never been noticed in previous work and heaviness has been treated as a unitary phenomenon, independently of the type of relative clause involved.

11 Cruschina (2010), following Lopez (2009), calls this property of topics "anaphoricity" and defines it as "the relation with a discourse antecedent based on identity (Lopez 2009, in Cruschina 2010:51). As pointed out by an anonymous reviewer, the notion of "anaphoricity" is fully comparable with that of "giveness".

12 Recent years have seen an increasing interest in the category of topic and in its syntactic realizations (see among others Frascarelli 2000, Frascarelli & Hinterhölzl 2007, Benincà & Poletto 2004). These studies have allowed us to reconstruct a precise mapping between the typology of topics identified in semantics and the phonological and syntactic properties of the different syntactic constructions through which topics are realized. Within the cartographic approach, this has led to a refinement of the projection TopicP originally proposed by Rizzi (1997), which has been shown to be an area hosting different types of topics strictly ordered one with respect to the other.

13 Here the terminological choice has to be motivated. Benincà (1988:142) calls the construction exemplified in (1) below "anaphoric anteposition": this construction, which is limited to root clauses, involves a topic-comment articulation, with the topicalised XP not being doubled by a pronoun:

(1) La stessa proposta fece anche il partito di maggioranza

the same proposal made also the party of majority

'The same proposal, the majority party also made'

Rizzi (1997:285) calls this construction "topicalization" where the XP appearing in the left periphery is an argument and "simple preposing" where it is an adverb (Rizzi 2004). Cruschina (2010), citing Cinque (1990), refers to this construction as Resumptive Preposing or Simple Preposing, distinguishing between arguments and adverbs, as in Rizzi (2004). In this chapter, I prefer to speak of "simple preposing" (SP) for both the cases in which a verb argument and an adverb are involved. I think, in fact, that the label "anaphoric anteposition" is misleading for Mocheno; in this language, SP is possible with both [+/-given] (+/anaphoric) topics, which points to the fact that it is not giveness that has to be considered the main characteristic of the construction. Also the label "topicalization" is misleading, since it may lead to confusion between the syntactic realization of a topic and the notion of topic in itself (old information), which is independent of its syntactic realization. "Resumptive Preposing" is misleading because the core syntactic property of this construction, in contrast with CLLD, is precisely lack of pronominal resumption.

14 Here, I use for the Mòcheno constructions the labels that have been proposed for the Romance (Italian) constructions expressing topicality. This choice rests on the formal identity between the Mòcheno and the Romance (Italian) constructions, but it does not imply that the constructions are also functionally identical (in fact, they are not: CLLD in Italian can introduce a new topic, see Benincà 1988, Cruschina 2009, whereas in Mòcheno it cannot). Moreover, the choice of these labels does not imply commitment to any analysis proposed for Romance.

15 In Mocheno CLRD, the dislocated XP cannot appear before the past participle, but only after it: this hints at a correlation between postparticipial position and topicality.

a.*I hòn-en_j der Mario_j gester tsechen I have-cl-obj-iii-sing-masc the Mario yesterday seen b.*I hòn-en_j gester der Mario_j tsechen I have-cl-obj-iii-sing-masc yesterday the Mario seen

- 16 In this article, I propose (see section 3) that the Mocheno construction that I call marginalization has to be analyzed as involving the VP periphery. Cardinaletti (2002) proposes an analysis of Italian marginalization as a construction involving *in situ* destressing. I argue that the interaction between V2 and OV/VO and the connection between the higher and the lower phase with respect to distribution of information strongly support the idea that topics without pronominal doubler appearing after the past participle (marginalization) are in the VP periphery in Mocheno. Future research is needed in order to determine whether the analysis proposed for Mocheno might be applied to Italian. The indications in brackets given to the right of the sentences are only meant to indicate informally what syntactic construction is compatible or incompatible with what type (+/-given) of topic . The asterisk indicates that the construction cannot express that type of topic; in some cases, the sentence would be acceptable if the direct object had a different information status (see above for the syntax of new information foci).
- 17 In sentences with fronted operator, [+given] topics have to be realized by CLLD or CLRD.
- 18 Here, I use "trigger" in an informal way, in order to refer to the requirement of the V2 rule that the EPP feature associated with Fin⁰ be checked by an XP in Spec,FinP (see below).
- 19 Poletto (2006) actually assumes that the VP periphery lacks ForceP. Below, I will provide evidence in favour of the idea that LowForceP does in fact have to be assumed for the VP periphery and that it corresponds to the edge of the lower phase (Chomsky 2001).
- 20 In Mòcheno the order wh-element/focus topic is always ruled out. In Cognola (2010), this led me to conclude that TopicPs can only precede FPs dedicated to operators, differently from what is assumed for Italian by Rizzi (1997).

21 Here I reject an analysis that posits the presence of only the high left periphery, like that proposed for wh-main interrogatives by Poletto & Pollock (2004). Space precludes a detailed comparison of the two analyses, but I think that my analysis is superior since i) it allows us to make sense of the connection between V2 and OV/VO in Mocheno and ii) it straightforwardly captures the distribution of [+/-given] topics.

- 22 I derive VO word order through head movement of the past participle, which is a consequence of the idea of the presence of a low V2 rule.
- 23 Here, it is not relevant to determine whether the Spec/head configuration between the XP insentence-initial position is created in FinP, or in a dedicated projection of the left periphery hostingthe sentence-initial XP. In Cognola (2010), I provide evidence for the second hypothesis. Note, that Mocheno has three classes of subject pronouns: clitic, weak (in

the sense of Cardinaletti & Starke 1999) and strong pronouns. Strong pronouns are compatible with the preverbal position, whereas clitics are obligatory in enclisis. See Cognola

(2010) for a description of the Mòcheno pronominal system and its interactions with V2. 24Note that in sentences with a fronted focus (thus also in wh-main interrogatives), a DP subject has to be dislocated (the subject clitic *se* is coreferential with the DP subject *de sai schbester*), whereas in sentences with SP, the DP can follow the finite verb. Here, I cannot comment on this asymmetry in the syntax of DP subjects and I refer the reader to Cognola (2010).

- 25 An account of the derivation of CLLD and CLRD in Mocheno and of why CLLDs do not interfere with V2 is beyond the scope of this work. For a proposal, see Beninca (2006), Poletto (2002) and Grewendorf & Poletto (2010).
- 26 In Mòcheno, multiple topics realized through CLLD cannot be said to be recursive, as claimed by Rizzi (1997) for Italian topics, since they are strictly ordered according to the constituent category (argument, modifier, semiargument...): therefore, this star does not indicate recursivity as in Rizzi (1997), but only multiple topics. See Cognola (2010) on this.

27 It is plausible to assume that LowForceP has reduced properties in comparison to HighForceP. The Mocheno data indicate, however, that the core property of ForceP at both levels is the relation with the "exterior", to be understood as another sentence, in the case of HighForceP, or as the higher portion of the same sentence, in the case of LowForceP.

28 I am not in a position to decide whether this position is the base-position of manner adverbs or a derived position. The idea that manner adverbs might have a dedicated position in the VP periphery

might be backed up by the syntactic behaviour of manner adverbs in Romance. They are, for example, the only adverbs that can behave as QPs: "Sono ben/molto contento", I am very happy (Benincà, p.c.). Moreover, in some varieties (Trentino) these adverbs have developed an aspectual value comparable to that of the German particle *wohl*. These values present in Trentino are not shared by Mòcheno *schia*.