

Theoretically oriented paper on the syntax of natural languages

A case of *do*-support in Romance

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Abstract

In this paper we document the existence in a Romance language of a strategy of *do* (*fa*) insertion in main non-subject interrogatives parallel to the English well known case. As our description illustrates, the set of contexts where *do*-support applies in this language is a proper subset of the English contexts.

The syntax of *fa*-support in a language with typical Romance features allows us to draw some general conclusions regarding the analysis of English *do*-support and the interfaces between syntax and morphology, on one side, and syntax and lexical-semantic structure, on the other.

First, we will show how *fa*-support in this Romance language constitutes evidence in favor of the hypothesis that V to C movement applies also in Romance main questions. Second, some aspects of Rizzi's (1991) proposal that subject *wh*-sentences have a CP structure with the *wh*- in SpecC is confirmed by the presence of an overt complementizer in the language we are dealing with. Thirdly, the phenomenon of Romance *fa*-support will lead us to further develop Pollock's idea that *do* insertion is directly connected with the theta-grid of a verb: a main verb cannot move to a thematically opaque position, while auxiliaries can, as they do not have a theta-grid. In the Romance dialect we analyze some verbs move to C° (or use *do*-support) independently of their use as auxiliaries or as main verbs. In order to account for this aspect of the phenomenon, we suggest a more detailed description of the process.

1.1 Introduction ¹

In this paper we document the existence of a *do*-support analogue in certain Lombard dialects in Northern Italy, analyzing in particular the data collected in the village of Monno. This dialect offers an interesting way to check (some of) the predictions made by the theories that have been put forth with respect to the English phenomenon, and to gather a more complete picture of movement phenomena in interrogative sentences. As far as we know, the *do*-support strategy limited to main interrogatives, negatives and VP-elliptical clauses - i.e. the obligatory insertion of a pro-verb in I° to play the role of a main verb in positions to which the V itself cannot move - has been reported and analyzed only for Modern English². The following Monnese examples display a

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² A sort of *do*-support is in fact attested in German dialects and regional varieties of German. The fundamental difference between English and Monnese, on the one hand, and German varieties, on the other, is that in the

striking similarity with their English translation:

- (1) a fa-l majà?
 does-he eat?
 ‘Does he eat?’
- b ke fa-l majà?
 what does-he eat?
 ‘What does he eat?’
- c *maja-l?
 *eats he?
- d *ke maia-l?
 *what eats-he?
- e a-l majà?
 has-he eaten?
 ‘Has he eaten?’
- f ke a-l majà?
 what has-he eaten?
 ‘What has he eaten?’
- g *ke fa-l aver majà?
 what does-he have eaten?
- h fa-l plöer?
 does-it rain?
 ‘Is it raining?’
- i a-l plöt?
 has-it rained?
 ‘Did it rain?’
- l *plöe-l?
 *rains-it?

The theoretical relevance of the discovery that *do*-support exists in Romance too concerns the analysis of Romance root interrogatives, which will be shown to have I to C movement in the Syntax (contrary to much

latter the phenomenon is optional, both in interrogative and assertive contexts, and it shows no difference between main and embedded clauses. A similar, though not identical, phenomenon with the verb *faire* is also analyzed by Miller (1997) for Old and Middle French. However, neither German, Middle French nor Old and Middle English display a distribution similar to that found in modern English and described here for Monnese.

recent proposals as Hulk (1993) and Sportiche (1995)). The Monnese data are also relevant to establish more precisely the role played by morphological weakening in the development of the corresponding process in English. A third but not minor point has to do with the recent proposal made by Chomsky (1995, 2000) that *do*-support in particular and more generally head movement is part of the PF component and not of the computational system itself. We will show that this hypothesis leads to an unnecessary doubling of the mechanism of Merge and subsequent Move - typical of the computational component - in the PF component. Moreover, the explanation of the rarity of *do*-support in Romance will shed light on how costly the operation Merge is.

The article is structured as follows: in section 2. we present some of the properties that will be relevant to our analysis of Monnese syntax as the Romance counterpart of English *do*-support. This will help us in section 3. to factor out the differences between the two languages on the basis of the independent properties of Romance syntax described in section 2. In section 4 we discuss some of the potential problems that Monnese poses for the analyses of *do*-support that have been proposed so far on the basis of English data, including a discussion of the Minimalist account.

1.2 Previous analyses

Already with Chomsky (1955), the phenomenon is analyzed as the insertion of a dummy in order to support inflectional features when the main verb cannot do that. Lightfoot (1979) linked the diachronic development of *do*-support to the appearance of a special class of modal verbs and the loss of a rich verbal inflection: the hypothesis is that, in the history of English, these aspects converged in rendering V movement to I no longer necessary, which means, in an economy perspective, no longer possible. The support *do*, which already was a free substitute of the verb in I, became the only available host for morphology when a verb was necessary in a projection higher than V° (i.e., in negative, emphatic affirmative and interrogative sentences).

An interesting diachronic description of the development of *do*-support in English is provided by Roberts (1993) and Warner (1997), who show that long after the inflectional morphology had been lost, the verb continued to raise to I°. However, as Roberts (1993) points out, the *do*-support strategy of Middle English, as well as the one attested in the German dialects and in Old and Middle French, is fundamentally different from its modern counterpart, as it is never obligatory, is not triggered by a particular syntactic context and can also be found in positive non-emphatic clauses. For this reason, throughout this work we will only consider the phenomenon of modern English, leaving aside the strategies of *do*-support found in Middle English, various

modern German dialects, and Old and Middle French, as they display different syntactic restrictions.

The most comprehensive analysis of the modern English phenomenon is provided by Pollock (1989), who establishes an indirect, interesting link between the impossibility for main verbs to move to I in English and morphological poverty. As we will make extensive use of Pollock's theory in this work, we sum up the basic reasoning of it, which is reflected in the structure of our argumentation.

Pollock makes the following assumption:

- a. in Modern English - differently from French, Italian etc. - the lexical verb cannot move to AgrS (or better, to the highest Infl projection in Pollock's theory³);
- b. the reason for the lack of movement is that the functional projections of IP are inherent barriers, because "Agr in English, unlike Agr in French, is not 'rich' enough morphologically to lift the barrierhood of IP and hence permit transmission of the verb's theta-role(s)." This renders them opaque to theta-role assignment;
- c. hence, a verb moving to T and AgrS is unable to assign thematic roles to its arguments;
- d. therefore, only auxiliaries and modals, which do not possess a thematic grid, can move to IP without violating the theta-criterion;
- e. English has a substitute *do* as an alternative to \emptyset in AgrS. Only when an intervening element blocks affix hopping, on the basis of economy considerations, the option to insert *do* instead of \emptyset is chosen;
- f. this explanation extends in a natural way to movement to C^o in questions: only auxiliaries and modals, which can reach I^o, can move to C^o, triggering subject inversion, because they lack a thematic grid.⁴

On the basis of his analysis, Pollock (1989, 366) states that "the ECP, quantification theory, and Theta theory, which are not open to parametric variation, would seem to require a language with these idiosyncratic properties [=of English], to develop a verb like English *do* with all its specific characteristics." This statement requires some amendment if confronted with the data of Monnese, a dialect that does not share the idiosyncratic properties of English, and nevertheless has developed *do*-support.

In addition to this, the correlation noted by Pollock (1989) that auxiliaries tend in general to raise more than main verbs can be further enriched on the basis of Monnese and made more precise adopting Cinque (2001)

³ In fact Pollock (1989) assumes the higher projection of Infl to be TP and not AgrSP. We follow here the reformulation due to Belletti (1990), which has become standard. We do not agree with the proposal made by Chomsky (1995) to eliminate AgrS entirely. Anyhow, this will be irrelevant to the main topic we address here.

⁴ Pollock characterizes the Middle English stage noting that:

1. an indiscriminate usage of *do* as a Verb substitute is observed in non-emphatic contexts;
2. agreement morphology was almost completely lost

He hypothesizes that there was enough agreement left to render Agr (in Pollock's theory, a projection lower than TP) a barrier, but scarce enough to render it opaque to theta role assignment. As a consequence, in simple sentences *do* insertion was chosen to avoid an ECP violation.

view that modals and semi-auxiliary verbs are always functional heads.

Similarly, the assumption made by Lightfoot's and Pollock's analyses - namely that the *do*-support strategy is connected to certain peculiar features of English syntax and morphology - has to be revised. These features are apparently absent from the dialect we present, and nevertheless *do*-support shows characteristics very close to the English construction (cf. (1)). The examples in (1) provided in section 1.1 illustrate the phenomenon we are dealing with: the Monnese *fa* (the lexical and syntactic equivalent of English *do*) occurs immediately after the *wh*-element (or in first position in yes/no questions) and is followed by an infinitival form of the main verb. The support only appears in main questions, where it is obligatory if the verb is not an auxiliary or a modal. Differently from English, it is neither inserted in negative sentences, nor in emphatic contexts. It is thus more restricted than its English counterpart. However, we show in what follows that this narrowing is an independent consequence of other characteristics of the dialect, while the phenomenon *per se* is exactly the same as in English.

2. An outline of Monnese.

The outline of the syntax and morphology of Monnese will help us to correctly interpret the data discussed in section 3.

The general features of this language are common to the great majority of Northern Italian Dialects (NIDs)⁵; some more restricted phenomena (in particular, *wh- in situ*) are shared by other Lombard and Northern Veneto varieties (see Munaro 1997, 1999).

As already mentioned in the introduction, English *do*-support is viewed both by Lightfoot (1979) and Pollock (1989) as a consequence of the loss of verbal morphology, which has in turn triggered the loss of syntactic V-to-I movement. Thus, let us concentrate our attention first on these morphological and syntactic characteristics, to test whether they can also be taken to be responsible for the occurrence of the Monnese *do*-support strategy.

2.1. Verb morphology and syntactic V-to-I movement

Monnese has developed a system of subject pronouns similar to those of NIDs: it has tonic and clitic forms, and the clitic series is not complete: 2nd sg., 1st pl., 3rd sg. and pl. have an obligatory subject clitic pronoun; 1st pl. is represented (as in French, other Lombard dialects, etc.) by a 3rd sg. verb form with an impersonal subj.

⁵The characteristics of verbal morphology, verb movement and *wh-* movement of this dialect are shared by (many or most) Northern Italian Dialects (NID), while the *do*-support strategy is only attested in this area in Northern Italy: Monno, the Lombard village whose dialect we are dealing with, is located off (but not far from) an ancient route connecting Brescia with Romansch Switzerland. Until 1963 the village was reachable only by a footpath; contacts with people speaking other varieties were rare, and this can perhaps explain why this very peculiar mode of question formation was preserved here. Possibly the phenomenon exists in other villages near Monno; we have recorded it recently in Malonno: we are not aware of other cases.

pronoun *m* 'man' (etymologically derived from lat. *homo* 'man': cf. French *on*, and the semantically parallel German *Man*). Verbal morphology does not distinguish between third person singular and plural; the morphological distinction is only made by the subject clitic (which is both distinct for gender, number). This state of affairs is widely attested in Lombard and Venetian dialects.

The Monnese paradigm for subject clitics is illustrated in (2):

(2)	1 2	3	1pl.	2pl.	3pl.
	Ø	te	l/la	m	Ø
					i/le

1st person singular and 2nd person plural are thus pro drop in the standard Italian sense, as shown in the sample of conjugation in (3). Notably, the first and second person singular of lexical verbs have an enclitic pronoun agglutinated to the right of the verb; as will be shown immediately below, this element has become part of the inflectional morphology. Once again, this is a common feature in Lombard dialects.

A sample of the present indicative forms is given in (3); *kumprà* 'to buy' is a regular verb of the first conjugation, *esse* 'to be' and *vej* 'to have' are auxiliaries, *fa* 'to do' and *nda* 'to go' are irregular verbs (with some auxiliary uses).

(3) *Present indicative*

	a. <i>kumprà</i>	b. <i>èsse</i>	c. <i>vej</i>	d. <i>fa</i>	e. <i>nda</i>
	'to buy'	'to be'	'to have'	'to do'	'to go'
1. sg.	kùmprjo	so	j o	fo	ndo
2. sg.	te kùmpret	te se	te e	te fe	te nde
3. sg.	l/la kùmpra	l/la e	l/la dž-a	l/la fa	l/la va
1pl.	m kùmpra	m e	m a	m fa	m va
2 pl.	kumprè	se	e	fe	nde
3. pl	i/le kùmpra	i/le e	i/le a	i/le fa	i/le va

1st and 2nd sg. of the lexical verb *kumprà* show the agglutination of the subj. pronoun *jo* 'I' and *t* 'thou': it appears in the present indicative of all lexical verbs, but is absent in auxiliaries (including lexical verbs *fa* and *nda*). In addition to the morphologized enclitics of first and second person singular, in main interrogatives all subject clitics appear in enclisis, as they do in French subject clitic inversion and in many NIDs (see below section 2.2). The two enclisis phenomena have to be kept distinct, as the first is found systematically in all clauses (we call it agglutination), the second is restricted to main interrogatives (following the traditional use,

we will define it as enclisis or inversion). It is not possible to state a simple correlation between the presence or absence of agglutination and movement to C: auxiliaries have agglutination in some tenses (different from the present indicative), and always move to C, while lexical verbs have a different distribution of agglutination across tenses and persons but can never move to C in interrogatives. As verb movement appears to be independent of the presence of the agglutinated pronoun, we assume that the agglutination appearing in some verbal forms in (3) is purely morphological (cf. Benincà (1997, 1999) and Poletto (2000, 30 ff) for more detailed arguments in favour of this analysis).

Monnese inflected verbs show the type of phenomena that are considered typical of a 'rich' inflection. They concern: (a) pro drop, (b) lexical DP subject postposing, and (c) surface order of the verb with respect to adverbs:

(a) pro drop: the inflected Verb (preceded by the subject clitic in 2nd sg., 1st pl., 3rd sg. and pl.) gives a pro-drop verbal form; 1st sg. and 2nd pl. do not have a subject clitic (cf. (3a)).

(b) Subject postposing: a postverbal lexical subject is fully grammatical with any type of verb and any type of subject (a pronoun in (4), a lexical DP in (5), a quantifier in (6)):

(4) a livrjo mé
 finish I
 'I finish'

b te livret té
 you finish you
 'You finish'

(5) a l è mort le kavre
 it is dead (unmarked m. sg.) the goats (f. pl.)
 'The goats died'

b le laverà zo i piatj le matele
 they will-wash down the dishes the girls
 'The girls will wash the dishes'

(6) l me capis nügü
 it me understands nobody
 'Nobody understands me.'

These cases are not right dislocation structures, as (6) shows: it is generally assumed that a quantifier like

nessuno, ‘nobody’ cannot be dislocated (see Cinque (1990)); hence, the subjects in sentences like (4-6) are not to be dealt with as Right Dislocations. Moreover, notice that in (6) there is no number and gender agreement between the verb and the postposed subject; in this dialect, a right dislocated subject would always require a completely agreeing subject clitic⁶.

(c) Verb movement:

A. The sentences in (7) show that both the inflected lexical verbs and the inflected auxiliaries appear obligatorily to the left of those adverbs that distinguish the position of French and Italian inflected verbs from that of English. Thus, all types of inflected verbs in Monnese occupy the same position as that of Italian and NIDs (see Belletti 1990, 1994, Cinque 1999):

- (7) a I tʃakola semper
 he speaks always
 ‘He always speaks’
- b I a semper tʃakolà
 he has always spoken
 ‘He has always spoken’
- c I ñarèl I parla za
 the baby he-speaks already
 ‘The baby already talks.’
- d I a za majà
 he has already eaten
 ‘He has already eaten’
- e I va maj
 he goes never
 ‘He never goes’
- f I e maj nda
 he is never gone
 ‘He has never gone’

B. Any inflected verb is higher than the postverbal negation *mia*, lexically the same as Italian *mica*, and syntactically parallel to French postverbal negation *pas*⁷. Assuming Cinque's (1999) hierarchy of functional

⁶ For a more detailed description of this area of grammar, see Benincà (1997).

⁷ For a detailed analysis of postverbal negations in NIDs cf. Zanuttini (1997). The type of postverbal negation

projections and adverbials, we see here that the inflected verb, contrary to English main verbs, moves to inflectional heads bypassing the positions of several adverbs. As is the case in many NIDs, there is no preverbal negative morpheme:

- (8) 1 tʃakola mia
 he speaks not
 ‘He does not speak’

To summarize, Monnese exhibits a verbal morphology that is as rich as in most NIDs, and the placement of adverbs to the right of the inflected verb. This shows that V-to-I movement (or better to AgrS in Belletti's (1990) framework) has in Monnese the same characteristics as in Italian and Northern Italian Dialects. Yet in such a language we have English-type *do*-support, something unexpected within current analyses.

Before turning to interrogative clauses, let us examine the position of the infinitive, since this is the verbal form that the main verb assumes when *do*-support is inserted. The infinitive (as well as the past participle) occurs to the left of adverbs like *plö* 'anymore' and *anmò* 'again' (i.e., still following Cinque (1999) account, it moves higher than these lower adverbs):

- (9) a el à dì da tʃakolà plö
 he has said to talk anymore
 ‘He said not to talk anymore’
- b l à tʃakolà anmò
 he has talked again
 ‘He talked once again’
- c el à dit de tʃakolà anmò
 he has said to talk again
 ‘He said to talk again’
- d l à tʃakolà plö
 he has talked anymore
 ‘He hasn’t talked anymore’

mia used by Monnese derives from an item - originally a negative polarity item - designating a 'minimal quantity', a 'crumb', as is the case in many NIDs (and in standard Italian for the postverbal negative marker *mica*).

The infinitive of the auxiliaries optionally precedes the postverbal negative marker *mia*⁸, which structurally corresponds to French *pas*:

- (10) a par éi mia ùlù
 for to-have not wanted
- b par mia éi ùlù
 for not to-have wanted
 ‘Having not wanted’

Infinitival main verbs never cross over the position of the negation *mia*.⁹

- (11) a par mia majà-l
 for not eat-it
 ‘Not to eat it’
- b *par majà-l mia
 for eat-it not

On the basis of what we have seen regarding the morphological and syntactic characteristics of the verb, such as the pro drop property, free inversion, and the distribution of the inflected verb with respect to adverbs, we conclude that verb movement to the IP functional projections in Monnese is, in all relevant respects, parallel to standard Italian. In particular, any inflected verb moves to a functional head as high as AgrS.

Infinitives also move, although lower than inflected verbs.

2.2. Question formation

In this section we will illustrate some characteristics of Monnese questions, the context relevant for *do*-support. The differences with respect to English syntax will be shown to be a feature common to other Northern Italian

⁸ Zanuttini (1997) examines parallel cases of postverbal negation in NIDs, which she locates in the Spec of a NegP located lower than TP.

⁹ Note that object clitics are obligatorily enclitics on infinitival verbs, even though the infinitival occurs in a position lower than the negative marker *mia*, which is located lower than TP (cf. Zanuttini (1997)). This suggests that enclisis does not necessarily occur in as high a position as AgrS or C, as proposed in Kayne (1991, 1994), but also lower in the structure, using a lower series of clitic positions. We will not pursue this any further here. Phenomena reported and analyzed by Tortora (2000), for the Piedmontese variety of Borgomanero, De Crousaz & Shlonsky (2002) for some Franco-Provencal dialects, seem also to suggest the existence of a lower layer for clitics, which might be active in Monnese too. Cinque (2001) also makes this hypothesis on the basis of standard Italian data.

varieties, and, as such, they have to be factored out from the analysis of *do*-support itself (and thus do not interfere with our comparison between English and Monnese).

We hypothesize that in Monnese, C has to be filled by an inflected verbal form in main questions. We will first consider examples with compound tenses, which do not show the *do*-support strategy. In this case, movement to C affects auxiliaries and the *do*-support strategy is ungrammatical just like in English.

The main evidence for V-to-C movement is subject clitic inversion (SCLI), a phenomenon that has been interpreted as indicating V-to-C (see Kayne 1984, ch. 10, Rizzi and Roberts (1989), for French), since it is restricted to root contexts, both in French and in NIDs. Friedemann (1995) and Sportiche (1995) interpret SCLI as a case of “interrogative inflection”. They assume that the verb moves to C only at the LF level but not in the Syntax. In section 4.3 we will see that Monnese *do*-support provides evidence that SCLI is indeed V-to-C. For the moment, let's simply state that this is quite a common phenomenon in NIDs, and, as such, it is not directly connected to the *do*-support phenomenon we are studying.¹⁰

In main questions (both *yes/no* and *wh-*, when an XP other than the subject is being questioned), 3rd sg./pl. and 1st/2nd pl. auxiliaries and *fa* display an enclitic subject pronoun (cf. (1e,f)); 1st sg. does not change, and 2nd sg. only loses its proclitic subject. This phenomenon is also exhibited by other NIDs.

A less common feature of Monnese is the so-called *wh-in situ* strategy. That is, *wh-* elements and phrases can either appear in front of the sentence or in sentence final position. Some *wh-* elements have a different form depending on the position in which they occur (that is, a *wh-* element of this class has a slightly different form, depending on whether it is moved or left *in situ*; see examples (12c, g); (cf. Munaro (1995,1997,1999); Benincà (1997))¹¹. This strategy is not widespread in Northern Italy. It is found though in other dialects of Lombardy and Southern Switzerland and in Northern Veneto (it is also attested in spoken French, with some relevant differences)¹². In Monnese, SCLI is obligatory in main interrogatives, independently of the fronting of the *wh-*

¹⁰ In several NIDs, other types of structures trigger SCI. They can all be analyzed as movement to a C° position. Monnese shows inversion with lexical verbs in disjunctive and exhortative structures:

- | | | |
|------|---------------------------|-------------------------------|
| (i) | plöe-l o plöe-l mia,... | |
| | 'rain it or rain it not' | ‘Whether it rains or not,...’ |
| (ii) | telefon-om-i subit | |
| | phone-we-her immediately/ | ‘Let’s phone her immediately’ |

These data show that it is not the interrogative morphology that is missing in this dialect. A systematic map of the different structural layers where these insertions occur in NIDs is provided in Munaro (2002).

¹¹ See Munaro, Poletto and Pollock (2002) for a remnant movement analysis of *wh- in situ* and *wh*-doubling in NIDs.

¹² See Benincà & Vanelli (1982), Benincà (1986) for Veneto dialects, Lurà (1987) for Lombard dialects, Rizzi (1991) for French. The phenomenon has been analyzed by Munaro (1995, 1997, 1999): the *wh*-elements that cannot be left *in situ* are identified by Munaro on the basis of a difference in the internal structure of the *wh*-itself and on the feature that it instantiates. What concerns us here is that this possibility exists independently from *do*-support. In the Lombard dialect of Mendrisio (Switzerland: see Lurà (1987)) inversion applies only if the *wh-* moves to SpecCP, while Bellunese is like Monnese, and shows SCI even when the *wh*-element has

element (the same is true in Bellunese, for example, but neither in Mendrisiotto nor in French; cf fn. 11).

- (12) a k e-t fat?
what have-you done?
'What have you done?'
- b e-t t[er]kà fora kwal? / kwal è-t t[er]kà fora?
have-you looked out which / which have-you looked out
'Which one have you chosen?'
- c ngo l-e-t majada? / l è-t majada ngont?
where it-have-you eaten? / it-have-you eaten where?
'Where have you eaten it?'
- d a ki i-l-e-t dat? / i-l-e-t dat a ki?
to whom him-it-have-you given? / him-it-have-you given to whom
'Whom have you given it to?'
- e a-l vist ki?
has-he seen who?
'Who has he seen?'
- f a-i vist ki?
have-they seen who?
'Who have they seen?'
- g ke e-f kuntà zo? / e-f kuntà zo kuè?
what have-you.pl told down? / have-you.pl told down what?
'What have you told?'
- h 'kwat è-f spetà?' / 'è-f spetà kwat?'
how much have-you waited ?/ have-you waited how much?
'How long have you waited?'

In our view, this means that movement of the verb to the C° position occurs even though the *wh*- element has remained *in situ*. Here we will assume that the SpecC position is occupied by an abstract *wh*-operator when the

remained *in situ* (see below fn. 18). Hence, the *wh*- *in situ* phenomenon is independent of verb movement to C, in principle, and consequently of *do*-support *per se*. This is the reason why we do not discuss this any further here and refer to the work by Munaro.

wh- element has not moved, and that it is the abstract operator which triggers verb movement to C° , as discussed in Poletto (1993) and Munaro (1997, 1999), where a general description of the phenomenon is provided.

In all main questions, it is impossible for a lexical subject to appear immediately after the moved verb. This is a feature that (again) Monnese has in common with most other Romance varieties (so no subject DP is permitted in the Spec,Agr position in French, Italian, Spanish, and NIDs (except for V2 varieties)).

- (13) a *ke a(-l) Mario majà?
 what has(-he) Mario eaten?
 b *ngo e(-l) Mario ndà?
 where is-he Mario gone?

In all embedded interrogatives SCLI is impossible (cf. (14d) vs. (12h)). We argue, following Rizzi and Roberts (1989), that the verb does not move to a C° position in these cases. In general, *wh*-elements in embedded interrogatives require a following complementizer *ke* (cf. (14a, b)). An exception is *ngo* ‘where’ (see (14c)). *Yes/no* questions are introduced by the complementizer *se* ‘if, whether’. A lexical subject is not easily allowed in the Spec,Agr position, although not totally ungrammatical as shown in (14a) to compare with (14c), where a preverbal DP subject is completely natural:

- (14) a i ho domandà kol ke (??Mario) l ha fat
 to-him I-have asked what that (Mario) he has done
 ‘I asked him what Mario did’
 b l so mia a kù ke i l-arò dat
 it I-know not to whom that I it.will-have given
 ‘I don’t know whom I could have given it to’
 c l so miga ngo la mader l a cumprà i fjur¹³
 it I-know not where the mother she has bought the flowers
 ‘I don’t know where the mother bought the flowers’
 d *l so mia quat è-f spetà.

¹³ Note that while other *wh*-items are followed by the complementizer, *ngo* is not. This is probably related to the fact that *ngo* is the only *wh*-item that admits doubling in embedded contexts. This is tangential to the phenomenon we analyze here: see Poletto and Pollock (2002) for a possible solution.

it I-know not how-much have.you (pl) waited

‘I don’t know how long you have waited’

Hence, both features found in Monnese (SCLI and the *wh- in situ* strategy) are not a peculiarity of Monnese syntax; they are found in other varieties as well, all of which do not show *do*-support. Therefore, we conclude that both SCLI and the *wh- in situ* strategy are not directly connected to the *do*-support phenomenon, and must be factored out from our analysis.

2.2.1. Questioning the subject

When the *wh-* element is a subject, there is no evidence of verb movement to C° : the *wh-* subject is fronted and a complementizer is obligatorily inserted in C° . Main interrogatives on the subject show then a structure parallel to that of embedded interrogatives:

- (15) a ki *(ke) a majà?
who that has eaten?
‘Who ate?’
- b el so mia ki *(ke) a majà.¹⁴
it I.know not who that has eaten.
‘I don’t know who has eaten.’

Another possibility is only open to unaccusative verbs: the *wh-* subject appears in postverbal position as an object, and the auxiliary optionally inverts with an expletive subject clitic. This structure is not available to any other lexical verb:

- (16) e-(l) vüñü ki l'altra sera?
is.it come who last night?
‘Who came last night?’
- (17) a *a-(l) majà ki?
has.it eaten who?
‘Who ate?’
- b *a-(l) telefonà ki?

¹⁴ The object clitic *el* at the beginning of the sentence is a pronominal copy of the embedded clause.

has.it telephoned who?

'Who phoned?'

We will discuss this in a more detailed fashion in section 4.

Concerning *wh*-subjects, for the moment we simply state that:

- the complementizer appears when the *wh*-element has moved to SpecC (cf. (15a) vs. (16));
- the SpecAgr position is not available for *wh- in situ* subjects;
- the *in situ* strategy is possible only with unaccusative subjects that remain in the free inversion position.

Note that these data show that the extraction site of unergative subjects is different from the extraction site of unaccusatives. Only unaccusative subjects have the option of staying *in situ*, a property typical of objects.

3. *Do*-support in Monnese

Let us now turn our attention to the *do*-support phenomenon itself. First we examine the characteristics it has in common with its English counterpart; in the next section we attempt to derive the differences from independent syntactic factors that distinguish Romance from English.

Main interrogative sentences with a simple verb have the following form¹⁵:

- (18) a *fa-l majà?*
 does-he eat?
 'Does he eat?'
- b *kome fa-l comportà-s?*
 how does-he behave-himself?
 'How does he behave?'
- c *kwata fa-l majà-n?*
 how much does-he eat-of it?
 'How much does he eat?'

Following Rizzi (1991) (see discussion in section 2.2), we assume that the verb *fà* ('to do') is located in C° - as

¹⁵ In all cases, it is impossible to have a DP subject immediately after the verb *fa* in interrogatives:

- (i) **Ngo fa (l) Mario majà?*
 where does he Mario eat?

This is an instance of the general constraint we illustrated above in (13).

SCLI suggests. The main verb appears in its infinitival form; object clitics are encliticized on the infinitival form - if they are present; cf. (18b, c) (19b,) and (20a) - as is the case with all infinitival forms in this dialect¹⁶.

Since SCLI applies whether the *wh*-element moves to Spec, CP or is left *in situ*, *do*-support occurs independently of the movement of the overt *wh*-element (in section 2.2 we hypothesized the presence of a null operator in SpecC when the *wh*-element is left *in situ*).

- (19) a kome fa-l komportà-s?
 how does-he behave-himself?
 'How does he behave?'
- b fa-l komportà-s kumè?
 does-he behave-himself how?
- (20) a kwata fe-t majà-n?
 how much *do*-you eat-of it?
 'How much will you eat?'
- b fe-t majà-n kwata?
do-you eat-of it how much?

Let us now systematically consider the respects in which *do*-support in this dialect is parallel to English.

3.1. A comparison with English *do*-support: the similarities

As in English, *do*-support in Monnese has the following characteristics:

- (a) it occurs both in *wh*- and *yes/no* questions:

- (21) a fe-t majà?
do-you eat?

¹⁶ As is the case with a number of NIDs, this variety has no Clitic Climbing (see Rizzi (1982), Benincà (1986), Kayne (1989b)). Verbs such as *rüà-j* 'to arrive at', 'can', *olé* 'want', *vé da* 'have to; must', which in other Italian varieties can or must host the clitics of the complement clause, in this dialect cannot. Notice that *fa*, when used as a support, behaves like the other modals (i.e., it refuses complement clitics), but when it is the causative auxiliary, it obligatorily hosts the complement clitics of its dependent clause (as is the general case in Romance):

(i) l m l fa vede
 he to-me it makes see 'He makes me see it'

- b ke fe-t majà?
what *do*-you eat?
- c fa-l plöer?
does-it rain?
- d *Plöe-l?
rains-it?

(b) it does not occur in embedded interrogative contexts:

- (22)
- a (i domandjo) kol ke l maja.
I ask what that he-eats
'I wonder what he eats'
 - b i t domandjo s-el plöf
I you ask if-it rains
'I'm asking you if it is raining'
 - c *i t domandio ke fe-t majà
I ask you what *do*-you eat
 - d *i t domandio (se) fa-l plöer
I ask you (whether) does-it rain

(c) it cannot apply to 'have' and 'be', even when they are used as main verbs¹⁷:

- (23)
- a kwal e-t t[erka fo?
which have-you looked out?
'Which did you choose?'
 - b *kwal fe-t ej t[erka?
which *do*-you have chosen?
 - c ngo è-l na?
where is-he gone?
'Where did he go?'

¹⁷ In fact, there is a total similarity between English and Monnese with respect to the verb *be / esse*; however, the similarity is only partial with *have / ej*. Lexical *have* cannot move to C in American English, while it can in some varieties of British English. In this variety, lexical and auxiliary *have* are not distinct in this respect.

- d *ngo fa-l ese na?
where does-he be gone?
- e *kwal fe-t ej?
which *do*-you have?
- f *ngo fa-l ese?
where does-he be?

(d) as in English, it can occur with the verb *fà* 'do, make' ¹⁸

- (24) a fe-f fà-l?
do-you(pl) *do*-it?
'Do you do it?'
- b ke fa-l fà?
what does-he do?
'What does he do?'

(e) it cannot occur if the *wh*- is a subject. In this case a complementizer is inserted (see section 2.2.1), giving rise to a structure that is in fact parallel to embedded questions ¹⁹:

- (25) a ki ke màja / a màjà?
who that eats / has eaten
'Who is eating/has eaten?'
- c *ki fa(-l) màjà?
who does(-he) eat

These facts are consistent with the idea that *fà*-support (as *do*- support) is triggered by the need to fulfill the requirement of occupying a head higher than AgrS (presumably, C°). So, in the cases where the verb cannot move any further, the support is inserted.

As we will point out in what follows, the absence of *fà*-support in structures with a *wh*-subject is strikingly parallel to the phenomenon in English. In Monnese, though, there is clearer evidence that the *wh*-subject moves

¹⁸ This is also the case when *fà* is the causative auxiliary.

¹⁹ Monnese is similar to standard Italian and pro drop languages in general in not displaying any difference between subject extraction and object extraction.

to SpecCP, since in this type of structure a complementizer is inserted in C°. This structure can be then considered as identical to English, with the only difference that in English the complementizer has no phonological content (as is the case in other constructions)²⁰.

We will reconsider the strategy adopted with unaccusative *wh*-subjects in section 4.1.1: for the moment we just point out that, if they stay *in situ*, the verb must move to C° (see above (25b) for the case of the auxiliary *be*); in the case of a lexical verb, *fa* is inserted

3.2. The differences

The contexts of *do*-support in Monnese are more restricted than in English, for reasons due to independent differences between the two languages, the most relevant being the fact that the lexical verb in Monnese moves further up than the English one in the IP field. For principled reasons, then, Monnese *do*-support is limited to interrogative contexts (i.e., to movement in CP), and does not appear to substitute verb movement in IP (see section 4). More generally, inside the interrogative domain, there are no syntactic contexts where *do*-support applies in Monnese and not in English, but there are lexical differences in the members of the class of verbs allowing or prohibiting it.

3.2.1. Monnese does not show *do*-support with negation:

- (26) a I so mia
 it I-know not
 ‘I do not know it’
 b *fo mia savé-l
 I-do not know.it

A sentence like (26a) is similar to its positive counterpart with respect to verb syntax. The only difference is due to the presence of the sentential negative marker *mia*, which we showed above is in any case lower than any inflected verb (and optionally bypassed even by an infinitive if it is an auxiliary; but the syntax of infinitives is - as far as we know - irrelevant for the *do*-support phenomenon itself: see section 4). The Monnese postverbal negative marker is therefore to be analyzed as a specifier, as it does not block head-movement of the inflected verb higher than the negative projection (see Pollock (1989) Zanuttini (1997)). As for English, it is

²⁰ See section 4.1.1.

irrelevant whether the negative marker is a head or a specifier, as the verb never moves higher than NegP²¹.

3.2.2 Monnese does not show emphatic *do*.

- (27) *ma ti te FET kantà bè!
but you you.DO sing well!

This difference between English and Monnese will also be treated as due to an independent factor concerning verb movement. The emphatic reading is also supposed to result from movement to a functional head that the English verb cannot reach (see among others Laka (1990) who defines the head where negation and emphatic assertion are encoded as sigma-phrase). These differences are then to be considered as a consequence of the fact that the Monnese inflected lexical verb moves in the IP field bypassing NegP (or a PolarityP where both negation and emphasis are realized) and reaching a position where it can check the relevant feature.

3.2.3 Monnese does not have a *pro*-predicate *do*

Monnese does not permit VP Ellipsis with *pro*-predicate *do*. This appears to be a special case of the fact that Monnese -as is apparently the case in all Romance varieties (except perhaps Portuguese) - does not permit VP ellipsis after auxiliaries at all:

- (28) a *ancö l Mario l maja a l'osteria e an l Carlo l fa²²
today the Mario he eats at the restaurant and also the Carlo he does
b *I butigher i ha alsà i presi ma i cinema i a mia
the shopkeepers they have raised the prices but the cinemas they have not
c *la turta l è suspendüda sö bè ma l pa l è mia.
the cake it is risen-up well but the bread it is not

This is also true for other types of VP-ellipsis with auxiliaries, as is the case in Romance in general (but see Miller (1997) for cases of *faire*-support in Old and Middle French).

²¹ Another possible independent difference might be the use of *do* in negative imperatives. Here we assimilate negative imperatives the other negative contexts.

²² The position of the subject is irrelevant here.

3.2.4. Lexical differences

Finally, some differences are found in the class of verbs that must or can have *do*-support in main interrogatives. We have seen that 'have' and 'be', both as auxiliaries and main verbs, cannot have *do*-support. As is well known, *do*-support does not apply in English when the verb is a modal, while it is obligatory with all main verbs and with lexical *do*. The situation in Monnese is more complex: *olé* ('want; wish') does not admit *do*-support: in (29) we show all the possibilities with *wh*-questions, *wh*-in CP, *wh*- *in situ* and *wh*- *in situ* with a copy in CP; (29 d, e, f) show that *fa* is always ungrammatical with *olé*.

- (29) a kwal ö-l?
which wants-he?
- b ö-l kwal?
wants-he which?
- c k ö-l kwal?
wh- wants-he which?
'Which does he want?'
- d *kwal fa-l olé?
which does.he want?
- e *fa-l olé kwal?
does.he want which?
- f ke fa-l olé kwal?
ke does-he want which?

The deontic modal 'must' is expressed by the phrase *vej da* 'have to' and, as such, it does not show *do*-support (contrary to the English modal form 'have to' but similarly to 'must'). The verb *podé* ('can, may') necessarily has *do*-support in main interrogatives. It has to be noticed that this verb is probably a borrowing from other varieties, a very frequent alternative with the same meaning being the form *rüà-j* 'to arrive+loc.clit'. This form too, being a lexical verb, cannot be moved to C° and requires *do*-support²³.

²³It has been pointed out to us by an anonymous reviewer that the fact that Monnese does not display clitic climbing might be connected to the fact that the class of real modals is extremely restricted. However, it is a fact that many NIDs do not display clitic climbing (see Benincà (1986)) and yet they have a real class of modals.

Two other verbs, namely *fa* and *nda* can be optionally construed with *do*-support, but can also be moved to C°, as the following examples illustrate:

- (30) a ngo fe-t ndà?
 where *do*-you go
 ‘Where do you go?’
- b ngo ve-t?
 where go-you
- c ke fa-l fà?
 what does-he do
- d ke fa-l?
 what does-he

Speakers do not perceive any significant difference - in terms of grammaticality or interpretation - between the two variants.

Other semi-auxiliary verbs meaning 'finish', 'begin', 'succeed', 'stop', etc. (i.e., those restructuring verbs which have, in many Romance varieties, quasi-modal properties), behave like lexical verbs and always need *do*-support in interrogative sentences.

The differences between English and Monnese in this respect can be summed up as follows: Monnese inflected verbs raise to AgrS while English inflected verbs do not. Moreover, in English a verb such as *do* moves or does not move, depending on its semantic value (when it is used as an auxiliary it moves, when it is used as a main verb it does not). In Monnese the auxiliaries ‘have’ and ‘be’ and the sole true modal *olé* ‘want’ always move to C° in interrogatives and never take *do*-support. *Fa* 'do' and *nda* 'go' optionally move to C°, again independently of their being used as auxiliaries or as main verbs. This partially resembles the situation of the British varieties mentioned above (fn. 16), where the verb *have* optionally moves to C° even though it is used as a possessive and not as an auxiliary²⁴.

These distinctions will be discussed in section 4.

²⁴ We suspect that there is a sort of normalization in English, which colloquial forms sometimes escape to: a verb such as *dare*, can move to C° (as is shown by colloquial forms such as ‘how dare you?’) despite that fact that in English has no special modal properties. Nevertheless, as G. Cinque pointed out to us, it seems to belong to the class of restructuring verbs in Italian. Another case to take into account is 'how come', which does not tolerate *do*-support but is most probably a fixed form with the C° position already filled.

3.3. Factoring out the differences

The differences found between Monnese and English *do*-support can be seen as differences regarding the syntactic context in which the phenomenon appears or differences regarding the behavior of single verbs, depending on whether they belong or not to the class of verbs “moving to C° in interrogatives” (this will be discussed in section 4.4.).

In Monnese only interrogative contexts both admit and require *do*-support: no *do*-support is found in negative, emphatic, or VP-ellipsis contexts. As has been shown in section 2, Monnese, on a par with other Romance varieties, has obligatory V-to-I movement which crosses the position where the negative marker *mia* (and probably the positive emphatic too) is realized. This is apparently true for all modern Romance varieties, even if the Verb reaches different positions in the IP fields (see Cinque (1999)).

Since every main verb in Monnese raises in the syntax to a position located higher than the negative/emphatic position, it seems obvious why *do*-support is not possible in these contexts. That is, because *do*-support is 'a last resort' strategy (so analyzed as early as Chomsky (1955)), it is not possible when it is not necessary, as is the case in Monnese.

Monnese shows that the different types of *do*-support must be distinguished on the basis of the functional projection that needs the verbal dummy element in order to be rendered visible (or in more technical terms to check its features).

Monnese data also suggest that although *do*-support in the IP domain and *do*-support in interrogative structures are only indirectly related, they are fundamentally due to the same syntactic mechanism, thus confirming Pollock's intuition. In both cases it is a matter of a movement that is not open to a main verb. The Monnese verb can go past the negation/emphatic projection, the English verb cannot. The reason why the verb has to go past negation is another matter, and Monnese has little to say about it. In particular, it gives us no hints concerning the following two competing hypotheses: (1) either *not* is a head blocking the relation of the inflected verb and the subject, or (2) the verb has to move to ‘too far’ a functional projection in order to appear in a proper configuration with the negative marker. In any case the Monnese negative marker is not a blocking head but a specifier, and the inflected verb moving to an Agr projection bypasses it (a similar claim is made by Pollock (1989) for French and Zanuttini (1997) for NIDs, respectively).

We will therefore conclude that Monnese and English *do*-support in interrogative structures are instances of one and the same phenomenon, namely the lack of movement to C° of a main verb.

3.4. Unaccusative subjects

Monnese and English also differ concerning the syntax of subject interrogatives: while in English there is no difference between transitive and unaccusative subject interrogatives, in Monnese unaccusative *wh*-subjects display *do*-support.²⁵ In compound tenses of unaccusatives we have the auxiliary *be* with expletive SCLI. In an interrogative with a lexical unaccusative verb in a simple tense - besides the usual structure with *wh*-item + complementizer and no verb movement (as in (31a)) - there is the option of inserting *do*-support with an expletive subject clitic (as in (31b)). In the latter case the *wh*- subject presumably behaves as an object - in the terms of Burzio (1986) and Belletti (1988) - and is left *in situ*:

- (31) a ki ke l va a ka?
 who that he goes to home?
 b fa-l nda a ka ki?
 does-it go to home who?
 ‘Who does go home?’

Thus, Monnese and English are similar in that they do not admit *do*-support with the *wh*- subject of a transitive or unergative verb. Only Monnese unaccusative *wh*- subjects permit *do*-support; they are normally left *in situ*. *Do*-support inverts with the expletive subject clitic and the thematic subject is left *in situ*, forming an A-chain with the expletive. Such *wh*- subjects thus permit *do*-support because of an independent syntactic property,²⁶

²⁵ In Monnese, as in other dialects, the unaccusative subject is not forced to reach the AgrS projection, where an expletive subject clitic satisfies the Extended Projection Principle; the inflected verb agrees with the expletive (as we can infer from the unmarked masculine form of the past participle, the 3rd sg. inflection being identical with 3rd plural):

- (i) a l e rüà ina letra
 it is arrived (m. sg.) a letter (f.)
 ‘It has arrived a letter’
 b l è vüñü la maestra
 it has come (m.sg.) the teacher (f.)
 ‘The teacher has arrived’
 c la letra l è rivada
 the letter (f.) is arrived (f.)
 ‘The letter has arrived’
 d la maestra l è vüñüda
 the teacher (f.) is come (f.)
 ‘The teacher has arrived’

²⁶

Differences between unaccusative subjects and other subjects can also be found in the whole of northern Italy, as in many varieties that do not show *wh*- *in situ*, the subject of a transitive or unergative verb must be questioned through a cleft sentence (as in (ic)), while a direct question is possible with unaccusative *wh*- subjects (as in (1a) in contrast with (1b)).

- (i) a ki vjen stasera? Paduan
 who comes tonight?
 b *ki maña kwa?
 who eats here?
 c ki ze ke maña kwa?
 who is that eats here?

- it (I)know not who that has eaten
 'I don't know who has eaten'
- c M domandjo a ky ke l g l à dat
 I wonder to whom that he to-him it has given
 'I wonder whom he gave it to'

This structure shows that the CP level is activated when a *wh*-subject appears even when no verb moves to the C° position. Hence, in Monnese all interrogative clauses are CPs, even those on the subject. This can be considered to be an independent piece of evidence favoring an analysis of English subject interrogatives as CPs also. We point out that in no case does modern Standard English show a complementizer following a *wh*-element, while in Monnese a complementizer is obligatory in embedded interrogatives (cf. (32b,c)). On the other hand, modern Standard English has in general a phonetically null complementizer in embedded clauses (relatives and complement clauses). Moreover, the Doubly Filled Comp Filter, which describes the impossibility for a *wh* item to be followed by a lexical complementizer, is a recent innovation of modern standard English; it was in fact absent in Middle English as it is in various modern dialects²⁸. It seems to us that we get an interesting general scheme for *wh*-movement phenomena if we conclude that the two languages - English and Monnese - have the same structure in subject interrogatives, the only difference being a different constraint regarding the phonetic realization of the complementizer.

The analysis of Monnese syntax thus seems to favor a CP analysis of English subject interrogative clauses as the one proposed by Rizzi (1991) over an IP analysis as the one put forth by Grimshaw's (1997). Grimshaw assumes that subject *wh*-items are located in SpecIP in virtue of principle Spec-OP, according to which operators need to occur in a specifier position, not necessarily in the SpecCP²⁹. As subjects are the only elements that are already located in a specifier position, there is no need to project an additional syntactic layer like CP. Hence, the reason why subject interrogatives are IPs and not CPs is derived from a general economy principle on structure formation: CP is not projected because, in the case of subject *wh*-items, SpecIP can

²⁸ It has been pointed out to us by an anonymous reviewer that the overt realization of the complementizer might be an irreducible parametric difference between Monnese and English. It is a fact that the majority of NIDs has developed an interrogative complementizer in embedded interrogatives and often also in main interrogatives in alternative to I to C° movement. We can not say why NIDs choose to phonetically realize a head which can be empty in English, and simply point out that a) the overt realization of the complementizer does not depend on *do*-support, given that it is widespread in NIDs; b) this is part of a more general phenomenon, as complementizers are typically found in temporal, consecutive, and relative clauses. In Middle English and in modern English dialects lexical complementizers are found in various *wh*-constructions (cf. for ex. Ozark English cited in Chomsky (1981); an overview of Middle English cases in Viel (2001)). This leads us to consider the option of filling the C° head with a lexical or phonetically null complementizer as a quite superficial parameter.

²⁹ In Grimshaw's approach labels like IP or CP are irrelevant, and are used only as notational convention.

perform the same function. If this were so, we would expect a language like Monnese not to exist, because economy conditions are general and not language specific. Even within an OT account, where we could imagine that economy conditions are ranked lower than other principles and can be violated in some languages, it is not clear what the conflicting principle would be that could override economy and force the projection of the additional layer CP, as Monnese and English syntax of interrogative clauses is surprisingly similar. We can conclude that either a) English is like Monnese in having CP subject interrogatives, or b) the reason why English has IP subject interrogatives while Monnese does not cannot be economy.

4.1.2 A note on the diachronic development of English

As already mentioned in the introduction, Lightfoot (1979, 1991), Roberts (1985), and Pollock (1989) connect the development of the *do*-support strategy in English to the disappearance of inflectional morphology, which has triggered in turn the loss of syntactic V-to-I movement. Since Monnese has never lost obligatory V-to-I movement and nevertheless shows *do*-support, we are forced to state that the lack of V-to-I movement cannot be a necessary condition to produce the *do*-support strategy³⁰.

As Pollock (1989) already suggests, the loss of inflectional morphology is only indirectly connected to the loss of verb movement itself: *do*-support is ultimately triggered by a conspiracy of factors: a) the lack of syntactic movement and b) the necessity of checking a given feature in the inaccessible projection.

Roberts (1993), in his analysis of the diachronic development of verb movement in English, has shown that the verb continues to move for a certain period even when overt morphology has been lost. V2 in the Germanic languages is a typical instance of this phenomenon, as V to C does not need any special morphology as a trigger. In this sense, English and Monnese are parallel: in both languages a strong feature provided by an independent requirement has to be checked in a syntactic position that is inaccessible to the main verb: a dummy verb is inserted. In Monnese *do*-support is only triggered by main interrogatives because it is only C that is banned to main verbs, while V to I (as shown in section 2.1) is completely preserved as in all Romance languages we know of. English has lost both V to I and V to C. Hence, both languages react to the same tension between two conflicting constraints, the necessity to check a strong feature and the fact that the position hosting the feature has become thematically opaque in Pollock's terms; for both languages the problem is solved by inserting a dummy verb. Monnese shows more clearly than English that verbal morphology does not play any

³⁰ Independent evidence that a theory like this is needed comes from the comparison between the lack of V to-I-to-C in English and mainland Scandinavian languages, which have maintained V-to-C movement but show a very poor morphology and no evidence of V-to-I movement (see, among others, Vikner 1995).

role in the evolution of *do*-support, which is entirely due to the loss of verb movement to C. Nevertheless, it is necessary to conclude that the necessity of checking a strong feature is retained, and this is consistent with the idea that Monnese as other Romance languages are "residual" V2 languages³¹, a conclusion shared by much recent research.

4.2. Consequences on Romance: V-to-C movement confirmed

The fact that *do*-support also exists in Romance, shows that in interrogative structures the verb moves higher than in normal declarative clauses. Furthermore, it casts some doubts on recent analyses of Romance interrogatives as displaying only LF (non-overt) I-to-C: the Monnese data indicate that the verb moves in the syntax to the CP layer (contra Hulk (1993), Sportiche (1995)).

We can see *do*-support as a strategy to compensate I movement to C°, thus fulfilling the requirements of (some version of) the *wh*-Criterion (cf. Rizzi (1991)).

In general, the diachronic tendency in Romance varieties with subject clitic inversion (SCLI) in main interrogatives is to develop some strategy to avoid it. This is clearly shown also by the evolution of language like French, where *wh- in-situ*, clefting and simple *wh*-movement followed by no inversion are used in spoken language. All NIDs (except for Triestino, whose story is more complex) used to have consistent SCLI until 30, 50, or 100 years ago; many of them exploit more than one strategy and still preserve traces of the obsolete SCLI, which can be still optionally used at least in some syntactic contexts. This evolution seems to indicate that I to C movement in interrogatives is being lost in Romance, like generalized V2 has been lost at the end of the medieval period. The insertion of *fà* can be seen as one of the possible ways (certainly the least used in Romance) to fulfill the task of an inflected verb moving to C°. The existence of the *do*-support strategy in the Romance domain is thus potentially very interesting as it confirms Rizzi's (1991) intuition that the verb moves to the C° position in main interrogatives in Romance, too (as it does in the Germanic languages).

³¹ Monnese could have lost V to-I-to-C movement substituting it with a *do*-support strategy. We have to assume that Monnese was most probably a fully V2 language in the Middle Ages, even though we do not have access to the diachronic development of this variety. This is the case for all Northern Italian varieties, including those NIDs for which we have older texts preserved (cf. Benincà (1984, 1995), where evidence is provided in favor of a V2 syntax for northern and southern medieval varieties of Italian and Old French). These languages were V2 in the medieval period and lost this property at the beginning of the Renaissance period (cf. Benincà (1986, 1995)). Most NIDs have lost generalized V2, some have retained residual V2 in interrogative and optative contexts. Some dialects have lost V to I to C altogether, substituting the verb in C by a complementizer. Monnese has not completely lost residual V2, as the requirement of a V in C is still at work. In this dialect the less costly strategy of merging a dummy verb instead of moving the lexical verb has been chosen. Since Monnese has apparently lost I-to-C, but not V-to-I, the context of application of the *do*-support strategy seems to be limited to the C° projection: see section 4.4. for more discussion).

4.2.2. Lexical verbs and theta theory

In this section we will consider the second type of differences found in Monnese *do*-support with respect to its English counterpart, namely those found inside the domain of modals and auxiliaries moving to C° (cf. section 3.2, 3.3).

We have seen that, in Monnese, the only modal which always moves to C° is *olè* 'want/wish', while other modals cannot be taken into account: either they are borrowings from standard Italian and behave as lexical verbs³², or are a compound formed by 'have' plus a preposition and as such behave like auxiliary 'have'³³. Two other semi-auxiliary verbs, *fa* 'do' and *nda* 'go', optionally move to C° or take *do*-support. The problem that arises with the Monnese data is that none of these verbs - *olè*, *fa*, and *nda* - shows any syntactic difference in their use as main verbs or as auxiliaries. *Olè* always raises to C° , even in those contexts in which it is a main verb which takes a direct object³⁴, while *fa* and *nda* optionally use the *do*-support strategy if they are used as main verbs which take a direct and a locative object (respectively) or when they are used as auxiliaries. This constitutes a problem for Pollock's theory, more precisely for the idea that the presence of a theta-grid is the fundamental reason for the impossibility of movement.

Monnese, as we have seen to be the case for many others Italian dialects, has rich verbal morphology and movement of the inflected verb to AgrS. The last step of interrogative movement, however, has to be performed by *fa*: clearly, *fa* is inserted when the verb has to go farther than AgrS, to a position presumably corresponding to C° . In this respect, Monnese confirms Pollock's intuition. What is weakened is the correlation between theta-theory and verb movement: Pollock suggests that a verb can raise to an opaque domain only when it is theta-transparent (i.e., when it does not assign any theta-role). Hence, auxiliaries, which do not assign any theta-role, can raise to I and C, while main verbs do not, as the thematic relation with their arguments would be inhibited. Here, both the differences and the similarities between Monnese and English show that the assignment of a verb to the class of items that can reach C° is partially idiosyncratic. Auxiliaries necessarily belong to this class, while modals can switch from one class to another in different languages. A real difference between English and Monnese appears to be the fact that in English a verb (e.g., *will*) moves or

³² This fact is not at all obvious: we must assume that modals behave as they do in the syntax only when they undergo a "grammaticalization process" losing part of their semantics and phonological weight (see Roberts and Roussou (forthcoming) on this subject)

³³ In Monnese, both 'be' and 'have' are always treated as auxiliaries; this is not the case in all varieties of English for 'have', which in American English behaves as a full verb.

³⁴ But see Cinque (2001) for arguments that it is a restructuring verb even in these cases.

not to higher projections (and consequently has or does not have *do*-support) depending on its auxiliary versus main verb status. If it is a modal auxiliary it moves, if it is not (with the meaning of 'to want' or 'to make a will'), it cannot. This difference becomes less obvious if we consider those often cited varieties of British English where 'have' - both the auxiliary and the lexical verb - can (or used to be able to) invert with the subject and avoid *do*-support, independently of its value. These varieties of English are in fact problematic for Pollock's analysis, if lexical *have* is assumed to assign a theta-role and can still move to C°. The same difficulty is more evident in Monnese. We have seen that in Monnese an ambiguous verb (like *fa* 'do' or *ndà* 'go') apparently has the option of moving or not, regardless of its meaning.

Hence, the *do*-support theory proposed by Pollock seems to be confirmed by Monnese data except for one point: Pollock attributes to the presence of a theta-grid the impossibility of main verbs to raise to opaque positions. Monnese shows that this cannot be entirely true, as some verbs move to C° (or use *do*-support), independently of their use as auxiliaries or as main verbs, which means independently from the supposed opacity that would affect their capacity to assign theta-roles.

Pollock's hypothesis can be maintained if, adopting Kayne's (1994) proposal on auxiliaries, we argue that modals as well have the same structure, regardless of whether they are used with an infinitive or with a DP. Hence, verbs like *olè* 'want' in Monnese would always have the same structure, i.e., the structure of an auxiliary capable of raising to opaque positions, as it does not assign thematic roles.

When the modal apparently does have a thematic grid, this is not provided by the modal auxiliary itself, but by a phonetically null verbal head inserted under V°, much in the spirit of Larson's proposal concerning complex VP shells and of much subsequent work that admits the existence of null (light) verbal heads³⁵. The structure of a modal verb like *olè* when it has a DP complement would thus be approximately the one in (33):

(33) [_{AgrS} [_{TP} modal aux [_{VP} null V [DP]]]]

The hypothesis that modal (and some aspectual) verbs are the overt realization of functional categories has been put forth by Cinque (2001) on the basis of phenomena connected to Restructuring in Italian.

Verbs like *nda* 'go' and *fa* 'do', which optionally move to C° would have the possibility of switching between the structure of a main verb and the structure of an auxiliary; the switch would be independent from their use as main verbs or as auxiliaries. It remains to be investigated what the conditions ruling this syntactic switch could be. Trying to account for this state of affairs, one could propose that these verbs have two separate lexical entries, a move that does not seem very illuminating to us. We will try to develop a more principled account along the following lines: up to now we have seen that the standard theory provides us with two types of verbs:

³⁵ Cf. Cinque (2001) for independent evidence based on restructuring phenomena in favor of this analysis of modal verbs in standard Italian

main verbs, which are inserted under V° and have a thematic grid and purely functional verbs, which constitute the phonological realization of a given functional head. Verbs like Monnese *nda* and *fa* can be seen as a third class, representing an intermediate stage of grammaticalization from a fully lexical verb towards a "pure" functional auxiliary³⁶. More precisely, as already mentioned above we will make appeal to Larson's (1988) theory of VP-shells and assume that the VP layer is constituted by at least two distinct projections, the higher one occupied by a light verb and a lower one containing the lexical verb head with its semantic and phonological endowment: either functional heads can be filled by a phonetically null element.

Such a theory provides us with the tools for getting a more precise idea of grammaticalization, i.e. a process through which a lexical element becomes a functional one (see Roberts and Roussou (1999) for a recent account of this phenomenon in formal terms). We claim that the semi-auxiliary verbs in question have undergone only the first stage of this process; in more technical terms, they are merged in the light verb position of a complex VP and can optionally be associated with a null lexical verb: as in (34):

(34) [_{VP} semiaux [_{VP} nullV DP]]

When they are, they undergo all the lexical and syntactic restrictions deriving from the presence of the thematic grid selected by the null lexical verb; when they are not, they are free to move to the functional projections that are banned to a lexical verb.

Summing up: we noted that Monnese has three distinct classes of verbs, which behave differently with respect to the *do*-support phenomenon:

- a) auxiliaries and modals which lack *do*-support obligatorily;
- b) semi-auxiliaries which can but need not use *do*-support;
- c) main verbs which require *do*-support.

Apparently both modals and semi-auxiliaries seem compatible with a thematic grid. We claim that in fact they are not: modals are always generated in a functional head (as proposed by Cinque (2001)). Semi-auxiliaries are similar to modals in the sense that they are instances of a higher head, namely v° and not V. Nevertheless, both modals and semi-auxiliaries can cooccur with an empty verbal head, which is the one that assigns thematic roles. In this way we capture the exceptions to Pollock's generalization that *do*-support can be dispensed with only when the verb does not have a thematic grid: neither modals nor semi-auxiliaries have a thematic grid of their own; the thematic grid is provided by the null V they are associated with³⁷.

³⁶ See also Cardinaletti & Giusti (1999) on movement verbs in Southern Italian dialects.

³⁷ We could possibly extend this analysis to causative verbs as well, cf. Da Monte (2002).

4.3. General theoretical consequences

4.3.2 *The role of morphology*

We have seen that Monnese verbal inflection is strong (as it usually is in pro drop languages), with obligatory V-to-I movement. Nevertheless, Monnese has developed the *do*-support strategy for I-to-C. In section 4.1.2 we pointed out that it is possible to maintain the hypothesis that *do*-support originates when the movement of the verb to a given F° is lost: the dummy verb substitutes for the main verb in the F° , which has become inaccessible (opaque in Pollock's terms) to main verbs. *Do*-support can in principle occur in any of the functional heads that become opaque.

English has lost V-to-I and has substituted a dummy verb in the I° and C° positions whenever a strong feature has to be checked in a verb in these positions. If we consider English syntax, it is reasonable to think that the loss of V-to-I movement triggers the *do*-support strategy. The relation between the loss of syntactic movement to the I° position and the loss of overt morphology is much less clear, as the lack of overt morphology does not imply the lack of syntactic movement: we can see, for example, that in V2 languages the feature that attracts the verb to C° is not necessarily an overt morpheme; moreover, mainland Scandinavian languages without any overt verb morphology provide evidence of verb movement to I and to C (see Vikner (1995), among others). As discussed above, *do*-support is triggered by the interaction of two factors: on the one hand, the I° position is still strong enough to require a visible element; on the other, the verb has lost the possibility of extending its thematic domain to the functional layer of the structure and therefore cannot move to I° , unless it is a verb that does not assign any thematic role. In this perspective, the loss of morphology is the reflex of this syntactic process, namely the loss of verb movement to a given functional head F° . Hence, the relation between presence/absence of overt morphology and *do*-support is not direct and automatic. In this perspective, Pollock's hypothesis is made even more precise: it is an abstract property of the V – namely its thematic endowment – which is more directly related to the type of movement a V is able to perform. This property may or may not be accompanied by a loss of overt morphology.

Let us now turn to the case of Monnese: Monnese has lost I-to-C movement of lexical verbs and has substituted a dummy verb in the C° position. Again, this process must be due to the interaction of the two factors mentioned above: the existence of a strong C position, which contains features that have to be checked by some overt element, and the loss of the possibility of extending the thematic domain of a verb to the highest functional layer, namely CP.

Note however, that this loss does not correspond to any morphological impoverishment of the verbal head, or

of the system in general. Therefore, what seems to be weakened by the observation of Monnese syntax is the role of overt morphology. As NIDs do not show morphological differences when they pass from a V2 to a non V2 status, we can only hypothesize that the feature which permits the extension of the thematic domain of the verb is an abstract one.

4.3.3 *Where the verbal support arises*

Another problem partially related to the previous ones is the following: if Monnese syntax is substantially similar to that of English, *do* is inserted to realize the features of an opaque position that cannot be reached by a main verb³⁸. We would expect that the Monnese *do*-support originate in the C° position, since the lower position (AgrS) is transparent and constitutes a landing site for verb movement (as we have shown in section 2.2.). We should therefore expect cases like the following to be grammatical in Monnese, if we take the form *fa* as a phonologically unmarked verbal root:

- (33) a *Fà t cumpret?
 does-you eat+infl?
 b *Do-he eats?
 c Fe-t kumprà?
 Do-you eat?

In (33a) the auxiliary originates in C° (or a position located between C° and AgrS) and the main verb reaches the AgrS position below and is inflected for tense and agreement. However, this structure is ungrammatical in Monnese (cf. (33b)); we have the parallel case in English, which is ungrammatical too: the main verb is inflected and the *do*-support is directly inserted where needed. Monnese, then is very similar to English, in that the auxiliary is inflected and followed by an infinitival form (as in (33c), which remains, most probably, below AgrS and T°, as suggested above, in section 2.2³⁹).

A straightforward question arises at least for Monnese: if in Monnese the AgrS position is a transparent position, there is nothing that prevents the verb from moving as high as it usually does in declarative contexts

³⁸ One of the anonymous reviewers has suggested us to consider an alternative perspective, namely viewing the impossibility for the verb to move from I to C as a consequence of the insertion of *do* (in I), which occupies the position; it seems to us that what remains to be accounted for in this theory is the insertion of *do*, which appears unmotivated.

³⁹ One interesting line of research that we do not pursue here but that is nonetheless worth mentioning, is the idea that *do*-support might be also related to the raising possibilities of the infinitival verb: only in languages that have infinitival forms that do not raise up to AgrS could *do*-support develop. In other words, languages like standard Italian, where the infinitival verb raises very high in the IP structure could never develop *do*-support.

and *do*-support from merging directly in CP. As this is not the case, we have to find a reason that prevents the auxiliary from being inserted directly under the C° position, forcing it to be generated lower down in the structure (probably at the T° level, where the English *do* is also inserted). If the auxiliary is generated under T°, it cannot be compatible with an inflected main verb that has to raise to T° and AgrS° to check its features.

Note that a similar problem arises for English too, for we could in principle expect to find an *inflected* lexical verb and an *uninflected* ‘do’ in interrogative sentences. That is, *do* would appear in C° and would be followed by a declarative sentence structure, where the main verb takes the inflectional morpheme without raising to T° (and subsequently to AgrS°). If we assume Kayne’s (1989) hypothesis that the inflectional morpheme *-s* of the third person singular is the morphological counterpart of a Number projection (located lower than AgrS), the problem remains, since it should always be possible to use the structure of a declarative sentence, with the main verb raising to the projection where it usually raises in declarative sentences, and insert *do* where it is needed (namely, in C° in the interrogative cases we are dealing with).

We see two possible ways to answer these questions and explain why cases illustrated by (33a, b) are excluded:

1. if we assume Rizzi’s (1991) idea that T° contains the [+wh] feature that must be moved to the head of the CP in order to enter into a Spec-Head relation with the *wh*- operator, (33) is excluded because the auxiliary must be generated in T° and not in C°, since it has to carry the *wh*-feature from I° to C°. Note that this implies a particular view of *do*-support as realizing a lower feature which has to be moved onto another (higher) head, and not as the simple realization of a strong feature on a given F° which otherwise would remain unspelled. This could be correct for both V-to-I and I-to-C *do*-support, if a split IP hypothesis is adopted. However, the hypothesis that T° contains [+wh] features cannot be maintained for all those dialects mentioned above where a complementizer is directly inserted in C°, and no T to C movement is visible. This obviously weakens the basic idea, which could nevertheless still be true for some languages;

2. We can see the fact that a dummy auxiliary such as *do/fa* cannot be generated directly under the C° projection as an instance of a more general principle, one which does not depend on the particular requirements of interrogative structures (such as movement of the [+wh] feature from T° to C°). We could assume that every verbal element has to originate in a lexical or functional position of a ‘verbal nature’. The functional positions inside the IP field are verbal in their nature, while CP is not, as it constitutes the interface between IP and the outside of the clause (cf. Rizzi (1997) and Grimshaw (1997) for similar observations on the nature of the two functional fields, IP and CP). Hence, a verbal element like *do* could only be generated inside the IP/VP domain. Therefore, Monnese *do*-support uses a structure which is substantially very similar to that of English, and not a structure like the one in (33a) even though the latter meets the expectations concerning a language in which

AgrS is transparent in Pollock's terms.

Thus, the examination of Monnese *do*-support provides a interesting empirical evidence on the general constraints that are active when a support strategy is instantiated.

4.4 Consequences for the Minimalist program

In this section we will briefly discuss the potential problems for the Minimalist framework and the possible consequences that can be derived on the basis of Monnese.

First of all, Monnese provides interesting evidence for assuming a gradation concerning the cost of the two strategies of Merge and Move. It has been noted in section 2. that the *do*-support strategy is rare in itself and that the majority of NIDs either have V to C or a complementizer merged in C°; i.e., that they use either Move or Merge but not a combination of the two.

We noticed that Monnese constitutes an intermediate stage between those NIDs that have maintained residual V2 and those dialects that have entirely substituted verb movement with the insertion in C° of a complementizer (which can be either null or phonetically realized). Monnese has maintained a strong C, which attracts a verb, but uses a Merge strategy instead of a movement one to satisfy the requirement imposed by the CP. As the Merge strategy is considered in the Minimalist framework less costly than the movement strategy, we would find many dialects that show *do*-support. However, this is not the case. Most dialects are in the process of substituting verb movement with a complementizer and never develop through a stage comparable to Monnese. The reason why it is so is, in our view, the following: as we have pointed out in section 4.3.3, the dummy element, in English as in Monnese, is not inserted directly where it is required: even when C° requires a verb, the dummy is inserted in I°; therefore, neither in English nor in Monnese *do*-support do we have a case of Merge substituting Move, but in both languages Merge plus Move substitute only Move of a lexical element. Thus, Monnese combines the two strategies of Merge and Move, and, judging from the extremely scarce distribution of the phenomenon, results in being less economical than both those varieties with residual V2, which use Move, and those with the complementizer, which use Merge. This line of reasoning accounts for the rarity of the construction, but raises a problem for its existence: if Merge+Move is more costly than Move alone, we would not expect a language to change from a Move strategy to a Merge+Move one, as English certainly did and – in all likelihood – Monnese did too.

On the other hand, if this account for the rarity of the phenomenon in terms of economy conditions is correct, it shows that a) either a language is not strictly submitted to economy principles as we would like it to be, or b)

although Merge is less costly than Move alone, Merge plus Move must be more costly than Move alone. Hence, Merge must in itself cost a certain amount of effort, and not simply be totally free. This brings back from another angle a problem for the Minimalist program that has already been noted, namely the necessity of comparing computations that have different numerations at their basis, a move disallowed by the system. Moreover, the analysis of Monnese casts some doubts on the assumption that *do*-support is simply a PF-phenomenon (cf. Chomsky (1995)), where a strong feature has to be made visible by merging a dummy element in that position. However, as discussed above, Merge does not occur in CP, where the strong feature is, but lower than that, in I, as the presence of verbal agreement on the dummy and lack of agreement on the main verb show. Thus, we are forced to postulate that in the PF component there is movement, but movement is a typical feature of the computational system. Even if all instances of head movement are transferred into the PF component, as proposed in much recent Minimalist literature, the problem of doubling the mechanism (in the computational system and at PF) remains, and is particularly heavy in our case: in order to account for the derivation of *do*-support (not only in Monnese but in English as well, as we pointed out in section 4.3.3) we would have to assume that also at PF we first merge the dummy elements that are required to satisfy a feature located higher in the structure and then move them. Hence, both at PF and in the computational component Merge precedes Move: while this ordering has a straightforward explanation for the computational component, it does not follow from anything at PF. Moreover, the reduplication of Merge and Move at two distinct levels of the grammar clearly looks redundant and should be avoided.

A third interesting aspect is the very fact that the dummy verb cannot occur directly in C° as Merge in C is open only to complementizers, as shown by many Northern Italian dialects (cf. Poletto (2000)). In other words, although C projections are open to verb movement, a verb, even a dummy one, can never be directly merged in the C domain. The reason why this is so remains mysterious and cannot be accounted for in the Minimalist Phase theory, where only vP and CP are Phases of the computational system. Although IP is clearly not a phase, it appears to constitute a kind of unity distinct from CP, and this once again seems to be a property of the computational system and not of the PF component. We will not go any further into a detailed proposal of which mechanism accounts for this fact and limit ourselves to point out that, on the one side, the nature of the barrier between IP and CP looks part of the computational system and not a PF phenomenon, while, on the other side, this does not seem something that can easily be accounted for by the theory of Phases.

5. Conclusions

Do-support in the Romance variety we have analyzed here shows striking similarities with the English phenomenon. It is triggered by the same factor: the impossibility of the verb to raise to a given functional projection. It is therefore subject to the same restrictions (it only occurs in the context in which it is needed). Romance *do*-support confirms the intuition that the phenomenon is a ‘last resort’ strategy, and also sheds some light on the general theory of auxiliary insertion as well as on English *do*-support.

In general, there seems to be a requirement that forces auxiliaries to be inserted inside the IP domain even if their insertion is triggered by features inserted in C°: IP is verb-related, while the CP domain is not (cf. Rizzi (1997) and Grimshaw (1997)). *Do*-support cannot arise in C°; it must originate inside a lower FP in the IP field. Moreover, it seems that the class of verbs that do not need *do*-support contains some modals used as main verbs with a theta-grid.

The examination of *do*-support also has consequences for our analysis of Romance in general, as it confirms that in main interrogatives the inflected verb moves to C° in these languages, too (as proposed by Rizzi (1991)), while it does not in embedded clauses.

The Monnese facts also suggest some conclusion concerning English syntax: (1) in Romance *do*-support shows that subject interrogatives are CPs and not IPs. This conclusion could be extended to English as well, supporting Rizzi’s (1991) analysis; moreover, the role of morphology in the development of English *do*-support is only an indirect one. Monnese shows that *do*-support is a purely syntactic phenomenon and can develop even though no morphological change occurs. The occurrence of a dummy verb in a functional head position is triggered by a conspiracy of facts: the C° position maintains a strong feature which has to be checked, but the main verb cannot raise to this position as it cannot extend its thematic domain to C°. Instead of merging a complementizer, Monnese has chosen to combine Merge and Move, merging a dummy verb in I and moving it to C°.

Overt morphology does not play any role in the loss of residual V2 of main verbs in Romance, as it did not play any role in the loss of generalized V2 in the same dialects after the medieval period. The similarity between the loss of verb movement in English and an apparently different phenomenon in Romance becomes evident. The analysis of Monnese has made it clear that in English too *do*-support is a combination of Merge and Move. This conclusion renders a theory of movement in terms of PF phenomenon hard to maintain. The reason for this and other diachronic changes involving a reduction of movement⁴⁰ still remains mysterious.

References

⁴⁰ A parallel is the so-called ‘negation cycle’: see Benincà and Poletto 2002 for some reflections on this topic.

- Belletti, Adriana. 1988. 'The Case of Unaccusatives'. *Linguistic Inquiry*, 19:1-34.
- Belletti, Adriana. 1990. *Generalized Verb Movement*, Rosenberg and Sellier, Turin.
- Belletti, Adriana. 1994. 'Verb positions: evidence from Italian'. In David Lightfoot and Norbert Hornstein (eds.), *Verb Movement*. Cambridge University Press, Cambridge, pp. 19-40.
- Benincà, Paola. 1984. 'Un'ipotesi sulla sintassi delle lingue romanze medievali'. *Quaderni Patavini di Linguistica*, 4:3-19. [Repr. in Benincà 1994]
- Benincà, Paola. 1985/6. 'L'interferenza sintattica: di un aspetto della sintassi ladina considerato di origine tedesca'. *Quaderni Patavini di Linguistica*, 5: 3-15. [Repr. in Benincà 1994]
- Benincà, Paola. 1986. 'Punti di sintassi comparata dei dialetti italiani settentrionali'. In Gunther Holtus & K. Ringger (eds.), *Raetia antiqua et moderna*, W. Th. Elwert zum 80. Geburtstag. Niemeyer, Tübingen, pp.457-79. [Repr. in Benincà 1994]
- Benincà, Paola. 1994. *La variazione sintattica*. Il Mulino, Bologna.
- Benincà, Paola. 1995. 'Complement Clitics in Medieval Romance: the Tobler-Mussafia Law'. In A. Battye and I. Roberts (eds.), *Clause Structure and Language Change*, pp. 296-325. Oxford University Press, New York & Oxford.
- Benincà, Paola. 1997. 'Gli elementi interrogativi nel dialetto di Monno'. *Quaderni di lavoro dell'ASIS*. 1, 13-29.
- Benincà, Paola. 1999. 'Between Morphology and Syntax. On the verbal morphology of some Alpine dialects', in Lunella Mereu (ed.), *Boundaries of Morphology and Syntax*, Benjamins, Amsterdam & Philadelphia, pp. 11-30
- Benincà, Paola & Cecilia Poletto. 2002. On some descriptive generalisations in Romance. To appear in Guglielmo Cinque & Richard Kayne, *A Handbuch of Comparative Syntax*. Oxford University Press, New York & Oxford.
- Benincà, Paola & Laura Vanelli. 1982. 'Appunti di sintassi veneta'. In M. Cortelazzo (ed.), *Guida ai dialetti veneti IV*, CLEUP, Padova, pp.7-38 [Repr. in Benincà 1994]
- Burzio, Luigi. 1986. *Italian Syntax: A Government & Binding Approach*. Reidel, Dordrecht.
- Cardinaletti, Anna & Giuliana Giusti. 1999.
- Chomsky, Noam. 1955. *The Logical Structure of Linguistic Theory*. Ms. Harvard University and MIT. [Partly published in 1975. Plenum, New York].
- Chomsky, Noam. 1981. *Lectures on Government and Binding*. Foris, Dordrecht
- Chomsky, Noam. 1995. *The Minimalist Program*. MIT Press, Cambridge, Mass..
- Cinque, Guglielmo. 1990. *Types of A-bar Dependencies*, MIT Press, Cambridge, Mass.

- Cinque, Guglielmo. 1999. *Adverbs and Functional Heads*. Oxford University Press, New York & Oxford.
- Cinque, Guglielmo. 2001. "'Restructuring" and Functional structure'. Ms. University of Venice.
- Da Monte, Federico. 2002. ms. University of Padova.
- De Crousaz Isabelle & Ur Shlonsky. 2002. 'Optional subject clitics, pro licensing and null topics'. Ms. University of Geneva.
- Friedemann, Marc-Ariel. 1995. *Sujets syntaxiques: positions, inversion et pro*. Ph. D. Thesis, University of Geneva.
- Grimshaw, Jane. 1997. 'Projection, heads and Optimality'. *Linguistic Inquiry* 28, 373-422.
- Hulk, Aafke. 1993. 'Residual verb-second and the licensing of functional features'. *Probus* 5, 127-154.
- Kayne, Richard S. 1989. 'Notes on English Agreement'. *Central Institute of English and Foreign Languages Bulletin* (Hyderabad, India) 1, 41-67. [Repr. in Kayne (2000)]
- Kayne, Richard S. 1991. 'Romance Clitics, Verb Movement, and PRO'. *Linguistic Inquiry* 22:647-686.
- Kayne, Richard S. 1994. *The Antisymmetry of Syntax*. MIT Press, Cambridge, Mass.
- Kayne, Richard S. 2000. *Parameters and Universals*. Oxford University Press, New York & Oxford.
- Laka, Itziar. 1990. *Negation in Syntax: On the Nature of Functional Categories and Projections*. PhD thesis. MIT, Cambridge, Mass.
- Larson, Richard. 1988. 'On the Double Object Construction', *Linguistic Inquiry* 19, 335-391.
- Lightfoot, David. 1979. *Principles of Diachronic Syntax*, Cambridge University Press, Cambridge.
- Lightfoot, David. 1991. *How to Set Parameters: Arguments from Language Change*, MIT Press, Cambridge Mass.
- Lurà, Franco. 1987. *Il dialetto del Mendrisiotto*. Edizioni Unione delle Banche Svizzere, Mendrisio-Chiasso.
- Miller, Philip H. 1997. 'Auxiliary Verbs in Old and Middle French: a Diachronic Study of Substitute *faire* and a Comparison with the Modern English Auxiliaries'. In Ans van Kemenade & Nigel Vincent (eds.), *Parameters of Morphosyntactic Change*. Cambridge University Press, pp. 119-133.
- Munaro, Nicola. 1995. 'On nominal *wh*-phrases in some northern Italian dialects'. *Rivista di Grammatica Generativa* 20, 69-100.
- Munaro, Nicola. 1997. 'Proprietà strutturali e distribuzionali dei sintagmi interrogativi in alcuni dialetti italiani settentrionali. PhD Thesis, University of Padua.
- Munaro, Nicola. 1999. *Sintagmi interrogativi nei dialetti italiani settentrionali*, Padua, Unipress.
- Munaro, Nicola. 2002. GLOW talk.

- Munaro, Nicola, C. Poletto & J-Y. Pollock. 2002. 'Eppur si muove: on comparing French and Bellunese *Wh*-Movement'. to appear in P. Pica and J. Roorick (eds), *Yearbook of Comparative Syntax*.
- Pollock, Jean-Yves. 1989. 'Verb movement, universal grammar and the structure of IP', *Linguistic Inquiry* 20, 365-424.
- Poletto, Cecilia. 1993. *La sintassi del soggetto nei dialetti italiani settentrionali*. PhD Thesis, University of Padua.
- Poletto, Cecilia. 1993. 'Subject clitic-verb inversion in North-Eastern Italian Dialects'. In Adriana Belletti, ed. *Syntactic theory and the Dialects of Italy*. Rosenberg and Sellier, Turin, pp. 204-251.
- Poletto, Cecilia. 2000. *The Higher Functional Field: Evidence from Northern Italian Dialects*. Oxford University Press, New York & Oxford.
- Poletto, Cecilia & Jean-Yves Pollock. 2002. 'On the left periphery of Romance interrogatives: *Wh*-clitics, *Wh*-doubling and Apparent *Wh in situ*'. Talk delivered at the GLOW conference, Amsterdam, April 2002.
- Rizzi, Luigi. 1982. *Issues in Italian Syntax*. Foris, Dordrecht.
- Rizzi, Luigi. 1991. 'Residual verb second and the *wh*- criterion'. Geneva Generative Papers n.2
- Rizzi Luigi. 1997. 'The Fine Structure of the Left Periphery'. In Liliane Haegeman (ed.), *Elements of Grammar*, pp. 281-337. Kluwer, Dordrecht.
- Rizzi, Luigi & Ian Roberts. 1989. 'Complex inversion in French'. *Probus* 1, 1-30.
- Roberts, Ian. 1985. 'Agreement parameters and the development of English modal auxiliaries', *Natural Language and Linguistic Theory* 3, 21-56.
- Roberts, Ian. 1993. *Verbs and Diachronic Syntax: A Comparative History of English and French*. Kluwer, Dordrecht.
- Roberts, Ian. & Anna Roussou (forthcoming):
- Sportiche, Dominique. 1995. 'Clitic Constructions'. In Laurie A. Zaring & Jan Roorick (eds.), *Phrase Structure and the Lexicon*. Kluwer, Dordrecht, pp. 213-276.
- Tortora, Christina. (1997). *The Syntax and Semantics of the Locative Expletive*. Ph.D. Thesis, University of Delaware.
- Tortora, Christina. 2000. 'Agreement, Case, and I-subjects'. *Proceedings of the 29th Meeting of the Northeast Linguistics Society*.
- Tortora, Christina. 2002. 'Romance enclisis, prepositions, and aspect'. *Natural Language & Linguistic Theory* 20, 725-758.
- Viel, Valeria. 2001. *The Grammar of Relative Clauses in Old and Middle English*. Laurea Thesis, University of

Padua.

Vikner, Sten. 1995. *Verb Movement and Expletive Subjects in the Germanic Languages*. Oxford University Press, New York & Oxford.

Warner, Anthony. 1997. 'The structure of parametric change and V-movement in the history of English'. In Ans van Kemenade & Nigel Vincent (eds.), *Parameters of Morphosyntactic Change*. Cambridge University Press, Cambridge, pp. 380-394.

Zanuttini, Raffaella. 1997. *Negation and Clausal Structure: A Comparative Study of Romance Languages*. Oxford University Press, New York & Oxford.