

**1 ◻ INTRODUCTION**

In this article I deal with doubling and address the general question of a syntactic treatment of this phenomenon, which seems to be extremely widespread in non standard languages. Before discussing the empirical domain under investigation, it is necessary to provide a definition, as “doubling” is a label used to mark empirical fields which potentially lend themselves to very different syntactic analyses. Here I intend to focus on cases of doubling in which the two (or more) “doubles” are morphologically distinct, although they clearly form a unit from the semantic point of view; for instance if an argument is doubled, there are not two arguments in the clause, but the two items are interpreted as a single one. The same is true for wh-doubling, which is not an instance of multiple questions, but there is only one variable at LF; negative doubling is an instance of negative concord, so it does not yield a double negation interpretation. Doubling has been seen in the recent literature on traces, which considers them as copies of the same item, as a strong argument in favour of the idea that a moved element can be spelled out either in the higher position to which it moves (the head of the chain, in more traditional terms) or in the lower position from which it has moved (the tail of the chain), or even in the intermediate positions in the case of cyclic movement. General constraints on avoidance of superfluous information then require spelling out of only one copy of the two (or more) created by the movement procedure. If this requirement is circumvented, and both copies are spelled out, doubling arises. This predicts that, given that both copies are identical, the two forms spelled out will be identical as well. The type of doubling I am interested in here is in fact a problem for a theory like that because the two (or more) “copies” are not identical, one always being a single word and more functional (in the sense that it never contains a lexical category and cannot expand to an XP containing a specifier or complements) than the other.

This type of doubling, as we will see, is rather difficult to analyze in terms of copying. I propose here that it should be analyzed along the lines of Uriagereka (1995), Kayne (1994) and Belletti (2005), who propose that the two elements involved originate inside the a single unit which is then split by movement.

Belletti deals with cases like left dislocation and focalization in standard Italian and shows that DP-doubling can be performed either by a clitic or by a tonic pronoun or by a quantifier, yielding the following possible constructions:

- (1) [[X°] XP]
- (2) [[Pron+focus/topic] [XP]]
- (3) [[QP] [XP]]

As can be easily seen, all these constructions contain a lexical and a functional element. Here I will concentrate myself on cases that include clitics as doublers, namely constructions that can be analyzed as in (1) and illustrate the theoretical point on the basis of three doubling phenomena: subject DP doubling, wh-doubling and negative concord.

Doubling is also more generally interesting from the point of view of our theory of economy in language design: if economy is seen in a simplistic way as “nothing superfluous should be allowed” why is doubling so widespread? Indeed, a phenomenon like doubling should not exist at all, and in fact it is often banned from normative grammarians in their

language planning as something redundant. Given that we assume that language is indeed the most economic device possible given the way our brain and our conceptual maps are construed, we are forced to assume that somehow languages which display doubling are not less economic than languages that do not and that doubling also corresponds to an economic procedure of some sort. In fact, what I will propose here is that doubling is so widespread in non standard languages (i.e. languages which are not subject to the pressure of language planning and normative regulation) because it can indeed be seen as an economic strategy occurring when a given XP must check more than one functional feature in the syntax, therefore instead of moving a whole complex to two projections to check two (or more) features, the complex XP can be split in two (or more) parts, each part checking one feature.

Moreover, although movement has been most recently defined as “second merge” (or internal merge), and as such is not more costly than merge, clitic doubling can still be conceived as an economic strategy, as the “second merge” of a smaller portion of material is anyhow more economic than “second merging” a bigger chunk of structure.

Seen in this way the two alternative views to doubling as “spell out of two (or more) copies” or as a single XP being split in its components strongly recalls the long debate on whether clitics originate in the functional position they occur after spell out or whether they are moved to that position. In this work I take the Kaynian view to clitics, and propose a movement analysis of doubling.

What I will not tackle in this work is the parametric problem, namely the reason why some languages allow (or even require) doubling while others do not. I will limit myself to assume that the difference cannot lie in any special structure, in the sense that no special “big DP” is necessary to obtain doubling; rather, the mechanism of doubling has to do with the amount of pied piping allowed. In other words, doubling does not require projecting any special structure, as functional categories and their layering must be universal; it is the possibility of splitting the XP and avoid to copy it whole that must be involved in languages allowing doubling.

Before starting with a presentation of the empirical domain I will use to prove my point, I briefly point out a methodological issue. Given the way data from a lot of dialects are used, this article constitutes an attempt to use implicational scales (which are generally very often exploited in typological work, much less in generative studies) for syntactic analysis and as such to introduce a new type of experiment which is not simply based on isolated grammaticality judgements or on the simple comparison among languages but is finally a set of comparisons of sets of grammaticality judgements.

In section 2 I present the case of subject clitic doubling and discuss the analysis I use developing a theory of movement for doubling. In section 3 I analyze cases of wh-doubling showing that it is the amount of functional structure that matters in doubling, not the lexical portion of the XP doubled. In section 4 I discuss cases of negation doubling and show that even a purely functional category as negation can be doubled. Section 5 contains some more general theoretical considerations and concludes the article.

## 2 ■ DP DOUBLING AND FEATURE STRIPPING

In this section I report and enlarge some observations that I made in Poletto (2000) concerning the doubling of subjects. The empirical generalizations I present are now based on a data base of approximately 150 dialects.<sup>1</sup> Looking across dialects, it is possible to establish an implicational scale of those elements that are always doubled if others are as well. So, for instance, there are dialects where only tonic pronouns are doubled, others

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<sup>1</sup> I thank Paola Benincà and Guglielmo Cinque for comments and discussion. All errors are obviously my own.

where DPs and tonic pronouns are doubled, but no dialect where DPs are doubled while tonic pronouns are not. The implicational scale can be represented as a set of generalizations as follows:

- (4) a. If DPs are doubled in a given dialect, tonic pronouns are also doubled,  
 b. If QPs are doubled, both DPs and tonic pronouns are doubled as well,  
 c. If variables in *wh*-contexts as relative, interrogative and cleft structures are doubled, then doubling is always obligatory with all other types of subjects.

Or as a scale proper:

- (5) Pronouns DPs QPs variables  
 → doubling

This means that there are dialects where only tonic pronouns are obligatorily doubled (I leave here left dislocation aside), while all other types of subjects are not, as shown in (6):

- (6) **Ti** **\*(te)** parli massa e **luri** **\*(i)** parla massa poco Arsiero (VI)  
*you you speak too-much and they they speak too little*

The second stage of the scale in (5) is represented by those dialects in which tonic pronouns and DPs are obligatorily doubled, but not quantifiers and variables:<sup>2</sup>

- (7) a. Nisogn **\*(el)** me capess. Lecco  
*nobody (he) me understands*  
 b. El bagai **\*(el)** mangia el pom.  
*the boy (he) eats the apple*  
 c. Lee **\*(la)** leeuc unliber de storia.  
*she she reads a book of history*

The third stage is the one in which tonic pronouns, DPs and quantifiers are doubled but not variables:<sup>3</sup>

- (8) a. El fio **el** mangia l pom. Milan  
*the boy he eats an apple*  
 b. Un quidun **el** riverà in ritart.  
*a somebody he will-arrive late*  
 c. I don che Ø neteni scal in andà via.  
*the women that clean the stairs have gone away*

The last stage is the one in which doubling is obligatory with all types of subjects, and is also quite widespread, especially in Piedmont and Friul, but in Lombardy as well.

- (9) a. Al pi **al** mangia al pom. Malonno (Eastern Lombard)  
*the boy he eats an apple*  
 b. Vargu **al** rierà n ritardo.  
*a somebody he will-arrive late*  
 c. Lefomne che **le** neta le scale e e ndade via.  
*the women that they clean the stairs have gone away*

This type of data is rarely taken into account, because “tendencies” are not easily built in a generative grammar; however, tendencies are interesting as they reveal, in this case, that elements that are more definite are more frequently doubled than elements that are less definite. This is not surprising given that fact that the doubler is a clitic, which is by itself definite and is therefore obviously “more compatible” with other definite elements.

<sup>2</sup> This system is widespread in the Trentino dialects and in Romagna and Emilia as well.

<sup>3</sup> This type of system is widespread in Lombardy, in the East as well as in the Western and Northern varieties.

However, in many dialects the clitic is also compatible with quantifiers and wh-variables, therefore it must have somehow lost its definiteness property. This is, though, only a very imprecise observation, as shown by the following facts. Differences in the possibilities of doubling are found inside the class of tonic pronouns, second person pronouns are more frequently doubled than third person pronouns:

- (10) a. TI te magni sempre. Venice  
*YOU you always eat*  
 b. \*TI magni sempre.  
*you always eat*  
 c. Nane(el) magna.  
*N. (he) eats*  
 d. Nisun (\*el) magna.  
*nobody (he) eats*

Given that all pronouns are definite, the explanation provided above cannot be correct. Moreover, the same is true for quantifiers: universal quantifiers are more easily doubled than existential or negative quantifiers, as shown in (11):

- (11) a. Bisogna che tuti i faga citu. Bellinzona (CH)  
*it is necessari that everybodythey make silence*  
 b. Quaidun telefonarà al professer.  
*somebody will-phone theteacher*

How can we explain a) the implicational scale in (5) and b) the differences internal to each class? I propose that the reason why the implicational scale works this way and not, for instance, the other way round has only partially to do with definiteness; doubling occurs more frequently with those elements that have more functional information. Tonic pronouns are only in some dialects (for instance Friulian) marked for case, while they are all marked in the NIDs with a left peripheral feature (either Focus or Topic), as they can only be used as Topic or Focus, otherwise a clitic form is the only possibility and they have a (set of) person features. DPs do not have morphological marking for person or case in Romance, but they clearly have more features than quantifiers, because they all are endowed with gender. Quantifiers have a number feature, which is reflected in the morphology of the quantifier itself and in the subject clitic doubling it, as the following examples show:

- (12) a. Tuc i panseva... Albosaggia (Lombard N.)  
*everybodythey thought*  
 b. Vargù al ruarà tardi.  
*somebodyhe will-arrive late*  
 (13) a. Tuti i pensau che... Arzeno (Liguria)  
*everybodythey thought that*  
 b. Quarchedun u telefunià au profesu.  
*somebody he will-phone theteacher*

Universal quantifiers are generally doubled by a plural clitic, while existential (and negative) quantifiers are doubled by a singular clitic. If we assume that plural is the only marked feature and singular simply originates as no marking for number, we can also explain the distinction between universal quantifiers and existential quantifiers. Moreover, it is well known that universal quantifiers are more easily left dislocated than existential and negative quantifiers, because they can be more easily interpreted as [+specific]. One could assume that specificity is also reflected in the syntax, or that universal quantifiers can be more easily interpreted as specific because they have a number feature. In any case, the

distinction between universal and existential quantifiers has to be drawn in terms of features.

The type of elements that have fewer features are *wh*-traces, which do not display case, person, gender or number; in fact, they are at the end of the scale.

The same type of reasoning can be applied inside the class of tonic pronouns, as the second person pronoun must be more complex in its feature composition than third person, which is generally assumed to be the default case (see Benincà and Poletto (2005) on the feature composition of person pronouns): therefore, second person pronouns must have at least an [addressee] feature and a [+deictic] one, while third person pronouns are non-deictic and have no [addressee] or [speaker] in their feature composition.

Once we assume that it is the number of features that matters in doubling phenomena, how are we going to account for the probabilistic flavour of the implicational scale in (5)?

Let us start by assuming that DPs morphologically marked for features like [addressee], [deictic] [gender], or [plural] have a syntactic projection corresponding to these features in their internal structure. This internal projection has features which must be checked against the corresponding projection in the IP layer<sup>4</sup>, therefore the DP has to move to the Specifier of the projection in the IP.

In other words, not only Nominative case undergoes the probe-goal procedure, also other features of a DP have to be checked in the syntax in the relevant node in the IP. In order to be checked in the IP, they have to be present in the internal structure of the DP itself with the relevant value.

Suppose that a DP has more than one feature, say F1 and F2,<sup>5</sup> to check, the checking can proceed through the simple Agree rule, and no movement is found in the syntax or re-merge the whole DP twice in the Spec of F1 and then F2 or separately check F1 through a (clitic) piece of the DP, the one carrying F1, and F2 through the other (XP) piece, which carries the F2 feature. The more features there are to check, the more it becomes probable that instead of remerging the whole DP only the subpart containing the relevant information is stripped from the DP and remerged.

The mechanism ensuring that only the relevant functional projection of the DP is moved is the following: Kayne and Uriagereka in their work propose that the DP is located in the Specifier position of the clitic. Here I will push this idea further and argue that the stripping of the relevant portion of functional structure from the DP is preceded by movement of the DP to the specifier of the clitic. Therefore, I propose that languages with doubling do not have any special “big or complex DP” similar to the one in (1), but exactly the same type of DPs other languages have. The only difference is that stripping away part of the DP is preceded by internal movement of the lower portion of the DP to a higher position internal to the DP. If head movement does not exist, and a clitic also moves as a remnant, the lower DP in (14) moves to the Specifier of a projection immediately above KP containing the clitic, as in (14)-(15). This process creates the remnant KP in (15) containing only the clitic, which is then moved to the appropriate position in the IP layer.

(14) [[KP [K° cl] [DP]]

(15) [[<sub>XP</sub> DP [<sub>X°</sub> [<sub>KP</sub> [K° cl] [~~DP~~]]

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<sup>4</sup> The assumption that the IP structure contains a NumberP is quite widespread (see among others Shlonsky (1990), Poletto (2000) and Manzini and Savoia (2005)). That person features also have their own projection (either split in their basic components as speaker, addressee etc. or as a single PersP) is proposed by authors like Zanuttini (2006), Bianchi (2004), Sigurdsson (2005).

<sup>5</sup> A case we will see further on is for instance left dislocation, where the DP checks case as well as Topic features.

The DP which has first moved to SpecXP creating the remnant KP can then be moved independently from SpecXP to a Spec position in the IP or CP layer if it has further features to check.

This doubling strategy is at least as economic as re-merging the whole complex DP inside the higher functional position in the IP layer; if a shorter movement is more economic than a longer one for memory reasons then doubling is even more economic than pied piping the whole complex XP to a higher position. In other words, doubling has to be seen as the opposite of pied piping with the addition of movement internal to the DP to create the two pieces (in the above case KP and DP) one of which is then moved while the other stays put.

This analysis predicts that the two doubles are never identical: one contains only a functional part, the higher one, while the other contains the lower portion of the DP internal structure including the lexical head.

Suppose for example that you need to check the Nominative case feature in AgrS (or SpecT if the more minimalist view is taken): the element that can do that is the one corresponding to the highest functional layer of the DP, realized as a clitic, which has a morphological distinction for case:

- (16) To nono el vien.  
*your grandfather he comes*
- (17) I ga visto to nono.  
*they have seen your grandfather*
- (18) (To nono), i lo ga visto (to nono).  
*(your grandfather) they him have seen (your grandfather)*

As shown in (16) and (17) the DP *to nono* has no distinction in terms of case features; the distinction is provided by the subject clitic *el* (or by the object clitic in case of dislocation of the object). Note that cases like (16) are a counterexample to what seems otherwise a pretty strong generalization, namely that the “functional” double is located higher than the bigger double containing also the lexical head noun. In this case the DP “to nono” is located higher in the structure than its clitic counterpart *el*. The reason why this is so is the following: the procedure of stripping away a functional portion from a XP is to check functional features, which are always located higher in the structure than the argumental position where the whole XP is merged. Therefore, in the most common case the functional double is higher than its lexical double. However, if the remaining portion of the XP still has features to check nothing prevents it from moving independently to check the other feature and end up in a higher node with respect to its functional double. This is exactly what happens in (16) where the lexical DP still has an EPP feature to check in subject position; the result of this checking turns out to be that the DP is higher than the clitic.<sup>6</sup> In fact, subject DPs can occur in different positions in Italian dialects, as well as in standard Italian, while the clitic double has a fixed position (as all clitics): DP subjects can be postverbal (presumably in the SpecvP) position or preverbal (in SpecT) or left or right dislocated, while subject clitics cannot.

More generally, contrary to an analysis based on copying, this analysis predicts that the two doubles are always different and that the features expressed by one are not expressed by the other part, as they have been stripped away. The same is true for left peripheral features like Topic: left dislocation obligatorily requires a clitic pronoun for subjects, objects and datives in the NIDs. A lot of work has been done on whether Left Dislocation is indeed movement or not, but very little is found in the literature on the reason why a

<sup>6</sup> As we will see below the part of the DP which moves to the SpecT position is not the entire Case projection (KP according to Giusti (1993)) but the lower portion of the DP once the KP has been moved out. .

resumptive clitic is there: in this view, the clitic is the part of the DP carrying the left peripheral feature.

An apparent counterexample is provided by number and gender: when doubling occurs, these features are expressed both on the DP and on the clitic. Note, however, that number and gender in Romance spread throughout the DP to all adjectives as well as quantifiers and possessives. I propose that the real number feature corresponding to the NumP internal to the DP is expressed by the clitic and that what is found on the DP is simply an agreeing form, the same that is also found in adjectives and modifiers of the Noun, which do not have an independent NumP, but must agree in gender and number with the head noun.<sup>7</sup>

If this hypothesis is correct, doubling does not depend on the lexical portion of the DP structure but on the functional portion, hence on how many features have to be checked in the functional structure: the more there are, the more probable stripping becomes.

Suppose for instance that the internal structure of an XP is built in the following way:

- (19) [FP1 [FP2 [FP3 [Lex. Cat.]]]]

The procedure of splitting will take away a proper subset of functional projections, moreover it will strip away functional layers starting from the highest one (see Cardinaletti and Starke (1999) for a similar idea in deriving clitic, weak and tonic pronouns). Therefore, either F1 is split and moved (hence copied) onto a projection in the IP or CP area of the clause, or F1 and F2, but never F2 alone or F2 and F3 leaving F1 behind.

Suppose further that copying from a given position can apply only once: it is possible to move cyclically, hence copy the same XP more than once (in fact indefinitely) but this can be done only once per position, and cyclic movement entails copying from one position to a higher only once, so that copying only considers the highest instance of an XP in order to copy it further up in the structure, not the lower one(s).

In the case of doubling, once a functional layer internal to the XP which undergoes the procedure, for instance F1, has been copied onto the head or the specifier of an FP in the IP/CP domain, it is no longer possible to copy it once again from the original position, hence it becomes invisible to the theory of movement and the only FP that can be copied, hence moved is FP2.

The idea that doubling is indeed an economic procedure because it splits a complex XP via movement of the lower part to a higher position internal to the DP and then movement of DP projection containing the relevant functional feature to the IP for checking can be used in order to explain Left Dislocation constructions as well. We noticed that in general the lower portion of the internal structure of the original XP, which has not been copied, can stay in situ and only in the case of subject doubling do we find a case in which the DP moves independently as it has a further EPP feature to check. This hypothesis accounts for the implicational scales we have examined for DP doubling (and *wh*-doubling, see below): the more functional features a given XP has to check the more probable the splitting and stripping procedure is bound to occur. If doubling amounts to partial movement of an XP, the portion of functional layer(s) that can be stripped away has to be the highest one of the XP internal structure. As we have seen, a remnant movement analysis ensures that it is not possible to split and strip intermediate portions of the internal structure of the XP.

If the idea is correct, we should never find doubling of intermediate pieces of functional structure, the functional double must always contain a proper sub-tree of the whole XP

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<sup>7</sup> Notice that there are languages in which even Case can spread as an agreeing morphology from the DP to the NP, the *n* morpheme of the dative plural and the *∅* of the genitive and masculine singular in German are residues of this process.

and precisely the highest one. This prediction seems to be borne out in the cases we have seen above, but it clearly requires further testing.

A closer look at Left Dislocation structures provides further empirical support. As mentioned above, Left Dislocation is one of those exceptions to the descriptive generalization that the functional double (the resumptive clitic) ends up in a higher position with respect to the lexical double (the DP containing the noun) on a par with subject clitic doubling.

Left Dislocation is particularly interesting in a theory of doubling because it is the first syntactic context in which doubling is manifested, as shown by the fact that all Romance languages allow or require a clitic in Left dislocations even when they do not in any other construction.

Why should this be the case? As far as I know nobody has up to now ever tried an explanation for this observation, which in fact is straightforwardly accounted for in the present analysis of doubling.

Let us assume following Giusti (1993), (2006) a.o. that Case is a high projection of the DP corresponding to the ForceP in the CP phase. If the idea of stripping is correct, we expect that if doubling applies, it will strip away the Case layer (namely KP following Giusti's terminology), being the highest functional feature requiring checking realized as an independent syntactic projection. This prediction is borne out as the clitic has in fact overt case morphology distinguishing nominative, accusative, dative and genitive, while the DP does not<sup>8</sup>. Once the CaseP has been stripped away from the DP, the highest projection remaining inside the DP is a left peripheral one (see Giusti (2006) and Poletto (2006) for evidence that the DP in Romance has an internal active left periphery), namely TopP.

(20)  $[[_{KP} [_{K^{\circ}} \text{cl}]] [_{\text{TopicP}} [_{\text{FocusP}} [_{\text{DP}} [_{\text{NP}}]]]]]$

(21)  $[[_{XP} [_{\text{TopicP}} [_{\text{FocusP}} [_{\text{DP}} [_{\text{NP}}]]]]] [_{X^{\circ}} [_{KP} [_{K^{\circ}} \text{cl}]]] [[_{\text{TopicP}} [_{\text{FocusP}} [_{\text{DP}} [_{\text{NP}}]]]]]$

In the above structures we have movement of the lower Topic phrase containing the lower portion of the DP structure including the NP to the Spec of a position higher than KP. The remnant KP created by this movement only contains the clitic pronoun that has to check the Case feature located in IP and is therefore moved to the projection in the high IP layer where Case is checked. The other piece of the structure, namely TopicP still has to check its feature in the Spec of a Topic projection inside the CP layer. Moving the TopicP containing DP and NP to the SpecTopic position in the CP layer, thus bypassing the position of its clitic double. Therefore, the fact that the highest layer has been stripped away from the DP leaving TopP as the highest projection, gives the TopicP internal to the DP structure the possibility to raise to the CP layer.

Hence, we conclude that considering doubling an economic procedure derives the properties of Left Dislocation, which in other analysis of doubling have received no explanation so far.

With this analysis in mind let us now consider other instances of doubling.

### 3 □ WH DOUBLING: THE FUNCTIONAL STRUCTURE OF OPERATORS

Let us now consider other cases of doubling to test whether the stripping hypothesis for non identical doubling is correct. A good candidate is wh doubling, which also occurs in various NIDs.

(22) a. S' a-lo fat che? Illasi  
           *what has-be done what*

<sup>8</sup> In the Romance languages the DP can be preceded by a preposition, but has never case on its own. I assume here Kayne's (2004) treatment prepositions as higher functional heads requiring the movement of the DP in their specifier (and subsequent movement of the preposition itself)



- b. Ndo e-lo ndat endoe?  
*where is-he gone where*

As extensively discussed in Poletto and Pollock (2004), wh-doubling is similar to DP clitic doubling because one of the two doubles has indeed clitic properties, while the other is an XP. Poletto and Pollock (2004) apply the usual tests of cliticization to the higher wh-item and show that it behaves as a pronominal clitic because it cannot be modified, coordinated, used in isolation, bear stress and moved into another position within the sentence .

Cases like (22) also display the property of DP doubling noted above, namely the two doubles do not have the same form and the (higher) clitic has a fixed position, as shown by the fact that it is not possible to reverse the order of the two wh-items:

- (23) a. \*Che a-lo fat sa? Illasi  
*what has-he done what*  
 b. \*Ngont fet andà ngo? Monno  
*where do-you go where?*

Moreover, the distribution of wh-doubling of this type can also be described as an implicational scale similar to the one in (5):

- (24) If only one *wh-* behaves like a clitic it is either *what* or *where*.  
 (25) Elements like *who* and *how* can also display clitic-like properties but this is less frequently the case; moreover, the presence of clitic/tonic pairs for *who* and *how* in a language implies that both *where* and *what* also behave as such.  
 (26) The *wh-*element corresponding to *why* never behaves as a clitic, and is always expressed by a compound  
 (27) What/where who how \*why/\*which X  
 → doubling

Doubling distributes according to the type of wh-pronoun: if a dialect has doubling with the wh-item 'who', it has doubling with 'what' and 'where', if it has doubling with 'how' it has it also with 'what' 'where' and 'who'. Doubling of this type has never been observed with 'why' and complex wh-items.

The following examples illustrate the point: in the dialect of Illasi, the older generation admits doubling only with the wh-item WHAT, while the young generation (below 40 years of age) also admits doubling with the wh-items WHERE and WHO:

Illasi: *Old Generation*

- (28) \* Ci a magnà ci, la me torta?  
*what has eaten who themy cake*  
 'Who has eaten my cake?'  
 (29) \* Ci alo invidà ci?  
*who has-he invited who*  
 'Who has he invited?'  
 (30) Sa alo magnà che?  
*what has-he eaten what*  
 'What has he eaten?'  
 (31) \* Ndo valo (a)ndoe?  
*where goes-he where*  
 'Where is he going?'

*Young Generation*

- (32) Ci a magnà ci, la me torta?  
*who has eaten who themy cake*  
'Who has eaten my cake?'
- (33) Ci alo invidà ci?  
*who has-be invited who*  
'Who has he invited?'
- (34) Sa alo magnà che?  
*what has-be eaten what*  
'What has he eaten?'
- (35) Ndo valo (a)ndoe?  
*where goes-be where*  
'Where is he going?'
- (36) a.\*Parché e-lo partio parché?  
*why is-be left why*  
b.\*E-lo partio parché?  
*is-be gone why*  
c.\*Che elo partio che tozato?  
*what is-be gone which boy*

The dialect of Bormio Superiore (in the Italian speaking part of Switzerland) also allows doubling of 'how'. The doubling structure with a clitic counterpart is not extended to any other wh-item in any dialect of the data base:

- (37) Me tal fet là cumè? Bormio Superiore (CH)  
*how you do there who*  
'How do you cook it?'
- (38) \*Quan ta l vedat quand?  
*when you it see when*  
'When will you see him?'
- (39) \*Parché ta vet via parché?  
*why you go away why*  
'Why are you going away?'

As extensively discussed in Benincà and Poletto (2005), these restrictions above and the implication scale in (25) do not only apply to wh-doubling, but also to wh in situ?<sup>9</sup> and clitic wh-items.

Examples of the same restriction with wh in situ are the following: in the dialect of Borgomanero described in Tortora (1997), the only wh that can be left in situ in a non-echo question is the wh-item corresponding to WHAT, and in this case the wh-item has a different form with respect to the one occurring in initial position.

- (40) a. kus tal ferki? Borgomanerese  
*what you look-for*  
'What are you looking for?'
- b.\*tal ferki kus?  
*you look-for what*
- c. tal ferki kwe?  
*you look-for what*
- d.\*kwe tal ferki?

<sup>9</sup> Indeed they apply to wh in situ which cooccur with subject clitic inversion, not to the type of wh in situ found in spoken French.

*what you look-for*

In the Bellunese dialects discussed by Munaro (1999) the wh-items that can remain in situ are those corresponding to WHAT, WHO, WHERE and HOW.

- (41) a. \*Ché a-tu fat? (Munaro 1997: 3.62) Tignes d'Alpago  
*what have.you done*  
'What have you done?'  
b. A-tu fat ché?  
*have.you done what*
- (42) a. \*Chi laore-lo?  
*who works.be*  
'Who is working?'  
b. E-lo chi che laora?  
*is.be who that works*
- (43) a. Va-lo andè?  
*goes.be where*  
'Where is he going?'  
b. ??Andè va-lo?  
*where goes.be*
- (44) a. Se ciame-lo comè?  
*himself calls.be how*  
'What is his name?'  
b. ??Come se ciame-lo?  
*how himself calls.be*
- (45) a. In che botega a-tu comprà sta borsa?  
*in which shop have.you bought this bag*  
'In which shop did you buy this bag?'  
b. \*A-tu comprà sta borsain che botega?  
*have.you bought this bag in which shop*

No dialect that admits wh in situ cooccurring with subject clitic inversion applies this strategy to other wh-items.

In order to capture this fact, Poletto and Pollock (2004) propose that wh-doubling as well as wh in situ are related to the existence of wh-clitics, because wh-doubling has the same properties of DP-doubling and wh in situ is a silent version of wh-doubling with a null clitic realized in the higher position.<sup>10</sup> The property of some wh-items to become clitics is therefore a necessary condition for getting wh in situ and wh doubling: so the same dialect can either spell out the clitic part with a silent XP, or the XP part with a silent clitic or both. The following examples illustrate the point:

- (46) a. (che) fe-f fa (què) ades? Monno  
*what do-you what, now*  
b. (ngo)fet andà (ngont)?  
*where do-you go where*  
c. (ch) e-l (chi) che maja le patate?

<sup>10</sup> Munaro (1999) notes that languages that develop wh-in-situ of the type described above pass through a stage of wh-doubling.

(i) Che oleu che epia metù che?  
*what want-you that have+subj put what* Munaro (1999:2.28, Villabruna, IV, II 1700)

This constitutes additional empirical evidence that the two phenomena are related.

The point I intend to make here does not concern the analysis of the relation between *wh* in situ and *wh*-doubling (see Poletto and Pollock (2004) on this) but their diachronic origin. Apparently doubling starts out in the environment of non-standard questions as defined by Obenauer (1994) and (2004): as questions whose answer is outside the set of canonical answers provided by the context. Obenauer (2004) brings empirical evidence that non-standard questions involve the checking of additional functional projections located in the CP area higher than the position to which the *wh*-item moves in standard questions.

Therefore, doubling originates precisely when additional functional projections require checking. If we admit that in order to check a feature in the IP or CP a given XP must have the corresponding projection inside its internal structure,<sup>11</sup> we immediately have an explanation of the link between doubling phenomena and the presence of several features that require checking by the same element.

Concerning the link between *wh*-doubling and *wh* in situ, we could go a bit further along this line of thought and hypothesize that doubling (hence, stripping) phenomena are found as a (probably possible though not necessary) intermediate step towards the loss of movement. Stripping away and moving a smaller portion of a bigger constituent is indeed a stage towards not moving the whole XP at all (and checking features simply by virtue of the operation “Agree”). This is quite clear in the case of *wh*-doubling, which so neatly behaves like *wh* in situ, but could also be conceivable for DPs: Benincà and Poletto (2005) point out that pronominal clitics are the last residue of the Latin OV order, where an object had probably to raise to an overt Case position yielding OV rather than VO.

Given that doubling can also be covert (in the sense that either the clitic or the XP counterpart can be empty), this analysis does not predict that all languages have to undergo an overt doubling stage when they lose movement.<sup>12</sup>

An apparent counterexample to this account of doubling in terms of economy is provided by the observation that doubling is first found with *wh*-words, while one could think that it should be more frequent with complex *wh*-items than with *wh*-words, given that complex-*wh* items contain a N and are therefore more complex. Recall however that doubling is not connected to the complexity of internal structure of an XP per se, but to the number of functional projections that have to be matched and checked between the XP and the sentence structure.

*Wh*-doubling starts out with *wh*-words and they are generally more prone to enter a doubling strategy because they are intrinsically pure operators with more operator features. In this sense *wh*-words are parallel to tonic pronouns while complex *wh*-phrases are parallel to DPs and they are expected to display doubling more often, as they have more features to check. This is precisely the analysis put forth in Poletto and Pollock (2004), who, based on an idea of Katz and Postal (1964) assume that *wh*-words are construed as existential operators in the scope of a disjunction operator, while *wh*-phrases do not contain any existential operator.

In this sense, this hypothesis reverses the idea that elements like ‘what’ are more prone to enter doubling and become more easily clitics because they are more “void” of content, WHAT has this behavior for the opposite reason, because it has more functional structure, as it has a complex internal operator structure.

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<sup>11</sup> This idea is not new in the literature, for instance it can be found in Cardinaletti and Starke’s (1999) treatment of pronominal forms.

<sup>12</sup> In the first stage of the development the in situ element is interpreted as having a null clitic companion, and then the null clitic is deleted at a later stage of development so that the in situ strategy becomes standard for all *wh*-items

#### 4 ■ NEGATIVE CONCORD

In this section I describe a case of doubling of a purely functional element, namely sentential negation. Following Zanuttini (1997) I assume that in the NIDS there are four functional projections where a negative morpheme can occur:

- (47) [NegP1 non [TP2 [NegP2 mia [TP2 [NegP3 nen [Asp perf. [Asp gen/progr. [NegP4 no]]]]]]]]]

The negative markers occurring in each position in the above structure are of different etymological type, I present the properties of each type in turn:

Elements located in NegP1 are always heads and often also display clitic properties, and are always in front of the inflected verb. In all dialects it is obligatory with postverbal negative quantifiers (sometimes also with preverbal negative quantifiers),<sup>13</sup> and it cannot occur with true imperative forms:

- (48) a. No sai. Cencenighe Agordino  
*(I) not know*  
 b. No 'l è lugà nogugn.  
*no the.is come nobody*  
 c. Nisun novien più casa mia. Venice  
*nobody notcomes more home my*  
 d. \*No va.  
*not go+imperative*

Elements occurring in NegP2 are also often phonologically reduced, but are probably weak pronouns, not clitics. Items occurring in this position originally indicated a small quantity, (they derive from the word meaning “step” ‘pa’, “crumble” ‘brisa’, “small sandwich” ‘mina/miga/minga’, and are generally located in front of the past participle. Negative concord is not obligatory but possible with postverbal negative quantifiers, and NegP2 elements can be used with true imperative forms:

- (49) a. Al sei bic. Livigno  
*I-it know not*  
 b. No l'è mina vegnù. Loreo  
*no the.is not come*  
 c. A n è mina riva nisun.  
*it notis not come nobody*  
 d. Magnelo mina.  
*eat-it not*

NegP3 originates from the element meaning “nothing” and is often located lower than adverbs like “already” but higher than “always”, it is always a specifier and can move to the SpecC position and be followed by a complementizer, it can occur with postverbal negative quantifiers (although with some restrictions) and although in several dialects it occurs in imperative clauses, in others it is substituted by a NegP4 (Zanuttini 1997):

- (50) a. A l'avia già nen volu 'ntlura.  
*he it.had already not wanted then*  
 'Already at that time he had not wanted to.'  
 b. A l'ha nen dine sempre tut.  
*he he.has not said-us always everything*

<sup>13</sup> Note incidentally that the case in which the preverbal negative marker cooccurs with a preverbal negative quantifier is also a counterexample to the empirical generalization that the head is always higher than the XP, in this case the negative quantifier precedes the negative marker.

'He did not always tell us all.'

- c. A parla nen cun gnun.  
*he speaks not with nobody*

Neg4 is the same morpheme that is used for pro-sentence negation, 'no', it is always a specifier, in the dialects where it is the only negative marker, it cannot occur with postverbal negative quantifiers (when used alone), and it can be used in imperative forms:

- (51) a. Su no. Milan  
*(I) know not*  
b. L'è rivà nisun.  
*it.is come nobody*  
c. Piof pu.  
*rains more*  
d. L'a mangià no.  
*he.has.eaten not*  
e. Vusa no!  
*shout+imp not*

The examples above show that each type of negation is found as the only sentential negative marker in several dialects, but in some dialects they can be combined with each other. The possible combinations found are the following:

- a) NegP1 is compatible with all other negation types:

- (52) a. a **n** al so **brisa**. Bologna (1)  
*I not it know not*  
b. I **ne** sà **nia**. S.Leonardo (Rr.)  
*I not know not*  
c. **No** credoche podiaparlar con elo **no**. Cembra  
*not believethat could talk to him not*

- b) NegP2 is also compatible with all other types of negation, more interestingly whenever it occurs with other negative markers NegP2 always has a presuppositional value, as already noted by Zanuttini (1997).

- (53) a. Fapa nen suli. (Zanuttini(1997:46)) Lanzo  
*do not not that*  
b. Nol lo ga mina fato nò. S.Anna (Ve)  
*not-be it has not done not*

- c) NegP3 and NegP4 are not found together.<sup>14</sup>

- d) As shown above NEgP4 can occur with NegP1 and NegP2, but whenever it does it instantiates Focus, as the intonation also attests.

Applying the analysis of doubling as checking of several functional features, we can hypothesize that negative elements can also encode presupposition and focus in addition to marking sentential negation and therefore the sentential negative marker can also have an internal structure with several FPs.<sup>15</sup>

If this view is correct, we can conclude that the splitting procedure can be adopted by purely functional XPs as negation as well, so the lexical part of the constituent does not

<sup>14</sup> The reason why the two negations do not cooccur has probably to do with the fact that NegP3 starts out from a lower position and then raises to NegP3 crossing the position of NegP4. NegP3 elements are in fact originally arguments, which are then turned into sentential negation by movement.

<sup>15</sup> That the negative marker has internal structure is already present in Pollock (1989) where he analyses French negation 'ne...pas' as a head and a specifier internal to the NegP.

really play a role in doubling, in fact it is not even necessary for a doubling procedure to be established.

## 5 ■ CONCLUSION

In this work I have explored the possibility of analyzing doubling as a general procedure for minimizing (re)-merge, hence a procedure, which, contrary to pied piping, moves outside the DP only the highest functional portion of an XP leaving the lower portion of the structure (including the lexical item) below. This procedure can be applied to all types of categories with more than one feature to check (including functional XPs), and in fact the literature reports cases of doubling not only of DPs and *wh*-items, but also of verbs and prepositions.

This accounts for the fact that doubling constructions are so pervasive in dialects: each category with at least two functional features to check in the IP or in the CP can be subject to the stripping procedure which originates doubling constructions. Moreover, this theory allows tripling, because stripping can apply more than once, and in fact cases of tripling are known:

- (54) a. Naneel ze ndà iu.  
*N. he is gone he*  
 b. Nol lo ga mina fato nò. S. Anna  
*not-beit has not done not*

(54a) is a case of tripling in the DP, where the clitic checks the case feature, the tonic pronoun the Focus feature and the lexical remnant the EPP feature in SpecT, (54b) is a case of tripling of the negative marker which checks Focus, Presupposition and the higher NegP.

Moreover, this analysis has the advantage of not requiring any special structure like a “big DP” in languages with doubling, which have exactly the same layering as languages with no doubling. This in turn means that complex XPs are not a peculiarity of doubling languages, all languages can have DPs endowed with more than one feature, only the splitting procedure, i.e. the first movement of the lower portion to a high position internal to the DP, is language-specific. But if doubling is related to the amount of pied piping a language allows, we should expect that languages disallowing doubling allow pied piping in other contexts, but it still remains unclear in which contexts this should be relevant. Moreover, is the amount of doubling/pied piping connected to other syntactic properties? Another side of the same coin is the problem of how the splitting and stripping procedure is restricted in order not to overgenerate wildly. It can clearly apply on head+XP as well as on XP+XP, but are all functional features subject to splitting or only some? This is an empirical question that cannot be solved here, but that must be taken into account in future research if the line of thought presented here is to be pursued.

## REFERENCES

- Belletti, A. (2006). ‘Extending Doubling to Non-lexical Domains: Complete vs. Partial Copying + Deletion and Related Reconstruction Issues.’ In P. Brandt & E. Fuss (eds.) *Form, Structure and Grammar. A Festschrift Presented to Günther Grewendorf on Occasion of His 60<sup>th</sup> Birthday*. *Studia Grammatica* 63. Akademie Verlag, Berlin. pp: 129-136.
- Benincà, P. & C. Poletto (2005). ‘On Some Descriptive Generalizations in Romance.’ In G. Cinque & R. Kayne (eds.) *The Oxford Handbook of Comparative Syntax*. Oxford University Press, Oxford New York. pp: 221-258.
- Bianchi, Valentina (2006). ‘Number agreement and event pluralization : a case study.’ In: *Phases of Interpretation*, M. Frascarelli (ed.). Berlin, Mouton de Gruyter.

- Cardinaletti, A. and M. Starke, (1999). 'The Typology of Structural Deficiency: On the Three Grammatical Classes.' In: van Riemsdijk, H., ed., *Clitics in the Languages of Europe*, vol. 8 of *Empirical Approaches to Language Typology*. Mouton de Gruyter, Berlin.
- Giusti, G. (1993). *La sintassi dei determinanti*. Unipress, Padova.
- — (2006). 'Parallels in Clausal and Nominal Periphery.' In: M.- Frascarelli (ed.) *Phases of Interpretation*. Studies in Generative Grammar 91. Mouton de Gruyter, Berlin. pp: 163-186.
- Kayne, R. (1994). *The Antisymmetry of Syntax*. Vol. 25 of *Linguistic Inquiry Monographs*. MIT Press, Cambridge, Mass.
- — (2004). *On parameters and on Principles of Pronunciation*. Ms. N.W.Y.
- Katz Jerrol J. and Paul M. Postal (1964). *An integrated theory of linguistic descriptions*. MIT Press Cambridge Ma
- Manzini, M.R. and L.M. Savoia (2005). *I dialetti italiani e romanci. Morfosintassi generativa*, vol. 1, Alessandria: Edizioni Dell'Orso.
- Munaro, N. (1999). *Sintagmi interrogativi nei dialetti italiani settentrionali*. Unipress, Padua.
- Obenauer, H.-G. (1994). *Aspects de la syntaxe A-barre. Effets d'intervention et mouvements des quantifieur*. Thèse de Doctorat d'Etat, Université de Paris VIII.
- — (2004). 'Nonstandard *wh*-questions and alternative checkers in Pagotto.' In: H.Lohnstein & S.Trissler (eds.) *The Syntax and Semantics of the Left Periphery*, Interface Explorations 9, Mouton de Gruyter, Berlin/New York, pp.343-383
- Poletto, C. (2000). *The higher functional field in the Northern Italian dialects*. Oxford University Press, New York.
- — (2006). 'Parallel Phases: a Study on the High and Low Left Periphery on Old Italian.' In: M.- Frascarelli (ed.) *Phases of Interpretation*. Studies in Generative Grammar 91. Mouton de Gruyter, Berlin. pp: 238-261.
- Poletto, C. & J.Y. Pollock (2004). 'On *wh*-clitics, *Wh*-doubling in French and some North Eastern Italian Dialects.', *Probus*, n. 16.2, 241-272.
- Pollock, J.-Y. (1989). 'Verb Movement, Universal Grammar, and the Structure of IP.' *Linguistic Inquiry*, 20, 365-424.
- Shlonsky, U. (1990). 'Pro in Hebrew Subject Inversion.' *Linguistic Inquiry*, 21:263-275.
- Sigurðsson, Halldór (2004) 'The Syntax of Person, Tense and speech features.' *Rivista di Linguistica/Italian Journal of Linguistics*, Vol. 16, N. 1, pp. 219-251.
- Tortora, Ch. (1997). 'I pronomi interrogative in Borgomanerese.' *Quaderni di Lavoro ASIS* 1.
- Uriagereka, J. (1995). 'Aspects in the Syntax of Clitic Placement in Western Romance.' *Linguistic Inquiry* 26:79-123.
- Zanuttini, R. (1997). *Negation and Clausal Structure: A Comparative Study of Romance Languages*. Oxford University Press, New York.
- — (2006). *Addressing the Addressee: Imperatives Subjects in English*. Manuscript, Georgetown University.