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Microvariation in Syntactic Doubling

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INVESTOR IN PEOPLE

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Part II Subject Doubling

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DOUBLING AS SPLITTING

Cecilia Poletto

ABSTRACT

In this chapter I would like to restrict my inquiry to those cases of doubling where the doubled elements do not display the same form and have different syntactic status as well. I will claim that these cases are to be analyzed differently from those in which the two occurrences are morphologically identical. As shown by Belletti (2005), inside the class of "non-identical" doubling the two elements can be both XPs or one an XP and one a head. I will further restrict my attention to these cases and show that this type of doubling can indeed be analyzed as cases of splitting of a constituent along the following mechanism: the lower portion of the constituent is moved to the highest specifier of the XP and then the (lower) remnant created is moved to a checking position inside the structure of the clause (to Case, Operator, etc.). I will deal with three examples. The first has to do with DP clitic doubling: I interpret clitics as belonging to a remnant checking a Case feature in IP. The second case is provided by wh-doubling, where the remnant containing a clitic wh-form is moved to a high wh-Operator position. The third case is Negation: here I propose that discontinuous negative markers are also instances of doubling obtained by splitting an originally complex NegP.

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1. INTRODUCTION

In this chapter 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.[1] 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.

Those cases of doubling where we see what looks like two heads (as for instance double complementizer, double subject clitics or double object clitics) are to be analyzed differently, and I do not think that the analysis I present here is adequate for those cases. So I restrict my claim to cases where at least one of the two elements is a maximal projection.

Doubling has been considered in the recent literature on traces (see Nunes 2004 among others), which considers them as copies of the same item, as a strong argument in favor 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. Without additional assumptions this predicts that, given that both copies are identical, the two forms spelled out will be identical as well. As it is well known that a lot of cases of doubling do not have identical doublers, something more has to be said. This is precisely the type of doubling I am interested in, as it seems to pose a problem for a theory which views doubling as multiple spell-out of copies of the same chain, 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) while the other is always an XP.

One view in order to solve the problem would be the one taken in Barbiers (2006) who assumes that higher copies can spell-out only part of the features of the chain, and this would explain the morphological differences between the

[1]By non-standard language I intend here dialects like Piedmontese or Lombard, but also Friulian, Central Rhaetoromance or Franco-Provençal, which are considered by the Italian state (and by many linguists) as independent languages.

two doublers. In this chapter I will take a slightly different view and propose that non-identical doubling should be analyzed along the lines of a different tradition, the one sustained by Uriagereka (1995), Kayne (1994) and Belletti (2006) (among others), who propose that the two elements involved originate inside the 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 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. It is however possible to analyze also the structures in (2) and (3) along the same lines, although I will not attempt to do this here.[2]

What I will not deal with extensively in this chapter 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 "big DP" is necessary to obtain doubling. Rather, the mechanism of doubling has to do with the amount of pied piping allowed and with the procedure of splitting the nominal expression (NE). 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 that must be involved in languages allowing doubling.

Before starting with the description of the empirical domain I use, I briefly point out a methodological issue. In this chapter I attempt to formulate implicational scales that do not describe what is possible in a single dialect or in a set of dialects, but the doubling cases that are always found in any dialect once a given type of doubling is present (for instance in dialect X if doubling of a DP is found then doubling with pronouns is always found). This type of data is generally not used in generative studies, which usually concentrate on what is grammatical and what is not, and not on "chains of phenomena". What I use here is a set of comparisons of sets of grammaticality judgements for each dialect.

[2]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 by normative grammarians in their language planning as something redundant.

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 endowed with strong features 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 chapter.[3]

2. DP DOUBLING AND FEATURE STRIPPING

In this section I report and extend some observations that I made in Poletto (2000) concerning the doubling of subjects. 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 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 (Veneto dialects like Arsiero, Padova, Venezia)
Pronouns, DPs (Trentino dialects like Rovereto, Lombard dialects like Lecco)
Pronouns, DPs, QPs (Lombard dialects like Milan)
Pronouns, DPs, QPs, Variables[4] (Friulian and Piedmontese dialects)[5]

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) a. Ti *(te) parli massa e luri *(i) parla
you you speak too-much and they they speak
massa poco.
too little
You talk too much and they talk too little. (Arsiero (VI))[6]

b. Nisun (*el) me capisse.
Nobody he me understands

c. El mario (*el) magna el pom.
the boy he eats the apple

MISSING EXAMPLES

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:[7]

(7) a. Lee *(la) leeuc un liber de storia. (Lecco (CO))
she she reads a book of history
She is reading a history book.

b. El bagai *(el) mangia el pom.
the boy (he) eats the apple
The boy is eating the apple.

c. Nisogn (*el) me capess.
nobody (he) me understands
Nobody understands me.

d. Chi (*al) mangia i patati?
who (he) eats the potatoes
Who is eating potatoes?

[3]As a cautionary note I should add that all the data presented here come from the ASIS database and complete paradigms are not always available. When this is the case I will mention this. Here I use examples from subject clitic doubling but indirect object clitics are also doubled with the same type of scale in the same area. Direct object clitic doubling depends on the presence of a preposition in front of the DP, and it is not found in the Northern domain but only in the Southern one, for which the database has no systematic data yet. Concerning the examples, I have translated subject clitics with the corresponding English pronoun. Each dialect is mentioned with the name of the village or city in italics and the standard acronym of the province, a list of which is provided here

BG, Bergamo; BL, Belluno; BZ, Bolzano; CO, Como; GE, Genova; NO, Novara; RO, Rovigo; SO, Sondrio; TN, Trento; TO, Torino; VE, Venezia; VI, Vicenza; VR, Verona.

The cities that are already the capital of a province with the same name do not have the abbreviation

[4]Here only bare quantifiers and bare wh-items are considered. As for complex wh-phrases see later, for non-bare quantifiers asthey are not present in the ASIS database.

[5]This generalization concerning areas is not precise, as not all dialects of a given region belong to the same type.

[6]Here I quote the name of each village or city with the indication of the province, which helps to get an idea of the area, in the case of big cities which are already provinces, there is no indication close to the noun.

[7]This system is widespread in the Trentino dialects and in Romagna and Emilia as well.

The third stage is the one in which tonic pronouns, DPs and quantifiers are doubled but not variables:[8]

(8) a. Te gh'e[9] de vegnì anche ti. (Milan)
you have to come also you
You have to come along as well.

b. El fio el mangia 1 pom.
the boy he eats an apple
The boy is eating an apple.

c. Un quidun el riverà in ritart.
a somebody he will-arrive late
Somebody will arrive late.

d. I don che (*i) neten i scal in andà via.
the women that they clean the stairs have gone away
The women who clean the stairs have gone.

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. Ta ghe de gnì a te. (Malonno (BG))
you have to come also you
You have to come along as well.

b. Al pi al mangia al pom.
the boy he eats an apple
The boy is eating the apple.

c. Vargu al rierà n ritardo.
a somebody he will-arrive late
Somebody will arrive late.

d. Le fomne che le neta le scale e e ndade via.
the women that they clean the stairs they have gone away
The women who clean the stairs have gone.

This type of data is rarely taken into account, because implicational scales are not easily built into a generative grammar. However, they 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

[8]This type of system is widespread in Lombardy, in the East as well as in the Western and Northern varieties.

[9]The verb *have* (also in its modal version corresponding to English "have to") has a locative clitic left adjoined to it, which however is a pure expletive and does not have any deictic meaning.

obviously "more compatible" with other definite elements. However, in many dialects the clitic is also compatible with quantifiers and wh-variables, therefore it must have somehow lost its definiteness feature. 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]

(10) a. TI te magni sempre. (Venice)
you you eat always
YOU eat all the time.

b. *TI magni sempre.
you always eat

c. Lu (el) magna.
he (he) eats
HE is eating.

d. Nane (el) magna.
N. (he) eats
N. is eating.

e. Nisun (*el) magna.
Nobody (he) eats
No one is eating.

Given that all pronouns are definite, the explanation provided earlier 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
it is necessary that everybody they make silente (Ticino, CH))
Everybody must be silent.

b. Quaidun (*al) telefunarà al prufessur
somebody he will-phone the teacher
Somebody will phone the teacher.

[10]As we will see later, the basic intuition I develop in order to explain the implicational hierarchy described here is related to the amount of morphological distinctions which reflect the amount of internal structure each type of nominal element has. It is surely true that second person pronouns contain more internal structure than third person pronouns, (cf. among others Harley and Ritter (2002) and Benincà and Poletto (2005)). According to this view one would expect second person plural and first person plural to be doubled much more frequently than second person singular, because they are even more complex in terms of feature composition. However, this is not the case. On the contrary first and second person plural generally do not present subject clitics inside IP at all and are pro drop. The only type of subject clitic found with first and second person plural are subject clitics located in the CP layer (with the notable exception of Florentine *vu* "you") and behave totally differently (see Poletto (2000) for a discussion of this).

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, in the opposite way has only partially to do with the feature [definiteness]. I think rather that doubling occurs more frequently with those elements that have more functional information. The more an element has a complex feature composition (which is of semantic origin, but is reflected into its syntax, i.e., in the number of internal functional projections that contain a feature and in its morphological makeup) the more probable doubling will be. This means that the implicational scale is a probability scale: the more an element has features, the more it will be prone to split and double. For instance, DPs are more prone to double than QPs because they generally have more syntactic projections in their internal composition, and these syntactic projections are visible in their morphological makeup in terms of distinctions for gender, number, etc. The reason why a given dialect "cuts" at a certain point of the scale is therefore related to the fact that it has a strong feature (which is often also encoded in the morphology, though not always) in the internal projection where the internal movement occurs, as we will see later.

This means that the elements at the beginning of the implicational scale (pronouns) must have more FPs containing a strong feature than those at the end of the scale. Is this really true? Can we indeed identify a distinction in terms of strong features for each of the elements located in the implicational scale?

Let us start by asking what is the feature that makes tonic pronouns the type of elements at the top of the implicational scale. One plausible candidate might surely be case: it is generally true that even languages that have lost case in the DP system, often still maintain it in the pronominal system (one example is English, or Italian). However, tonic pronouns are only in some dialects (for instance Friulian) marked for case, i.e., Friulian displays a different morphology for subject tonic pronouns and object tonic pronouns. This is not true across the whole NI domain, where the majority of the dialects do not display case distinctions for either DPs or tonic pronouns.

Inside the class of pronouns, the second person pronoun must be more complex in its feature composition than third person, which is generally also assumed to be the default pronoun (see Benincà and Poletto (2005) on the feature composition of person pronouns): first and second person pronouns are both probably marked with a [+participant] or [+deictic] feature, contrary to third person pronouns. This is the feature involved in the distinction between second person pronouns and third person pronouns seen earlier.[11]

Moreover, all tonic pronouns can only occur in NIDs (Northern Italian dialects) as Topics or contrastive Foci, otherwise a clitic form is the only possible form. No neutral sentence can contain a tonic pronoun, because this must either be interpreted as a Topic or as a contrastive Focus. Hence, all tonic pronouns

[11]First person singular pronouns generally do not have a subject clitic of the IP type, so the prediction that they should go with second person instead of third person is not testable.

must contain a left peripheral feature in their internal composition (either Focus or Topic). This is not the case for DPs, which need not be topicalized or contrastively focalized and as such can occur in neutral sentences. DPs do not have a [+participant] feature either. However, DPs clearly have more features than quantifiers, because they are all endowed with gender.[12] Quantifiers in the NIDs do 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. However, to my knowledge there is no dialect where any quantifier shows gender:[13]

(12) a. Tuc i panseva. (Albosaggia (CO))
everybody they thought ...
Everybody thought ...

b. Vargù al ruarà tardi.
somebody he will-arrive late
Somebody will arrive late.

(13) a. Tuti i pensau che ... (Arzeno (GE))
everybody they thought that ...
Everybody thought that ...

b. Quarchedun u telefunià au prufesu.
somebody he will-phone the teacher
Somebody will phone the teacher.

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.[14] In any case, the distinction between universal and existential quantifiers has to be drawn in terms of features.

The type of elements that are located at the bottom of the scale are wh-items. If the implicational hierarchy described earlier has to be explained in terms of

[12]There is a discussion in the literature whether gender is a feature of the noun or of the determiner. Here I do not take a stand with respect to this, as I consider the whole DP structure, and what is necessary for the DP is to have gender, irrespectively from its location.

[13]An anonymous reviewer points out that "expanded" quantified expressions such as "no girl" should pattern with DPs and not with QPs. Unfortunately the prediction is not testable as there are not such data in the database.

[14]Notice that tonic pronouns and DPs are also [+specific], so it is not the case that quantifiers simply have different features with respect to DPs, they indeed lack features that are present at the higher steps of the implicational scale.

feature specifications, the fact that wh-items are less prone to be doubled than other types of NE is straightforward. In the Romance languages the morphological make-up of wh-items is extremely reduced, as they do not have any participant, topic/focus, case, person, gender or number; the only distinction wh-items display is one in terms of [+/– human] or it concerns the role the wh-item has in the clause (location, manner, time and reason). In this case, the feature lacking with respect to quantifiers is number (along with all the others for pronouns).

We can thus rewrite the scale seen earlier in (5) assigning to each type of element a feature which is the one relevant for its position in the doubling scale.

(14)

Table 1: Doubling scale.

Second person pronouns	Third person pronouns	DPs	QPs	Variables
Participant				
Topic/ focus	Topic/ focus			
Gender	Gender	Gender		
Number	Number	Number	Number	

Reading the rows we obtain the feature relevant for each stage of the scale, reading the columns we obtain the feature composition of each nominal element. As (14) shows, the elements at the bottom of the scale have less features than the elements located higher, variables have none.

If we assume that it is the number of strong features (in the minimalist sense that they are visible to syntactic operations) that matters in doubling phenomena, we have not yet accounted for the probabilistic flavor of the implicational scale in (5).

Let us start by assuming that nominal expressions (NE)[15] morphologically marked for a given feature have a syntactic projection corresponding to these features in their internal structure, in the NE where this feature is not present the corresponding FP is either inert or not even projected.[16] This internal projection has features which must be checked against the corresponding projection in the IP layer,[17] therefore the NE has to move to the Specifier of the relevant FP in the IP.

[15]I use the term nominal expression to include pronouns, DPs, QPs and wh-items.

[16]The carthographic approach of Rizzi (1997) and Cinque (1999) which this chapter assumes does not really distinguish between these two options. It is not clear whether there is any difference in saying that the projection is not there or is not active. Schweikert (2005) has shown that even FPs that do not contain any feature are relevant for the interpretation, but I will not go into this very complex matter here, as it deserves a treatment on its own.

[17]The assumption that the IP structure contains a NumberP is quite widespread (see among others Shlonsky 1990; Poletto 2000; 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 and Safir (2004), Sigurdsson (2004, 2007).

In other words, not only does Nominative case undergo the probe–goal procedure, other features can also be checked either through movement in the syntax to the relevant node in the IP or through the "Agree" mechanism.

Suppose that an NE has more than one feature, say F1 and F2,[18] to check. The checking process can proceed through the simple Agree rule, in which case there is no movement in the syntax, or through movement. If this is done through movement, the whole DP can be remerged twice in the Spec of F1 and then F2. Alternatively, we can move only the relevant part of the NE to separately check F1 through a (clitic) piece of the DP, the one carrying F1, and F2 through the remnant (XP) piece, which carries the F2 feature. The more features there are to check, the more probable it becomes that some movement procedure occurs, as this is one of the ways checking is achieved.

Movement can pied pipe the whole constituent, and in fact it does in some languages that do not display doubling. In other languages, instead of remerging the whole NE, only the subpart containing the relevant information is stripped from the DP and remerged. Hence, the probabilistic flavor of the scale is due to two factors: (a) the more features a given element is endowed with, the more checking procedures have to be applied, hence the more movement becomes probable and (b) when movement occurs, lack of pied piping can manifest itself in stripping the part of the DP with the relevant feature leaving a remnant. How does this stripping procedure come about? In what follows I discuss the technical details of this.

The mechanism ensuring that only the relevant functional projection of the NE is moved is the following: Kayne (1975) and Uriagereka (1995) in their work propose that the small DP is located in the Specifier position of a big DP the head of which contains the clitic. Here I will try to preserve the idea that the two pieces start as a whole complex, but I will try a different technical execution. Let us assume that in the Romance languages, clitics are located in the head of the Case projection (KP, following Giusti's (1993) terminology and proposal) which in turn takes as its complement a set of functional projections that for the moment I label DP (but see later for a more detailed structure of what DP stands for), as illustrated in (15a):

(15) a. $[_{KP}\ [_{K^0}$ clitic] [DP]]]

b. $[_{XP}$ DP $[_{X^0}\ [_{KP}\ [_{K^0}$ clitic] [~~DP~~]]]]]

(15b) represents movement of the internal part of the NE, namely DP to the edge of the DP phase, here labeled SpecXP. The DP portion of the NE is then moved to IP leaving a remnant behind which now contains only the clitic as lexical material. The DP moves then to the checking position it has features for and the remnant containing KP with the clitic moves independently to the case

[18]A case we will see further on is for instance left dislocation, where the DP checks case as well as Topic features.

position. Suppose (15) is applied to subjects: the subject DP is always located higher than the position where Nominative case is assigned, which is the position where the subject clitic lands.

(16) $[_{SubjP}$ DP.... $[_{NomP}$ $[_{KP}$ $[_{K^0}$ clitic [~~DP~~]]]$[_{\varphi P}$ ...]]]

In Poletto (2000) I proposed that subjects in the NIDs are never located in the usual SpecIP position, but much higher in the structure (in a dedicated CP position located before low complementizers in FinP but lower than high complementizers in ForceP, see also Paoli (2003) for an extensive description of double complementizer constructions which prove this point). Several authors made a similar proposal (cf. among others Cardinaletti (2004) and Rizzi and Shlonsky (2005)), locating the higher position of the subject in a Topic-like position inside IP which is assumed to contain EPP features (which are therefore dissociated from Nominative case in terms of position). To the present analysis, the exact location in IP or CP of the higher position of the subject is irrelevant.

Notice that this analysis predicts that the two doubles are never structurally identical. One contains the KP, while the other only contains the lower portion of the DP internal structure including the lexical head.[19]

In the case of objects the same type of derivation can be applied modulo the target positions of the DP and of the KP, which is in this case Accusative and not Nominative.

According to this view, clitic movement is not movement of a head, but of a remnant XP, which is a welcome result in the framework of recent analyses proposed by Cinque (2006). Second, we are able to maintain the idea that syntactic structure is universal (see Cinque 1999). 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. What is then the property that distinguishes doubling languages from non-doubling languages? I think that in doubling languages, it is possible to have movement of a part of the NE containing the lexical noun to the edge of the DP phase and then further into the sentence structure, either to IP or to CP. In other words, the distinction between doubling and non-doubling languages is a property of the highest Specifier of the NE, which attracts part of its internal structure only in doubling languages with a movement that looks similar to V2 in the sentential domain. Thus, the only difference between doubling and non-doubling languages lies in the splitting of part of the NE as the result of movement of the lower portion of the DP to a higher position internal to the DP followed by a "stripping" procedure of this part from the

[19]An anonymous reviewer points out that extracting the lower DP from XP and moving it to IP is a violation of the subject island condition. Notice however that this condition has anyhow to be parametrized, as Boskovic (2005) has shown that the subject island condition is not valid in the Slavic languages. Moreover, one could argue that the edge of the DP phase in the doubling languages is transparent to movement even if it is a left branch.

highest specifier of the NE.[20] 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.

If head movement does not exist, and a clitic also moves as a remnant, the lower DP in (15) moves to the Specifier of a projection immediately above KP containing the clitic, as in (15a,b). This process creates the remnant KP in (15) containing only the clitic. Once the DP has moved out to IP, the whole XP containing the remnant with the clitic is then moved to the appropriate case position in the IP layer.[21]

Suppose for example that you need to check the Nominative case feature in NominativeP (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:[22]

(17) a. To nono el vien. (Venice)
your grandfather he comes
Your grandfather is coming.

b. I ga visto to nono.
they have seen your grandfather
They have seen your grandfather.

(18) (To nono), i lo ga visto.
(your grandfather) they him have seen
They have seen your grandfather.

As shown in (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 subject clitic doubling (17a) and left dislocation (18) 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 (see Barbiers, Koeneman and Lekakou (2008) for an analysis of this generalization). In this case the DP "*to nono*" is located higher in the structure than its clitic counterpart *el*. This is true of all left dislocations, not only that of the subject. The reason why this is so is the following. The procedure of stripping away a functional portion from an XP is to check functional features, which are always located higher in the structure than

[20]This analysis predicts that also in non-doubling languages one should find cases of doubling where the two elements are close to each other. Bulgarian seems to be such a case, where we see a clitic and a tonic form which however form a constituent.

[21]On the idea that KP is located on top of a DP see Giusti (1993, 2006), Polo (2005).

[22]The question whether this analysis is only valid for NIDs or is extendable to other languages is an empirical one. As such a work like the one presented here presupposes a big set of data to create the generalizations illustrated earlier, I think it is more prudent here to suspend the question until we have a more solid set of data for other doubling languages as we have for the ones examined here.

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 DP portion of the XP still has features (which should be located lower than case in its internal structure) to check, nothing prevents it from moving independently to check the remaining feature and end up in a higher node with respect to its functional double. Further interesting counterexamples to this generalization are cases of doubling of indirect objects like the following:

(19) A chi ti ghe ga ditto cussì? (Venice)
to whom you to-him have said so
To whom did you talk like that?

(20) A IU ghe go ditto cussì. (Venice)
to him to-him have said so
I talked like that TO HIM.

Here we see a wh-item *a chi* "to whom" doubled by the clitic *ghe* "to-him" that is higher than the clitic itself. The same is true of all focalizations in the CP layer of Dative pronouns which also obligatorily require a doubling clitic in the Veneto dialects, as shown in (20). Hence, the feature that triggers movement of the DP can either be EPP (17a), Topic (18), Focus (20) or wh- features (19), which are located in the CP or in any case higher than TP. This is exactly what happens in a structure like (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.[23] 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 the SpecEPP position), contrastively focussed in the CP, left or right dislocated or even questioned, and thus occupy the relevant positions. Subject clitics are the head of KP and as such they only target the Case position.

Let us then examine a case of left peripheral movement of the DP, namely topicalization (from now on Left Dislocation).[24] 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 resumptive clitic is there. In this view, the clitic is the part of the NE and checks its case feature.

An apparent counterexample to the assumption that the two doubles never copy the same feature is provided by number and gender. When doubling occurs, these features are expressed both on the DP and on the clitic. Note,

[23]As we will see later 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.

[24]I follow here Rizzi's terminology who talks about Left Dislocation but labels the corresponding projection TopP.

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 (see again Giusti 1993 on agreement spreading inside the DP structure).[25]

If this hypothesis is correct, doubling depends on how many features have to be checked in the functional structure: the more there are, the more probable movement and splitting become.

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

(21) $[_{FP1}\ [_{FP2}\ [_{FP3}$ [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.[26] 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 F1 and F3 leaving F2 behind. In other words, we have to assume that the ordinary restrictions on moving a proper sub-tree apply. The reason why we have the implicational scale described earlier is due to the layering of the functional projections itself, hence Topic and Focus (which correspond to the left periphery internal to the DP) will be higher than Number and Gender (which correspond to its IP). As for the mechanism that selects the relevant projection moved, this is the first strong projection after the higher strong one: if we have both Case and Topic with strong features to check, given that Case is higher than Topic, it will be Topic which moves to create the remnant containing Case (and the trace of TopicP) which then moves to the relevant Case projection in the IP of the clause. The same applies in other cases where the two features are Case and Number, here it will be Number that moves creating the remnant which contains its trace. Hence, this analysis does not need any special rule, it makes use of restrictions that are already present in the grammar, as remnant movement, the fact that we always move proper subtrees, and that the layering of the FPs is what it is (all the recent work on DP assumes that Case is the highest projection and that if there are Topic and Focus projections they are located immediately below Case, while Number and Gender are lower, see among others Giusti (2006).

[25]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 *s* of the genitive and masculine singular in German are residues of this process.

[26]See Cardinaletti and Starke (1999) for a similar idea in deriving clitic, weak and tonic pronouns. Giorgi and Pianesi (1997) also assume a similar condition of feature scattering, which has to apply to proper subset of features.

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 and left periphery movements (topicalizations, focalizations and wh-movement) 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 later). 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, the prediction is that 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 and precisely the highest one. This prediction seems to be borne out in the case we have seen earlier, but it clearly requires further testing.

A closer look at Left Dislocation structures provides further empirical support. As mentioned earlier, 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 in the diachronic development of NIDs. Notice also that all Romance languages allow or require a clitic in Left dislocations even when they do not in any other construction. More specifically Vanelli (1987) examines the diachronic development of subject clitics and observes that in the 16th century subject clitics do not double NE of any type in their argumental position. However, Left Dislocations is the only context in which doubling can occur. Furthermore, these are (along with non-finite clauses) precisely the contexts in which tonic pronouns, which in this period still have a Nominative form different from the Accusative one, can occur in the LD position in oblique Accusative case instead of their Nominative form. In later texts, the oblique form then spreads over to other constructions, leading to the disappearance of a case distinction on tonic pronouns and to a situation where only clitics are marked for case, as the one found nowadays in the majority of the dialects.

Why should this be so? As far as I know nobody has up to now ever tried to explain 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 splitting is correct, we expect that if doubling applies, it will strip away the Case layer (KP) from the rest of the NE, Case being the highest functional feature requiring checking realized as an independent syntactic projection. Remember that the splitting procedure occurs as a movement of the lower portion of the NE

followed by remnant movement of KP with the clitic inside to the Case position in IP. The category moved to create the remnant has the feature located immediately lower than Case, namely Topic, which is exactly the feature checked by Left Dislocation in the CP.[27] This is precisely what happens according to Vanelli in the evolution of the NIDs: tonic pronouns lose their case feature in Left dislocation position and clitic pronouns occur precisely in this case.

Furthermore, only the clitic has overt case morphology distinguishing Nominative, Accusative, Dative and Genitive, while NEs do not.[28] We can thus restate (15) and (16) rendering more precise the label DP, which is in fact only a cover term for a number of functional projections inside the structure of the NE. After KP we have, on a parallel with the structure of the clause, a Topic layer followed by a Focus layer, which is then followed by other functional projections corresponding to the IP in sentence structure [29]:

(22) $[_{KP}\ [_{K^0}$ clitic $[_{TopicP}\ [_{FocusP}\ [_{FP}\ [_{NP}]]]]]]$

(23) $[_{XP}\ [_{TopicP}\ [_{FocusP}\ [_{FP}\ [_{NP}]]]]\ [_{X^0}\ [_{KP}\ [_{K^0}$ clitic $\sout{[_{TopicP}\ [_{FocusP}\ [_{FP}\ [_{NP}]]]]}]]]]]$

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 containing the clitic pronoun 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. The TopicP containing the internal part of the NE (including NP) bypasses 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.[30]

The other cases of doubling seen under the implicational scale earlier can all be treated in the same way. They are the result of a first movement of the lower portion of the nominal structure to the highest specifier, followed by remnant movement of the clitic to a projection in the IP.

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[27] See Giusti (2006) and Poletto (2006) for evidence that the DP in Romance has an internal active left periphery

[28] In the Romance languages the DP can be preceded by a preposition, but has never case on its own. I assume here Kayne's (2002) treatment of prepositions as higher functional heads requiring the movement of the DP in their specifier (and subsequent movement of the preposition itself)

[29] Notice that if the clitic is the only element occurring, we could hypothesize along the lines of Sportiche (1996) there clitics have a null pro counterpart which moves independently. This is expected given the view I take on wh-*in-situ* being a null version of wh-doubling with a null clitic. It is expected that also the phrasal doubler can be null.

[30] The same type of analysis can be adopted for the Focus and wh- examples of indirect objects seen earlier, modulo the position of the clitic, which is a position for dative case and the position of the XP in the left periphery, which is not a Topic but a Focus or a wh-item.

Suppose the nominal structure has the following internal layering lower than the internal left periphery seen earlier, with Gender and Number corresponding the the IP area of the clause:

(24) $[_{XP}\ [_{KP}\ [_{K^{\circ}}$ clitic $[_{Deixis}\ [_{Addressee}\ [_{Speaker}\ [_{TopicP}\ [_{FocusP}\ [_{GenderP}\ [_{Number}\ [_{NP}]]]]]]]]]]$

We can assume that any of these projections can in principle be moved higher than KP creating the remnant containing the clitic. As seen earlier, if we move TopicP, this constituent will have to move to the left periphery of the clause to a Left Dislocation position: tonic pronouns in the NIDs, as well as in standard Italian and in general in all Romance languages which have clitics, are used only when they are either Topic or Focus. Therefore, doubling of tonic pronouns is similar to doubling of left dislocated items and requires movement of the Topic of Focus phrase higher than KP.

We could also speculate that the reason why second person pronouns are doubled more easily than third person is that they have left peripheral positions corresponding to Deixis and Addressee which are active and have to check corresponding projections in the left periphery of the clause (see Sigurdsson 2004, 2007 for the assumption that Person is realized in the CP layer).

Definite DPs have Gender and Number and this is the category that moves to SpecXP creating the remnant. In the case of Quantifiers, the projection moving to SpecXP is Number and for wh-items it is wh-.

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 splitting hypothesis for non-identical doubling is correct. A good candidate is wh-doubling, which also occurs in various NIDs.

(25) a. S' a-lo fat che? (Illasi (VR))
what has-he done what?
What did he do?

b. Ndo e-lo ndat endoe?
where is-he gone where?
Where did he go?

[31]Another type of doubling is similar to the one between a full pronoun and a DP discussed by Belletti (2006). Munaro (1999) defines this second type of doubling as operator doubling, as one element is always *che* (*that/what*), while the other can be WHO, WHAT, WHICH X, or HOW MANY X. Similar cases probably occur in the Germanic languages, although I do not make any claim for those here.

As extensively discussed in Poletto and Pollock (2004), one type of wh-doubling is similar to DP clitic doubling because one of the two doubles has indeed clitic properties, while the other is an XP.[31] 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 in another position within the sentence. Cases like (25) also display the property of DP doubling noted earlier, 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:

(26) a. *Che a-lo fat sa? (Illasi (VR))
what has-he done what
What did he do?

b. *Ngont fet andà ngo? (Monno (BS))
where do-you go where
Where did he go?

Moreover, the distribution of wh-doubling of this type can also be described as an implicational scale similar to the one in (5):[32]

(27) If only one *wh-* behaves like a clitic it is either *what* or *where*.

(28) 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/or *how* in a language implies that both *where* and *what* also behave as such.

(29) The *wh*-element corresponding to *why* never behaves as a clitic, and is always expressed by a compound[33]

(30) What/where who/how *why/*which X
→ doubling

[32]Among the authors who made this observation see Poletto (2000), Nunez (2004). The type of doubling discussed by Fanselow and Cavar (2001) is not amenable to the analysis I present here.

[33]While I think that the generalization on WHY is quite robust, I do not know whether the generalization on wh-phrases is simply due to lack of data. Munaro (1999) observes cases of doubling for wh-phrases, although of a different type, which I do not analyze here, namely cases like the ones formalized by Belletti (see Introduction earlier) as having two phrasal doublers. The same type of doubling seems to be possible in German dialects, as pointed out to me by an anonymous reviewer. So it remains to be understood whether the lack of clitic doubling with complex wh-phrases is really intrinsic to the system or a simple chance due to the limited set of data we have. In Poletto and Pollock (2004) we hypothesize that this lack is due to the fact that wh-phrases do not have the double operator structure that wh-words have, but a simple operator followed by a DP structure.

Doubling distributes according to the type of wh-pronouns: if a dialect has doubling with the wh-item WHO, it has doubling with WHAT and WHERE, if it has doubling with HOW it also has doubling with WHAT and WHERE. 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 (VR):

Old Generation

(31) *Ci a magnà ci, la me torta?
who has eaten who the my cake
Who ate my cake?

(32) *Ci alo invidà ci?
whom has-he invited whom
Whom did he invite?

(33) Sa alo magnà che?
what has-he eaten what?
What did he eat?

(34) *Ndo valo (a)ndoe?
where goes-he where?
Where did he go?

Young Generation

(35) Ci a magnà ci, la me torta?
who has eaten who the my cake?
Who ate my cake?

(36) Ci alo invidà ci?
whom has-he invited whom
Whom did he invite?

(37) Sa alo magnà che?
what has-he eaten what
What did he eat?

(38) Ndo valo (a)ndoe?
where goes-he where?
Where did he go?

(39) a. *Parché e-lo partio parché?
why is-he left why
Why did he leave?

b. *E-lo partio parché.
is-he gone why
Why did he leave?

c. *Che elo partio che tozato?
what is-he gone which boy
Which boy has gone?

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[34]:

(40) Me tal fet là cumè? (Bormio Superiore (Ticino, CH))
how you-it do there how
How do you cook it?

(41) *Quan ta l vedat quand?
when you it see when
When will you see him?

(42) *Parché ta vet via parché?
why you go away why
Why are you going?

As extensively discussed in Benincà and Poletto (2005), only some wh-items can undergo doubling, not all of them. The wh-items that can undergo doubling are also those which allow wh-*in-situ* or have a double paradigm of wh-pronouns with a clitic and a tonic series.

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.

(43) a. Kus tal ʃerki? (Borgomanero (NO))
what you look-for
What are you looking for?

b. *Tal ʃerki kus?
you look-for what

c. Tal ʃerki kwe?
you look-for what

d. *kwe tal ʃerki?
what you look-for

[34] The same dialect also allows doubling of the direct object and of the locative wh-item, but not of the subject wh *chi*.

(i) Indua tal metat induè?
where you-it put where
Where are you going to put it?

(ii) Sa ta mangiat cusè?
what you eat what
What are you eating?

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.[35]

(44) a. *Ché a-tu fat? (Tignes d'Alpago (BL))
what have-you done
What have you done? (Munaro 1999:3.62)

b. A-tu fat ché?
have-you done what
What did you do?

(45) a. *Chi laore-lo?
who works-he
Who is working?

b. E-lo chi che laora?
is-he who that works
Who is working?

(46) a. Va-lo andè?
goes-he where
Where is he going?

b. ??Andè va-lo?
where goes-he

(47) a. Se ciame-lo comè?
himself calls-he how
What is his name?

b. ??Come se ciame-lo?
how himself calls-he

(48) 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 borsa in che botega?
have-you bought this bag in which shop
In which shop did you buy this bag?

No dialect that has wh-*in-situ* with subject clitic inversion (as in the examples earlier (44b), (46a) and (47a) applies this strategy to other wh-items, as can be seen from the ungrammaticality of (48b).

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. They start from

[35]This dialect has gone through a phase where it had wh-doubling, now it only has wh-*in-situ*. For an analysis of wh-*in-situ* as covert wh doubling with a null clitic see Poletto and Pollock (2004), where it is shown that the behaviour of wh-*in-situ* and wh doubling is the same with respect to a set of phenomena (subject clitic inversion, lack of embedding, etc.) and as such they have to be treated alike.

the observation that wh-doubling and wh-*in-situ* have a lot of properties in common (they are both dependent on subject clitic inversion, they occur with the same set of wh-items and are excluded with the same set of wh-items). Given that, they analyze the wh-items that are *in situ* as having a null clitic counterpart similar to the doubling wh-items which is located in the same structural position where the clitic part of the doubling wh-item is moved. The (either null or lexically realized) clitic is considered part of the complex structure of the wh-item itself and then the two elements are independently moved as I assume here.[36] 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 only one of the two pieces or both. So we can have either a visible clitic with a silent XP, or a visible XP part with a silent clitic or both clitic and XP can be spelled out, in which case we have overt doubling. The following examples illustrate the point:

(49) a. (che) fe-f fa (què) ades? (Monno (BS))
what do-you what now
What are you going to do now?

b. (ngo) fet andà (ngont)?
where do-you go where
Where are you going?

c. (ch) e-l (chi) che maja le patate?
what is-he who that eats the potatoes
Who is eating potatoes?

The point I intend to make concerns the diachronic origin of wh-*in-situ* and wh-doubling. Apparently doubling starts out in the environment of non-standard questions as defined by Obenauer (1994, 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 the structure of the NE contains strong functional projections which require checking in the sentence structure. The idea that the structure of NEs parallels the structure of the clause and that movement is required for checking provides an explanation for

[36]Munaro (1999) notes that languages that develop wh-*in-situ* of the type described earlier 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 implicational scales seen earlier. The more functional features there are to check, the more doubling becomes probable.[37]

We can also hypothesize that doubling (hence, stripping) phenomena are found as a (probably possible though not necessary) intermediate step towards the loss of movement of the entire NE to a given checking position. Stripping away and moving only a smaller portion of a bigger constituent is indeed a stage toward not moving the whole XP at all (and checking features simply by virtue of the operation "Agree"). Wh-doubling, which so neatly behaves like wh-*in-situ*, seems to be a step which dialects undergo before losing wh-movement entirely. 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.[38]

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, therefore wh-words are expected to display doubling more often, as they have more functional features to check. This is precisely the analysis put forth in Poletto and Pollock (2004), who, basing 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 (see Obenauer 1994, 2004; Barbiers, Koeneman and Lekakou (2008) on this).

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

[37]This idea is not new in the literature, for instance it can be found in Cardinaletti and Starke's (1999) treatment of pronominal forms.

[38]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.

there are four functional projections where a negative morpheme can occur:

(50) [$_{NegP1}$ 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 a 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. They are always in front of the inflected verb. In all dialects they are obligatory with postverbal negative quantifiers (sometimes also with preverbal negative quantifiers).[39] They cannot occur with true imperative forms:

(51) a. No sai. (Cencenighe Agordino (BL))
(I) not know
I do not know.

b. No l' è lugà nogugn.
not he is come nobody
No one came.

c. Nisun no vien più casa mia. (Venice)
nobody not comes more home my
No one ever comes to my place.

d. *no va.
not go+imperative
Don't go.

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", "mina/miga/minga". They are generally located in front of the past participle. Negative concord is not obligatory but possible with postverbal negative quantifiers. They can be used with true imperative forms:

(52) a. Al sei bic. (Livigno (SO))
I-it know not
I do not know.

b. No l' è mina vegnù. (Loreo (RO))
not he is not come
He has not come.

c. A n è mina riva nisun.
it not is not come nobody
No one came.

[39]Note incidentally that the case in which the preverbal negative marker co-occurs 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.

d. Magnelo mina?
eat-it not
Isn't he eating?

NegP3 originates from the element meaning NOTHING and is often located lower than adverbs like ALREADY but higher than ALWAYS. They are always specifiers and can move to the SpecC position and be followed by a complementizer, they can occur with postverbal negative quantifiers (although with some restrictions) and although in several dialects they occur in imperative clauses, in others they are substituted by a NegP4:

(53) a. A l' avia già nen volu 'ntlura ... (Piemontese)
he it had already not wanted then
Already at that time he had not wanted to... (Zanuttini (1997) 3:(29))

b. A l' ha nen dine sempre tut.
he he has not said-us always everything
He did not always tell us all. (Zanuttini (1997) 3: (32))

c. A parla nen cun gnun.
he speaks not with nobody
He does not speak with anybody. (Zanuttini (1997) 3: (55))

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 quantifier (when used alone). It can be used in imperative forms:

(54) a. Su no. (Milan)
(I) know not
I do not know.

b. L' è rivà nisun.
it is come nobody
No one came

c. Piof pu.
rains more
It stopped raining.

d. L' a mangià no.
he has eaten not
He is not eating.

e. Vusa no!
shout.IMP not
Don't shout!

The examples earlier show that there are indeed four distinct types of negative markers. 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:

(55) a. a n al so brisa. (Bologna)
I not it know not
I don't know.

b. I ne sà nia. (S.Leonardo (BZ))
I not know not
I don't know.

c. No credo che podia parlar con elo no. (Cembra (TN))
not believe that could talk to him not
I do not believe that he could talk to him.

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).

(56) a. Fa pa nen sulì. (Lanzo (TO))
do not not that
Don't do that. (Zanuttini (1997, p. 46))

b. Nol lo ga mina fato nò. (S.Anna (Ve))
not-he it has not done not
He didn't do this at all.

c. NegP3 and NegP4 are not found together.[40]
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.[41]

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

[40]The reason why the two negations do not co-occur 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.

[41]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.

the constituent does not really play a role in doubling, in fact it is not even necessary for a doubling procedure to be established. On a par with the cases of DP and wh-doubling, we can assume that the fact that negation also displays doubling is related to the number of functional projections which have to be checked. The internal layering of the NegP mimics the external projections in the clausal structure, and the checking procedure can obtain either by moving the whole NegP or by only moving a portion of it following the procedure that has been described for DPs in Section 2. In the case of DPs, I have proposed that the feature that causes splitting in Italian varieties can either be Topic or Focus (which results in doubling of full pronouns), Gender (which results in doubling of full pronouns and DPs) Number (which results in the doubling of full pronouns, DPs and Quantifiers) or can be generalized to any functional structure, (hence we get generalized doubling of all possible elements). In the case of wh-doubling the functional structure resulting in the doubling configuration is the one created by wh-words with two Operator projections: the Disjunction operator and the Existential operator. Which features could be responsible for the splitting and doubling procedure in the case of Negation? As seen earlier, the set of possible features must contain at least a presuppositional and a Focus feature. I would like to propose that the negative marker also contains an existential operator (as the morphology suggest for words like *nessuno*, "nobody" where the negative element is combined with the indefinite determiner). If the idea that the internal structure of an element and the clause structure where the element is located are parallel is correct, then the Focus feature inside the negative marker should correspond to the highest feature, being Focus a typical left peripheral projection. However, what we have seen here is that the negative marker related to Focus is the one located at the end of the clause. I would like to propose that the sentence final position of the negative marker *no* is not to be interpreted as low negation, but on the contrary, that the negative marker *no* is the highest negative marker which moves to Focus in the left periphery of the clause, followed by remnant movement of the whole remnant IP to its specifier as illustrated in (58).

(57) $[_{SpecXP}\ [_{IPi...}\ vusa\ t_{j}]\ [_{SpecFocus}\ no_{j}\ t_{i}]]]$

This explains why *no* also occurs after all arguments, which are usually located inside the VP. Therefore, the internal structure of the negative marker contains the following FPs:

(58) $[_{Focus}\ [_{Presupposition}\ [_{Existential}]]]$

The realization of Focus corresponds to the negative marker *no*, the one of the Presuppositional Phrase to those negative markers etymologically deriving from elements indicating a small quantity and the existential to the one homophonous with the element corresponding to NOTHING. If Zanuttini (1997) is correct, the type of negation located immediately above TP (and AgrS) corresponds to a polarity phrase, therefore the internal structure of the negative marker (which corresponds to the projection the negative marker checks in the sentential structure) is the following:

(59) $[_{Focus}\ [_{Polarity}\ [_{Presupposition}\ [_{Existential}]]]$

Although I will not go into the matter here, I only point out that the relation between Focus and Negation, Quantifiers and Negation and the fact that in some contexts negation is presuppositional is captured in this framework by the fact that they have exactly the same projections in their internal structure, thus reinforcing the idea of minimality by deriving the classes of elements that are potential intervener in a minimality configuration by assuming that the reason why this is so is that they are construed in the same way.

5. CONCLUSION

In this chapter 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 analysis has the advantage of not requiring any special structure like a "big DP". Languages with doubling 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 and is a property of the highest specifier, the edge, of the DP phase. If doubling is related to the amount of pied piping a language allows for, in the sense that the more a language allows for pied piping, the less it displays doubling, one could see doubling and pied piping as being related in an inverse proportion. However, even at a first look, things do not see to be as simple as that, because that there is no unique condition on the amount of structure that can be dragged along with the relevant subpart containing the feature to check in cases of

wh-movement, other A'-movements or A movement in each language. Therefore, although this analysis of doubling relates the splitting procedure at the basis of the doubling strategy to lack of pied piping, much more work remains to be done in order to understand what the exact connection between the two phenomena is. Moreover, is the amount of doubling/pied piping also 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. 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.

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2

DOUBLING OF CLITICS AND DOUBLING BY CLITICS: THE CASE OF NEGATION☆

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ABSTRACT

Clitics, beside doubling a phrasal constituent, can double other clitics. The two cases to be studied here, based on Italian dialect data, involve copying of the negative clitic on either side of a subject clitic, and copying on either side of an object clitic. In all of the cases we consider, the doubling of the negation clitic is sensitive to the so-called person split, roughly between first/second person and third person. We also consider potentially problematic cases where one of the apparently negative copies surfaces in positive contexts. Our analysis is based on the assumption that clitics are based-generated in the position where they surface — being connected to their copies by the interpretive calculus at the LF interface, as in so-called representational models. More to the point, we abandon the idea that sentential negations instantiate a specialized functional category Neg, where the clitic corresponds roughly to the negation operator. Rather, we propose that negations, including both

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