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Morphology, Checking Theory and Polarity Items

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1. Introduction

The Minimalist approach outlined in Chomsky 1995 and variously implemented in many recent studies is characterized by the strong hypothesis that all syntactic relations are ultimately encoded by means of a single formal mechanism, namely checking of a feature against a correspondingly marked head. At the core of the whole approach lies another hypothesis, namely that a concept like that of S-structure is illegitimate: no complete syntactic representation feeds the phonological component, only syntactic partial derivations do. Any constraint on a syntactic representation must apply to the interface, hence to LF. What look like syntactic constraints on overtly realized structures must therefore be derived as a by-product of LF syntactic requirements and morphological properties of the lexical elements (not structures) involved.

The licensing of polarity items (PIs) like English *anything* or *a damned thing* represents a challenge for these two hypotheses. The by now long tradition of studies on PI licensing offers ample evidence that at least some conditions involved must be stated in syntactic terms, that is over syntactic representation; these structural requirements are different from those characterizing feature checking (c-command instead of specifier-head relation) and, at least in the English case, are stated on overt structures and not at LF. This latter important point will be illustrated below.

In a way, PIs are like anaphors requiring a visible c-commanding antecedent, and the link with Binding Theory has been pursued with considerable empirical results by Progovac 1994. But the main focus of Progovac's analysis are Slavic and, to a lesser extent, Romance dependent items whose syntax is significantly different from that of English PIs. In theory, the idea of explaining English PIs (which must always be c-commanded by a licenser) by studying Slavic and Romance PIs is nothing more than a fallacy; in practice, results obtained in one domain may well be (and have been, in this

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instance) productive in another. This granted, the fact remains that PIs still represent a challenge for Minimalism: even if a complete reduction to Binding Theory for all PIs were feasible, which is not the case because not all PIs are *referentially* dependent, it would merely show that PIs licensing is just as uncomfortable within Minimalism as Binding Theory is.

I will argue instead that a different perspective has the attractive features of leading both to a wider empirical coverage and to a deeper understanding of another fundamental aspect of the Minimalist Program: the relation between syntax and morphology.

2. The overt c-command requirement

Deliberately setting aside a number of other issues, I will single out two problems, each stated and illustrated in a separate subsection. The first illustrates a generalization that will be the main empirical issue of the paper; the second illustrates an interesting exception.

2.1 It is unclear why PIs must be c-commanded by a visible licenser, instead of moving (overtly or at LF) to the checking domain of a possibly null licenser. The need for an overt licenser, over and above semantic requirements, is illustrated in (1).

(1) a *Any child hasn't been born in this clinic for two years.
b *I gave any present to no relatives.
c *I will force anybody to marry no one.

In (1a-c) negation, the prototypical if not only licenser of PIs, has demonstrably scope over the whole sentence, including the subject position. (1a) contrasts with (2):

(2) A child hasn't been born in this clinic for two years.

This and similar sentences, with an appropriate verb, show that in English the preverbal subject position can lie in the scope of negation expressed by the inflectional marker *not* (the *not / n't* distinction is irrelevant here).The same holds for (1b): (3a)

has a legitimate reading where it is synonymous with (3b).

(3) a I gave a present to no relatives.
b I didn't give any present to any relatives.

Among the arguments for interpreting sentential negation on Inflection even when it is expressed on a lower argument, I will only recall that (4a) cannot entail (4b), thus contrasting with (5).

(4) a John ate nothing.
b John ate.

(5) a John ate cabbage.
b John ate.

Likewise, *John was killed by no one* cannot entail *John was killed* (cf. *John was killed by Phil*). As additional evidence, note that a universal quantifier in the position of *to no relatives* in (1b) can distribute over a direct object on its left:

(6) I gave a different present to each relative.

Admittedly, there might be speakers (not all) that find such an interpretation for (6) very unnatural replacing *each* with *every*. But this objection would miss the point that the relevant reading is indeed available. At any rate, the facts are clear enough for negative quantifiers, although the point generalizes to other quantifiers.[1]

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1. For reasons I do not understand, the double object construction differs from the prepositional construction in disallowing the scope relation NOT-ANY PRESENT in the counterpart of (3a):

(i) I gave a relative no presents.

This is especially intriguing given that negation has sentential scope in (i), as shown by the synonymity of the sentences in (ii):

(ii)a I gave John no presents.
b I didn't give John any presents.

As for (1c), this is the modified version of (7), an unsurpassed example of scope ambiguity due to Klima (1964):

(7) I will force you to marry no one.

The two available readings, "I will not force you to marry anyone" and "I will force you not to marry anyone", are represented as follows if we assume that the position of an abstract NegP marks the position where the negative operator is interpreted:

(8) a I will [$_{NegP}$ Ø force you to marry no one]
b I will force you [$_{NegP}$ Ø to marry no one]

In the second reading (8b) it is unsurprising that *you* cannot legitimately be replaced by a PI, as the position is outside the scope of negation. But then for the same reason we expect (1c) to be acceptable in the interpretation described in (8a).[2]

Also, *each N* can distribute over a preceding *a different N* in (iiia) but not in (iiib):

(iii)a I gave a different version to each reviewer.
b I gave a different reviewer each version.

These facts are very interesting for the syntax of double object constructions, but apparently irrelevant for the main point of the paper.

2. In 1997 class lectures, Richard Kayne ventures to hypothesize a drastically rethought theory of movement which would eliminate the need for many instances of posited LF movement. In the case of (7), *no one* even with wide scope ("I will not force ...") would end up not c-commanding *anyone*. I will not discuss this alternative (yet to be properly fleshed out), however, mainly because the equation of scope with overt syntactic movement leaves unexplained why PIs and simple indefinites fail to pattern together in (1)-(3) and (6), and this is a chief concern to the present analysis. What is more, Kayne's approach predicts a strong grammaticality contrast between (ia) and (ib):

(i) a (*)I called few people up.
b I called a few people up.

The point made by all these examples is that scope and PI licensing are not coextensive. PIs are not admitted in some positions even if the licensing negation has scope over that position at LF; crucially, at LF and not before. Note that this generalization remains true in cases where the licenser is not negation (or a Downward Entailing expression; see Ladusaw 1980, and, among the extensive following literature, Linebarger 1987). For example, Laka (1990) and Progovac (1994) argue that PIs licensed by predicates like *doubt* are in fact licensed by an appropriately marked complementizer selected by *doubt*, witness the fact that PIs are not licensed unless they are embedded in a CP:

(9) a I doubt [that he will do anything].
b *I doubt anything.

But even under this view, the licenser is overt: it is the complementizer itself. As it happens, *doubt* and adversative predicates are not among those verbs allowing free deletion of *that*. Whether or not this is a matter of chance, the same applies to yes/no interrogatives, where likewise either *if* or *whether* is obligatory, and to so-called rhetorical constituent questions.

Interestingly, the generalization that PIs must be licensed under c-command by a visible licenser covers (as opposed to explains, for the moment) a fact noted by Dominique Sportiche: in French, where yes / no and (some) constituent questions do not require a realized Wh-morpheme in COMP, a PI is only licensed when the complementizer is lexically expressed:

(10) a [$_{CP}$ As-tu [$_{IP}$ t vu qui que ce soit]]?
"Did you see anyone?"
b *[$_{IP}$ Tu as vu qui que ce soit]?

The explanation proposed by Sportiche involves a structure for (10b) where the licensing complementizer does not c-command the PI (the whole IP is in the specifier

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The reason would be that *few N*, unlike *a few N*, behaves like negatives and is raised to a VP-external scope position; the VP *[called up t]* (perhaps itself derived) would then raise past *few N*, generating the string *I called up few N* but not **I called few N up*. But (ia) and (ib) seem to have the same acceptability, depending on how readily one accepts *few*.

of C). But this misses the generalization that (10b) belongs with (1) above to the class of structures where the licenser is not spelt out.

The requirement that PIs must be c-commanded by a spelt-out licenser is obviously a syntactic one. For this very reason, if it is correct, it is at odds with the Minimalist Program. The only syntactic level where this requirement can be stated is LF, and at this level there is every reason to think that the relevant operator features occupy the positions giving them the percepted readings: NegP, whatever this means, for negative quantifiers, presumably Beghelli and Stowell's (1997) DistP for distributive universal quantifiers, and C for suitable operators. To simply add that this feature must be overtly realized to license PIs would be a pure restatement of the facts.

2.2 One class of structures represents a notable exception to the generalization illustrated above: when a PI is "reconstructed" as part of an elided constituent, it does not have to meet the usual licensing requirements. As noted by Bobalijk (1995), the following sentence is acceptable:

(11) I didn't see anyone, but Bill did.

VP-deletion has applied, so that *Bill* is understood as the agent argument for the verb *see*; *did* is followed by a null VP whose content is recovered from the preceding VP *see anyone*. In this particular case, however, the VP contains a PI. It is correctly licensed in the source VP, but no licenser appears in the clause after *but* for the copied VP. In fact, the sentence is interpreted as "I didn't see anyone, but Bill saw someone".

In itself, a non-perfect match between source VP and the material interpreted in the elided VP is nothing exceptional; see in particular Fiengo and May 1994 for a formalization of the notion "vehicle change", which should derive grammatical structures like the following for those speakers (not all) who accept them:

(12) Mary [lost her temper] yesterday, and John will [$_{VP}$ *e*] today.
(Cormack and Smith 1997)

Essentially, ellipsis seems to reconstruct, that is to infer a syntactic LF representation, up to syntactic identity; whatever information (agreement, pronominal features, and so on) is susceptible of being altered in the process does not determine syntactic identity

in the relevant sense. Then, as Bobalijk observes, the LF representation corresponding to the elided VP in (11) must define a category interpreted as "someone", as opposed to "anyone". This is a way of saying that the PI *anyone* provides to the syntactic representation the features defining a simple indefinite, singular, [+human] (in fact, *someone* differs from this characterization in being additionally a positive PI). It is these features that are then copied into the elided VP; as expected, such a feature bundle does not require any licenser. If the PI is an idiomatic expression that cannot provide such a content, ellipsis will not be possible:

(13) *I don't [know beans about linguistics], but I bet she does [$_{VP}$ *e*].

(13) is excluded because the idiom *know beans* does not provide a non-polarity sensitive variable that could be reconstructed in the ellipsis site: it consists solely of its non-compositional, idiomatic value, and of nothing else. Note that, in itself, an idiom may well be reconstructed, but only if it is in the scope of a suitable operator:

(14) a I don't [give a damn], and neither does she [$_{VP}$ *e*].
b *I don't [give a damn], but I bet she does [$_{VP}$ *e*].

The necessary conclusion is that the PI in (11) provides some semantic content corresponding to the value of a simple indefinite, and that this feature bundle is regularly reconstructed in the ellipsis site without the need for a negative licenser. But then we have a paradox: constraints on PIs distribution are unquestionably syntactic (regardless of whether they accompany purely interpretive conditions); but cases like (11) indicate that some PIs are seen for syntactic purposes as simple indefinites; that is, whatever makes a PI a PI and not a simple indefinite is not represented in the syntax.

This paradoxical situation is a problem in itself, but a problem that should be addressed on a par with the theoretical problem indicated in the previous section; that is, how can syntactic conditions on PIs, and the concept of PI itself (as opposed to that of simple indefinite), be accommodated in the Minimalist framework.

3. A morphological approach

The facts considered so far constitute sufficient evidence for a morphosyntactic approach to this particular kind of PIs (different, as we have seen, from purely idiomatic expressions with no independent semantic value); additional data will be considered in section 4. Here I will outline a solution framed in the terms of Distributed Morphology.

3.1 The behaviour of English PIs in ellipsis contexts suggests, as Bobalijk (1995) observes, that in the syntactic representation that constitutes the antecedent for the VP gap the terminal corresponding to *anyone* is in fact just a bundle a features expressing the properties of a simple indefinite. Other specifications of the lexical item, including the phonological matrix, are inserted later by a morphological component. This is one of the main tenets of Distributed Morphology (DM), as formulated in Halle and Marantz 1993. It would greatly exceed the scope of this paper to outline the contribution of this theoretical stance to long-standing debates about the role of an autonomous morphological component and its location in the grammar, in relation both to syntax and phonology. In the present context, what is of direct importance is the narrower issue of what morphologically relevant information is made available in the syntactic representation; as we will see later, a principled answer to this broad question leads to a revealing explanation for the problems posed by the data just reviewed to Checking Theory and the Minimalist Program.

In the framework outlined by Halle and Marantz (1993), the terminal nodes of a syntactic representation are not lexical items, but rather bundles of morphosyntactic features. Syntactic movement contributes to define the clustering of such features, in keeping with the idea that inflection (and some derivational processes) is carried out in the syntax (Chomsky 1965, Baker 1988), but contrary to Chomsky's (1995) more recent assumption that syntax manipulates fully inflected lexical items. Completed syntactic structures enter a separate component labeled Morphological Structure (MS), where operations such as fusion, fission and merger may modify the syntactic output by minimally rearranging terminal nodes within strictly defined limits. The isomorphy between syntactic terminals and morphological units may be further lessened by the addition of material at MS. Halle and Marantz (1993) cite as examples the thematic vowels characterizing the verbal inflectional systems of many Indo-European languages, and in English the Agreement morpheme added at MS to the V node to

which Tense has been merged (Halle and Marantz 1993: 135-136). Note that the "morphological' qualification attached to this component of the grammar does not in any way mean that syntactic structural information is obliterated; this only takes place after morphology, having completed the rearrangement opf syntactic terminals, undergoes linearization.The result is then interpreted by vocabulary insertion, which maps terminal nodes to elements from the vocabulary so as to maximize the match between features expressed on the terminal node and features associated with the lexical item. A vocabulary item may be underspecified, so long as its characterization does not conflict with the feature complex on the terminal node and it is not blocked by another candidate with a closer match. Morphological features may then be copied or otherwise manipulated under syntactically definable proximity for purely morphological processes such as agreement or concord. Distributed Morphology thus synthesizes important aspects of the "Word-and-Paradigm" approach (Matthews 1972, Anderson 1992) with the opposite view that syntax constructs words from smaller units, although these are rather indirectly linked to actual morphemes.

In this model, then, the insight that syntactic terminals are only occupied by feature bundles can be made precise. The problem posed by (11) can be restated as follows: given that a PI like *anyone* lexicalizes a terminal node characterized just as a simple indefinite, the properties defining a PI as opposed to an indefinite must not be visible in the syntax. Yet, we don't expect them to be purely morphological either, given the particular semantics of PIs and their *syntactic* distributional constraints.

3.2 The solution, I am going to propose, lies in the fact that the theoretical tools required by DM make available the notion of a morphological entity which is sensitive to syntactic structure. The level of autonomous morphology is derived from syntax by first manipulating the syntactic representation, obtaining in the process a representation that is still syntactic in the sense of representing hierarchical relations. As already mentioned, in this representation the syntactic terminal nodes that will be morphologically and phonologically interpreted may be subject to strictly constrained rearrangements (by merger, fusion, and fission) and, crucially, the structure may be enriched by the addition of nodes motivated exclusively by morphology-internal considerations. Although still reflecting syntactically established relations such as hierarchy, therefore, this structure is already morphological in the sense of being entirely made up of morphological objects. Noyer (1997: xlvi) is at pains to clarify beyond any possible doubt that the units of such a representation are NOT to be

conceived of as "morphemes" or sound-meaning mappings, nor do they correspond with positions of exponence, least of all to affixes.[3] They are theoretical constructs peculiar to an approach to morphology where the interface with syntax involves translating (and possibly rearranging) syntactic terminals into units of a purely morphological representation, and only then adding lexical and phonologically relevant information. Noyer calls these elements "morphosyntactic constituents", or M°'s. The proposal being developed here is that what turns a feature bundle interpretable as a simple indefinite into a PI like *anyone* (in English) is the addition of an underspecified M° that, though a purely morphological entity in itself, must take its content through binding from another M° appropriately positioned and characterized. The restriction to realized licensers is a consequence of this operation applying at MS, where syntactic heads (X°'s) not feeding morphology are not translated as M°'s. Other constraints (syntactic, semantic and pragmatic) belong to different domains, not all formalizable by the notion of level of representation. The claim, which will be now justified in detail, is that morphosyntactic factors also play a role in the distribution of PIs.

4. Deriving the overt c-command requirement

After outlining the necessary theoretical assumptions about the organization of grammar, and the way in which DM may provide a solution, I will now specify more carefully the part played by morphology in the licensing of PIs.

4.1 Let us first clarify what must *not* be accounted for by morphology. DM subscribes to the view, unchanged from the Government-Binding to the minimalist

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3. Noyer 1997 focuses mainly on the phonological side of morphology, and hints that syntactic heads are "linearized" as they become part of the autonomous morphological representation. The illustration provided by Halle and Marantz (1993) for English verbal inflection makes it clear that the syntactic representation must enter morphology as a hierarchical structure, where relations such as head-specifier must be definable. This is hardly surprising, given that such structural relations constrain the operation of morphological agreement and concord rules.

framework, that semantic interpretation can only access syntactic structure before this is phonologically interpreted. With the further assumption that morphological operations are performed after syntax, this means that the semantic properties of PIs must be available in the syntax. The hypothesis of late lexical insertion in DM contrasts with the minimalist assumption (Chomsky 1995) that lexical items enter the derivation fully inflected, and that the morphosyntactic operations leading to the construction of a sentence 'check' features, don't add or manipulate them. With Halle and Marantz 1993 (and Brody 1995), but *contra* Chomsky 1995, I will keep to the hypothesis that syntactic terminals are pure feature bundles, and that a complete syntactic structure is constructed before some of these terminals are lexicalized by morphology.

Among other consequences, this view entails that all semantic information characterizing the PI is already expressed in the feature bundle. Because of that, information like emphasis or idiomaticity must also be present in the feature bundle which will be lexicalized as a PI (cf. (13-14) above). Over and above these optional characterizations, the semantic information encoded in the feature bundle must specify a simple indefinite (in case of an argument), not one interpreted specifically or referentially. This is unproblematic, under the simple assumption that specificity and referentiality are additional specifications that can be added to an indefinite. A 'simple' indefinite, without these characterizations, will automatically take narrow scope with respect to any higher operator, and will not be interpreted referentially. When no lexicalization is involved, like in the ellipsis contexts considered above, a non-realized feature bundle may therefore be interpreted as a (restricted) indefinite.

In sum, the feature bundle occupying the relevant terminal in a syntactic structure contains all information necessary for the interpretation. Semantic and pragmatic constraints (following Israel 1996) refer to this feature bundle, not to the form it acquires by morphology. The necessity of operators giving rise to a scalar interpretation, and the required semantic and pragmatic compatibility between PIs and licensing operators, are prime examples of such semantic and pragmatic constraints (cf. Israel 1996 and Giannakidou 1997 for details). Thus, the interpretively dependent nature of PIs is a function of their semantics and pragmatics. Purely syntactic constraints are also very likely to play a role, like the Immediate Scope Constraint which, according to Linebarger 1987, requires that no operator (*every gift* in 15a) separate the PI from its licenser:

(15) a *I didn't give every gift to any relative.
b I didn't give gifts to any relative.

(See Acquaviva 1997 for a detailed discussion of the syntactic nature of the Immediate Scope Constraint). PIs like *anyone* are special because, in addition to these requirements, they must be c-commanded by a lexicalized licenser. This constraint does not derive from pragmatic, semantic or syntactic considerations; it only emerges after syntax, when terminals are morphologically interpreted.

4.2 As we anticipated earlier, the explanation proposed for this peculiar restriction is that the morphological component adds something to the syntactic terminal corresponding to the PI:

(16) *output of syntax:* [X° +D, -def, -anim ...]

Morphological Structure:

1 addition of *x* to M° *x* + [M° +D, -def, -anim ...]

2 lexical insertion *anything*

Morphology only manipulates (or adds) morphological categories, and the added *x* must therefore be a morphological object, just like the morphological object labelled M° in (16) and corresponding to the counterpart of X° at MS. Recall that M°'s are not morphemes, affixes, or positions of exponence. They are those categories made necessary by morphological analysis, only in the default case biuniquely corresponding to syntactic terminals X°, and possibly subject to processes, like fission, not available in syntax (see particularly Noyer 1997). M°'s contain information in the form of features that must ultimately be "discharged", and turned into instructions to phonology. Typically, the choice and realization of such information is contextually dependent: in languages displaying overt noun-adjective agreement, for example, the choice of pronominal features on the noun determines that on the adjective, under syntactically defined locality. More specifically, Halle and Marantz (1993:115, 135) argue that case and number "suffixes" are added at MS to adjective and determiner nodes, and the choice of features on the head noun is then

"copied" in them. In the same fashion, agreement is a terminal added to English finite verbs at MS, to meet morphological requirements, and the feature values of the subject are then copied into the added M°.[4] In these cases the realization of the relevant features is a *morphological* phenomenon, but the copying refers to a *syntactic* context.

Given this independent motivation for the addition of terminals at MS with underspecified feature content, positing that PIs involve an additional M° requires no additional stipulation. If the language has corresponding forms, the grammar allows feature bundles already interpretable as simple indefinites to be enriched by an M° marked as [+operator] but otherwise underspecified:

(17) $x = [_{M^\circ}$ [+operator]]

In keeping with our theoretical assumptions, this additional element is not an affix, except in the purely abstract sense of being a "part of the word" ultimately spelt out as a PI. But this does not mean that the phonological unit lexicalizing the PI should be decomposable into an indefinite morpheme and an operator one.

The qualification [+operator] must now be identified, in the same sense as an agreement or case marker must be specified for a choice of features. The only instance where [+operator] could be visible as such for morphology would arise if the language in question had a marker (an affix) for all elements marked [+operator] in syntax, including Wh-phrases, quantifiers, question particles, negation, and so on — clearly a rather unlikely state of affairs. As for the agreement and concord, here too the value of the operator is provided through copying from another morphological object. To fully derive the effects of the overt c-command condition on PIs, all we must say is that identification of the [+operator] feature occurs under binding. The various components of the constraint follow for the following reasons:

— C-command is necessarily involved, because c-command is a necessary ingredient of binding.

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4. Halle and Marantz (1993) speak of "morphemes", but since this label is extended to thematic vowels of verbs, which are meaningless morphological units of some Indo-European languages, they obviously do not refer to minimal significant forms. This is why the more precise label M° has been used in the text, following Noyer (1997).

— The c-commander must be the licensing operator, or a category marked in the same way as the licenser (for example, either an interrogative C° or a Wh-phrase in its specifier), because it must be the source from which the content of M° is "copied"; in effect, PIs are operator anaphors.

— The licenser must be lexicalized, if necessary by a head moving into it (like the raised auxiliary in *had you said anything* ...), because the identification takes place at MS and not in the syntax; an empty node won't do, because it only exists for syntax and consequently for semantic interpretation, but not for morphology, and therefore cannot provide the antecedent M° (as opposed to X°).

4.3 Consider now some concrete examples of the proposed derivation. In (18) the PIs *anyone*, *a damned thing*, *the least bit*, *any change* and *anything* are visibly licensed by, respectively, negation, a negative quantifier, the universal quantifier in its restrictive term (a downward entailing context), a conditional, and a question operator.

(18) a I didn't see anyone
b No one knows a damned thing.
c Every student who knows the least bit about logic ...
d Should you notice any change, call me.
e Did you say anything?

The licensing operators are different in nature, but all of them involve a syntactic head marked [+operator]. The reduced negation *n't* in (18a) is part of the inflectional head hosting *did*, cliticized or more probably affixed to it (see Zwicky and Pullum 1983). *No one* in (18b) is not a head, but it visibly expresses sentential negation in a sentence which, according to standard analyses, involves a NegP just like the previous one.[5] In this case, therefore, the semantic licenser (negation) is syntactically encoded by a head (Neg°), but it is the realized negative quantifier that overtly c-commands the PI. The same applies to (18c), under the assumption that distributive universal quantifiers involve a DistP projection (Beghelli and Stowell 1997). In (18d-e), finally, the

5. Cf. among others Pollock 1989, Laka 1990 and Zanuttini 1995.

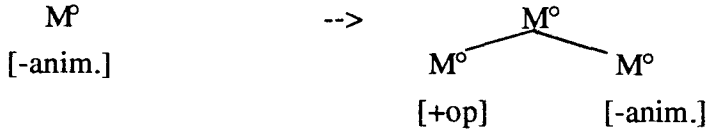
licenser is respectively a conditional and an interrogative operator, both associated with the head C° lexicalized by a raised auxiliary.

Before morphological interpretation, the terminals corresponding to the PIs are occupied by feature bundles that determine the interpretation. *Anyone* and *anything* are simple indefinites, singular animate and inanimate respectively. *Any change* is a more articulated DP, where the D node has the same information as *anything* but an additional piece of informatiom is provided under the N node (semantically, the restriction). The whole DP *a damned thing* is a phrasal idiom, specified as inanimate; the features appearing under the terminals must encode the non-compositional meaning corresponding to *anything*, plus emphasis. The same applies to *the least bit*, which must also specify that the expression marks the lowest end in a context-given scale, which is the most informative in a donwnward-entailing context (Israel 1996). Recall that features relevant for semantic interpretation are represented, or in any case accessible, to non-terminal nodes too: the semantic contribution of phrasal idioms like those in (18b-c) must be specified for the whole DP node. The difference with fully compositional phrases is that the interpretation of latter is a function of the value of their terminals, while idioms must separately specify the value of the complex (as it it were a single lexical item) and that of the terminals. These, at any rate, are syntactic considerations; the relevant point for morphology is that idioms are not a problem for the view that syntactic trees are not made up of words, morphemes or affixes but of feature bundles.

Thus, in the completed syntactic representation the [+operator] head necessary for licensing (although in some cases not sufficient, where it is not itself lexicalized) has a different feature content in each case; and the node or nodes corresponding to the PI contains all the information relevant for interpretation. When the representation enters morphology, purely morphological information is added if necessary for lexical insertion (or rather Vocabulary Insertion, as Halle and Marantz (1993) say to avoid ambiguities caused by the label "lexical"). A simple indefinite like *a thing* could be inserted under the two realized terminals D and NP of a direct object DP minimally specified as [-animate], as in (18b) or (18d). English speakers will know that this form is compatible with the desired interpretation (formalized at LF and from there made accessible to other cognitive systems); it is also compatible with a referential reading. But the English vocabulary also has special forms available, which are only compatible with a dependent, narrow scope reading; some of them are additionally restricted to emphatic contexts. These are what we call PIs; for their insertion to be possible, however, the morphological structure that provides the input to phonology

must explicitly contain the information that these forms are dependent on certain operator antecedents. To this purpose, morphology employs the same instrument independently motivated by phenomena such as adjectival concord, namely the addition of a morphological unit M° minimally specified as [+operator]:

(19)



Obviously, morphology must be prevented from freely and arbitrarily adding information to the output of syntax. The [+operator] feature added at MS finds no justification in the syntactic make-up of the D° terminal, so it takes its justification from elsewhere: as a copy of another M°, namely that realized category which makes the licensing [+operator] feature available to morphology. If the licenser is [+negative], [+polarity reversing] or [+universal], so will be the resulting M°. Note that the new M° is added after syntax, so that it cannot access semantics: here it is crucial that morphology as a whole is ordered after all syntactic operations have been completed, with DM but contrary to Chomsky 1995. As a result, the added [+operator] M° has no semantic import, but it triggers an anaphor-like dependence of the indefinite from a fully specified operator M°.

In more precise terms, PIs are vocabulary items which match a feature bundle defining "dependent" indefinites (or the equivalent characterization for non-arguments) plus a variously specified [+operator] feature; this combination, however, only arises after syntax, when morphology inserts an underspecified [+operator] M°; for this to be possible, the material added at MS is identified by copying the content of an already existing operator, using the same formal processes hypothesized for other morhological operations like agreement and concord. The need of a c-commanding overt category expressing the licensing [+operator] feature is a consequence of this interplay of morphology, syntax, semantics, and lexicon.

4.4 Sentences like (20) require an important qualification:

(20) Under no circumstance will I accept anything from them.

The fronted PP *under no circumstance* contains a negative determiner which does not

c-command the PI, although negation has scope over the whole sentence. Syntactically, there is no problem in accepting the standard assumption that the whole PP counts as [+negative]; but there is no morphological constituent M° corresponding to a syntactic terminal marked [+operator, +negative] and c-commanding the PI. Since the necessity of c-command is not in doubt, and neither is the requirement that the licenser be overt, the only conclusion can be that the whole PP counts as antecedent for the [+negative] feature, in morphology as well as in syntax. This requires no readjustment: it is implicit in the very notion of feature copy under syntactic locality that the hierarchical organization provided by syntax is not yet obliterated when syntax enetrs MS. The morphological operations we are focussing on (addition of M° and feature copy) precede linearization, so that reference can still be made to a syntactic notion such as c-command. It is only natural, then, that even non-terminal nodes (like PP in (20)) may carry morphologically visible features.

5. Extensions and predictions

The proposed analysis does more than add a morphological dimension to the cluster of syntactic / semantic / pragmatic constraints underlying the distribution of PIs. By attributing the overt c-command constraint to a morphological peculiarity of PIs, our analysis also provides a way to understand the difference between the class of PIs typically exemplified by English, which we have considered so far, and other dependent elements.

5.1 An essential trait of English PIs, which sets them apart from their putative Romance, Slavic and Greek counterparts, is their inability to occur in isolation, for instance as answers to Wh-questions:

(21) Who came? No one / *Anyone.

If the single-word answer is interpreted as a negative indefinite, this qualification must be made visible by an appropriate morphology. One may be tempted, therefore, to rule out the answer *anyone* as morphologically ill-formed; not in the sense that the internal constituents of the word are ill-formed, but in the broader sense that the word as such

fails to meet morphological conditions unless syntax provides an antecedent. However, such a conclusion would necessarily entail that the identical forms with free-choice interpretation are altogether different:

(22) a (Just) Anything John does is wrong. (Free Choice *any*)
b Anybody can do it.
c Who is aware of that? (Practically) Anyone here.

This result would be undesirable: free-choice *any* lies semantically in the broad class of operator-dependent items, just like PIs (see recently Giannakidou 1997, and references therein), and if the two classes were closer semantically than morphologically, their formal absolute identity would be a very unlikely chance.

Our proposal affords a solution out of this embarrassing conclusion. As it happens, the semantic operators licensing free-choice items are just those that, in English, do not have to be lexically supported. There are no generic, non-episodic overt markers or particles; the interpretation is made visible indirectly through other grammatical forms, like verbal tense (even though there may be good reasons to suppose that such operators are in fact syntactically represented). This means that the added M° which, by our hypothesis, determines the characteristic morphology of *any*-items, does not need a spelt-out licensing operator: the operator itself does not need to be spelt out in this case. So we can still maintain the desirable conclusion that the a form like *anything* is morphologically one and the same object; it matches a feature bundle defining a dependent item which, depending on the syntactic and semantic context, will be interpreted as a PI or a free-choice item. In both cases the added M° has morphological requirements that correspond to those of the licensing operator: negation, polarity reversal, questions, universal quantifiers all are represented by overt categories (not necessarily the head of a corresponding projection), and in such cases the M° added to a PI is content-identified by an overt binder; generic operators are syntactically represented but not visibly expressed, and correspondingly the added M° does not violate any morphological requirement even if its antecedent is not spelt out. The simple *anyone* in (21) is indeed morphologically ill-formed, but that does not mean that the word itself is ill-formed; in fact, the same answer becomes acceptable if the question makes available a free-choice interpretation, as in (22c).

5.2 Disentangling morphological from syntactic-semantic dependence also has the desirable consequence of predicting, as opposed to being compatible with, the fact that some items may be dependent on a syntactically realized operator without requiring c-command by a realized antecedent. The case of modal *need* dependent on negation is the most familiar example, and it makes clear that the overt c-command constraint is not a property parametrized across languages:[6]

(23) He need *(not) worry.

Without *not* the sentence would be ruled out by the lack of agreement on the third person singular form of the verb. But interestingly scope and overt realization differ: the obligatory interpretation is "not have to", with the deontic modal inside the scope of negation, even though the negative marker *not* or *n't* appears after the verb. The German verb *brauchen* is like *need* in that it must lie within the scope of a negative operator, but it has no alternative affirmative use corresponding to *he needs to do it*, taking a full clausal complement:

(24) a Du brauchst dir keine Sorgen zu machen.
you need to-you no worries to-do
"You need not worry".

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6. Modal verbs are not the only dependent items that do not require an overt c-commanding licenser. The simple indefinites *kukaan* and *oktage* in Finnish and Northern Sámi obligatorily require a negative auxiliary in their sentence and are interpreted in its scope, but can appear above: as preverbal subjects, as in (i), or as focussed embedded subjects, as in (ii) (Márit Julién, p.c.):

(i) Kukaan *(ei) tiedää sitä. (Finnish)
anyone neg.aux.3S know that
"No one knows it".

(ii) Mun jáhkán ahte OKTAGE *(ii) leat boahtán. (Sámi)
I think that no one neg.aux.3S be come
"I think that no one has come".

b *Du brauchst dieses Buch zu lesen.
"You need to read this book".

Another form dependent on negation but not subject to the overt c-command constraint is the archaic English verb *brook*, cognate of *brauchen* and meaning "to tolerate":

(25) a He brooked no objections.
b *He brooked some objections.

The principled distinction between morphological and syntactic-semantic dependence is not just compatible with the data: it is also revealing. Although the PI-like behaviour of such modal verbs is a familiar fact, the lack of overt c-command requirement has never (to my knowledge) been linked to another property of these verbs: their nature of dependent items is not made visible by any morphological marker, in contrast to *any*-forms. When these verbs can be employed with a different, non-modal interpretation (which predictably does not happen with the archaic *brook*), their form is precisely the same and there is no reason for thinking that their morphological make-up should be any different:

(26) a You need the umbrella / to do it.

b Du brauchst den Regenschirm.
"You need the umbrella".

By this observation, we can establish a principled link between the appearance of a dependent item and its requiring an overt c-commanding licenser. The latter property has been explained in terms of an added morphological unit M°; thus, an item subject to the overt c-command condition has a characteristic abstract morphological structure. Although M°'s are not to be equated with actual affixes, it would be extremely stipulative (although it would not lead to circularity) to simply assume that the presence of a [+operator] M° had no effect whatsoever on the realization of the terminal. As we have just seen, dependent items *not* subject to the overt c-command condition do *not* visibly display any special form. In so far as it holds true that all and only dependent items that require a visible antecedent have a characteristic form, this is a powerful argument for the view that the overt c-command constraint has a morphological motivation. The argument may be schematized as follows:

(27) a Dependent items that require an overt c-commanding licenser have been argued to have a particular *abstract* morphology.

b The same items also have a characteristic *overt* morphology.

c Other dependent items have no characteristic *overt* morphology.

d Then, the need of an overt c-commanding licenser is a consequence of abstract morphology, which has effects on the realization.

By "a particular abstract morphology" I am referring here to the addition of an M° at MS. Dependent items like modal *need*, then, are just like PIs so far as the syntax is concerned, but at MS they are not affixed by an [+operator] M°, because the English morphological system does not distinguish dependent verbs in the same way as it marks dependent items (as PIs). Recall, once again, that the semantic quality of being dependent on another expression is already encoded in the feature bundle filling the syntactic terminal: the added M° appears only if being dependent on an operator finds a morphological encoding in a language.

5.3 Italian provides a clear illustration of the predictive power of such analysis. In a negative sentence, a comparative like *più di questo* "more than that" may be fronted without receiving contrastive focus:

(28) Più di questo non posso fare.
"More than that, I cannot do".

The only available interpretation of (28) has the comparative inside the scope of negation: "I can't do more than that", or "there is not more than that such that I can do it". The interpretation where the scope of the two operators corresponds to their linear order is unavailable: "there is more than that such that I cannot do it". No matter how this effect is explained, the syntactic structure from which LF is extrapolated must encode the information that the fronted phrase is "dependent" on negation. In this case, being "dependent" is not an intrinsic characteristic of the form: *più di questo* has the same form whether it is under the scope of negation, as here, or in any other

context. Crucially, however, it must be interpreted as if it were in a reconstructed position inside the scope of negation. As in the examples in section 2.1, scope and c-command of realized categories differ. As expected, if we replace the fronted comparative with a PI like *chicchessia* "anyone"[7] the result is clearly ungrammatical, and acceptability is restored once negation precedes the PI:[8]

(29) a *Chicchessia non posso invitare.
"Anyone I cannot invite".

b Non posso invitare chicchessia.
"I cannot invite anyone".

Both in (28) and (29) the syntactic representation must contain information to the effect that the fronted phrase is interpreted inside the scope of negation. But *chicchessia*, unlike the comparative, is morphologically characterized as a dependent item: its very appearance, regardless of the context, indicates this. If we only considered syntax, we could not go any further than the observation that one element can be reconstructed while the other cannot. Adding the specification that *chicchessia* is a PI would only describe the facts, not relate them to an explanation. The contrast is predicted, however, once we consider morphology: *chicchessia* encodes its being dependent in its visible morphology; this derives from the presence of a [+operator] M° at the earliest stage of MS, and this in turn explains why the PI cannot be licensed if there is no overtly realized and c-commanding node appropriately characterized as [+operator].

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7. *Chicchessia* is one of the few Italian dependent items that parallel English PIs in requiring a c-commanding realized licenser and cannot occur in isolation; it contrasts with *nessuno*-type elements.

8. As Cinque (1990) shows, an operator like *più di questo* can be fronted without contrastive stress and interpretation and without leaving a resmptive pronoun; an argument DP like *chicchessia*, on the other hand, either requires a resumptive pronoun or is contrastively stressed. But this is irrelevant to the present point, because even a resumptive pronoun does not rescue the fronting of *chicchessia*:

(i) *Chicchessia, non lo posso invitare.

6. Conclusion

A PI, *qua* dependent item, must be in the scope of a licensing operator of a certain kind: this general constraint has pragmatic, semantic and syntactic aspects. Once we distinguish the overt c-command requirement from the simple characterization as dependent, an additional morphosyntactic dimension emerges. In a framework where no S-structure condition can be formulated, the overt c-command requirement displayed by some dependent items is best understood as a morphological requirement that refers to syntactic structure. I have argued that the theoretical vocabulary of DM, as developed in Halle and Marantz 1993 and Noyer 1997, suffices without additional stipulations to derive the overt c-command requirement and its exceptions in ellipsis contexts. The principled explanation of this systematic exception, made possible by the hypothesis of late insertion, is not the only reason why the proposed analysis accomplishes more than just shifting an S-structure condition to the level of MS. Positing a precise morphosyntactic cause for certain PIs entails that being dependent and requiring an overt c-commanding licenser are distinct conditions, so it correctly predicts that not all dependent items are subject to the second constraint. It also entails that some elements must be like PIs in requiring an overt licenser but unlike them in not being dependent in semantic sense; although this possibility has not been discussed, it is presumably illustrated by dependent verbs in languages like Irish, where a few verbs have special forms if they are embedded under a complementizer. Moreover, the particular explanation adopted for items subject to the overt c-command constraint is also automatically a theory of the other dependent items: for them I have proposed that no formative is added at MS, a hypothesis that dovetails with the observation that in such elements (like modal *need*) the dependent character is typically not encoded by a particular morphology. On all these counts, then, as regards PIs a theory of morphology-syntax interaction like DM does everything that S-structure could do, and more.

This, however, does not mean that PIs can be confortably analysed within the Minimalist program. Of the two fundamental problems discussed in the introduction, the lack of S-structure can be solved by recourse to DM, but precisely for that reason checking theory remains a point of attrition. Since DM is an attempt to relate morphosyntax to morphonology without reducing the former to syntax, it cannot be reconciled with checking theory, which reduces syntax to the movement and matching of morphosyntactic features. In so far as an autonomous morphological component is empirically motivated and its operations cannot be reduced to those of syntax proper,

the claim that syntactic feature-checking is a consequence of morphology must be abandoned. The two viewpoints are incompatible, so long as in checking theory the concepts and categories relevant to syntax are equated with those relevant to morphology.

As a final observation, note that the analysis here proposed, like any couched in terms of DM, must accept as given that certain terminal nodes are lexicalized and not others; it does not address the question why this is so. However, this is not a counterargument in favour of checking theory or of a purely syntactic approach to PIs. In fact, neither approach offers a theory of which terminal nodes are lexicalized: Chomsky (1995) limits himself to distinguishing features according to whether they must be phonologically interpreted or not, while Halle and Marantz (1993) simply do not address the issue. In this respect, therefore, both views of morphosyntax are silent. I have suggested elsewhere a way to approach this foundational issue (Acquaviva 1988), based on concepts underlying DM although not framed in terms of that theory; but the whole question is conceptually separate even though it has logical priority. Some answer is required, but whatever the answer may be, this paper has presented an argument from PIs in support of DM against checking theory.

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A case of *do support* in Romance

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1. Introduction

As far as we know, the *do support* strategy, i.e. the insertion of a pro-verb to play the role of a main verb in positions to which the V itself cannot move, has been reported and analysed only for Modern English. Chomsky (1957) already treats the phenomenon as the insertion of a dummy in order to support inflectional features when the main verb cannot do it. Lightfoot (1979) linked the diachronic development of *do support* to the appearance of a special class of modal verbs, and to the loss of a rich verbal inflection: these historical facts converged in rendering V movement to I no longer necessary, which means, in an economy perspective, no longer possible: at this point the support *do,* which was a free substitute of the verb in I, became the only available support of morphology when a verb was necessary in a projection higher than V° (negative and interrogative sentences). The most comprehensive analysis of the phenomenon is given in Pollock (1989), who on the contrary proposes an explanation of the impossibility for main verbs to move to I in English directly depending on morphological poverty, which renders a moved verb opaque with respect to the *th*-roles it assigns; in this theory too a free availability of *do* is assumed, which at this point becomes the only possible support of inflection when needed. [1]

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[1] As for the syntax of interrogative sentences, we will adopt the theoretical framework outlined in Rizzi (1991). We are framing our discussion in terms of Rizzi's and Pollock's theories, not considering Chomsky's (1995) reformulation, which attributes the syntactic details of the construction to properties of the PF component.

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Both theories give then crucial relevance to poor morphology and free availability of *do* for the rising of the modern *do support* phenomenon.

In this paper we document the existence of a *do support* analogue in some Lombard dialects in Northern Italy, analysing in particular the data collected in the village of Monno. We think that this dialect offers an interesting way to check (some of) the predictions made by the aforementioned theories, and gather a more complete picture of movement phenomena in interrogative sentences. Both in Lightfoot's and in Pollock's analysis, the *do support* strategy is connected to certain peculiar features of English syntax; some of these features are apparently absent from the dialect we present, and nevertheless *do support* shows characteristics very close to the English construction, as the English word for word translation of the following Monnese examples shows:

(1) a fa-l majà?
does- he eat?

b ke fa-l majà?
what does-he eat?

c *ke maia-l? / maja-l?
what eats-he? / eats he?

d a-l majà?
has-he eaten?

e ke a-l majà?
what has-he eaten?

f fa-l plöer?
does-it rain?

g a-l plöt?
has-it rained?

h *plöe-l?
rains it?

In this dialect, the support only appears in main questions, where it is - as in English - obligatory. It is not inserted in negative sentences, nor in emphatic contexts. It is then more restricted than the English parallel: we are going to show in what follows, however, that this narrowing is an independent consequence of other characteristics of the dialect, while the phenomenon *per se* is exactly the same as in English.

The examples in (1) show that the Monnese *fa,* the equivalent of English *do,* occurs immediately after the *wh*-element (or in first position in yes/no questions) and is followed by an infinitival form of the main verb. [2]

2. An outline of Monnese

The general features of Monnese are common to the great majority of Northern Italian Dialects (NIDs); some more restricted phenomena (in particular *wh- in situ*) are shared by other Lombard and Northern Venetan varieties (see Beninca' 1997). As already mentioned in the introduction, English *do support* is viewed both by Lightfoot (1979) and Pollock (1989) as a consequence of the loss of verbal morphology which has in turn triggered the loss of syntactic V to I movement. Thus, let us concentrate our attention first on these morphological and syntactic characteristics to test if in Monnese they can also be thought to be responsible for the occurrence of the *do support* strategy.

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[2] The characteristics of verbal morphology, verb movement and *wh-* movement of this dialect are shared by (many or most) Northern Italian Dialects (NID), while the *do support* strategy is only attested in this area in Northern Italy: Monno, the Lombard village whose dialect we are dealing with, is located off (but not far from) an ancient route connecting Brescia with Romansch Switzerland. Until 1963 the village was reachable only by a foot path: contacts with people speaking other varieties were rare, and this can perhaps explain why this very peculiar mode of question formation was preserved here. Possibly the phenomenon exists in other villages near Monno; we have recorded it recently in Malonno: we are not aware of other cases. The phenomenon is attested in German dialects and regional varieties.On the basis of the description given in .... the fundamental difference between English and Monnese on the one hand and .German varieties on the other is that in the latter the phenomenon is optional both in interrogative and assertive contexts and it shows no difference between main and embedded clauses.

2.1. Verb morphology and syntactic V to I movement

Verbal morphology of Monnese is as in any other NID. A sample of the present indicative forms is given below:

(2) *Present indicative*

kumprà	*èsse*	*vè*	*fà*	*ndà*
'to buy'	'to be'	'to have'	'to do'	'to go'
kumprjo	so	j ò	fò	ndò
te kumpret	te sé	te è	te fè	te ndè
l/la kumpra	l/la è	l/la dz-a	l/la fa	l/la va
m kumpra	m è	m a	m fa	m va
kumprè	sé	é	fè	ndè
i/le kumpra	i/le è	i/le a	l/le fa	i/le va

1st and 2nd sg. of a lexical verb show the agglutination of a subj. pronoun *jo* 'I' and *t* 'thou', while the auxiliaries and *fa* do not have this kind of morphology; the verb *nda* is the only lexical verb that partly behaves as auxiliaries and has a parallel type of inflection. It is not possible to state a simple correlation between the type of inflection and movement to C: auxiliaries have subject pronoun agglutination in tenses different from the present indicative and move to C all the same, while lexical verbs don't have agglutination in tenses different from present indicative and they cannot move to C in interrogatives.

(3) a faja
(I) did
b te faet
you did
c jea
(I) had
d te jeet
you had

e majaja
(I) ate
f te majaet
you ate

2nd sg., 1st pl., 3rd sg. and pl. have an obligatory subject clitic pronoun; 1st pl. is represented (as in French, other Lombard dialects, etc.) by a 3rd sg. verb form with an impersonal subj. pronoun *m* 'man' (etymologically derived from lat. *homo* 'man': cf. French *on*, and the semantically parallel German *Man*). Proclitic subjects become enclitic in main interrogatives (see (3)).

More importantly, Monnese inflected verbs show the type of phenomena which are considered typical of a 'rich' inflection. In the following examples we will observe (a) pro drop, (b) lexical DP subject postposing, (c) surface order of the verb with respect to adverbs:

(a) pro drop: the complex subject clitic+Verb gives a pro-drop inflected form for second singular, first plural, third singular and plural; some forms (1st sg. and 2nd pl.) do not have a subject clitic .

(4) a livrjo
'I finish'
b te livret
'you finish'

(b) subject postposing: a postverbal lexical subject is fully grammatical with any type of verb:

(5) a livrjo mé
'I finish'
b te livret té
'you finish'
c l e mort le cavre
'it is dead (unmarked masc.) the goats (pl.f.)'
"the goats died"
d l rya l pustì
it arrives the postman

e l salta zo le foe
it comes down the leaves
f le lavera zo i piac le matele
they will-wash down the dishes the girls
h l me capis nügü
it me understand nobody/'nobody understands me'

These cases are not right dislocation structures, as (5h) shows. Moreover, notice that in (5c,d,e) there is no agreement between the verb and the posposed subject; a right dislocated subject would always require a completely agreeing subject clitic. For a more detailed description of this phenomenon see Benincà (1997).

(c) verb movement

A. the inflected lexical verb (or the inflected auxiliary) appears obligatorily to the left of those adverbs that distinguish the position of French and Italian inflected verbs from that of English: the inflected verb in Monnese has the same distribution as that of Italian and the NIDs (see Belletti 1990, 1994, Cinque 1997):

(6) a l tʃakola semper
'he speaks always'
b l a semper tʃakolà
c l njarèl l parla za
'the baby speaks already'
d l a za majà
'he has already eaten'
e l va maj
'he goes never '

B. Any inflected verb is higher than the postverbal negation *mia*, lexically the same as Italian *mica, (*originally a negative polarity item designating a 'minimal quantity', a 'crumb') and syntactically parallel to French postverbal negation *pas*. Assuming Pollock's idea that this type of postverbal negation is a specifier, we see here that the inflected verb moves to AgrS bypassing the position of the negative adverb. As in many NIDs, there is no preverbal negative morpheme:

(7) l tʃakola mia
'he speaks not'
"he does not speak"

The fact that verbal morphology is as rich as it is in most NIDs, that this is a pro drop language, that adverbs must occur to the right of the inflected verb, show that V-to-I movement has in Monnese the same characteristics as in Italian and Northern Italian Dialects. In a language of this type we have English type *do support*, something unexpected within current analyses.

Let us now examine the position of the infinitive, as this is the form which occurs after the *do- support*. The infinitive (and the past participle) occurs to the left of adverbs like *plö* 'anymore' and *anmò* 'again', hence it moves higher than these lower adverbs:

(8) a el a di da tʃakolà plö
'he said (not) to talk anymore'
b l l a fat anmò
'he has done it once again'

(9) a el a dit de fal anmò
he has said to do it again
b l l a fat plö
he it has done anymore

The infinitive of the auxiliaries optionally precedes the postverbal negative adverb[3]:

(10) a par éi mia yly
for to-have not wanted

[3] See also Zanuttini (1995) for parallel cases of postverbal negations in NIDs, which she locates in the Spec of a NegP located lower than TP.

b par mia éi yly
'for not to-have wanted'
"having not wanted"

??Lexical infinitives must occur after postverbal negation. Infinitival main verbs never cross over the position of the negation *mia*, which structurally corresponds to French *pas*.

(11) a par mia majal
for not eat it
b *par majal mia
for eat it not

Note that object clitics are obligatorily enclitics on infinitival verbs, even though the infinitival occurs in a position lower than the negative adverb located lower than TP. This suggests that enclisis does not necessarily occur in a high position as AgrS or C, as proposed in Kayne (1991) , (1994). We will not pursue this any further here On the basis of what we have seen, regarding the morphological and syntactic characteristics of the verb as the pro drop property, free inversion and the distribution of the inflected verb with respect to adverbs, we conclude that verb movement to the IP functional projections in Monnese is, for the relevant respects, parallel to Italian. In particular, any inflected verb moves to the head of a functional projection as high as AgrS.

2.2. Question formation

In this section we will illustrate some characteristics of Monnese questions, the context where *do support* applies. The differences with respect to English syntax will be shown to be a feature common to other varieties, and, as such, they have to be factored out from the analysis of *do support* itself and do not interfere with our comparison between English and Monnese.

We hypothesise that in Monnese C has to be filled by an inflected verbal form in main questions. We will first consider examples with compound tenses, which do

not show the *do support* strategy. In this case movement to C affects auxiliaries and the *do support* strategy is ungrammatical.

The main evidence for V to C movement is subject clitic inversion (SCI), which has been interpreted as indicating V to C in French (see Kayne 1984, ch. 10, Rizzi and Roberts (1989)), as it is a root phenomenon both in French and in the NIDs. Friedemann (1995) interprets SCI as a case of "interrogative inflection". He supposes that the verb moves to C only at the LF level but not in the Syntax. In section 4.3 we will see that Monnese *do support* provides evidence that SCI is indeed V to C. For the moment, let's simply state that this is a quite common phenomenon in NIDs, and, as such, it is not directly connected to the *do support* phenomenon we are studying.[4]

In a main question, both a yes/no and a *wh*-interrogative, when it is not the subject to be interrogated, a 3rd sg. and pl., 1st and 2nd pl. inflected verb postposes the subject clitic; 1st sg. does not change, 2nd sg. only loses its proclitic subject. This phenomenology is analogous to other NIDs.

A less common feature of Monnese is the *wh-in situ* strategy: *wh-* elements and phrases can either appear in front of the sentence or immediately after the lexical verb. Some *wh-* elements have a different form depending on the position in which they occur: a *wh-* of this class is slightly different when moved or left *in situ* (see examples (12c,g); Munaro (1995,1997); Benincà (1997)). This strategy is not widespread in Northern Italy. It is found though in other dialects of Lombardy and Southern Switzerland and in Northern Veneto (it is also attested in spoken French, with some relevant differences)[5]. In Monnese, SCI is obligatory, independently from

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

(i) plöe-l o plöe-l mia,...
'rain it or rain it not' "whether it rains or not,..."

(ii) telefon-om-i subit
phone-we-her immediately/'let's phone her immediately'

These data will be analyzed in section 4.4. They show that it is not the interrogative morphology that is missing in this dialect.

[5] See Benincà &Vanelli (1982), Benincà (1986) for Veneto dialects, Lurà (1987) for Lombard dialects, Rizzi (1991) for French. The phenomenon has been analysed by Munaro (1995, 1997): the

the fronting of the *wh-* element (the same is true in Bellunese, for example, but not in Mendrisiotto nor in French).

(12) a k e-t fat?
what have-you done?

b e-t tʃerkà fora kwal? /kwal è-t tʃerkà fora ?
have-you looked out which? / which have you looked out?
'which one have you chosen?'

c ngo l e-t majada? / l è-t majada ngont ?
where *obj.clit.*-have-you eaten? / *obj.cl.*- have-you eaten where?
'where have you eaten it?'

d a ki i l'e-t dat? / i l'e-t dat a ki?
'to whom *dat.cl.-obj.clit.*-have-you given? /*dat.cl.-obj.clit.*-have-you given to
whom? "whom have you given it to?"

e a-l vist ki?
'has-he seen who?'

f a-i vist ki?
'have-they seen who?'

g ke ef kunta zo? / ef kunta zo kuè ?
'what have-you (pl.) told down?' / 'have-you told down what?'
"what have you told?"

h kwat e-f spetà? / ef spetà kwat?
'how-much have-you waited?' / 'have-you waited how-much?'

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wh-elements that cannot be left *in situ* are identified by Munaro on the basis of a difference in the internal structure of the *wh-* itself and on the feature that it instantiates. What concerns us here is that this possibility exists independently from *do support*. In the Lombard dialect of Mendrisio (Switzerland: see Lurà (1987)) inversion applies only if the *wh-* moves to SpecCP, while Belluno dialect is like Monnese, and shows SCI even when the *wh*-element has remained *in situ* (see below fn. 9). Hence, the *wh- in situ* phenomenon is independent of verb movement to C, in principle, and consequently of *do support per se*.

In our view, this means that movement of the verb to the C° position occurs even though the *wh-* element has remained *in situ*. Here we will assume that the SpecC position is occupied by an abstract *wh*-operator when the *wh-* element has not moved, and that it is the abstract operator which triggers verb movement to C°, as discussed in Poletto (1995) and Munaro (1996).

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

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

In all embedded interrogatives SCI is impossible (cf. (14 d), to compare with (12h)). We argue, following Rizzi and Roberts (1989) that the verb does not move to a C° position. In general, *wh*-elements require a following complementiser *ke* (cf. (14a) (14b)); an exception is *ngo* 'where' (see (14c)). Yes/no questions are introduced by the complementiser *se* 'if, whether'. Again, a lexical subject is not easily allowed in Spec Agr position, as shown in (14a) :

(14) a i ho domandà kol ke(??Mario) l'ha fat
'to-him have asked what that (Mario) he has done'
b I so mia a ky ke i l'arò dat
'it I-know not to whom that I it-will-have given'
" I don't know whom I could have given it to"
c I so miga ngo la mader l a cumprà i fiur
'it-I-know not where the mother she-has bought the flowers'
d *I so mia quat ef spetà
'it-I-know not how-much have-you waited'

Hence, both features found in Monnese, (SCI and the *wh- in situ* strategy) are not a peculiarity of Monnese syntax, but are found in other varieties as well, all of which do not show *do support*. Therefore, we conclude that both SCI and the *wh- in situ*

strategy are not directly connected to the *do support* phenomenon, and must be factored out from our analysis.

2..2.1. Questioning the subject

When the *wh-* is a subject, there is no evidence of verb movement to C°, and there are two ways of realising the sentence:

1. the *wh-* subject is fronted and a complementiser is obligatorily inserted in C°. Main and embedded interrogatives show then a parallel structure:

(15) a ki *(ke) a maja?
'who that has eaten?'

b el so mia ki *(ke) a majà
'it-I-know not who that has eaten'
" I don't know who has eaten"

2. another possibility is clefting, where the *wh-* is inserted in the focus position of the cleft structure:

(16) a e-l ki ke telefona stasera?
is-it who that phones tonight?

b e-l ki ke maja / a majà?
'is-it who that eats / has eaten?'

c e-l ki ke è vyñy l altra sera?
'is-he who that is come yesterday night?'

While clefting is used in many NIDs as an unmarked question formation structure, in Monnese it conveys a pragmatic meaning, as it does in standard Italian: with this type of interrogative, it is underlined that the *wh-* is part of a 'given set', mentioned in the context.

A third possibility is only open to unaccusative verbs: the *wh-* subject appears in postverbal position as an object, and the auxiliary inverts with an expletive subject clitic:

(17) a e-(l) vyñý ki l'altra sera?
is-it come who last night?
b * a-(l) majà ki ?
has-it eaten who?
c * a-(l) telefonà ki
has-it telephoned who?
d *e(l) ki vyñý?
is-it who come?

We will discuss this in a more detailed fashion in the theoretical section. For the moment we simply state that:

-the complementiser appears only when the *wh*-element has moved to SpecC.

- the SpecAgr position is not available for *wh- in situ* subjects.

-the *in-situ* strategy is possible only with unaccusatives.

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

3. 'Do support' in Monnese

Let's now turn our attention to the *do support* phenomenon itself. As we will see, it has striking similarities with its English counterpart. We will try to show that the phenomenon is indeed the same in the two languages first examining the common characteristics and then trying (in the next section) to derive the differences from independent syntactic factors that distinguish Romance from English.

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

(18) a fa-l ma'ja?
does-he eat?
b kome fa-l compor'ta-s?
how does-he behave-himself?

c kwata fa-l ma'ja-n?
how much does-he eat-of it?

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

(19) *Ngo fa (l) Mario majà?
'Where does Mario eat?

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

The translations of the examples are also glosses word by word: it appears then that this Romance dialect employs a *do support* strategy exactly parallel to English. Following Rizzi (1991), (see discussion in section 2.2) we will assume that the verb *fà* ('to *do*') is located in C° - as SCI suggests. The main verb takes the infinitival form and, if it is the case, it has enclitic object clitics (cf. b, c) as all infinitival forms in this dialect[6].

As SCI applies whether the *wh*-element moves to Spec CP or is left *in situ*, *do support* occurs independently from the movement of the overt *wh*-element (recall that we hypothesised the presence of a null operator when the *wh*-element is left *in situ*, as discussed in section 2.2).

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

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

(20) a 'kome fa-l kompor'ta-s?
how does-he behave-himself?
b fa-l kompor'ta-s ku'me?
does-he behave-himself how?
c kwata fe-t ma'ja-n?
how much do-you eat-of it?
d fe-t ma'ja-n kwata?
do-you eat-of it how much?

Let us now consider in detail the aspects in which *do support* in this dialect is parallel to English.

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

As in English, *do support* in Monnese has the following characteristics:
(a) it occurs both in *wh-* and in yes/no questions:

(21) a fe-t majà?
do-you eat?
b ke fe-t majà
what do-you eat?
c fa-l plöer?
does it rain?

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

(22) a (i domandjo) col che l maja
'(I ask) what that he eats'
b i t domandjo s-el plöf
'I ask you if it rains'[7]

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[7] If a *fa* 'do' is inserted in an embedded interrogative, it is inescapably interpreted as a causative form:

(i) i t domandio ki ke fa majà 'I you ask who that makes (someone) eat'

(c) it cannot apply to 'have' and 'be', even when they are used as main verbs[8]:

(23) a kwal e-t tʃerkà fo?
which have-you looked out?
'which did you choose?'

b *kwal fe-t ej tʃerkà?
which do-you have chosen?

c ngo ɛ-l na?
where is-he gone?

d * ngo fa-l ese na?
where does-he be gone?

e *kwal fe-t ej?
which one do-you have?

f *ngo fa-l ese?
where does-he be?

(d) it can occur with the verb *fà* 'do, make'[9]

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

[9] This is also the case when *fa* is the causative auxiliary:

(i) fa-l fa-t na?
does-he make-you leave?

(ii) fe-t fa-l coser com stasera?
'do-you do-obj.clit. cook how tonight?'
"how *do* you cook it tonight?"

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

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

(25) a ki ke maja / a ma'ja?
who that eats / has eaten?
b e-l ki ke maja / a ma'ja?
is it who that eats / has eaten?
c *ki fa(-l) ma'ja?
d *(e-l) ki ke fa ma'ja?

It appears that *fa* support is triggered by the necessity to fulfil the requirement of occupying a head higher than AgrS (presumably, C°); in the cases where further verb movement is expected, and the verb is not the type of verb to perform it, the support is inserted.

As will be pointed out in what follows, the impossibility to move the verb with an interrogative on the subject is strikingly parallel to English; in Monnese, though, the *wh-* subject evidently moves to SpecCP, and a complementiser has to be inserted in C°. This structure can be viewed as identical to English, with the only difference that in English the complementiser has no phonological content, as in other cases.

We will reconsider the strategy adopted with unaccusative subjects in section 3.3.: if they stay *in situ*, the verb must move to C° (see above the case of the auxiliary *be*); in the case of a lexical verb, *fa* support is inserted.

3.2. The differences

The contexts of *do support* in Monnese are more restricted than in English, for reasons due to independent differences between the two languages, the most relevant being the fact that the lexical verb in Monnese moves far more than the English one

in the IP field. For principled reasons, then, Monnese *do support* is limited to interrogative contexts i.e. to movement in CP, and does not appear to substitute verb movement in IP (see section 4). Inside the interrogative domain, there are no syntactic contexts where *do support* applies in Monnese and not in English, but lexical differences in the members of the class allowing or prohibiting it.

The contexts where English has obligatorily *do support* and Monnese does not are cases where the English verb cannot reach a position that the Monnese verb can occupy.

The differences are the following:

3.2.1. Monnese does not show 'do support' with negation:

(26) a l so mia
'(I) it know not'
"I do not know it"

b * fo mia savé-l
(I) do not know it

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

3.2.2. Monnese does not show emphatic 'do':

(27) *ma tì te FET kantà be!
'but you DO sing well!

This difference between English and Monnese will also be treated as due to an independent factor concerning verb movement. The emphatic reading is supposed to

result from movement to a functional head that the English verb cannot reach. These differences are then to be considered as a consequence of the fact that the Monnese inflected lexical verb moves in the IP field bypassing NegP (or a PolarityP where both negation and emphasis are realized) and reaching a position where it can receive emphatic interpretation.

3.2.3. Monnese does not have VP-ellipsis

(c) As apparently all Romance varieties, Monnese does not permit VP Ellipsis with pro-sentence *do*:

(28) a *I butigher i ha alsà i presi ma i cinema i a mia
shopkeepers have raised the prices but cinemas have not
b *la turta l è suspendyda sö bè ma l pa l è mia
the cake has risen well but the bread has not
c *ancö l Mario l maja a l'osteria e a l Carlo l fa
today Mario eats at the restaurant and also Carlo does

This is also true for other types of VP-ellipsis with auxiliaries, as in Romance in general.

3.2.4. Lexical differences

Some differences are finally found in the class of verbs that must or can have *do support* in main interrogatives. We have seen that 'have' and 'be', both as auxiliaries and main verbs, cannot have do- support. As is well known, *do support* does not apply in English when the verb is a modal, while it is obligatory with all main verbs and with lexical *do*. The situation in Monnese is more complex: *olé* (want, wish) does not admit *do support*.

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

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

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

(30) a ngo fe-t ndà?
'where do-you go?'
b ngo vet?
'where go-you'
c ke fa-l fà
'what does he do?'
d ke fa-l?
'what does-he?'

Speakers do not perceive any significant difference between the two variants. Other semi-auxiliary verbs meaning 'finish', 'begin', 'succeed', 'stop', etc., i.e. those restructuring verbs which have in many Romance varieties quasi-modal properties, behave as lexical verbs and always need *do support* in interrogative sentences.

The differences between the two languages can be summed up as follows: Monnese inflected verbs raise to AgrS while English inflected verbs do not. Moreover, in English an ambiguous verb such as *do* moves or not depending on its

semantic value: when it is used as an auxiliary it moves, when it is used as a main verb it does not.

The situation in Monnese is more complex: auxiliaries 'have' and 'be' and the sole true modal, *olé* 'want' always move to C° in interrogatives and never take *do support.*

Fa 'do' and *nda* 'go' optionally move to C°, again independently from their being used as auxiliaries or main verbs[10]. This partially resembles the situation of the

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[10] A peculiar behaviour of auxiliaries and modals is observed with *wh- in situ,* as shown in the following paradigm:

(i) a ngo ve-t?
'where go-you?'

b ngo fe-t nda?
'where do you go?'

c fe-t nda ngont?
'do you go where?'

d * ve-t ngont
'go-you where?'

E NGO VE-T NGONT

(ii)a k je-t
what have-you?

b *k fe-t ej
'what do you have?'

c *je-t ki
'have-you what?'

d k je-t ki
'what have-you what?

What we see here is presumably an effect - more limited than in French or in Mendrisio dialect - of the weakness of a *wh- in situ* with respect to its capacity to induce verb movement. This weakness appears now more obscure than it used to be, the *wh- criterion* being not sufficient to account for it. Notice that this supposed weakness of a *wh-in situ* does not appear with real auxiliaries and *fa* 'do', which have SCI independently from overt *wh-* movement to SpecC, as assumed above.

British varieties mentioned above (fn.8), where the verb *have* optionally moves to C° even though it is used as a possessive and not as an auxiliary.
This will be discussed in section 4.

3.3. Factoring out the differences

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

In Monnese only interrogative contexts both admit and require *do support*: no *do support* is found in negative, emphatic or VP-ellipsis contexts. As has been shown in section 2., Monnese, on a par with other Romance varieties, has obligatory V to I movement (or better to AgrS in Belletti's (1990) framework) which crosses the position where the negative marker *mia* (and probably the positive emphatic too) is realised. This is true for apparently all modern Romance varieties, even if the Verb reaches different positions in the IP fields, as appears from a detailed comparison of Italian and Spanish, for example: see %%%%%%)

As every main verb raises in the syntax to a position located higher than the negative/emphatic position, it seems obvious why *do support* is not possible in these contexts. As this is a last resort strategy (as already in Chomsky (1955)), it is not possible when it is not necessary, as is the case in Monnese.

Monnese shows that *do support* is not a unitary phenomenon in English, but the different types of *do support* must be distinguished on the basis of the functional projection that needs the verbal dummy element in order to be rendered visible (or to check its features).

The analysis generally assumed for English treats *do support* as a consequence of the impossibility of the verb to move to functional projections. Monnese data suggest that *do support* in the IP domain and *do support* in interrogative structures are only indirectly related: it is in both cases a matter of a movement which is not open to a main verb. The Monnese can go past the negation/emphatic projection, English verb cannot. The reason why the verb has to go past negation is another matter, and Monnese has little to say about it. In particular it gives us no hints

concerning competing hypotheses (1) either *not* is a head blocking the relation of the inflected verb and the subject, (2) or the verb has to move to 'too far' a functional projection in order to appear in a proper configuration with the negation. In any case Monnese negation is not a blocking head but a specifier and the inflected verb moving to an Agr projection bypasses it (cf. Pollock (1989) for French).

We will therefore conclude that Monnese and English *do support* in interrogative structures are instances of one and the same phenomenon, namely the lack of movement to C° of a main verb. In the next section we will see how the analysis of Monnese *do support* has both empirical and theoretical relevance for English and Romance syntax and for a general theory on the connection between auxiliaries and verb movement.

4. Reconsidering *do support*

Once we have factored out the differences noted in section 3.2., we are left with a Romance variety that has *do support* following structural conditions that are a proper subset of the English ones. This has consequences both for English and Romance syntax. Let's first examine the reflexes that it has on the analysis of English *do support*.

4.1. Consequences on English

4.1.1. The analysis of subject interrogatives

We have seen in 2.2.1 and 3.1 the two strategies for questioning the subject.
We noted that Monnese does not show *do support* when the *wh-* element corresponds to the subject; in this case, the C° position is occupied by a complementiser and the *wh-* subject is located in SpecC.

(31) a ki ke a maja?
'who that has eaten?'
b el so mia ki ke a majà
'it-know not who that has eaten'
" I don't know who has eaten"

This structure shows that the CP level is activated even when no verb moves to the C° position. Hence, in Monnese all interrogative clauses are CPs, even those on the subject. This can be considered an independent piece of evidence favoring an analysis of English interrogatives on the subject as Cps also. If we keep in mind that in no case does English show a complementizer following a *wh-* while in Monnese a complementizer is obligatory in embedded interrogatives, (cf. (31b)) the two languages can be reasonably analysed as having the same structure in subject interrogatives, the only difference being a different constraint regarding the realization of the complementizer.

Thus, the analysis of Monnese syntax seems to favour Rizzi (1991)'s analysis of English subject interrogative clauses over Grimshaw (1995)'s.

Verb movement is possible (in fact obligatory) only with the *wh*-subjects of unaccusative verbs, and in compound tenses we have the auxiliary *be* (the auxiliary of unaccusative verbs) with expletive SCI. In simple tenses a lexical unaccusative verb shows *do support* with expletive SCI. In the latter case the *wh-* subject presumably behaves as an object - in the terms of Burzio (1986) and Belletti (1988) - and is left *in situ*:

(32) fa-l 'nda a ka ki?
'does-he go home who?'
"who does go home?"

Monnese and English are similar in that they do not admit *do support* with the subject of a transitive or intransitive verb. Only Monnese unaccusative subjects permit *do support* and they are normally left *in situ*.[11] *Do support* inverts with the

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

expletive subject clitic and the thematic subject is left *in situ*, and forms an A-CHAIN with the expletive. Unaccusative subjects thus permit *do support* because of an independent feature of the syntax,[12] namely the existence of a class of unaccusative verbs whose subject behaves like an object. [13]

(i) a l e ryà ina letra
'it is arrived (m.sg.) a letter (f.)

b l è vyny la maestra
it has come (m.sg.) the teacher (f.)

c la letra l è rivada
the letter (f.) is arrived (f.)

d la maestra l e vynyda
'the teacher(f.) is come (f.)

[12] Note that the same strategies used to question a subjects in Monnese are found in Bellunese:

(i) a e-lo ki ke maña kwa?
is-it who that eats here? 'who does eat here?'

b rive-lo ki?
arrives-it who? 'who does arrive?'

The subject appears in the focus position of a cleft structure or can be left *in situ* only if it is an unaccusative subject. Differences between unaccusative subjects and other subjects are also found in the whole of northern Italy, as in many varieties that do not show *wh- in situ*, the subject of a transitive or unergative verb must be questioned through a cleft sentence (as in (1b), while a direct question is possible with unaccusative *wh-* subjects.

(i) a ki vjen stasera? *Padovano*
who comes tonight?

b *ki maña kwa?
who eats here?

[13] English seems to posses a limited set of unaccusative verbs whose subject is inserted in the object position (see Tortora (1997)). However, as it does not have a *wh- in situ* strategy for non d-linked *wh*-words, the reflexes of this phenomenon cannot be observed in interrogative sentences.

4.1.2. The diachronic development of English

As already mentioned in the introduction, Lightfoot (1979) and (1991), Roberts (1985) and Pollock (1989) connect the development of the *do support* strategy in English to the disappearance of inflectional morphology, which has triggered in turn the loss of syntactic V to I movement. As Monnese has never lost obligatory V to I movement and nevertheless shows *do support*, we are forced to state that the lack of V to I movement cannot be a necessary condition to produce the *do support* strategy. At this point we can imagine two possible lines of reasoning to explain the diachronic discrepancy between English and Monnese.

a) It might be the case that the same strategy has evolved in the way in which the authors mentioned above hypothesise in English and in a different way in Monnese. The same phenomenon would thus be the result of two distinct evolutional processes, as the loss of V to I in English and a still unknown factor in Monnese. This hypothesis is not very attractive at first sight, as it seems to redundantly postulate two mechanisms to obtain the same grammar (see the discussion in section 4.).

b) One could try to unify the two grammars postulating a more abstract mechanism which is responsible for the birth of the *do support* strategy. It could be the case that *do support* is not necessarily connected to any loss of morphology but develops when the syntactic movement of a main verb to a given functional head becomes impossible (for some independent reason) in a given language (but see section 4. for an apparent counterexample). English has lost syntactic movement of the verb to the I° position (and this is the factor which is in turn connected to the morphological impoverishment and not *do support* itself) and therefore has developed *do support* which is inserted when the I° position must be supported by a verbal element.[14]

Monnese could have lost I to C° movement substituting it with a *do support* strategy. We have to assume that Monnese was most probably a fully V2 language in the Middle Ages, even though we do not have access to the diachronic development of this variety. This is the case for all Romance varieties including the

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[14] Independent evidence that a theory like this is needed comes from the comparison between the lack of I to C in English and mainland Scandinavian languages, which have maintained V to C movement but show a very poor morphology and no evidence of V to I movement.

NIDs for which we have older texts preserved. These languages were V2 varieties in the medieval period and lost this property at the beginning of the Renaissance period (cf. Benincà (1986) (1995)). As Monnese has simply lost V to C° and not V to I°, the context of application of the *do support* strategy is limited to the C° projection (but see section 4.4... for more discussion).

However, all NIDs have lost V2 and only in a small area do we find the *do support* strategy: if *do support* were the automatic development when a functional head becomes inaccessible to main verbs, we should find *do support* everywhere in Northern Italy. As we will see in section 4.2 movement to the C° position is being lost in most NIDs in all the residual V2 contexts. Some NIDs have substituted the SCI strategy with a (null or morphologically realised) complementiser, others have generalised the cleft structure to all *wh-* questions. Note that it cannot simply be postulated that in the northern Italian domain it is movement to C° that is being lost altogether, as both clefts and *do support* reveal that C° is still accessible, even though only to a particular class of verbs as auxiliaries. We have to assume that the C° position is losing some property to be defined, but it still retains some visibility. As we will see in section 4.4.2, it is difficult to relate this property to opacity vs. transparency of a given Functional head (as in Pollock (1989)). Our analysis suggests that it has most probably to do with the type of structure that a verb selects in the VP.

4.2. Consequences on Romance: V to C movement confirmed

The fact that *do support* exists also in Romance shows that the verb moves in interrogative structures higher than in normal declarative clauses also in Romance. Furthermore, it casts some doubts on recent analyses of Romance interrogatives as I to C only at LF but not in the syntax. Monnese data show that the verb moves in the syntax to the CP layer.

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

The generality of Romance varieties with subject clitic inversion in main interrogatives develop some strategy to do without it; many of them optionally, at

least in some structures (see Poletto (1993) for a detailed description of the possible structures found in the northern Italian domain).

All these varieties (except for Triestino, whose story is more complex and scarcely documented) used to have subject clitic inversion until 30, 50, or 100 years ago; many of them exploit more than one strategy and still preserve traces of the obsolete subject clitic inversion, which can be optionally used at least in some syntactic contexts. The insertion of *fa* support can be seen as one of the possible ways (certainly the least used in Romance) to do the task of an inflected verb moving to C°. The existence of the *do support* strategy in the Romance domain is thus potentially very interesting as it confirms Rizzi (1991)'s intuition that the verb moves to the C° position in main interrogatives in Romance too as it does in the Germanic languages.

4.3. General theoretical consequences

4.3.1. Pollock's theory

Let's first briefly summarise the basic points of Pollock (1989)'s analysis:

a. in Modern English the lexical verb cannot move to Tense (the highest Infl projection in P.'s theory[15]) as a consequence of the poverty of its agreement morphology, which renders it opaque to theta-role assignment;

a.1. English has a substitute *do* as an alternative to 0 in T. Only when necessary, on the basis of economy considerations, the option to insert *do* instead of 0 is chosen;

a.2. Aux - NP inversion is the result of movement of the highest Infl projection (Tense, in Pollock's terms) to C°;

a.3. TP is an inherent Barrier, and a 0 element in C° cannot L-mark it, producing an ECP violation.

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[15] Differently from Pollock (1989) we assume (following the reformulation of Belletti 1990) the higher projection of Infl to be AgrP and the lower to be TP.

b. In Modern English, auxiliaries, modals and the substitute *do* move to the highest Infl projection (T°);

b.1. these verbal elements are transparent to theta role assignment, due to their lack of theta roles endowment.

b.2. they can move to T° permitting theta role transmission, due to their transparency

b.3. they can also move to C° in questions, for the same reasons.[16].

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

4.3.2. The role of morphology

As we have seen, Monnese verbal inflection is strong as it usually is in pro drop languages with obligatory V to I and nevertheless Monnese has developed the *do support* strategy for I to C.

In section 4.1.2 we pointed out that it is possible to maintain the hypothesis that *do support* originates when the movement of the verb to a given F° is lost: the dummy verb substitutes for the main verb in the F° which has turned into an inaccessible position (opaque in Pollock's terms) for main verbs. Do-support can in

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[16] As for the historical development of the construction, Pollock sums it up as follows:

1. in Middle English an indiscriminate usage of *do* as a Verb substitute is observed in non-emphatic contexts.

2. in Middle English agreement was almost completely lost: there was enough left to render Agr (in P.'s theory, a projection lower than TP) a barrier, but it was scarce enough to render it opaque to theta role assignment: this means that in simple sentences *do* insertion was chosen for the same reasons of ECP violation.

principle occur in any of the functional heads in the sentence structure which becomes opaque.

Monnese has lost I to C° movement and has substituted a dummy verb in the C° position. English has lost V to I° and has substituted a dummy verb in the I° and C° positions. However, what seems to be weakened by the observation of Monnese syntax is the role of overt morphology. As NIDs do not show morphological differences when they pass from a V2 to a non V2 status, we can only hypothesise that the strong feature that triggers I to C movement and is being lost is an abstract one. If we now consider English syntax, it is reasonable to think that the loss of V to I movement is the trigger for the *do support* strategy. The relation between the loss of syntactic movement to the I° position and the loss of overt morphology is much less clear, as the lack of overt morphology does not imply the lack of syntactic movement, (as we can see for example in V2 languages, where the feature that attracts the verb to C° is not necessarily an overt morpheme). The trigger for *do support* depends rather on a syntactic feature, namely the loss of verb movement to a given Functional head F°. This, in turn, presumably depends on the loss of a given abstract feature of the F° itself which has to be matched by the verb. Hence, the relation between presence/absence of overt morphology and *do support* is only an indirect one.

4.3.3. Where the verbal support arises

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

(33) * Fa-l màja?
Do he eats?

In (33) the auxiliary originates in C° (or a position located between C° and AgrS) and the main verb reaches the AgrS position below. However, this structure is ungrammatical in Monnese (as in English) and *do support* is very similar to the English case, as the auxiliary is followed by an infinitival form, which remains most probably lower than AgrS (and T°), as shown in section 2.2.

Why is this? If the AgrS position is a transparent position, there is nothing to prevent the verb from moving as high as it usually does in declarative contexts. As this is not the case, we have to find a reason that prevents the auxiliary from being inserted directly under the C° position and forces it to be generated lower down in the structure (probably at the T° level, where the English *do* is also inserted). If the auxiliary is generated under T°, it cannot be compatible with an inflected main verb that has to raise to T° and AgrS° to check its features.

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

We see two possible ways to solve the problem and exclude the occurrence of cases like (33): 1) if we assume Rizzi (1991)'s idea that T° contains the [+*wh*-] feature that must be moved to the head of the CP in order to enter the Spec-head relation with the *wh*- operator, the auxiliary must be generated in T° and not in C°, because it has to carry the *wh*-feature from I° to C°. Note that this implies a particular view of *do support* as realising a lower feature which has to be moved onto another higher head, and not as the simple realisation of a strong feature on a given F° which otherwise would remain unspelled. This could be correct for both V to I and I to C *do support*, if a split IP hypothesis is adopted.

2) The fact that a dummy auxiliary as *do/fa* cannot be generated directly under the C projection could be a more general fact, that does not depend on the particular requirements of interrogative structures (as movement of the [+*wh*-] feature from T° to C°). We could assume that every verbal element has to originate in a lexical or functional position of 'verbal nature'. The functional positions inside the IP field are

verbal in their nature, while the CP is not, as it constitutes the interface between IP and the outside of the clause (cf. Rizzi (1995) and Grimshaw (1995) for similar observations on the nature of the two functional fields, IP and CP). Hence, a verbal element as 'do' is, could only be generated inside the IP/VP domain. Therefore, Monnese *do support* uses a structure which is substantially very similar to the English one and not a structure like (33), even though the latter is a plausible candidate, being AgrS transparent (in Pollock's terms) in this language.

Thus, the examination of Monnese *do support* gives us a hint on the general constraints that are active when a support strategy is instantiated.

4.3.4. The opacity of C°

Pollock's theory could be restated in more general terms assuming that a given projection (I° or C°) is opaque when it blocks the transmission of thematic roles of the verb. Main verbs cannot raise to a theta-opaque position, auxiliaries and modal (which do not have a theta grid) can.

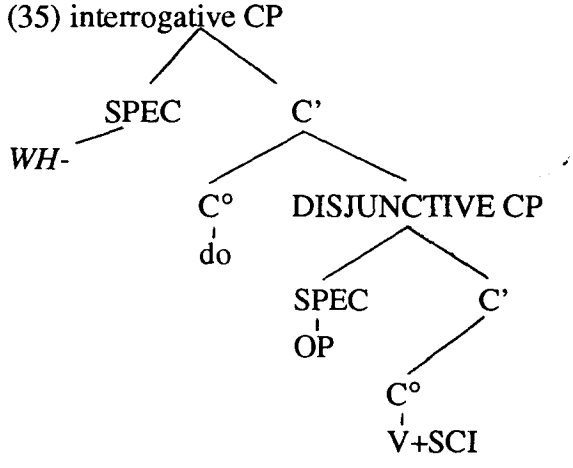
A possible problem for this formulation is represented by the following alternations of Monnese:

(34) a plöe-l o plöe-l mia,...
'rain (pres.it or rain it not' "whether it rains or not,...."

b ke l ploés o ke l ploés mia
that it rained or that it rained not "whether it rained or not"

The examples of disjunctive sentences above show Subject Clitic Inversion with a lexical verb, a pattern that produces ungrammaticality in main questions. In disjunctive sentences, SCI, both of lexical and auxiliary verbs, is obligatory if the complementiser is not inserted, and impossible if the complementiser is realised. we conclude then that SCI is produced by the upward movement of the verb to C in these structure as well. This calls for an explanation: if I to C movement for a lexical verb is admitted in disjunctive sentences, why is it impossible in interrogatives? This asymmetry between interrogatives and disjunctives cannot be immediately accounted for within Pollock's theory, as C° cannot be considered a totally opaque position by itself, as movement is indeed possible in some contexts but not in all.

If we adopt a split CP analysis, it is reasonable to assume that interrogatives and disjunctive sentences involve two different functional projections in CP. The problem we are discussing forces us to admit that the lower one is the CP where SCI is triggered and where the verb stops in disjunctive clauses, and the higher one is the CP that must be filled in interrogative contexts. The higher C° position is opaque in Pollock's terms and therefore no lexical verb can reach it (with consequent 'do' insertion) while the lower position is transparent to movement and can be reached by lexical verbs triggering no *do support*. The structure of the clause would be the following:



In disjunctive clauses a null operator triggers verb movement and SCI is the morphological counterpart of V to C movement. In interrogative sentences the interrogative CP is opaque, hence *do* is inserted in IP, moved through the SCI position and then reaches the higher C°. Note that we are forced to assume that do is inserted lower than the interrogative CP, as SCI is visible on it.(cf. section 4.5). It is not clear why the interrogative CP is opaque while the disjunctive CP is not.

Another possible hypothesis takes advantages of certain proposals offered by Chomsky (1995)'s minimalist framework. A basic assumption regarding movement is the fact that it is triggered both by the attracting head, which must be endowed with strong features, and by the moving head, which must also have the corresponding strong features in order to check (and in some cases delete) the strong feature of the attracting head. It could be assumed that there is only one C projection for both disjunctive and interrogative contexts, but the movement of lexical verbs is not possible as they do not have strong interrogative features, while they do have

disjunctive strong features. Again, it is not clear why the lexical verbs should have lost only the interrogative strong feature and retained the disjunctive feature.

4.3.5. Lexical verbs and theta theory

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

We have seen that in Monnese the only modal which always moves to C° is *olè* 'want/wish' while other modals cannot be taken into account as they are borrowings or are a compound formed by 'have' and a preposition.

Two other semi-auxiliary verbs, *fa* 'do' and *nda* 'go', optionally move to C° or take *do support*. The problem that arises with Monnese data is that none of these verbs - *olè*, *fa* and *nda* - shows any difference in their use as main verbs or as auxiliaries. *Olè* always raises to C°, even in those contexts in which it is a main verb which takes a direct object, while *fa* and *nda* optionally use the *do support* strategy if they are used as main verbs which take respectively a direct and a locative object or when they are used as auxiliaries. This constitutes a potential problem for Pollock's theory.

Monnese, as we have seen to be the case for many others Italian dialects, has rich verbal morphology, and movement of the inflected verb to AgrS. The last step of interrogative movement, however, has to be performed by *fa*: clearly it is inserted when the verb has to go further than AgrS, to a position presumably corresponding to C°. In this respect, Monnese confirms Pollock's intuition. What is, in our view, weakened, is point 3. of Pollock's theory, namely the relation of the restriction with Theta transparency - that Pollock suggests discriminates between verbs that can reach higher positions and verbs which cannot. Here both the differences and the similarities between Monnese and English show that the assignment of a verb to the class of items that can reach C° is partially idiosyncratic. Auxiliaries necessarily belong to this class, modals can switch from one class to another in different languages. A real difference between English and Monnese appears to be the fact that in English a verb (as for ex. *will*) moves or does not move to higher projections (and consequently has or does not have *do support*) depending on its meaning: if it is a modal auxiliary it moves, if it is not (with the meaning of 'to want' or 'to make a

will') it cannot. But this difference becomes less obvious if we consider those often cited varieties of British English where 'have' - both the auxiliary and the lexical verb - can (or used to be able to) invert with the subject and avoid *do support* independently of its value. These variety of English are in fact problematic for Pollock's analysis, if lexical *have* is assumed to assign a theta role and can still move to C°.

The same difficulty is in more evident in Monnese. We have seen that in Monnese an ambiguous verb has apparently the option to move or not, regardless of its meaning. Hence, the *do support* theory proposed by Pollock seems to be confirmed by Monnese data except for one point: Pollock attributes the impossibility for main verbs to raise to opaque positions to theta theory. Monnese shows that this cannot be entirely true, as some verbs move to C° (or use *do support*) independently of their use as auxiliaries or as main verbs, which means independently from the supposed opacity that would affect their capacity to assign theta roles.

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

Verbs like *nda* 'go' and *fa* 'do', which optionally move to C°, would have the possibility of switching between the structure of a main verb and the structure of an auxiliary; the switch would be independent from their use as main verbs or as auxiliaries. It remains to be investigated what the conditions ruling this syntactic switch could be.

Whether this hypothesis proves teneble or not will depend on the feasibility of extending Kayne's proposal (originally made only for *have* and *be*) to other verbs, such as those we have seen in Monnese if this hypothesis proves tenable or not.

5. Conclusion

Do support in the Romance variety we have analysed here shows striking similarities with the English phenomenon. It is triggered by the same factor: the impossibility of the verb raising to a given functional projection, and therefore it is

subject to the same restrictions (it only occurs in the context in which it is needed). Romance *do support* confirms the intuition that the phenomenon is a "last resort" strategy, but also shed some light on the general theory of auxiliary insertion as well as on English *do support.*

In general, there seems to be a requirement that forces auxiliaries to be inserted inside the IP domain (which is verb-related, while the C domain is not: cf. Rizzi (1995) and Grimshaw (1995)). *Do support* cannot arise in C°, it must originate inside a lower FP in the IP field. Moreover, it seems that the class of verbs that do not need *do support* contains some modals used as main verbs with a theta grid.
The examination of *do support* also has consequences for our analysis of Romance in general, as it confirms that in main interrogatives the inflected verb moves to C° (as proposed by Rizzi (1991)) in these languages too, while it does not in embedded clauses.

The Monnese facts suggest that the analysis of English *do support* needs to be revised: 1) in Romance *do support* shows that subject interrogatives are CPs and not IPs. This conclusion could be extended to English as well, supporting Rizzi's (1991) analysis; 2) English *do support* is not a unitary phenomenon, as it replaces the verb both in I° and in C°; 3) the role of morphology in the development of English *do support* must also be revised. Monnese shows that the *do support* is a purely syntactic phenomenon and can develop even though no morphological change occurs. The occurrence of a dummy verb in a functional head position is triggered by the fact that main verbs cannot raise to the F° in question. The reason for this prohibition still remains mysterious.

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On The DEFICIENT/STRONG Opposition in Possessive Systems*

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In this paper, pre-nominal possessive modifiers are compared with post-nominal ones, often neglected in works on possessives. We show that:

• the deficient / strong opposition found in pronominal systems also characterizes possessive systems. There are deficient and strong possessive modifiers. Their syntactic, semantic and morphological properties are similar to those of deficient and strong personal pronouns (section 1.1). Again parallel to personal pronouns, a proper characterization of possessives implies the tripartition into clitic, weak and strong (see Cardinaletti and Starke 1994). In other words, deficient possessives divide into clitic and weak, the former adjoined to D, the latter occurring in a pre-nominal specifier below D (section 1.2). This typology allows us to account for the properties of possessive systems in both Romance and Germanic languages (section 1.3);

• the Italian possessive that is only weak, i.e. the 3rd person plural *loro* 'their', differs from the other possessives in that it does not display adjectival properties. We suggest that it is a personal pronoun used DP-internally. A similar conclusion holds for *cui*, a weak relative pronoun. Among modern Romance languages, DP-internal personal

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pronouns are found in Italian and Rumanian, i.e. in those languages which have the corresponding weak oblique personal pronoun (section 2.1-3). DP-internal personal pronouns are very common in Germanic and Slavic languages (section 2.4);

• with respect to the other possessives, *loro* and *cui* also display special properties when the head noun is not realized (section 3) and when they occur with singular kinship nouns (section 4). The study of ellipsis constructions in section 3 leads us to the conclusion that the possessive following the determiner is weak and not strong, despite *prima facie* morphological evidence to the contrary. The study of singular kinship nouns in section 4 leads us to the conclusion that Italian has clitic possessive modifiers, like e.g. French and Spanish.

1. The possessive system

In languages like Italian, possessive modifiers can appear both in pre-nominal and post-nominal position:

(1)	a.	la	sua	casa	
	b.	la		casa	sua
		the	*his/her*	*house*	*his/her*

In the pre-nominal position, possessives precede all other modifiers, as shown in (2); in the post-nominal position, possessives follow demonstrative reinforcers such as *qui* 'here', (3)a vs. (3)b, and precede the complements of the noun, (3)a vs. (3)c (cf. Brugè 1997):[1]

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[1]. (3)c is grammatical if there is a pause between the complement of the noun (*di sintassi*) and the possessive, and the latter is focalized. This is the pattern typical of DP-final predicative adjectives, as exemplified by (i) (cf. Cinque 1994:92ff):

(i) a. la loro aggressione all'Albania, brutale

b. la loro aggressione all'Albania, improvvisa e brutale

the their aggression against Albania, sudden and brutal

We discuss some instances of post-nominal predicative possessives in sections 1.2 and 3. below.

(2) a. la sua bella casa
the his/her nice house
b. le sue due altre probabili goffe reazioni immediate alla tua lettera
(Cinque 1994:95)
the his/her two other probable clumsy reactions immediate to-the your letter

(3)a.	Questo libro	qui	suo	di sintassi		non mi convince.
	this book	*here*	*his/her*	*of syntax*		*not me convinces*
b.	*Questo libro suo	qui		di sintassi		non mi convince.
c.	*Questo libro	(qui)		di sintassi	suo	non mi convince.

The existence of pairs as in (1) is consistent with the view that the pre-nominal and the thematic position of possessives are transformationally related (cf. Langacker 1968, Kayne 1977, Belletti 1978). The derivation of the sentences in (1) is as in (4):

(4) a. $[_{DP}$ la $[_{XP}$ ... $[_{YP}$ casa$_k$ $[_{NP}$ sua $[$ t$_k$
b. $[_{DP}$ la $[_{XP}$ sua$_i$ ... $[_{YP}$ casa$_k$ $[_{NP}$ t$_i$ $[$ t$_k$

(Notice that the base position of possessives shown in (4)a ends up to be post-nominal at Spell-Out due to overt movement of the noun to a functional head intermediate between N and D, cf. Cinque 1994.)

The existence of both (1)a and (1)b could suggest that possessive movement is optional in Italian. A closer look at these sentences reveals that it is not.

Brugè (1997:293) shows that in Spanish, post-nominal possessives follow post-nominal demonstratives, which in her analysis have the same location as the Italian demonstrative reinforcer qui:

(ii) El libro (viejo) este suyo de sintaxis no me convence.
the book (old) this his/her of syntax not me convinces

1.1. Pre-nominal possessives are deficient, post-nominal ones are strong

The transformational relation between the base position and the pre-nominal position of possessives needs to be qualified. The interpretation of *sua* is slightly different in (1)a and (1)b. In (1)b, the possessive is necessarily focalized, and the contrast can be overt, as in (5)a. Post-nominal possessives are also possible when they are coordinated and modified, as in (5)b,c:

(5)a. la casa SUA, non tua
the house his/her, not yours

b. la casa sua e tua / sua e di Maria
the house his/her and yours / his/her and of Mary

c. la casa solo / proprio sua
the house only / really his/her

On the other hand, pre-nominal possessives cannot be contrasted, coordinated, nor modified:[2]

(6)a. *la SUA casa, non tua

b. *la sua e tua / sua e di Maria casa

c. *la solo / proprio sua casa

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2. In the ungrammatical (6)a, the contrast involves the possessive per se. The possessive can however be focalized in order to contrast the whole noun phrase, as in (i):

(i) la SUA casa, non la tua
the his house, not (the) your

In apparent conjunctions of pre-nominal possessives, as in *la mia e tua segretaria* 'the my and your secretary', we very probably have a case of backward deletion in the first conjunct, from *la mia segretaria e tua segretaria*, as suggested by Chris Wilder (personal communication). He also observes that *my and your secretary* is considerably better than (39) below in the text and should be analysed in the same way as the Italian example.

The contrast between (1)a/(6) on the one hand and (1)b/ (5) on the other recalls the well-known contrast between clitic and strong personal pronouns, illustrated in (7):

(7)a. Gianni la conosce.
John her knows
b. Gianni *LA / *la e sua madre / *solo la conosce.
c. Gianni conosce LEI / lei e sua madre / solo lei.
John knows her / her and her mother / only her

The analysis of personal pronouns into distinct grammatical classes (cf. Kayne 1977) can be extended to possessives, and the distribution of possessives can be expressed in related terms. In (1)b and (5), the possessive is strong and remains in the base position. In (1)a, the possessive is deficient (cf. Cardinaletti and Starke 1994 for the motivation of this term) and must move to the pre-nominal position before spell-out.

Like any deficient element, the deficient possessive must in fact be licensed in a designated specifier position. Following Picallo (1994:269), the licensing of pre-nominal possessives "can be compared to structural case-assignment to an argument". Since possessives behave as subjects of DPs (cf. Cinque 1980) and since they occupy a very high position in the DP – they precede all adjectives, see (2) above –, we take the position where deficient possessives are licensed to be a pre-nominal "subject" position, corresponding to specAgrS in the clausal domain. In the spirit of Szabolcsi (1983), (1987), we call it specAgrS$_N$P, where the subscript indicates that we are dealing with the extended projection of a nominal head. (4)b above can be rewritten as (8):

(8) $[_{DP}$ la $[_{AGRS_NP}$ sua$_i$ ... $[_{YP}$ casa$_k$ $[_{NP}$ t$_i$ [t$_k$

(Notice that Picallo's (1994:276-277) proposal that possessives are in specNumberP and the noun in Number° cannot be adopted because, as we saw above, the two are not adjacent.)

The semantic properties of possessives support an analysis in terms of the deficient/strong opposition. When occurring in post-nominal position, possessives become restricted to human referents, (9), again parallel to personal pronouns, (10):[3]

		<i = John>	<i = frying pan>
(9)a.	Il suo$_i$ coperchio è molto pratico.	✓	✓
	the his/its lid is very practical		
b.	Il coperchio SUO$_i$ è molto pratico.	✓	*
(10)a.	Gianni lo$_i$ ha visto.	✓	✓
	Gianni him has seen		
b.	Gianni ha visto LUI$_i$.	✓	*

The interpretation of the possessive modifier is similarly constrained in other contexts. In post-nominal predicative position, most clearly manifested in the context of *ne*-cliticization as in (11), in the predicate position of e.g. copular sentences, as in (12), and in the isolation context in (13), the possessive is ungrammatical if it refers to an object:[4]

(11) a. (Di libri) ne ho comprati due suoi.
of books [I] NE have bought two his

b. *(Di coperchi) ne ho comprati due suoi.
of lids [I] NE have bought two its

(12) a. Questo libro è suo.
this book is his

b. *Questo coperchio è suo.
this lid is its

---

3. Sentence (9)b is grammatical in the irrelevant reading in which *suo* means 'appropriato' 'appropriate', and is no longer a possessive. See also *È il suo* in the idiomatic meaning of 'it is the correct one'.

4. The parallelism between material left in situ by *ne*-cliticization and predicative elements has been documented by Cardinaletti and Giusti (1991) and Cinque (1991). The parallelism is confirmed by the distribution of possessives in (11) and (12).

(13) a. Speaker A: Di quale ragazzo è questo libro? Speaker B: Suo.
of which boy is this book? his

b. *Speaker A: Di quale pentola è questo coperchio? Speaker B: Suo.
of which saucepan is this lid? its

The interpretation test thus individuates all the positions in (11)-(13) as restricted to strong elements. The pre-nominal position is the only one able to host deficient possessives.

Referential properties of strong/deficient possessives also mirror those of personal pronouns. Deficient possessives may not introduce a new discourse referent. For instance, they cannot be used with ostension, a way of identifying a new discourse referent, whereas no restriction is found on the strong, post-nominal possessive, (14)a vs. (14)b. (15) shows an identical pattern with personal pronouns:

(14) Speaker A: La macchina di chi ti ha investito?
The car of whom you has run over?

a. *Speaker B: La ☞ sua macchina.

b. Speaker B: La macchina ☞ sua.
the his/her car

(15) a. *Gianni ☞ l'ha aiutata.

b. Gianni ha aiutato ☞ lei.
Gianni (her) has helped (her)

Finally, morphological evidence from languages different from Italian confirms the different syntactic status of pre- and post-nominal possessives. In Paduan and Spanish, for instance, pre-nominal and post-nominal possessives have a different morphological realisation:[5]

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5. Many Italian dialects have two different paradigms of possessives, cf. Rohlfs (1968) and Poletto (1995). On the obligatory presence of the determiner with post-nominal possessives (as e.g. in Spanish (17)b), see Brugè (1997:3.5.2).

(16) a. el **me** libro (Paduan)
the my book
b. el libro **mio**

(17) a. **mi** libro (Spanish)
b. el / este libro **mío**

The two morphological forms correlate with a different distribution: the former can only appear in pre-nominal position, as in (16)a and (17)a, the latter appears in post-nominal position, as in (16)b and (17)b, and in the other strong positions individuated above, such as predicative and isolation structures:

(18) a. Sto libro ze **mio**.
this book is mine
b. Speaker A: Sto libro di chi zelo? Speaker B: **Mio**.
whose book is this? mine

(19) a. Este libro es **mío**.
b. Speaker A: ¿De quién es este libro? Speaker B: **Mío**.

As discussed in Poletto and Tomaselli (1994:171), Paduan pre-nominal possessives display the typical properties of deficient elements: among others, they cannot be contrasted and cannot be coordinated, (20), and differ in these respects from the strong, post-nominal

(20) a. *el so gato, no mio
the his cat, not mine
b. *el me e to gato
the my and your cat

---

6. As seen above for Italian, contrast on the pre-nominal possessive is possible provided that the whole DP is contrasted (judgments due to Paola Benincà, p.c.):

(ii)a. *el ME libro, no tuo
b. el ME libro, no el tuo / no el to libro
the my book, not (the) yours / not the your book

(21) a. el gato SUO, no mio
the cat his, not mine
b. el gato mio e tuo
the cat my and your

The same is true for Spanish: pre-nominal possessives cannot be focalized, coordinated, nor modified (cf. Picallo 1994, Brugè 1997:3.4).

In conclusion, the deficient/strong opposition found in pronominal systems also characterizes possessive systems. If possessives are adjectives, as traditionally claimed (see section 2.2 below), this means that what we have found here is pairs of deficient/strong adjectives. The fact that the deficient/strong opposition is found across syntactic categories fits well with the approach in Cardinaletti and Starke (1994), in which the underlying cause of the distinction is a structural difference: Deficient elements are a structural subset of strong elements, regardless of the labels on the structure.

1.2. The tripartition in possessives

Interestingly, the tripartition individuated in personal pronouns (cf. Cardinaletti and Starke 1994) is also reproduced in possessive modifiers. In some languages, beyond the distinction in deficient and strong, two types of deficient possessives exist, so that all the three classes of clitic, weak and strong possessives must be assumed.

In Paduan, for instance, some deficient possessives allow doubling and some do not:[7]

(22) a. so pare de Toni
his father of Toni
b. *el so libro de Toni
the his book of Toni

---

7. We thank Paola Benincà for kindly providing the relevant judgments. See also Cinque (1980:fn.15) and Poletto (1995:section 3), where this contrast is also noted.

Doubling is *clitic* doubling. As the following Italian contrast shows, it is possible if the doubling element is the clitic *gli*, but ungrammatical if the doubling element is the weak pronoun *loro* (cf. Cardinaletti 1991:137, Cardinaletti and Starke 1994:section 3.2.2):

(23) a. Gliel'ha dato ai bambini.
[he] to-him-it has given to-the children
b. *L'ha dato loro ai bambini.
[he] it has given to-them to-the children

Only the deficient possessive in (22)a is a clitic, presumably adjoined to D°. This correlates with the fact that in this case, the possessive does not co-occur with the determiner.[8] In (22)b, on the other hand, the deficient possessive is weak: it occurs in a lower specifier position, what we have called spec$AgrS_NP$ above. Doubling is predicted to be ungrammatical.[9]

The analysis we propose here for Paduan (22)a is the same as the one proposed by Picallo (1994:section 5.1) for Spanish pre-nominal possessives, as in (17)a. *So* and *mi* are clitic, adjoined to D°. Picallo's two-step derivation of clitic possessives is in agreement with the general view of clitic placement (cf. Sportiche 1989, Cardinaletti and Starke 1994:section 6.3): the clitic possessive first moves to spec$AgrS_NP$ as a (deficient) maximal projection; from there, the head of the projection adjoins to D°.

Since the implication concerning doubling goes one way only ("doubling implies clitic", but not "clitic implies doubling"), the ungrammaticality of doubling in Spanish (**su padre de él/ella* 'his/her father of him/her') does not affect the above conclusion.

To conclude the illustration of Spanish facts, we should mention that in Old Spanish and in some modern Spanish dialects, pre-nominal possessives can co-occur with the determiner: *la mi casa* 'the my house', *este mi libro* 'this my book' (see Picallo 1994:281,fn.14;293,fn.23 and Brugè 1997:Ch.3,fn.35). In the tripartition framework, these are instances of weak possessives.

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8. In Paduan, as well as in Italian, determiners are missing with singular kinship nouns. See section 4 for discussion.

9. We differ here from Poletto and Tomaselli's (1994:sect. 2.1) analysis of the Paduan possessives in (16)a and (22)b as also being clitics, adjoined to the head below D. We also reject the same analysis for Italian pre-nominal possessives: they are not clitic, but weak (see below in the text).

Going back to Italian deficient possessives, it is easy to verify that they are weak and not clitic. The fact that possessives co-occur with the determiner is a first hint in that direction, which is confirmed by their behaviour in the contexts of N-to-D-raising studied in Longobardi (1994) and (1995). In these contexts, possessives do not block N-movement nor do they cliticize on the noun as a clitic would:[10]

(24) a. Gianni$_i$ mio t_i
Gianni my
b. casa$_i$ mia t_i
house my

Before closing this section, a few words must be devoted to the following construction, found in both Italian and Paduan. A possessive in post-nominal and predicative position can co-occur with a pronominal *of*-phrase:

(25) a. il libro suo di lui
the book his of him
b. E' suo di lui.
[it] is his of him

(26) a. el libro suo de ju
b. El ze suo de ju.

We do not take this construction to be an instance of doubling. Contrary to true instances of doubling, (25) and (26) involve strong possessives (as is clear from their distribution, e.g. their occurring in post-nominal position, and, in Paduan, from their morphology), and the possessive and the *di*-phrase form a constituent (**il libro suo di*

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10. Giorgi and Longobardi (1991:Ch.3) phrase the distinction between e.g. Spanish *mi* and Italian *mio* in terms of determiner vs. adjective, seeming to imply, without explicitely stating so, the distinction head vs. phrase which is crucial in our account involving the clitic/weak opposition (for criticism of the determiner-vs.-adjective analysis, see Giusti 1993:63-66). Giorgi and Longobardi also distinguish between weak and strong possessives. These are however purely distributional notions (cf. Giorgi and Longobardi 1991:158), and differ from our understanding of "weak" and "strong". The two accounts most clearly differ in the treatment of possessives in the ellipsis construction, strong for them, weak for us (see section 3 below).

sintassi di lui vs. *il libro di sintassi [suo di lui]* 'the book of syntax his of him'). Furthermore, the construction is only possible with 3rd person singular possessives (cf. **E' mio di me* '[it] is mine of me', **E' vostro di voi* '[it] is yours of you'), displaying a restriction never found in doubling. Without trying to give a detailed analysis of (25)-(26), we simply notice that, as suggested by Poletto (1995:section 3), this construction should be analyzed as a sort of reduced predicative structure. The fact that the possessive constituent only follows the complement of the noun (**il libro [suo di lui] di sintassi* vs. *il libro di sintassi [suo di lui]* 'the book of syntax his of him', cf. (3)c) suggests that it occurs in the DP-final predicative position mentioned in fn.1. The person restriction is probably due to the fact that in Italian and Paduan, only 3rd person singular personal pronouns are marked for gender features, in combination with the disambiguation function of the construction (cf. Belletti 1978:fn.7 – notice that the 3rd person singular possessive *suo* does not differentiate between masculine and feminine referents, contrary to e.g. English *his* vs. *her*).[11]

1.3. Deficient and strong possessives in French and English

The tripartition seen in Paduan language-internally allows us to make sense of less clear patterns in other languages.

Consider French first. French possessives qualify as deficient. They have reduced forms with respect to the form used in the absence of the head noun: *mes livres* vs. *les miennes* 'my books', 'the mine' (cf. section 3.1 below); they are restricted to the pre-nominal, derived position, (27), cannot be coordinated, (28), and can have a non-human referent, (29):[12]

---

11. In those Italian varieties in which the 3rd person plural possessive is the same as the 3rd person singular one, the construction is also used to disambiguate number: *suo di lui* vs. *suo di loro* 'his of him' vs. 'his (=their) of them' (see Rohlfs 1968:122, fn.6).

12. The pre-nominal deficient form *ta* can receive contrastive focus. But the contrast does not involve the possessive per se, rather it is the whole noun phrase which is contrasted (cf. fn. 2 and fn. 6 for Italian and Paduan, respectively):

(i) a. C'est TA recette qui est bonne, pas sa recette.

(27) a. ses livres
his/her books
b.* (les) livres ses
the books his/her

(28) *Ta et sa recette est tres bonne / sont tres bonnes.
your and his/her recipe is / are very good

(29) Ses constituants sont courts. (= de cette phrase)
its constituents are short (= of this sentence)

At least three facts point to the clitic status of French possessives. First, (in substandard French) they allow doubling:

(30) a. mon livre à moi (Kayne 1977:188)
my book to me
b. ta maison à toi
your house to you
c. ses enfants à lui
his children to him

The restrictions on possessive doubling are the same as those on personal pronouns: the doubled element can only be a pronoun:[13]

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b. C'est TA recette qui est bonne, pas la sienne.
it is your recipe that is good, not (the) his (recipe)

13. Full DPs must be right-dislocated, (i), which explains why quantifiers are ungrammatical in (ii):

(i) a. Nous avons vu son livre, à ce garçon. (Kayne 1977:191, fn. 155)
we have seen his book, to this boy
b. Son mari est mort, à cette femme.
her husband is dead, to this woman

(31) a. son livre à lui
b. *son livre à Jean
his book to him / Jean

(32) a. Il m'a vu moi.
he me has seen me
b. *Il l'a vu Jean.
he him has seen Jean

Second, on a par with clitic pronouns, (34), French possessives license floating quantifiers, (33), another construction which distinguishes between clitic and weak elements, as the Italian contrast in (35) shows:

(33) Elle a tué notre chef à tous. (Kayne 1977:189)
she has killed our boss to all

(ii) **son livre, à personne
his book, to nobody

Right Dislocation also distinguishes between clitic and weak elements. As shown by Italian (iii), Right Dislocation is possible with clitic *gli*, but impossible with weak *loro* (cf. Cardinaletti 1991:137 for Left Dislocation):

(iii)a. Il professore non gli ha dato l'autorizzazione, a quello studente.
the professor not to-him has given the authorization, to that student
b. *Il professore non ha dato loro l'autorizzazione, a quegli studenti.
the professor not has given to-them the authorization, to those students

Sentences like (i) thus support the view that French possessives are clitic. It should however be mentioned that the sentences in (i) are judged rather marginal by our informants.
As expected if Italian and Paduan pre-nominal possessives are weak (see section 1.2. above), the sentences in (i) are ungrammatical in both Italian and Paduan (they are acceptable in the irrelevant reading in which the DP-final prepositional phrase is perceived as an afterthought).

(34) Il nous en offrira à tous. (Kayne 1977:189)
he to-us it will-offer to all

(35) a. Gliel'ho detto a tutti.
[I] to-him it have said to all
b. *L'ho detto loro a tutti.
[I] it have said to-them to all

Third, they display the declension typical of clitic elements, which, in French, do not have gender distinctions in the plural. Compare *mon*, *ma*, *mes* 'myMASC', 'myFEM', 'myPL' with the clitic pronouns *le*, *la*, *les* 'him', 'her', 'them' (vs. the strong pronouns *lui*, *elle*, *eux*, *elles* 'he', 'her', 'themMASC', themFEM'). It is in fact a general property of clitics that they display more syncretic forms than their weak or strong counterparts. Compare the Spanish clitic possessives, which only differentiate number (*mi* vs. *mis* 'mySING', 'myPL'), with the strong counterparts, which distinguish four forms (*mío*, *mía*, *míos*, *mías*). Also compare the dative clitic pronoun *gli* of spoken Italian, which does not distinguish either gender or number ('to-him' / 'to-her' / 'to-them'), with the fully inflected strong counterparts *a lui* / *a lei* / *a loro*.

French clitic possessives cliticize to D°. The correlation between being clitic and being ungrammatical with the determiner, seen above in Paduan and Spanish, holds in French too. French possessives do not co-occur with the definite article:

(36) (*le) son livre
*(*the) his book*

Finally, notice that French does not have strong possessives. In all positions where strong possessives are required, such as post-nominal, predicative and isolation contexts, a prepositional phrase shows up:

(37) a. un / cet ami *mon / *mien / à moi
*a / this friend *my / *mine / to me*
b. Ce livre est *mon / *mien / à moi.
*this book is *my / *mine / to me*
c. Speaker A: A qui est ce livre? Speaker B: *Mon / *Mien / A moi.
*to whom is this book? *my / *mine / to me*

We do not have an explanation for the fact that strong possessives do not exist in French. The reason however cannot be that French does not have adjectival possessives (cf. Kayne 1977:fn.155). The longer forms, which could in principle occur in the contexts in (37), display the typical adjectival declension (*mien*, *mienne*, *miens*, *miennes*, etc. 'mine$_{\text{MASC-SING}}$', 'mine$_{\text{FEM-SING}}$', 'mine$_{\text{MASC-PL}}$', 'mine$_{\text{FEM-PL}}$'; see section 3.1 below).

English possessives display similar properties. They only appear pre-nominally, (38), cannot be coordinated, (39), and a pre-nominal possessive referring to a [-human] entity is possible, (40):

(38) a. her book
b. *(the) book her

(39) *Your and her recipe(s) is / are very good.

(40) Its constituents are short. (= of this sentence)

In predicative and isolation contexts, longer forms are used, which we now take to be strong possessives:

(41) a. **her** house
b. This is **hers.**
c. Speaker A: Whose book is this? Speaker B: **Hers.**

The semantic restriction on strong possessives explains why the English 3rd person neuter possessive *its* has no strong counterpart to be used in predicative position and in isolation:

(42) a. **its** roof
b. *This is **its.**
c. *Speaker A: Whose roof is this? Speaker B: **Its.**

English possessives do not co-occur with determiners, but do not allow doubling:

(43) a. *the her house
b. *her house of Mary

(43)a suggests that English deficient possessives are clitic. Since, as we saw above, the implication concerning doubling goes one way only ("doubling implies clitic", but not "clitic implies doubling"), the hypothesis that English possessives are clitics is compatible with the absence of doubling.[14]

A final remark concerns the question as to why post-nominal possessives are ungrammatical (**the house her / hers*) in spite of the fact that strong forms exist. As a preliminary answer, this restriction could be reduced to the ungrammaticality of **the house John's*.

2. Exclusively weak possessives

In Italian, two possessive elements are only weak: the 3rd person plural *loro* 'their' and the relative *cui* 'whose'. We will treat them in turn, starting with *loro*. As we will see, being only weak is not the unique peculiar property of *loro* and *cui*. Differently from the other possessives, they do not display adjectival properties.

2.1. The 3rd person plural possessive *loro*

Like the other possessives, the 3rd person plural possessive *loro* appears in pre-nominal position, where it precedes the pre-nominal modifiers of the noun, (44)a;

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14. An alternative analysis is that English deficient possessives are weak and occur in the specAgrS_NP position, with the supplementary hypothesis that the requirement that D be lexically filled is not operative here. For the present concerns, nothing hinges on this choice, and we leave the issue open. What is clearly excluded in the present framework, however, is that the lack of the determiner is explained by moving English deficient possessives to specDP (cf. Giusti 1993:65). Since specDP is not a case-related position, it is not open to deficient phrases. This analysis is however in principle available to full pre-nominal possessives, as in *John's book*.

however, differently from the other possessives, it cannot appear post-nominally, (44)b:[15]

(44) a. il loro interessante libro di sintassi
b. *il libro loro di sintassi
the their interesting book of syntax

The only contexts in which *loro* does appear in post-nominal position are those of N-to-D raising (cf. Longobardi 1994 and 1995), provoking a structure where the noun is in D and the possessive in its usual pre-nominal position:[16]

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[15]. It should be mentioned that post-nominal *loro* sounds better if the DP is indefinite: **l'amico loro* vs. ?(?)*un amico loro* 'the / a friend their'. This could be related to the well-known fact that possessives behave differently with definite and indefinite DPs. In many languages, pre-nominal possessives are ungrammatical with indefinite determiners, which require post-nominal possessives: cf. Brazilian Portuguese *o meu livro* 'the my book' vs. **um meu livro / um livro meu* 'a book mine' (Carlos Mioto, p.c.). We leave this important question aside here.

[16]. N-to-D movement can also account for the word order in the idiomatic expressions in (i), where *loro* follows the determinerless head noun:

(i) a. in cuor loro
in heart their
b. da parte loro
on place their

These PPs contrast with (ii), where the determiner is present and *loro* cannot be post-nominal:

(ii)a. nel loro cuore / *nel cuore loro
b. dalla loro parte / * dalla parte loro

The prepositional phrases *al posto loro* 'at-the place their' (= if I were them) and *dal canto loro* (= from their viewpoint) display a post-nominal *loro* in spite of the presence of the determiner. This unexpected word order is explained by the fact that these expressions are frozen. *Al posto loro* contrasts with the non-idiomatic noun phrase **il posto loro*, which is ungrammatical, and *canto* is no longer used as a noun with the corresponding meaning.

(45) a. Gianni$_i$ loro t_i
Gianni their
b. casa$_i$ loro t_i
home their

In addition to the post-nominal position exemplified in (44)b, *loro* is ungrammatical in the following contexts: in post-nominal predicative position, as e.g. the context of *ne*-cliticization in (46), in the predicative position of (copular, epistemic, causative) small clauses in (47), and in isolation, (48). In all examples, we contrast *loro* with *suo*:[17]

(46) a. (Di libri) ne ho comprati due suoi / ?*loro.
*of books [I] NE have bought two his / *theirs*
b. (Di libri) ne ho comprati due di suoi / *di loro.
*of books [I] NE have bought two of his / *of theirs*
c. Ne ho letti di suoi / *di loro.
*[I] NE have read of his / *of theirs*

(47) a. Questo ritratto è suo / ?*loro.
*this painting is his / *theirs*
b. Ritengo questo quadro suo / *loro.
*[I] consider this painting his / *theirs*

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17. In *ne*-cliticization, *di* in front of the predicative possessive is required if the quantifier is absent, as in (46)c. If the quantifier is present, there is free variation among speakers, (46)a,b. The same pattern holds with predicative adjectives:

(i) a. (A proposito di libri di storia), ultimamente ne ho comprati due (di) interessanti.
b. (A proposito di libri di storia), ultimamente ne ho comprati *(di) interessanti.
(speaking of books of history), lately [I] NE have bought (two) (of) interesting

b'. Ritengo suo / *loro questo quadro.
*[I] consider his / *theirs this painting*

c. Gianni ha fatto sue / *I politici hanno fatto loro quelle istanze.[18]
*Gianni has made his / *the politicians have made theirs those requests*

(48) Speaker A: Di chi è questo libro? Speaker B: Suo / *Loro.
*whose book is this? his / *theirs*

In these cases, other forms must be used to express a strong 3rd person plural possessor: either the prepositional phrase *di loro* 'of them', as in (46)a (*Di libri, ne ho comprati due di loro*), (47)a,b (*Questo ritratto è di loro*; *Ritengo questo quadro di loro*) and (48) (*Di chi è questo libro? Di loro*), or the anaphoric possessive adjective *proprio* 'own', as in (47)c (*I politici hanno fatto proprie quelle istanze* 'the politicians have made own those requests'). The result of using *di loro* in (46)b is indistinguishable from (46)a. On the other hand, there is no grammatical output for (46)c, and the unmarked quantifier *alcuni* 'some' must be inserted: *Ne ho letti alcuni di loro.*

In sum: the distribution of *loro* is restricted to the DP-internal, pre-nominal position of possessives. In the above terms, *loro* is a deficient element with no strong counterpart. Given its deficient status, *loro* is able to refer to both human and non-human entities. See (44)a and (49):

(49) la loro facciata principale
the their (= of the buildings) front main

Loro qualifies as a maximal projection and is therefore a weak, not a clitic element. Like other possessives, it does not block N-to-D raising of proper names and nouns like *casa*, nor does it cliticize onto them (see the examples in (45) above).

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18. The French counterpart of (47)c is grammatical, as expected if the French 3rd person plural possessive *leur* behaves like the other possessives in displaying adjectival properties (see section 2.2 below):

(ii) Les gens qui ont fait leur cet univers...
the people who have made theirs this universe...

2.2. *Loro* is a weak personal pronoun

The fact that *loro* does not have a strong counterpart could be simply due to a lexical gap. However, this is not the only peculiar property of *loro*. Whereas Italian possessives agree in number and gender with the head noun, *loro* is an invariant form:[19]

(50) a. il mio caro amico
b. la mia cara amica
c. i miei cari amici
d. le mie care amiche
*the*SING/PL;MASC/FEM *my*SING/PL;MASC/FEM *dear*SING/PL;MASC/FEM *friend(s)*MASC/FEM

(51) a. il loro caro amico
b. la loro cara amica (cf. *lora)
c. i loro cari amici (cf. *lori)
d. le loro care amiche (cf. *lore)
*the*SING/PL;MASC/FEM *their* *dear*SING/PL;MASC/FEM *friend(s)*MASC/FEM

Rather than assuming that some possessive modifiers may lack a strong counterpart, we will try to correlate the two properties of *loro* just seen.

Traditionally, possessives are taken to be adjectives (see also Giusti 1993:63-66). The agreement pattern on *mio* in (50) is typical of adjectives, and possessives can be used in predicative positions, once again like adjectives (see (11)-(12) and (46)-(47) above). If possessives are adjectives, *loro* could be taken to be an invariable adjective. However, as noted by Zamparelli (1993), invariable adjectives are restricted to the

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19. No morphological constraint prevents agreement on this lexical form. In Paduan, the homophonous 3rd person plural subject pronoun displays gender-inflected forms:

(i) lori / lore (Benincà 1983:27)
*they*MASC/*they*FEM

post-nominal position, as in (52)a. They cannot appear pre-nominally, (52)b, where only agreeing adjectives such as *rossa* in (52)c are allowed:

(52) a. il vestito / i vestiti blu
the dress / the dresses blue
b. *la blu bandiera degli avversari
c. la rossa bandiera degli avversari
*the *blue / redFEM flag of-the enemies*

In order to capture both the fact that *loro* is only weak and the fact that it is an invariant form, we suggest that *loro* is a personal pronoun. Support for this hypothesis comes from the homophony with the dative weak pronoun *loro* found in examples such as (53) (see Cardinaletti 1991):

(53) Il professore non diede loro l'autorizzazione.
the professor not gave [to] them the-authorisation

This means that the morpheme *loro* is a weak oblique pronoun which can function as a possessive (genitive) in the nominal domain and as a dative in the sentential domain.[20] That the use of *loro* as both a genitive and a dative is a case of syncretism corresponds to the traditional view (cf. Rohlfs 1969:6,fn.1). The syncretism of genitive and dative case is typical of Romance languages. According to Renzi (in press), the syncretism found in Western Romance languages such as Italian also involves accusative case, so that *loro* should be regarded as an oblique weak pronoun which stands for genitive, dative and accusative.[21] However, the accusative instance of weak *loro* is never visible

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20. Notice that *loro* expresses a DP-internal *structural* genitive (cf. Siloni 1994, Cinque 1995), and cannot be used as an *inherent* genitive in the sentential domain:

(ii)a. Mi ricordo *(di) loro.
[I] REFL remember of them
b. Abbiamo discusso *(di) loro.
[we] have discussed of them

21. In Rumanian, on the other hand, the case syncretism only involves genitive and dative (see Renzi, in press):

due to the existence of the clitic counterparts *li/le*: **Vedo loro*$_{WEAK}$ '[I] see them' vs. *Li/Le vedo* '[I] them$_{MASC/FEM}$ see'.[22]

This analysis is supported by stylistic, geographical and diachronic considerations. Both genitive and dative *loro* belong to formal Italian and are absent in colloquial Italian. They are also absent in most Italian dialects (cf. Rohlfs 1968:§§427-429 and 463-464).[23] If they are one and the same lexical item, these observations do not need further qualification.

The comparison between Old Italian and Modern Italian provides diachronic support for the conflation of the two uses of *loro*. In Old Italian, the possibility for a bare weak pronoun to function as a dative and a possessive is not restricted to the 3rd person plural pronoun *loro*, but also holds for the 3rd person sing. pronouns *lui* and *lei*, as shown in (54) and (55) respectively, and for other pronominal forms discussed in Renzi (in press), such as *cui* '[to]/[of] whom' and *altrui* '[to]/[of] others':

(54) a. mostrato ho lui tutta la gente ria
(Dante, Divina Commedia, Purg. 1, 64)
shown have [I] [to] him all the people guilty

b. ond'io risposi lei
(Dante, Divina Commedia, Purg. 33, 91)
then I answered [to] her

(i) a. portretul regelui (Grosu 1988)
portrait-the [of] king-the

b. Ion a 'i scris profesorului.
Ion has also written [to] professor-the

22. Given the Minimize Structure Principle of Cardinaletti and Starke (1994:Section 7.1), the smallest possible form, here the clitic pronoun, must be chosen over the bigger form, here the weak pronoun.

23. In those dialects in which the 3rd person plural possessive patterns with the other possessives in taking the invariable ending *-a* (*lora*) and in occurring post-nominally (cf. Salvioni, quoted in Rohlfs 1968:121), we take it to have been reanalysed as an adjective, as is the case of French *leur* (see below in the text).

(55) a. il lui padre (Straparola, from Rohlfs 1968:137)
the [of] him father
b. il lei marito / la lei bellezza
the [of] her husband / the [of] her beauty

In Modern Italian, *lui* and *lei* are lost both in the function of dative and in the function of possessive. The counterparts of (54) and (55) are ungrammatical, and *lui* and *lei* are only analysed as strong pronouns. In order to function as datives and possessives, a Case-marking preposition must be inserted, as with full DPs: *a* and *di*, respectively:

(56) a. Ho mostrato *(a) lui tutta la gente colpevole.
b. Risposi *(a) lei.

(57) a. il padre *(di) lui
b. il marito *(di) lei / la bellezza *(di) lei

Now, the parallel existence and disappearance of 3rd person bare-dative pronouns and bare-genitive possessives can be easily explained if they are one and the same lexical entry.

This conclusion is further supported by a comparative Romance perspective: Those languages which do not have the dative weak pronoun corresponding to *loro* also do not have the genitive counterpart. In French, *leur* is a clitic pronoun in the sentential domain and a (clitic) agreeing adjective in the nominal domain. In (58)a, it occurs between negation and finite verb, the typical position for clitic pronouns; in (58)b, *leur* agrees with the head noun, on a par with the other possessives:

(58) a. Je ne leur parle pas.
I not to-them speak not
b. J'aime leures amies.
I like their-FEM friends-FEM

Similarly, Catalan does not have a weak dative pronoun *llur*, and possessive *llur* agrees with the head noun (cf. Picallo 1994:295,fn.25):

(59) M'agraden llurs amics
I like their friends

On the other hand, Rumanian has both dative and genitive weak personal pronouns: the 3rd person singular *lui/ ei* and the 3rd person plural *lor* (cf. Cornilescu 1993):

(60) a. Îi face lui / ei un portret.
[I] [to] him/her do to-him / to-her a portrait
a' Le face lor un portret.
[I] [to] them do to-them a portrait
b. elegantul lui / ei / lor apartment
elegant-the his / her / their apartment

Loro is not the only oblique pronoun found DP-internally in Italian. Similar properties hold of the relative possessive *cui* discussed in next section. Nor is this an idiosyncratic fact about Italian and Rumanian, or Romance languages. Personal pronouns inside DPs are found in other language families as well, as we will see in section 2.4.

2.3. The relative possessive *cui*

We now turn to the relative possessive *cui*. *Cui* is only pre-nominal, displaying a distributional restriction typical of deficient elements:[24]

(61) a. Giorgio, [la cui figlia] era malata...
b. *Giorgio, [la figlia cui] era malata...
(Cinque 1981/82:270)
Giorgio, the whose daughter was sick...

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24. The post-nominal position is available to the strong relative prepositional phrase *del quale*:

(i) Giorgio, [la figlia del quale] era malata, ...
Giorgio, the daughter of whom was sick, ...

Being deficient, *cui* can have both human and non-human referents:

(62) Quell'edificio, la cui facciata è stata appena restaurata ...
that building, the whose front has been just restored

Like *loro*, *cui* is homophonous with a bare dative, the dative relative pronoun *cui*:[25]

(63) L'uomo cui Gianni ha consegnato il pacco ...
the man [to] whom Gianni has delivered the packet...

As expected if it is not an adjective, *cui* does not agree with the head noun and is invariant:

(64) a. il cui amico
b. la cui amica
c. i cui amici
d. le cui amiche
the$_{SING/PL;MASC/FEM}$ *whose friend(s)*$_{MASC/FEM}$

We conclude that possessive *cui* is not the relative counterpart of adjectival possessives, but a weak relative pronoun.[26]

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25. Dative *cui* belongs to the same high stylistic level as dative *loro*. The more common way of realising a relative indirect object is with the PP *a cui*:

(i) L'uomo a cui Gianni ha consegnato il pacco ...
the man to whom Gianni has delivered the packet...

On the differences between genitive *cui* and *cui* object of preposition, see Cinque (1981/82).

26. Like all *wh*-elements, *cui* behaves as an R-expression with respect to Binding Theory and gives rise to Principle C effects when reconstruction obtains: *Gianni, la cui$_i$ figlia lo$_i$ aveva chiamato ieri, ...* 'Gianni, the whose daughter him had called yesterday'; **Gianni$_i$, della cui$_i$ figlia non gli$_i$ avevamo ancora parlato, ...* 'Gianni, about-the whose daughter [we] not to-him had yet talked', **Gianni$_i$, della cui$_i$ figlia l$_i$'ho convinto che avrebbe dovuto parlare, ...* 'Gianni, about-the whose daughter [I] him have convinced that [he] should have talked'.

2.4. Deficient possessive pronouns in Slavic and Germanic languages

The Italian and Rumanian paradigms seen above are not idiosyncratic. Similar patterns exist in other languages, which confirm the correlation between the agreement properties and the grammatical category of possessives.

In Slavic languages, if the possessive is an invariant form, it is homophonous with a personal pronoun. Consider the Slovak examples in (65), where (non-anaphoric) 3rd person possessives are the same as genitive personal pronouns. On the other hand, if the possessive agrees with the head noun and displays adjectival inflection, it is not homophonous with a personal pronoun. Contrast the possessive modifier in (66) with the genitive personal pronouns *teba* 'you-STRONG' and *t'a* 'you-CLITIC':[27]

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[27]. The Slavic paradigm in (i) could suggest that there is a one-to-one correlation between the syntactic status and the property of being anaphoric vs. non-anaphoric. In (i), adjectives are anaphoric and pronouns are obviative (the same holds for Scandinavian, see below in the text):

(i) a. Má$_i$ jeho$*_{i/k}$ knihu.

b. Má$_i$ svoju$_{i/*k}$ knihu.

[he] has his / his own book

The correlation does not exist in its strongest form. In e.g. Italian, both possessive adjectives and the pronoun *loro* can be anaphoric or non-anaphoric:

(ii)a. Ognuno$_i$ ama suo$_{i/k}$ figlio.

each loves his son

b. Non tutti$_i$ amano il loro$_{i/k}$ lavoro.

not all love the their work

However notice that the Italian possessive adjective *proprio* is only anaphoric:

(iii) Ognuno$_i$ ama il proprio$_{i/*k}$ figlio.

each loves the own son

(65) a. Mám jeho / jej / ich knihu.
b. Mám jeho / jej / ich knihy.
[I] have his/her/their book(s)-ACC

(66) a. Mám tvoju knihu.
b. Mám tvoje knihy.
[I] have your-ACC book(s)- ACC

(67) shows that the pronoun with possessive function is deficient: It can have both human and non-human referents:

(67) jeho objev (Czech; Veselovská 1995)
his (= Fleming's) discovery / its (= of the penicilin) discovery

In Swedish, 1st, 2nd and anaphoric 3rd person possessives have adjectival declension, (68). Non-anaphoric 3rd person possessives are invariant forms; morphologically, they are the same as the genitive form of the personal pronoun, (69):

(68)	a.	min bil	mitt hus	mina bilar
	b.	din bil	ditt hus	dina bilar
	c.	sin bil	sitt hus	sina bilar
	d.	vår bil	vårt hus	våra bilar
	e.	er bil	ert hus	era bilar
	f.	sin bil	sitt hus	sina bilar
	my/your/his-her/our/your/their car		*... house*	*... cars*
(69)	a.	hans bil	hans hus	hans bilar
	b.	hennes bil	hennes hus	hennes bilar
	c.	dess bil	dess hus	dess bilar
	d.	deras bil	deras hus	deras bilar
	his/her/its/their car		*... house*	*... cars*

In conclusion, the above asymmetry does not seem to be simply coincidental, and a language with adjectives for obviative use and bare pronouns for anaphoric use is probably impossible.

2.5. On the licensing of DP-internal personal pronouns

Weak personal pronouns in possessive function have the same distribution as weak possessive adjectives. No asymmetries are found between e.g. *suo* and *loro* in the pre-nominal field. This suggests that DP-internal weak genitive pronouns occur in specAgrS_NP as well, and that this position must be responsible for their case-licensing.

Once the case feature is checked, no further movement of the weak pronoun is allowed. In particular, it cannot be extracted out of the DP and moved to the position where weak pronouns are licensed in the clause. To be concrete, consider the following impossible derivation, where Italian *loro* has been moved to the position where the weak dative pronoun *loro* is licensed, as in (70)b:

(70) a. *Conosco $loro_i$ [$_{DP}$ il [$_{AGRS_NP}$ t_i ... [$_{NP}$ t_i libro]]]
[I] know of-them the book

b. Ho consegnato loro il libro.
[I] have delivered [to] them the book

On the other hand, the genitive clitic pronoun *ne* is moved out of DP. The case-licensing procedure which takes place in specAgrS_NP is not sufficient for clitic pronouns, which require an additional licensing mechanism not provided in DPs (cf. Cardinaletti and Starke 1994):[28]

(71) Ne_i conosco [$_{DP}$ il [$_{AGRS_NP}$ t_i ... [$_{NP}$ t_i libro]]]
[I] of-them know the book

3. The constructions with empty nouns

While reviewing the distributional asymmetries between *loro* and the other possessives, we have not mentioned the following contrast, which arises when the

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28. This reasoning does not apply to French clitic possessives *mon*, *ton*, *son*, etc., which are adjectives.

head noun is not present and is so to speak pronominalized by the demonstrative *quello*:

(72) a. Dammi quelli suoi.
give-me those his/her
b. *Dammi quelli loro.
give-me those their

This contrast can be captured by making reference to the deficient/strong opposition.

In order to understand the distribution of possessive modifiers in this construction, consider the behavior of adjectival modifiers. They show that *quello* requires the whole DP to be empty. Only DP-final predicative material is allowed. Adjectives such as *principale*, which cannot be used predicatively, are also ungrammatical with *quello*, as shown by the contrast between *convincente* and *principale* in (73)-(75) (on DP-final predicative adjectives, as in (74), also see fn.1):[29]

(73) a. Questo motivo è convincente.
this reason is convincing
b. *Questo motivo è principale. (Cinque 1994:93)
this reason is main

(74) a. Questo è il motivo della sua partenza, assai poco convincente.
this is the reason of-the his departure, very little convincing
b. *Questo è il motivo della sua partenza, PRINCIPALE.
(Cinque 1994:94)
this is the reason of-the his departure, main

(75) a. Dei motivi della sua partenza, quello convincente è che ...
of-the reasons of-the his departure, that convincing is that ...
b. *Dei motivi della sua partenza, quello principale è che ...
of-the reasons of-the his departure, that main is that ...

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29. *Principale* can only enter the ellipsis construction discussed below in the text:

(i) Dei due argomenti contro questa ipotesi, il principale [e] è che ...
of-the two arguments against this hypothesis, the main is that ...

Also notice that the form of the demonstrative in (72)a and (75)a is different from the usual pre-possessive/pre-adjective form: *quei suoi libri* 'those his books' vs. *Dammi *quei / quelli suoi*; *quel convincente motivo* 'that convincing reason' vs. ... **quel / quello convincente è che* ... (for the phonological form of the demonstrative, also see Rizzi (1979:179,fn.13) and Vanelli (1979:200,fn.3)). We conclude that in (72) the possessive is necessarily in the post-nominal predicative position. Since *loro*, being only weak, is ungrammatical in predicative position (see (46) and (47) above), it is expected that *loro* is also ungrammatical with pronominal *quello*. No restriction, on the other hand, is expected with *suo*, given that it can be strong: *suo* is in fact grammatical in both contexts.

It is worth comparing the above sentences with the following ones, which contain the determiner instead of the demonstrative *quello*. Here, there is no contrast between *loro* and the other possessives:

(76) a. Ho invitato i miei amici, e Gianni i suoi.
[I] have invited the my friends and Gianni the his

b. Ho invitato i miei amici, e Gianni e Maria i loro.
[I] have invited the my friends and Gianni and Maria the theirs

(77) a. Il mio amico mi ha presentato il suo.
the my friend [to] me has introduced the his

b. I miei amici mi hanno presentato i loro.
the my friends [to] me have introduced the theirs

In ellipsis contexts, the material following the determiner is in pre-nominal position, as shown by the possibility of ordinal adjectives and adjectives such as *ultimo*, *prossimo*, *solo*, *altro*, etc., which cannot occur post-nominally. Contrast (78)a with (78)c, and (79)a with (79)c:[30]

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30. These adjectives can appear post-nominally only when N has moved to D (cf. Longobardi 1994:624,fn.18; 625; 626):

(i) a. Napoleone terzo fu l'ultimo Imperatore dei Francesi.
Napoleon third was the last emperor of the French people

b. Sabato prossimo facciamo una festa.
Saturday next [we] give a party

(78) a. Di quegli spettacoli, solo il primo / l'ultimo [e] mi è piaciuto.
of those shows, only the first / the last [to] me is pleased
(=... I liked only the first/last one)

b. il primo / l'ultimo spettacolo

c. *lo spettacolo primo / ultimo

(79) a. Mentre sabato scorso siamo andati al cinema, il prossimo [e] faremo una festa.
while Saturday last [we] have gone to-the cinema, the next [we] will give a party

b. ... il prossimo sabato faremo una festa.

c. *... il sabato prossimo faremo una festa.

The ungrammaticality of non-agreeing adjectives, which are restricted to the post-nominal position (see 2.2 above), and of complex modifiers, which are restricted to the predicative position (Cinque 1994:section 5), confirms that in the ellipsis construction the modifier does not follow the empty head noun (cf. Langacker (1968:58,fn.6) for the French counterparts of (81)):

(80) a. la camicetta rosa / a quadri di Maria

b. *la [e] rosa / a quadri (cf. quella [e] rosa / a quadri)
the (shirt) pink / chequered (of Mary)

c. la donna incinta

d. *la [e] incinta (cf. quella [e] incinta)
the (woman) pregnant

(81) a. la donna pronta a partire

b. *la [e] pronta a partire (cf. quella [e] pronta a partire)
the (woman) ready to leave

We conclude that the possessives in (76)-(77) occupy the pre-nominal position, and not the post-nominal ones. It is therefore expected that no difference is found between

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c. Maria sola si è presentata.
Maria only-FEM showed up

loro and the other possessives.[31] This analysis implies that the possessive which occurs with an empty noun is weak. The correctness of this implication is shown in (82):[32]

(82) a. *il MIO, non suo
the mine, not his
b. *il mio e suo
the mine and his
c. *il solo mio
the only mine

(82) contrasts with (83), where focalization, coordination and modification of the possessive are possible. As seen above, the construction involving the demonstrative *quello* requires a strong, post-nominal possessive:

(83) a. quello MIO, non suo
that mine, not his
b. quello mio e suo
that mine and his
c. quello solo mio
that only mine

3.1. The ellipsis construction in other languages

The conclusion that the ellipsis construction contains pre-nominal possessives is supported by the observation that French and English have the ellipsis construction,

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31. The same happens in the idiomatic expression in (i), where the head noun *parte* can be missing:

(i) a. Sto dalla sua (parte).
b. Sto dalla loro (parte).
[I] am on-the his/their (side)

32. For a different approach, see Schoorlemmer (this volume).

(84)a-(85)a, in spite of the fact that they do not allow post-nominal possessives, (84)b vs. (84)c, (85)b vs. (85)c (also remember that French does not have strong possessive modifiers):[33]

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33. An apparent counterexample to the proposal that the possessive in (84)a is pre-nominal is provided by the following observation, due to Kayne (1977:191,fn.155). In the ellipsis construction (i)b, the possessive follows a numeral, which it otherwise precedes, (i)a:

(i) a.	mes deux livres	vs.	a'.	*deux mes livres
	my two books			
b.	*les miens deux	vs.	b'.	les deux miens
	the mine two			

The word order in (i)a depends on the clitic status of French possessives, which occur in the highest functional head in the DP. Italian possessives, which are not clitic, allow both orders:

(ii)	i miei due libri	vs.	i due miei libri

In (i)b, ellipsis is licensed by the possessive, and the numeral occurs in the predicative position. Since French numerals cannot be predicative (**Les enfants sont deux* 'the children are two'), the sequence is ungrammatical. In (i)b', on the other hand, ellipsis is licensed by the numeral, and the possessive can be strong (The structure thus differs from the English counterpart *your two [e]* – cf. **yours two*). In Italian, where numerals can be predicative, both orders are possible:

(iii)	i miei due	vs.	i due miei

Notice however that (i)b' is not productive and restricted to the possessive *mien* and the numeral *deux*, which complies with the conclusion reached in section 1.3 above that French does not have strong possessives. French thus contrasts with Italian, where the construction is fully productive, (iv)a,b vs. (iv)a',b':

(iv)a.	?? les deux tiens	vs.	a'.	i due tuoi
	the two yours			
b.	*les quatres miens	vs.	b'.	i quattro miei
	the four mine			

(84) a. Mon ami m'a presenté le sien.
my friend [to] me has introduced the his

b. *(l')ami son / sien
(the) friend his/hers

c. son ami

(85) a. My friend has introduced hers to me.

b. *(the) friend her / hers

c. her friend

This observation is corroborated by other languages, such as Dutch and German, which also have the ellipsis construction without allowing post-nominal possessives, (86)a vs. (86)b, (87)a vs. (87)b. These languages are particularly telling because they distinguish between pre-nominal, agreeing adjectives and post-nominal/predicative, non-agreeing adjectives, (86)c vs. (86)d, (87)c vs. (87)d-e. Ellipsis requires possessives with adjectival agreement inflection, which means that they are necessarily pre-nominal:

(86) a. Dat is niet jouw boek op tafel, maar het mijne [e].
it is not your book on the table, but the mine-AGR
(Schoorlemmer, this vol.)

b. mijn boek / *het boek mijn
*my book / *the book my*

c. het grote huis (Kester 1996:91)
the big-AGR house

d. Het huis is groot. (Kester 1996:81)
the house is big

(87) a. Das seine [e] gefällt mir nicht.
the his-AGR pleases to-me not

b. sein Buch / *das Buch sein
*his book / *the book his*

c. diese regnerische Woche
this rainy-AGR week

d. diese Woche regnerisch und stürmisch (Cinque 1994:94)
this week rainy and stormy

e. Diese Woche ist regnerisch.
this week is rainy

Notice that the possessive which appears in the French and English ellipsis constructions is morphologically different from the one which appears when the head noun is realized.[34]

Consider French first. Given its cooccurrence with the determiner, *sien* in (84)a is not cliticized to D° as its counterpart *son* in (84c) is (see section 1.3 above). The obvious proposal, with the tripartition in mind, is that *sien* is weak. The fact that in older stages of French this form could follow the article in pre-nominal position (e.g. *un mien ami*, 'a my friend', cf. Arnauld and Lancelot (1993:84), Langacker (1968:58)) can be taken to be independent evidence for this analysis. Nowadays, the clitic form *son* always blocks the weak form *sien*. Given the Minimize Structure principle of Cardinaletti and Starke (1994:section 7.1), a smaller form, here the clitic possessive, is always preferred over the bigger form, here the weak possessive. However, where the clitic form is independently excluded, the weak form becomes the smallest possible form and is ruled in. The ellipsis context represents one such situation. Once the head noun is not realized, the clitic possessive is excluded because a clitic form cannot occur alone inside a phrase (for lack of overt material to cliticize on). The weak possessive is consequently allowed, which in turn requires, in French, the presence of the determiner.[35]

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34. Although some French possessives appear to have only one form, Arnauld & Lancelot (1993:85) note that there always is a difference in accentuation and vowel quality: the vowel is short in the clitic, unstressed possessive, but long in its weak, stressed counterpart (so that strictly speaking there is no homophonous pair of possessives in French):

(i) a.	C'est [notr] maison.	vs.	C'est la [no:tr] / *[notr].
	it is our house		*it is the ours*
b.	C'est [loer] faute.	vs.	C'est la [loe:r] / *[loer].
	it is their fault		*it is the theirs*

35. This pattern recalls that of object personal pronouns. In all contexts except from imperatives, 1st and 2nd person clitic pronouns must be used, (i). When these are independently excluded, as with imperative verbs, the 1st and 2nd person weak pronouns show up, (ii) (on the weak status of *moi* in (ii), cf. Cardinaletti and Starke (1994:fn.31) and Laenzlinger (1994)):

This analysis is supported by the observation that both doubling and floating quantifiers are disallowed in ellipsis. The following sentences, taken from Kayne (1977:191,fn. 155), are judged very marginal or ungrammatical by our informants:

(88) a. ?*la sienne à elle
the hers to her
b. ?*C'est le nôtre à tous.
it is the ours to all

If doubling and floating quantifiers are only found with clitic elements (see section 1.2-3 above), (88) confirms that the possessive found in ellipsis is weak.

An analysis similar to the one just suggested for French applies to the Spanish paradigm in (89). The clitic form *mi* of (89)a cannot appear alone when the noun is empty, (89)b, and the weak possessive *mío* shows up, (89)c. As in Italian, the weak possessive has the same morphological form as the strong possessive of (89)d:

(89) a. mi libro
b. *mi [e]
c. el mío [e]
d. el libro mío
(the) my (book)

Let's now turn to English. Contrary to what we have seen in other languages, the possessive found in ellipsis contexts is capable of occurring alone (see (85)a). Its longer morphological form suggests that it is a strong possessive (see section 1.3 above), parallel to *John's* in *My friend has introduced John's [e] to me.* This accounts

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(i) a. Il me regarde. vs. * Il regarde moi.
he me looks-at *he looks-at me*
b. Il me parle. vs. * Il parle moi / à moi.
he me talks *he talks [to] me / to me*
(ii)a. *Regarde-me. vs. Regarde-moi.
look-at-me *look-at-me*
b. *Parle-me. vs. Parle-moi.
talk-me *talk me*

for the ungrammaticality in ellipsis contexts of the 3rd person singular neuter deficient form *its*: **The tree's owner's situation is precarious, its is good, however* (Chris Wilder, personal communication).[36]

3.2. One apparent problem

One problem remains to be considered. It concerns the fact that in languages like Paduan, the possessive which appears in the ellipsis context (90)b does not have the expected weak form *me* that appears pre-nominally, (90)a, but the same morphological form as the strong post-nominal possessive of (90)c:

(90) a. el me libro
b. *el me [e] / el mio [e]
c. el libro mio
the my (book)

If the conclusions reached above are correct, then *mio* in (90)b cannot be a strong, post-nominal possessive. We are forced to analyse it as weak, and to take the impossibility of *el me* as due to some independent reason. Various possibilities come to mind. We could argue that the empty NP needs a rich array of phi-features to be licensed (cf. Kester 1996:Ch.4, among others), which only the agreeing form *mio* can provide. Though plausible in principle, this proposal would make the English paradigm, which does not display agreement features (*mine*, *yours*, etc.), become problematic. Alternatively, and more likely, suppose that the restriction is of phonological nature. If *me* is a weak element without word stress, the ellipsis of the head noun results into a DP without any word stress (being a clitic element, the determiner also lacks word stress). In such a situation, the allomorph *mio*, which, we

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36. Chris Wilder also observes that the 3rd person plural possessive *theirs* with a non-human referent permits ellipsis: *The trees'$_j$ owners' situation is precarious, theirs$_j$ is good, however. Theirs* thus behaves like the corresponding strong pronouns *they* and *them*, which can have non-human referents. Cardinaletti and Starke (1995) argue that this unexpected behaviour should be attributed to the demonstrative status of these pronouns. That analysis can be extended to possessive *theirs*.

assume, has word stress, is inserted.[37] The same phonological restriction can account for the ungrammaticality of *el mi* in Spanish, i.e. for the fact that the weak possessive which shows up in ellipsis is morphologically the same as the strong form *mío* (see (89)c above) and is not homophonous with the clitic form *mi* (nor with the weak form *mi* which occurs in Spanish dialects – see section 1.2 above).

4. Singular kinship nouns

There is one further respect in which *loro* and *cui* are more restricted than the adjectival possessives. With singular kinship nouns they keep the article, which is instead ungrammatical with possessive modifiers such as *mio* and *suo*:

(91) a. mio / suo fratello
b. *il mio / suo fratello
(the) my / his brother

(92) a. *loro fratello
b. il loro fratello
(the) their brother

(93) a. *Gianni, cui fratello ha ottenuto il premio, ...
b. Gianni, il cui fratello ha ottenuto il premio, ...
Gianni, (the) whose brother has got the prize

We take the possessive in

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37. This is not the only situation in which two weak forms coexist in one and the same language. Cf. the Italian pair of weak subjects *pro* vs. *egli / esso* 'he', 'it', discussed in Cardinaletti and Starke (1994:section 7.2.1) and Cardinaletti (1997):

(i) a. pro ha aderito.
b. Egli ha aderito.
he has adhered

(91)a to have cliticized to D° ([*mio*$_j$+D° [t_j ... [t_j *fratello*]]]), and the ungrammaticality of (92)a / (93)a as due to the fact that *loro* and *cui* do not have comparable clitic forms. This is supported by their behaviour in the sentential domain: neither element is clitic.[38]

The evidence that with singular kinship nouns, possessives are clitic is provided by the fact that (i) they cannot occur alone in ellipsis and isolation, (94)- (95), and (ii) they cannot be contrasted nor coordinated, (96):

(94) Mio fratello verrà, *(il) suo invece no.
my brother will-come, (the) his on-the-other-hand not

(95) Verrà tuo fratello o il fratello di Gianni? *(Il) suo.
will-come your brother or the brother of Gianni? (the) his

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[38]. In the following sentences, *loro* occurs without any determiner:

(i) a. Questo è di loro competenza.
this is of their competence

b. Questo non è di loro gusto.
this not is of their taste (= they do not like it)

c. Abbiamo invitato Maria a loro insaputa.
[we] have invited Maria without their knowledge

These sentences seem to contradict the claim, just made on the basis of singular kinship nouns, that *loro* cannot occur without the determiner. The DP contained in such predicative PPs however never contains a determiner (cf. Longobardi 1994:612f). Consider the following sentences, where the possessive is replaced by a full complement of the noun:

(ii)a. Questo è di competenza di Gianni.
this is of competence of Gianni

b. Abbiamo invitato Maria a insaputa di tutti.
[we] have invited Maria without everybody's knowledge

It is straightforward to conclude that with predicative PPs, the possessive occupies the usual pre-nominal position, specAgrS_NP and not D°. The sentences with *loro* are expected to be grammatical.

(96) a. *MIO padre, non suo
my father, not his
b. *mio e suo padre
my and his father

Comparative support is provided by Italian dialects such as Paduan, which has weak possessives with common nouns and clitic possessives with kinship nouns (see section 1.2 above). This analysis can be extended to account for a Central Italian dialect, Anconetano, where the possessive occurring with singular kinship nouns is morphologically reduced with respect to the form used with the determiner in common-noun contexts (and does not display gender distinctions):

(97) a. mi' fratelo (Cartocci, 1990:53)
my brother
b. 'sto mio componimento (Cartocci, 1990:50)
this my-MASC-SING poem

This reduction is typical of other Italian dialects (see also Rohlfs 1968:128). Similarly, Picallo (1994:296) reports that in many Catalan dialects, the possessive form which occurs with singular kinship nouns is shorter than the usual one and replaces the determiner:

(98) sa germana (instead of: *la seva germana*)
his/her/their sister

An alternative analysis of

(91)a would be to suppose that the singular kinship noun itself has raised to D°, in the same way as proper names do, and that the possessive modifier has moved to specDP (cf. Longobardi 1995: fn.3). The restriction on *loro* and *cui* shown in (92) and (93) can then be interpreted as a ban against their movement to specDP: Not being a case-related position, specDP is not a possible landing site for deficient phrases.[39]

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39. The same constraint would rule out (92)a and (93)a in a third possible analysis which takes the possessive of

Independent evidence for the movement of a kinship noun to D° seems to come from Sardinian and Salentino (cf. Picallo 1994:292). In the former, the determinerless head noun adjoins to D° moving across the weak possessive, in the latter it adjoins to the clitic possessive in D°:

(99) a. frade duo
brother your
b. fratuta
brother-your

Although appealing, the proposal that singular kinship nouns are in D raises the following questions:

(a) why is
(91)a the only case where the possessive precedes a noun raised to D? In all other cases in which N moves to D, the possessive does not move to specDP and follows the noun, as in (99) and in *Gianni mio / casa mia* (cf. (24) above). In other words, why don't we also get **mio Gianni* and **mia casa* on a par with (91)a?;
(b) conversely, why don't we also get **fratello loro* on a par with *Gianni loro / casa loro*, cf. (45) above (in order to circumvent the ban on the movement of *loro* to specDP)?
(c) the possessive in specDP should be strong. However, it does not display strong behaviour. *Mio* in (94)- (96) is a deficient element like any pre-nominal possessive. This conclusion is at odds with the explanation for (92)a and (93)a given above;
(d) The languages which have pre-nominal clitic possessives, such as French and Paduan, provide a similar problem. If the noun is in D, the clitic possessive could be either adjoined to the noun or in specDP. However, it is usually the raised noun that attaches to the clitic possessive (cf. (99)b). This only leaves the latter analysis as available, with the unwelcome consequence that *son père* and *so pare* 'his

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(91)a to have moved to specDP alone, with no concomitant N-to-D raising of the head noun (cf. Giusti 1993:65). This analysis faces with the problems in (a) and (c) below and will not be adopted here.

father' should be impossible on a par with Italian **loro / *cui fratello* in (92)a / (93)a, contrary to fact.

These are serious shortcomings of the account of singular kinship nouns in terms of N-to-D raising. For all these reasons, we keep to the proposal sketched above that in (91)a it is the possessive itself which moves to D and that (92)a and (93)a are ungrammatical because *loro* and *cui* do not have clitic counterparts.[40]

The proposed analysis has an important implication. The difference between e.g. French and Italian is not in the availability of clitic possessives, since both languages have them. Rather, the difference must lie in the determiner system, a place where rather significant differences exist between the two languages. The French determiner is such that it can, so to speak, always "leave its place" to the possessive. By Minimise structure, the clitic possessive is the smallest available form and it is therefore always used. In Italian, on the other hand, common nouns require the determiner, which explains why, by Minimise structure, the only available possessive form is now the weak one. When there happens to be no determiner around, as with singular kinship nouns, Italian possessives DO cliticise.

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40. In sum, with singular kinship nouns either the possessive raises to D (in e.g. Italian (91)a, Paduan (22)a, Anconetano (97)a, Catalan dialects (98)), or the noun itself raises to D crossing over the possessive (in e.g. Sardinian (99)a), or both movements take place (in e.g. Salentino (99)b). The reasons of this wide language variation in the context of kinship nouns are still unclear.

Further language variation is represented by the fact that in many languages, the determiner is present when singular kinship nouns co-occur with possessives, as in e.g. Catalan *el teu germá* 'the your brother' (Picallo 1994:292). The generalisation here seems easy to state: This happens in those languages in which the determiner is also used with proper names (as in Catalan, and in the dialects spoken in Tuscany, Lombardy, etc. – compare Rohlfs 1968:128 with Rohlfs 1969:30). However, the parallelism with proper names is not complete, since the reverse is not true and, furthermore, there are dialects, such as Veneto, which also drop the determiner with plural kinship nouns: *me nevodi* 'my nephews' (cf. Rohlfs 1968:128).

5. Conclusion

The tripartition originally proposed for personal pronouns has been extended here to possessive modifiers. Clitic, weak and strong possessives exist, which differ syntactically and semantically. In standard Italian, the three forms are homophonous, but in many Italian dialects and in other Romance languages, different morphological paradigms are found.

Possessive *loro* has been shown to differ from the other Italian possessives: it is not an adjective, but a weak personal pronoun on a par with the dative weak pronoun *loro*. The analysis has been extended to the relative pronoun *cui*, which is not the adjectival counterpart of relative pronouns, but a weak relative pronoun. DP-internal genitive personal pronouns are not peculiar of Italian. Among Romance languages, they are found in Rumanian, and they are very productive in Germanic and Slavic languages.

The possibility of weak *loro* in the ellipsis construction implies that the empty noun follows the possessive. In other words, the possessive found in ellipsis in e.g. Italian is weak and not strong. This proposal is supported by a number of distributional and morphological observations.

In conclusion, the extension of the tripartition to possessive system, on the one hand, makes it possible to account for a number of empirical facts in this domain and, on the other, supports the view advocated in Cardinaletti and Starke (1994) that the underlying cause of the distinction among clitic, weak and strong elements is a difference in their internal structure. Under this view, the deficient/strong opposition should be found across syntactic categories, and we have shown here that this is the case with possessive modifiers.

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'Restructuring' and the order of aspectual and root modal heads[1]

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0. Introduction

If functional affixes and particles are interpreted as the overt realization of distinct functional heads (Baker 1985, Pollock 1989, Ouhalla 1988,1991, Chomsky 1995, chapter 2, among others), there is reason to posit the existence of a substantial number of distinct aspectual heads (ordered among each other):

Cf. the *habitual* aspect suffixes of Mongolian (Svantesson 1991,197) and of Central Alaskan Yup'ik (Mithun and Ali 1996,112f); the *predispositional* aspect morpheme of American Sign Language (Klima and Bellugi 1979), rendered with 'tends to'; the *delayed* aspect particle of Ulithian, glossed by Sohn and Bender 1973,116 as 'finally', and the suffix between the frequentative and the past tense suffixes of Macushi, also rendered by Abbott (1991,113ff) as 'finally'; the *frequentative* aspect suffix of Yareba (Weimer 1972,61), and that of Macushi, just mentioned; the *repetitive* aspect particle ('again') of Hidatsa (Hengeveld to appear, ex. (42)), called by him 'iterative'; the *celerative* aspect suffix of Fulfulde (Fagerli 1994,36ff), and the suffixes of Dyirbal and Evenki, glossed as 'quickly' by Dixon (1972,248), and Nedjalkov (1997,252); the *terminative* aspect suffix of Kiribatese (Groves, Groves and Jacobs 1985,58); the *continuative* aspect suffix of Lezgian, rendered by Haspelmath (1993,140ff) as 'still', and that of Walmadjari, rendered by

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Hudson (1976,656) as 'keep on'; the *perfect* aspect suffixes of Ponapean (Rehg 1981,269ff), and Chinese (Smith 1991,344ff); the *retrospective* particles of the French creoles reported in Cinque 1997a, chapter 3, which are rendered in the literature with 'venir de', 'to have just'); the *proximative* prefix of Big Nambas (Fox 1979,64), and the proximative particle of Kwaio (Keesing 1985,118ff), rendered by both authors as 'soon'); the *durative* aspect suffixes of Hua (Haiman 1980,149) and Tauya (MacDonald 1990, §3.3.2.1), meaning 'for a while'); the *progressive* aspect suffix of Zuni (Nichols 1993,104) and Menya (Whitehead 1991,266); the *prospective* aspect particle of Gungbe (Aboh 1996), and the prospective aspect suffixes of Comanche (Robinson and Armagost 1990,318), meaning 'to be about to'; the *inceptive* aspect suffixes of Ika (Frank 1990,57) and Waorani (Peeke 1994,276); the *conative* aspect suffix of Hua (Haiman 1980,147) and Tauya (MacDonald 1990, §3.3.2.1); the *frustative* aspect suffixes of Wayampí, rendered by Jensen (1994,359f) as 'without success', and the 'success' aspectual morpheme of Spokane, which Carlson (1996,59) renders with 'manage'; the *completive* aspect suffixes of Fulfulde (Fagerli 1994,19) and Chinese (Smith 1991,382).

Discussing a number of such heads, Cinque (1997a) arrives (for a subset of them) at a specific order based on the evidence available from their relative order:[2]

(1) $Asp_{habitual} > Asp_{repetitive(I)} > Asp_{frequentative(I)} > Asp_{celerative(I)} > Asp_{terminative} > Asp_{continuative} > Asp_{perfect(?)} > Asp_{retrospective} > Asp_{proximative} > Asp_{durativ} > Asp_{progressive} > Asp_{prospective} > Asp_{completive(I)}$ (> Voice) $> Asp_{celerative(II)} > Asp_{completive(II)} > Asp_{repetitive(II)} > Asp_{frequentative(II)}$ ..

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[2]. Some of these orders were corroborated by the relative order of the adverbs corresponding to these aspects, taken there to be generated in the specifier position of the relevant functional projections.

In few cases, the only evidence available to determine the order between two aspectual heads came in fact from the relative order among the corresponding adverbs.

Note the repetition, in (1), of repetitive, frequentative and celerative aspect in two distinct "zones"; one quantifying over the event expressed by the sentence, the other over the process, or state, expressed by the V(P).

Having no cross-linguistic evidence at my disposal concerning the relative orders of the corresponding affixes or particles, I made no systematic attempt there to integrate in this order such aspectual heads as $Asp_{predispositional}$, $Asp_{delayed\ (or\ 'finally')}$, $Asp_{inceptive}$, $Asp_{frustative/success}$, and $Asp_{conative}$. The positions occupied by root modals with respect to the other heads of (1) were also left partly open.

In what follows, I would like to present some facts, internal to just one language, Italian, which appear to offer some evidence to order these heads among each other, and within the larger hierarchy in (1) (at least under the analysis of 'restructuring' proposed in Cinque (in preparation), the main features of which will be sketched directly).[3]

No existing analysis of 'restructuring' offers, it seems, a natural account of why the transparency effects characteristic of this phenomenon occur across languages just with the classes of modal, aspectual and movement verbs (all analyses assume some form of arbitrary lexical specification, or arbitrary semantic condition). The analysis developed in Cinque (in preparation) centers instead on the fact that these verbs are the only verbs whose meaning happens to correspond to a particular functional head of the universal hierarchy proposed in Cinque (1997a) independently of the 'restructuring' phenomenon.

If we assume that a verb may either be generated (and licensed) as the head of VP, or, when it 'lexicalizes' a particular functional head, directly in that head position, both the monoclausal nature of the phenomenon and the membership of the verb in the 'restructuring' class can be naturally derived (I refer to Cinque (in preparation) for detailed discussion). Moreover, if the various functional heads of the clause are rigidly ordered (Cinque 1997a), it follows that 'restructuring' verbs should display a rigid relative order among each other when transparency effects obtain (i.e., when they are licensed not as lexical verbs, but as 'functional' verbs generated in specific functional heads). This expectation is generally fulfilled. But, as with the order of adverbs, care should be taken to single out those cases where the same verb can be generated in more than one functional head (often with a concomitant change in meaning). For that

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[3]. The analyses of 'Restructuring' are too numerous to list here. Cf. Rizzi (1982,chapter 1), Kayne (1989), Roberts (1997), and references cited there.

possibility can give rise to apparent multiple orders with another functional verb. Some cases of this sort will in fact be discussed below.

1. Aspectual verbs and the order of aspectual heads

I will start with the relative order between the habitual and predispositional aspects, by considering the relative order between the 'restructuring' verbs *solere* (*usare*) 'use' and *tendere (a)* 'tend' (cf. (2)-(3)), which, I take, lexicalize these aspects in Italian.[4]

(2) Gianni lo soleva/usava dire spesso
G. it used to say often

(3) Gianni ne tendeva a far pochi (di errori)
G. of-them tended to do few (of errors)

When Clitic Climbing or other transparency effects obtain (forcing a monoclausal structure), the order appears to be rigid, with *solere* (or *usare*) preceding *tendere (a)*, thus suggesting the order $Asp_{habitual} > Asp_{predispositional}$ (cf. (4) and (5)):[5]

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[4]. Note that in principle nothing forces a particular lexical verb to be used as a functional ('restructuring') verb. A necessary (but, perhaps, not sufficient) condition appears to be the (close to) perfect match between the verb's semantics and the semantic features of a functional head.
While *solere* and *usare* (whether used in 'restructuring' contexts or not) belong to a rather formal register of Italian (cf. Renzi and Salvi 1991,521), the 'restructuring' use of *tendere (a)* is felt by some as colloquial.

[5]. All of the examples discussed below display transparency effects (so as to force the presence of a monoclausal structure). In many cases, though, the same rigid order is found even in the absence of tranparency effects.
While for me, and other speakers, the order *solere* > *tendere (a)* is the only one available, for Paola Beninca' (and possibly other speakers) the other order (*tendere (a)* > *solere*) is also admitted.

(4) a ?Certe cose le si suole tendere a fare subito
Certain things them si (one) uses to tend to do immediately
b *Certe cose le si tende a soler fare subito
Certain things them si (one) tends to use to do immediately

(5) a (?)Certe cose si sogliono tendere a fare in vecchiaia
Certain things si (one) use to tend to do when old
b *Certe cose si tendono a soler fare in vecchiaia
Certain things si (one) tend to use to do when old

In turn, when transparency effects obtain, *tendere (a)* appears to obligatorily precede *tornare (a)* 'do again', which expresses repetitive aspect. Cf. (6):[6]

I take this to mean that *solere*, for the second group of speakers, not only corresponds to the higher, event-related, habitual aspect projection (the one hosting in its specifier such adverbs as *di solito/solitamente*, and *abitualmente*), but also to the lower, process- or state-related, habitual aspect projection (which can host *abitualmente*, but not *di solito/solitamente*). Cf. (i):

(i) a Gianni di solito frequentava le stesse persone abitualmente
'G. generally frequented the same persons habitually'
b *Gianni abitualmente frequentava le stesse persone di solito
'G. habitually frequented the same persons generally'
c ?Gianni abitualmente frequentava le stesse persone abitualmente
'G. habitually frequented the same persons habitually'

[6]. As noted in Cinque (1997a), repetitive aspect can occupy a higher position, quantifying over the event (between the habitual and frequentative aspects), and a lower one, lower than Voice, quantifying over the process or state expressed by the predicate. Both positions, apparently, follow the predispositional aspect head, given that the order *tornare (a)* > *tendere (a)* is not possible (cf. (6)b).
The existence of two distinct repetitive aspects (located in two distinct quantificational "zones") is corroborated by the possibility of having a higher, and a lower, repetitive adverb (e.g. *di nuovo/ancora/..* 'again') in one and the same sentence:

(6) a Certe cose si tendono a tornare a fare da vecchi
Certain things si (one) tend to do again when old
b *Certe cose si tornano a tendere a fare da vecchi
Certain things si (one) again tend to do when old

These contrasts, then, suggest the partial order of functional heads in (7):

(7) ... $Asp_{habitual}$ > $Asp_{predispositional}$ > $Asp_{repetitive}$ ...

Consider now the relative order between predispositional aspect and terminative aspect, which in Italian is expressed by the 'restructuring' verb *smettere (di)* 'stop' (as well as by the AdvP *più* 'no longer'):[7]

(8) a Certe cose si tendono a smettere di fare dopo una certa età
Certain things si (one) tend to stop doing after a certain age
b *Certe cose si smettono di tendere a fare dopo una certa età
Certain things si (one) stop to tend to do after a certain age

This gives the order: ... $Asp_{predispositional}$ ... >... $Asp_{terminative}$ ...[8]

(i) Gianni ha di nuovo alzato il braccio di nuovo (ancora una volta)
G. has again lifted his arm again (once more)

[7]. The paraphrase relation between *smettere (di)* and *più* is, nonetheless, complex, involving different values of other functional heads. See: *Aveva smesso di farlo* 'he had stopped doing it', with anterior of the past and perfect aspect, and *Non lo faceva più* 'he didn't do it any longer', with past tense and imperfect aspect.
Terminative aspect (as opposed to completive aspect) expresses the termination of a certain process (or state) at an *arbitrary* point, rather than at the *natural end* point of the process (when there is one).

[8]. By transitivity, given that predispositional aspect follows habitual aspect, we expect that terminative aspect also follows habitual aspect; which is what we find:

(i) a Certe cose si sogliono smettere di fare dopo una certa età
Certain things si (one) use to stop doing after a certain age

Where does $Asp_{terminative}$ locate itself with respect to $Asp_{repetitive}$, which also follows $Asp_{predispositional}$? The fact that both orders in (9) appear possible suggests that terminative aspect follows the higher repetitive aspect head, and precedes the lower one (cf.(1)):

(9) a Certe persone si tornano a smettere di frequentare in certe circostanze
Certain people si (one) again stops to frequent under certain circumstances

b Certe persone si smettono di tornare a frequentare in certe circostanze
Certain people si (one) stops to frequent again under certain circumstances

Altogether, we have thus evidence for the partial order of heads in (10):

(10) ... $Asp_{habitual} > Asp_{predispositional} > Asp_{repetitive(I)} > Asp_{terminative}$
..... (> $Asp_{repetitive(II)}$)

(9) is, thus, the first case of an apparent free ordering of two aspectual verbs. As noted, however, it is only an illusion given by the possibility of licensing *tornare (a)* in two different aspectual heads (separated by terminative aspect, as well as other aspects).

Terminative aspect appears to be ordered before continuative aspect, expressed in Italian by the restructuring verb *continuare (a)* (as well as by the adverb *ancora* 'still').[9] See (11), with clitic climbing, and (12) with 'long object preposing':

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b *Certe cose si smettono di soler fare dopo una certa età
Certain things si (one) stop to use doing after a certain age

9. As noted in Cinque (1997a, §4.18), if they can cooccur at all, the terminative aspect adverb *più* 'no longer' also has to precede the continuative aspect adverb *ancora* 'still':

(11) a ?Vi smise di continuare ad andare
There (he) stopped to continue going
b *Vi continuò a smettere di andare
There (he) continued to stop going

(12) a Certi errori non si smettono mai di continuare a fare
Certain errors si (one) never stop to continue doing
b *?Certi errori si continuano sempre a smettere di fare
Certain errors si (one) continue always to stop doing

This gives the partial order in (13):[10]

(13) ... $Asp_{habitual}$ > $Asp_{predispositional}$ > $Asp_{repetitive(I)}$ > $Asp_{terminative}$ > $Asp_{continuative}$ ..... (> $Asp_{repetitive(II)}$)

By transitivity, we expect *continuare (a)* to also follow *tendere (a)* and *solere*. This is indeed what we find. See (14) and (15):

(14) a Certe cose si sogliono continuare a fare tutta la vita
Certain things si (one) use to continue doing for the all life

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(i) a ?Spero che tu non sia più ancora arrabbiato con me
(I) hope that you are no longer still angry with me
b *Spero che tu non sia ancora più arrabbiato con me
(I) hope that you are still no longer angry with me

[10]. Continuative aspect is apparently to be distinguished from an aspect meaning 'continuously, constantly' (cf. the aspectual suffix *-ruku-* of Tuyuca - Barnes 1994,331). The latter appears to correspond to English *keep*, Italian *seguitare (a)*, which, as noted in Freed (1979,90f) differs from *continue/continuare (a)* in presuppositional content. While *John continued slamming the door all night/John continuò a sbattere la porta tutta la notte* presupposes that "someone had been slamming the door earlier", *John kept slamming the door all night/John seguitò a sbattere la porta tutta la notte* does not (though Italian *continuare (a)* can marginally also be used non presuppositionally).
I leave the location of this 'continuously' aspect undetermined here.

b *Certe cose si continuano a soler fare tutta la vita
Certain things si (one) continue to use doing for the all life

(15) a Certe cose si tendono a continuare a fare sempre
Certain things si (one) tend to continue doing always
b *Certe cose si continuano a tendere a fare sempre
Certain things si (one) continue to tend to do always

Given that *tornare (a)* can be licensed both in $Asp_{repetitive(I)}$, higher than $Asp_{continuative}$, and in $Asp_{repetitive(II)}$, lower than $Asp_{continuative}$, we expect both orders of *tornare (a)* and *continuare (a)* to be possible. This is again what we find:

(16) a Certe cose si tornano a continuare a fare appena è possibile
Certain things si (one) again continues to do as soon as is possible
b Certe cose si continuano a tornare a fare appena è possibile
Certain things si (one) continues to again do as soon as is possible

Consider next the relative order of the conative and 'frustative/success' aspects, and their order relative to the aspects so far examined. The 'restructuring' verbs which express these two aspects in Italian are *provare (a) (tentare (di)/cercare (di))* 'try'[11], and *(non) riuscire (a)* '(not) manage', respectively.

The data in (17)-(18) appear to indicate that frustative/success aspect precedes conative aspect:

(17) a Certe cose non si riescono nemmeno a provare a fare
Certain things not si (one) manage to try to do

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[11]. While all (or the great majority of) speakers have a 'restructuring' use of *provare (a)*, not all accept *tentare (di)/cercare (di)* as 'restructuring' verbs.

b *?Certe cose non si provano nemmeno a riuscire a fare
Certain things not si (one) try to manage to do

(18) a Le riuscirai almeno a provare a telefonare?
Will you manage at least to try to call her?
b *Le proverai almeno a riuscire a telefonare?
Will you try at least to manage to call her?

What about the order of these two aspectual heads with respect to the aspectual heads in (13)?

The following contrasts suggest that $Asp_{frustative/success}$ and $Asp_{conative}$ are ordered after $Asp_{continuative}$ (and, a fortiori, after $Asp_{terminative}$, $Asp_{predispositional}$, and $Asp_{habitual}$, which precede $Asp_{continuative}$):[12]

(19) a Gianni le continuò a provare a telefonare
G. her continued to try to call
b ??Gianni le provò a continuare a telefonare
G. her tried to continue to call

(20) a Gianni li continuò a riuscire a vedere
G. them continued to manage to see
b ??Gianni li riuscì a continuare a vedere
G. them managed to continue to see

(21) a ?Gianni la smise di provare a riparare
G. it stopped trying to repair
b *Gianni la provò a smettere di riparare
G. it tried to stop to repair

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[12]. The non total ungrammaticality of (19)b-(20)b may be related to the (quite marginal) possibility for continuative aspect to be found below Voice (hence below $Asp_{frustative/success}$ and $Asp_{conative}$). Cf. fn.16 below for independent evidence concerning this (marginal) possibility.

(22) a Gianni non vi smetterà mai di riuscire a convincere...
G. not you will ever stop to manage to convince...
b *Gianni non vi riuscirà mai a smettere di convincere...
G. not you will ever manage to stop convincing...

(23) a ?Gianni li tende a riuscire a fare
G. them tends to manage to do
b *Gianni li riesce a tendere a fare
G. them manages to tend to do

(24) a Gianni gli tende a provare a parlare ogni volta che può
G. to-him tends to try to speák every time he can
b *Gianni gli prova a tendere a parlare ogni volta che può
G. to-him tries to tend to speak every time he can

(25) a Gianni li soleva riuscire a convincere
G. them used to manage to convince
b *Gianni li riusciva a soler convincere
G. them managed to use to convince

(26) a Gianni li suole provare a chiamare
G. them uses to try to call
b *Gianni li prova a soler chiamare
G. them tries to use to call

But where exactly after $Asp_{continuative}$ are $Asp_{frustative/success}$ and $Asp_{conative}$ located in the hierarchy in (1)?

There is some evidence that they are located between $Asp_{prospective}$ and the $Asp_{completive}$ above Voice. As (27)-(28) show $Asp_{frustative/success}$ must follow, rather than precede, $Asp_{progressive}$ and $Asp_{prospective}$:

(27) a Gianni gli stava riuscendo a parlare, finalmente
G. to-him was managing to speak, finally

b *Gianni gli riusciva a star(e) parlando, finalmente
G. to-him managed to be speaking, finally

(28) a Gianni lo stava per riuscire a convincere
G. him was about to manage to convince
b *Gianni lo riusciva a star(e) per convincere
G. him managed to be about to convince

This is also true (a fortiori, in the present analysis) for $Asp_{conative}$. See (29)-(30):[13]

(29) a Gianni la stava provando a riparare
G. it was trying to repair
b *Gianni la provava a star(e) riparando
G. it tried to be repairing

(30) a Gianni lo stava per provare a riparare
G. it was about to try to repair
b *Gianni lo provava a star(e) per riparare
G. it tried to be about to repair

Finally, the fact that *riuscire (a)* and *provare (a)* always precede *finire (di)* (cf.(31)-(32)) suggests that $Asp_{frustative/success}$ and $Asp_{conative}$ precede the $Asp_{completive}$ above Voice (as well as the one below Voice):[14]

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[13]. Converging evidence for the location of conative aspect below progressive aspect comes from the relative order of the corresponding suffixes in the Papuan language Hua, under the Mirror Principle. Cf. (i), from Haiman (1980,147):

(i) **hu-ko-bau**-mana
do-**CONAT-PROG**-INCONSEQUENTIAL
'I was trying to do (but it didn't work out in some way)'

(31) a Gianni non la riuscì a finire di imparare a memoria
G. it did not manage to finish to learn by heart
b *Gianni non la finì di riuscire a imparare a memoria
G. it did not finish to manage to learn by heart

(32) a Gianni ne provò a finire di tradurre solo due
G. of-them tried to finish to translate only two
b *Gianni ne finì di provare a tradurre solo due
G. of-them finished to try to translate only two

The evidence that $Asp_{frustative/success}$ and $Asp_{conative}$ are above Voice comes from the observation that, like all other 'restructuring' verbs which are higher than Voice, they resist 'long passivization' (cf. (33), and Cinque (1997b) for relevant discussion). In essence, their incompatibility with passivization follows from the fact that no lowering is admitted, and that a passive form must raise to Voice to check its marked Voice feature. This implies that only a lexical verb, generated in VP, or a functional verb generated in a head lower than Voice, will be able to passivize. As is well-known only few 'restructuring' verbs allow 'long passivization' (typically *finire (di)* 'finish' and

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[14]. The evidence for a completive aspect head above Voice, and one below Voice, is given by the possibility of embedding a passive under *finire* ((i)a), and by the possibility of 'long passivization' of *finire* ((i)b) (For discussion, cf. Cinque 1997b):

(i) a Le case gli finirono di esser consegnate a marzo
The houses to-him finished to be handed in March
b Ne furono finite di costruire solo due
Of-them were finished to build only two

(31)b-(32)b are partially rescued if *finire* is assigned a terminative interpretation (similar to 'stop'), rather than its completive one ('finish'/'end'), a possibility open to *finire* in Italian, though not to *finish* in English. Cf. Cinque (1997b).

cominciare (a) 'begin' - cf. (34), and Cinque 1997b for discusssion).[15] The conclusion that only the functional heads corresponding to these 'restructuring' verbs are lower than Voice (whence their passivizability) is supported by the independent evidence given in Cinque (1997a) for an $Asp_{completive}$ head lower than Voice (see also Cinque 1997b).

(33) a *Quelle case furono riuscite a costruire negli anni cinquanta
Those houses were managed to build in the '50's

b *Quelle case furono provate a costruire negli anni cinquanta
Those houses were tried to build in the '50's

(34) a Quelle case furono finite di costruire negli anni cinquanta
Those houses were finished building in the '50's

b ?Quelle case furono cominciate a costruire negli anni cinquanta
Those houses were begun to build in the '50's

To summarize, the order suggested by the evidence considered so far is the one in (35):

(35) ... $Asp_{habitual}$ > $Asp_{predispositional}$ > $Asp_{repetitive(I)}$ > $Asp_{terminative}$ > $Asp_{continuative}$ ..... $Asp_{progressive}$ > $Asp_{prospective}$ > $Asp_{frustative/success}$ > $Asp_{conative}$ > $Asp_{completive(I)}$ > Voice > .... $Asp_{completive(II)}$ > $Asp_{repetitive(II)}$

Consider now inceptive aspect, expressed in Italian by such verbs as *cominciare (a)/iniziare (a)*. In Cinque (1997b) some evidence is discussed for positing two distinct inceptive aspect heads, *one lower than Voice*, marking inception at the *natural starting* point of a process, just as completive aspect marks cessation at the *natural end*

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[15]. Burzio (1981,591; 1986,376) takes *continuare (a)* to marginally allow 'long passivization'. Cf.(i). This would seem to imply the (marginal) presence of an instance of continuative aspect below Voice. But the status of (i) is far from clear.

(i) a ?(?) L'affitto fu continuato a pagare fino alla fine dell'anno
(Lit.) the rent was continued to pay till the end of the year

point of the process (whence the well-formedness of the 'long passivization' of (34)b), and *one higher than Voice,* marking inception at an *arbitrary point,* just as terminative aspect marks cessation at an arbitrary point (whence the possibility for *cominciare* to embed a passive: *l'opera cominciò ad esser rappresentata nel 1950* 'the opera began to be performed in 1950').

Starting with the inceptive aspect above Voice, we may note that, when transparency effects obtain, *cominciare* cannot precede *solere* and *tendere* (cf. (36)-(37)):[16]

(36) a Gianni gli soleva cominciare a scrivere dopo mesi
G. to-him used to begin to write many months later
b *Gianni gli cominciava a soler scrivere dopo mesi
G. to-him began to use to write many months later

(37) a Gianni ne tendeva a cominciare ad affrontare troppi
G. of-them tended to begin to confront too many
b *Gianni ne cominciava a tendere ad affrontare troppi
G. of-them began to tend to confront too many

Consider now the relative location of the higher inceptive aspect head with respect to the terminative and continuative aspect heads.

Although the facts are perhaps not crystal clear, it seems that the higher inceptive head has to follow the terminative and continuative aspect heads. Cf. (38)-(39):

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[16]. It seems that it also has to follow the higher frequentative aspect head. This can be seen if, by embedding a passive, we exclude the lower frequentative and inceptive aspect heads. If so, the contrast in (i) suggests the order $Asp_{frequentative(I)}$ (>...) > $Asp_{inceptive(I)}$:

(i) a Ne tornò a cominciare ad esser riparata una parte
Of-it again began to be repaired one part
b *Ne cominciò a tornare ad esser riparata una parte
Of-it began to be again repaired one part

(38) a ?Ne smisero di cominciare ad esser riparate molte
Of-them stopped to begin to be repaired many
b *Ne cominciarono a smettere di esser riparate molte
Of-them began to stop to be repaired many

(39) a ?Ne continuarono a cominciare ad esser riparate molte
Of-them continued to begin to be repaired many
b *Ne cominciarono a continuare ad esser riparate molte
Of-them began to continue to be repaired many

To judge from (40), inceptive aspect appears to also follow the progressive and prospective aspects:

(40) a Ne stavano cominciando/?per cominciare ad esser riparate alcune
Of-them were beginning/ about to begin to be repaired some
b *Gianni ne cominciava a star perdendo/ per perdere molti (di capelli)
G. of-them was beginning to be losing/ to be about to lose many (of hair)

By transitivity, inceptive aspect should follow retrospective aspect, which precedes progressive aspect (cf. Cinque 1997a, chapters 3 and 4). The Iberian Romance languages allow us to check this prediction, as they lexicalize this aspect with (one use of) the verb *acabar* 'finish'. Cf. the case of Catalan ((43)), Portuguese ((44)), and Spanish ((45)):[17]

(41) a En Joan les acaba de començar a construir
'J. has just begun to build them' ('*J. finishes to begin to build them')

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[17]. I thank Carme Picallo, Pilar Barbosa and Maria Luisa Zubizarreta, respectively, for providing the relevant sentences and judgements.

b ?En Joan les comença a acabar de construir
'J. begins to finish building them' ('*J. begins to have just built them')

(42) a Acabam-as de começar a construir
'They have just begun to build them' ('*They finish to begin to build them')

b Começam-as a acabar de construir
'They begin to finish to build them' ('*They begin to have just built them')

(43) a Juan lo acaba de empezar a léer
J. it has just begun reading

b Juan lo empieza a acabar de leer
J. it begins to finish reading

In the a. cases, *acabar*, preceding *començar/começar/empezar* 'begin', must indeed express retrospective aspect ('to have just V-ed'), which it no longer can when following *començar/começar/empezar* 'begin'. See the b. cases, where the only meaning available is that of 'finish' (expressing completive aspect).

Inceptive aspect apparently precedes frustative/success aspect and conative aspect. See (44)a-(45)a (the fact that *cominciare* can also be found following *riuscire* and *provare* - (44)b-(45)b - can be attributed to the fact that it can also lexicalize the lower inceptive aspect head below Voice).[18]

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[18]. The conclusion that the *iniziare/cominciare* following *riuscire* and *provare* is the inceptive aspect head below Voice seems supported by the contrasts in (i) and (ii), which show that *iniziare* can be passivized but cannot embedd a passive (the judgements, however, are not very sharp):

(i) a ?Ne riuscirono ad esser iniziate a costruire solo due
Of-them managed to be begun to build only two

b *?Ne riuscirono ad iniziare ad esser costruite solo due
Of-them managed to begin to be built only two

(44) a Gianni ne cominciava a riuscire a tradurre molti
G. of-them began to manage to translate many
b Gianni ne riusciva a cominciare a tradurre molti
G. of-them managed to begin to translate many

(45) a Gianni ne cominciò a provare a tradurre uno
G. of-them began to try to translate one
b Gianni ne provò a cominciare a tradurre uno
G. of-them tried to begin to translate one

This allows us to integrate the order in (35) as in (46):

(46) ... $Asp_{habitual}$ > $Asp_{predispositional}$ > $Asp_{repetitive(I)}$ > $Asp_{terminative}$ > $Asp_{continuative}$ > ... $Asp_{retrospective}$ ... > $Asp_{progressive}$ > $Asp_{prospective}$ > $Asp_{inceptive}$ > $Asp_{frustative/success}$ > $Asp_{conative}$ > $Asp_{completive(I)}$ > Voice > .... $Asp_{completive(II)}$ > $Asp_{repetitive(II)}$

2. Modal verbs and the position of root modal heads. In Cinque (1997a) it was noted that, while the modal heads of alethic necessity and possibility seem to occur higher than the various aspectual heads, the heads corresponding to the so-called root modalities (volition, obligation, ability and permission) seem to be interspersed among the aspectual heads, even though no definite proposal was put forth there.

If we consider the relative orders of 'restructuring' aspectual and modal verbs when transparency effects obtain, a fixed order emerges, which suggests a particular rigid order of the corresponding functional heads.

(ii) a ?Vi provarono ad esser iniziati a curare
They in-it tried to be begun to cure
b *?Vi provarono ad iniziare ad esser curati
They in-it tried to begin to be cured

Starting with the modal verb *potere* 'can', the facts seem to suggest that $Mod_{permission}$ occupies a position distinct from, and lower than, $Mod_{ability}$.

Both $Mod_{permission}$ and $Mod_{ability}$ precede $Asp_{conative}$ (expressed by *provare*). Cf. (47), where the interrogative context in the first person of the present tense forces a (request of) permission reading of *potere*, and (48), where *potere* expresses ability:

(47) a Gliene posso provare a parlare io?
To-him-of-it can I try to speak myself ?
b *Gliene provo a poter parlare io?
To-him-of-it do I try to be allowed to speak myself?

(48) a Gliene posso provare a parlare io
To-him-of-it I can try to speak myself
b *Gliene provo a poter parlare io
To-him-of-it I try to be able to speak myself

Consider next (49), where again a permission reading of *potere* is involved. The contrast between the well-formedness of (49)a, and the ill-formedness of (49)b, suggests that *potere* of permission follows $Asp_{frustative/success}$.

(49) a Vi riuscirà a poter entrare dopo la mezzanotte?
There will he manage to be allowed to enter after midnight?
b (*)Vi potrà riuscire ad entrare dopo la mezzanotte?[19]
There will he be allowed to manage to enter after midnight?

The *potere* of ability, instead, appears to precede $Asp_{frustative/success}$, and follow $Asp_{prospective}$. See (50) and (51):

(50) a Li puoi riuscire a convincere solo tu
Only you are able to manage to convince them

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[19]. While (49)b is unacceptable under a 'permission' reading of *potere*, it is acceptable (though awkward) with either an 'ability' or a 'possibility' reading (both of which correspond to higher heads).

b *Li riesci a poter convincere solo tu
Only you manage to be able to convince them

Here, the context favors an ability reading of *potere*, and the relevant judgements point to the order: $Mod_{ability} > Asp_{frustative/success}$.

The contrast in (51), finally, argues for the order of $Mod_{ability}$ after $Asp_{prospective}$ (and all higher heads):[20]

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[20]. The order $Asp_{prospective} > Mod_{ability}$ is also attested in (East Lothian) Scottish English. Miller (1980) cites (his example (9)b) a sentence such as: *He's gonna can pass his driving test next week.*
The head immediately above $Asp_{prospective}$ is $Asp_{progressive}$ (cf. Cinque 1997, chapters 3 and 4). Interestingly, both Turkish and Ladakhi (Sino-Tibetan) have their modal ability suffix closer to the verb stem than the progressive aspect suffix (cf. (i) and (ii)a).
Ladakhi, in fact, provides evidence that $Mod_{obligation}$ and $Mod_{permission}$ too are lower than $Asp_{progressive}$ (cf. (ii)b-c), and that $Mod_{ability}$ is higher than $Asp_{completive}$ (cf. (ii)d), in accord with (59) (all the Ladakhi examples are from Koshal 1979,229ff):

(i) inan-**a**-m**ɪ**-**yor**-um Yavas (1980,66):
believe-**ABIL**-NEG-**PROG**-1pers.sg. 'I can't believe it'

(ii)a ʂtə-e čhu biŋ **-thub-bin**-yot-kək
horse water cross-**ABIL-PROG**-narrative PAST
'The horse had been able to cross the water'

b ŋəpod-ne lok-ste yoŋ-nəŋ **- čhog-gin**-yot-pin-ʦhuk
I Tibet return-having come-**PERMISS-PROG**-reportive PAST- EVALUAT
'I was allowed to come back from Tibet'

c thug-gu-ə £əp-ʈə - əčhə- ə **-phog-gin**-yot-pin-ʦhuk
child school go-**OBLIG-PROG**-Reportive PAST- EVALUAT
'Children had to be going to school'

d kho-e ləs čo-ʦh**ə r-thub**-duk-pin
he work do-**COMPLET-ABIL**-observed PAST
'He could complete the work (speaker saw it)'

(51) a Adesso, vi sto per poter sentire
Now, I am about to be able to hear you
b *Adesso, vi posso stare per sentire
Now, I am able to be about to hear you

The above facts, thus, seem to substatiate the order in (52):

(52) ...$Asp_{prospective}$ > $Mod_{ability}$ > $Asp_{frustative/success}$ > $Mod_{permission}$ > $Asp_{conative}$...[21]

Consider next the root modal of obligation *dovere*.[22] This verb, when transparency effects obtain, apparently follows the prospective aspect head (and all heads higher than that), and precedes the root modal head of ability. Cf. (53)-(54):

(53) a Gli stava per dover ridare tutti i soldi che le aveva prestato
To-him he was about to have to give back the money he lent to her
b *Gli doveva star per ridare tutti i soldi che le aveva prestato[23]
To-him he had to be about to give back the money he lent to her

---

[21]. In this connection, it is interesting to note that certain usages of English ability *can* (e.g. *Can you hear me?*, where the speaker asks whether there are any external factors hindering his communication with the addressee) cannot be rendered in Italian with ability *potere* (**Puoi sentirmi*?). They can only be rendered with *riuscire* 'manage' (*Riesci a sentirmi?*) (or with the simple *Mi senti?* 'Do you hear me'). I interpret this as suggesting that ability *potere* is more restricted than ability *can* (essentially to abilities which depend on the active participation of the subject), with *riuscire* taking over the missing reading (abilities depending on external factors), presumably after raising to the (contiguous) ability modal head.

[22]. The same verb can also express the higher functional heads of alethic modal necessity ('it is necessary that..'), and epistemic modality ('it is probable that..').

[23]. The sentence is marginally possible if *dovere* is interpreted epistemically.

(54) a Per quel posto Gianni si dovrà poter dedicare al lavoro 16 ore al giorno
For that job, G. will have to be able to devote 16 hours to work

b (*)Gianni si potrà dover dedicare di più al suo lavoro[24]
G. will be able to have to devote himself more to work

Consider, now, the position of the root modal of volition (*volere*). This appears to be located somewhat higher, possibly after $Asp_{frequentative(I)}$ (as conjectured in Cinque 1997a),[25] and before $Asp_{terminative}$. Cf. (55)-(58):

(55) a Non gli soleva voler dare i suoi appunti
Not to-him he used to want to give his notes

b *Non gli voleva soler dare i suoi appunti
Not to-him he wanted to use to give his notes

(56) a Gli tornò a voler dare il suo appoggio
To-him he again wanted to give his support

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[24]. The sentence becomes grammatical if *potere* is interpreted alethically ('it is possible that he will have to...').

[25]. Frequentative adverbs (*often, twice,* etc.) appear to precede volitional adverbs (*intentionally, willingly,* etc.) (cf. Cinque 1997a, chapter 1). The non existence of ('restructuring') aspectual verbs corresponding to $Asp_{frequentative(I)}$, do not allow us to confirm this ordering.
If *affrettarsi (a)* 'hasten', which marginally allows 'restructuring', lexicalizes (the higher) celerative aspect head, the contrast in (i) would seem to suggest that $Mod_{volition}$ precedes $Asp_{celerative}$:

(i) a ?Gianni gli si è voluto affrettare a telefonare
G. to-him wanted to hasten to telephone

b *Gianni gli si è affrettato a voler telefonare
G. to-him hastened to want to telephone

Notice that the well-formedness of (56)b, in the text, is expected if *tornare* there is in the lower repetitive aspect head.

b Gli volle tornare a dare il suo appoggio
To-him he wanted to again give his support

(57) a Gli vorrebbe smettere di parlare
To-him he would want to stop talking
b *Gli smetterebbe di voler parlare
To-him he would stop wanting to talk

(58) a Gliene voglio continuare a parlare
To-him-of-it I want to continue to speak
b *Gliene continuo a voler parlare
To-him-of-it I continue to want to speak

Adding the $Mod_{volition}$ and $Mod_{obligation}$ functional heads, we obtain the partial order in (59):

(59) ... $Mod_{volition}$ ... $Asp_{progressive}$ > $Asp_{prospective}$ > $Mod_{obligation}$ > $Mod_{ability}$ > $Asp_{frustative/success}$ > $Mod_{permission}$ > $Asp_{conative}$ ...

Having added $Mod_{obligation}$ and $Mod_{ability}$ between $Asp_{prospective}$ and $Asp_{frustative/success}$ we must assess their order relative to $Asp_{inceptive}$, which was also argued to be between $Asp_{prospective}$ and $Asp_{frustative/success}$ (cf. (46) above). The sentences in (60) suggest that $Asp_{inceptive}$ precedes both $Mod_{obligation}$ and $Mod_{ability}$:

(60) a Ci comincia a dover andare anche di notte
There he begins to have to go even at night
b Lo comincio a poter suonare solo adesso
It I begin to be able to play only now

The well-formedness of (61) is compatible with this conclusion as *dovere* and *potere* there appear to have only an epistemic or alethic interpretation ('it is probable' or 'it is necessary', and 'it is possible'):

(61) a Gli deve cominciare ad essere garantito il loro appoggio
To-him must begin to be secured their support
b Questa responsabilità non gli può cominciare ad essere attribuita di nuovo
'This responsability not to-him can begin to be attributed again'

Finally, consider the position of so-called 'delayed' (or 'finally') aspect, mentioned in Cinque (1997a) and fn. 2 above. If the Italian 'restructuring' verb *finire (per)* 'end up doing' indeed lexicalizes this aspect, we may draw some indication about its position (beyond that deriving from the position of *finally* in the hierarchy of adverbs).

The following contrasts would seem to indicate that it is located between $Asp_{habitual}$ and $Asp_{predispositional}$.[26]

(62) a *Gianni ne finisce per soler accettare molte
G. of-them ends up using to accept many
b Gianni ne suole finire per accettare molte
G. of-them uses to end up accepting many

(63) a ?Gianni le finirà per tendere a fare da solo
G. them will end up tending to do alone
b *Gianni le tenderà a finire per fare da solo
G. them will tend to end up doing alone

3. Conclusions. By exploiting the rigidity in relative order of the 'restructuring' verbs (when transparency effects obtain), we found some evidence to determine the

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[26]. Recall from the introduction above that the 'finally' suffix of Macushi is ordered between the frequentative aspect suffix and the past tense suffix, a fact compatible with the orders in (62) and (63) below.

relative position of a number of aspectual and root modal heads which had remained undetermined in Cinque (1997a). In particular, this allowed us to integrate into the partial order proposed there the functional heads corresponding to $Asp_{conative}$, $Asp_{frustative/success}$, $Asp_{inceptive}$, $Asp_{predispositional}$, $Asp_{delayed\ (or\ 'finally')}$, and to refine the positions of the root modal heads within the overall hierarchy in (1). The revised (portion of the) hierarchy thus obtained is given in (64):[27]

(64) $\ldots Asp_{habitual} > Asp_{delayed\ (or\ 'finally')} > Asp_{predispositional} > Asp_{repetitive(I)} > Asp_{frequentative(I)} > Mod_{volition} > Asp_{celerative(I)} > Asp_{terminative} > Asp_{continuative} > Asp_{perfect} > Asp_{retrospective} > Asp_{proximative} > Asp_{durative} > Asp_{progressive} > Asp_{prospective} > Asp_{inceptive} > Mod_{obligation} > Mod_{ability} > Asp_{frustative/success} > Mod_{permission} > Asp_{conative} > Asp_{completive(I)} > Voice > Asp_{celerative(II)} > Asp_{inceptive(II)} > Asp_{completive(II)} > Asp_{repetitive(II)} > Asp_{frequentative(II)} \cdots$

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[27]. This analysis also predicts the existence of ordering restrictions among the rigid sequence of restructuring verbs and different classes of adverbs. If the latter are generated in the Spec position of distinct functional heads (Cinque 1997a), it is to be expected that an adverb corresponding to a functional projection higher than the one filled by a certain restructuring verb which remains put will not be able to follow the verb. As the examples in (i)-(ii) show, this prediction appears to be confirmed. But the whole question deserves a separate treatment.

(i) a Non gli riesco più a continuare a parlare
I don't manage any longer to continue to speak to him
b *Non gli riesco a continuare più a parlare

(ii) a Lo sta ancora finendo di scrivere
He is still finishing to write it
b *Lo sta finendo ancora di scrivere

In the a. examples, the restructuring verb generated lower than the adverb ('frustative' aspect is lower than 'terminative' aspect) can come to precede the adverb due to its raising across the adverb in its movement to Tense and Agr. This is not possible in the b. examples where the restructuring verb in question cannot cross the trace of the other restructuring verb moved to Tense and Agr.

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Fragments of Balkan Nominal Structure[1]

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In this paper, we discuss some properties of the syntax of noun phrases in three Balkan languages: Albanian, Bulgarian and Rumanian. In section 1, we set the general approach to noun phrase structure by reviewing and further developing a syntactic analysis of the enclitic definite article which is present in these three languages. In section 2, we present some data that suggest that these languages display a functional projection to host Focus and/or Topic movement inside the noun phrase.

1. On the syntax of enclitic articles in Balkan languages.

The presence of a postposed definite article is often considered as a characterizing property of some languages belonging to the so-called Balkan Sprachbund. Such an

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article can appear on the noun or on an adjective, and in any case in a sort of "Wackernagel position" inside the DP. In other words it is always attached to the first lexical head in the nominal string. In these languages the article bears features of number and gender. In Albanian and Rumanian it is also inflected for Case, while in Bulgarian there is no case morphology on noun phrases at all:

(1)	a.	zenata-ta	b.	muz-ut	
		woman-the(F)		man-the(M)	(Bg)
(2)	a.	grua-ja	b.	libr-i	
		woman-the(F, Nom)		book-the(M, Nom)	(Alb)
(3)	a.	femei-a	b.	bàrbat-ul	
		woman-the(F, Nom)		man-the(M, Nom)	(Rum)

The presence of an enclitic definite article in the Balkan languages and the Germanic languages has often been interpreted as evidence that N is adjoined to D, i.e. for overt N-to-D movement. It has been further claimed that the affixal property of the definite article in these languages is actually the trigger for overt N-to-D movement (cf. Delsing 1988, Taraldsen 1990, Arnaudova 1996 for Bulgarian, and Longobardi 1996 for languages with affixal article morphology in general).

In previous work [2], on the basis of Scandinavian and Bulgarian, we have argued that the enclitic nature of the article found on the noun, such as illustrated in (1) through (3) above, cannot be taken as evidence for overt N-to-D movement in a given language. In this paper we will demonstrate that the data from the order of the head noun with respect to modifiers show that N+enclitic article is in most cases not in D. Based on this evidence we will argue that the enclitic article is not a trigger for N-to-D movement.

In this section, we will review the tests developed in our previous work to detect N-to-D movement, and extend the analysis to Albanian.

We will assume, following Cinque (1994), an independent intermediate N-movement to an Agr head in the extended functional projection of the noun phrase.[3] We will propose that a language must have intermediate (N-to-Agr) movement in

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2. Cf. Giusti (1993), Dimitrova-Vulchanova and Giusti (1996), Giusti (1997).

3. We use the term "extended projection" in the sense of Grimshaw (1991). For a superior analysis cf. recent proposals on extended projections and functional/lexical heads in van Riemsdijk (1996).

some cases for longer movement to D to be possible in other cases. We will see that Bulgarian does not display intermediate N-movement and we will claim that it is for this reason that N-to-D is not present in this language. Interestingly, we will see that Albanian displays a very "long" intermediate movement but no other movement triggered by the enclitic article. Finally, we will see that only in Rumanian, and only optionally, does the enclitic article trigger N-to-D movement. Our tentative conclusion will be that N-to-D movement is never obligatory in the languages we have studied.

With respect to the syntax of the enclitic article when it is inserted on the adjectival head, we will argue that it is checked on the functional projection of the adjective itself and not in D.

1.1. N-movement

According to Cinque (1994), a reliable test to check N-movement to an intermediate functional head is provided by the position of nominal modifiers, such as adjectives of different classes. In Albanian we see that the relative order in which the noun and the adjective appear is independent of the presence of a definite enclitic article.[4]

(4)	Albanian	a.	një djalë i mirë a boy ART-good	Art_{indef} N Art_{adj} A
		b.	%një i mirë djalë	Art_{indef} Art_{adj} A N
		c.	djal-i i mirë boy-the ART-good	N-Art_{def} Art_{adj} A
		d.	%i mir-i djalë ART-good-the boy	Art_{adj} A-Art_{def} N

4. As indicated in the examples in (4), Albanian also exhibits a morpheme which precedes the adjective, which has been referred to as "the adjectival article" (cf. Assenova (1989) for a discussion, Buchholz & Fiedler (1987) for a description) and we follow this practice in our glossing by using ART for this morpheme. Regardless of which view on its etymology is adopted (cf. Assenova (1989)), there are reasons to believe that the current status of this bound form is that of an "agreement/categorial" marker. For reasons of space we do not discuss the facts supporting this view here.

The unmarked order is when the noun precedes the adjective, as in (4a,c). The marked order, in which the adjective precedes the noun, is also possible for some speakers, as in (4b,d).[5] This is not the case in Bulgarian, as we observe in (5):

(5)	Bulgarian	a.	goljamo momce	A N
			[a] big boy	
		b.	*momce goljamo	*N A
		c.	goljamo-to momce	A-art N
			big-the boy	
		d.	*momce-to goljamo	*N-art A

Indefinite noun phrases in Bulgarian have no article at all, parallel to other Slavic languages.[6] What makes Bulgarian[7] different from the other Slavic languages is the presence of the definite (enclitic) article. In this language as well, the presence of the article does not change word order. Here, the adjective must always precede the noun.

In Rumanian (6), we see a case in all respects similar to the better known case of Italian, as studied by Cinque (1980). Descriptive adjectives, such as *frumos* in Rumanian and *bello* in Italian, may either follow the noun or precede it:

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5. The symbol % indicates that only a percentage of speakers accept the sequence. The order A > N (read: "A precedes N"), for those who accept it, is stylistically marked and gives the adjective some emphasis. In section 2., we claim that the adjective in this case is moved to a high functional specifier in the structure. But this is not important for the point we want to make now.

6. An indefinite article can be attested only for Albanian, as illustrated in (ii). The status of the Bulgarian form *edin/edna* is rather adjectival, as demonstrated in that it can co-occur with, and actually bear the definite article (*-ta* in (iii) on a particular reading.

(i)	Bulgarian	(edna) zena
(ii)	Albanian	një grua
		a woman
(iii)	Bulgarian	edna-ta zena
		one-the woman
		"one of the women"

7. Macedonian, which we do not discuss in this paper, also has a definite article.

(6)	Rumanian	a.	un bàiat frumos a boy nice	Art_{indef} N A
		b.	un frumos bàiat a nice boy	Art_{indef} A N
		c.	bàiatul frumos boy-the nice	N-art A
		d.	frumosul bàiat nice-the boy	A-art N
(7)	Italian	a.	un/il ragazzo bello a/the boy nice	
		b.	un/il bel ragazzo a/the nice boy	

As the Rumanian and Italian examples in (6) - (7) show, this descriptive generalization holds regardless of the presence of the enclitic article. We take this as strong evidence that the enclitic article as such does not force N-to-D movement before SPELLOUT.

In Cinque's work, the hierarchy among adjectives is fixed and structurally represented. Descriptive adjectives are intermediate in the structure. Therefore, they do not provide the right syntactic environment to establish the exact position of the head noun. Let us then see the case of other adjectives that are usually higher in the structure.

1.1.1. Albanian

In Albanian, an ordinal[8] adjective such as *tjetër* ("other") must precede a descriptive adjective such as *e bukur* ("nice"), as shown by the contrast between (8) and (9):

(8) a. një grua tjetër e bukur
a woman other ART-nice

8. Cf. also "alternative" in the terminology of Buchholz & Fiedler (1987) p. 309-10.

b. grua-ja tjetër e bukur
woman-the other ART-nice

(9) a. *një grua e bukur tjetër
a woman ART-nice other
b. *grua-ja e bukur tjetër
woman-the ART-nice other

The noun precedes both adjectives. On this evidence we propose that in Albanian the noun moves to a very high functional head in any type of noun phrase, and that the enclitic nature of the article is not a trigger for further movement of the noun.

1.1.2. Rumanian

In (10)-(12) we observe that in Rumanian some ordinal adjectives such as *prim* ("first") and *ultim* ("last") must always be prenominal both in definite and in indefinite noun phrases, just like in Italian:

(10) a. Rumanian un prim/ultim/biet bàiat
b. Italian un primo/ultimo/povero ragazzo
a first/last/poor boy

(11) a. Rumanian *un bàiat prim/ultim/biet
b. Italian *un ragazzo primo/ultimo/#povero
a boy first/last/poor

(12) a. Rumanian *bàiatul prim/ultim/biet
boy-the first/last/poor
b. primul/ultimul/bietul bàiat
first-the/last-the/poor-the boy

The contrast in (12) may lead us to think that in Rumanian the noun moves to the same intermediate position as in Italian and that the enclitic article never triggers further movement to D. But other ordinal numerals provide evidence to the contrary. All numerals from "second" on in Rumanian are formed by the discontinous morphology of a preadjectival article, which consists of the root *a-* , hosting the

enclitic article (which agrees with the noun for number and gender), and the invariable suffix *-lea*. This set of numeral adjectives must be prenominal in an indefinite noun phrase, showing that their basic position is higher than the functional head to where the noun moves in this type of noun phrase:

(13)	a.	Rumanian	un al doilea bàiat
	b.	Italian	un secondo ragazzo
			a second boy
(14)	a.	Rumanian	*un bàiat al doilea
	b.	Italian	*un ragazzo secondo
			a boy second

In definite noun phrases these adjectives may optionally occur postnominally, suggesting that in the example in (16a), the noun moves one step further than in the examples in (13a), (14a):

(15)	a.	Rumanian	al doilea bàiat
	b.	Italian	il secondo ragazzo
			the second boy
(16)	a.	Rumanian	bàiatul al doilea
	b.	Italian	*il ragazzo secondo
			the boy second

We therefore propose that the enclitic article in Rumanian may optionally act as the trigger for N-to-D movement. This is confirmed in other cases, such as DPs modified by the quantity adjective *multi* ("many").

In a noun phrase introduced by a demonstrative, the Rumanian *multi* must precede the noun (cf. (17a) and (18a)), just as for *molti* in Italian (cf (17b) and (18b). But in the presence of the enclitic article, *multi* may follow the noun, contrary to what happens in Italian (cf. (19b) and (20b)):

(17)	a.	Rumanian	acesti multi bàieti
	b.	Italian	questi molti ragazzi
			these many boys

(18) a. Rumanian *acesti bàieti multi
b. Italian *questi ragazzi molti
these boys many

(19) a. Rumanian multii bàieti pe care îi cunosc ...
many-the boys that I know ...
b. Italian i molti ragazzi che conosco ...
the many boys that I know ...

(20) a. Rumanian bàietii multi pe care îi cunosc .....
boys-the many that I know ...
b. Italian *i ragazzi molti che conosco ...
the boys many that I know ...

The contrast with Italian is particularly telling in that Italian and Rumanian are perfectly parallel in those constructions where no enclitic article is involved and differ in those where the enclitic article appears.

Finally notice that, in Rumanian, even the demonstrative can be preceded by a noun inflected for the enclitic definite article:

(21) a. aceste douà femei frumoase
these two women beautiful
b. femeile acestea douà frumoase
women-the these two beautiful

Given that the demonstrative must occupy the highest position among modifiers, as shown in (21a), the position of the noun in (21b) further confirms that the noun raises to the highest available head position, which we take to be D.

1.1.3. Bulgarian

There is no evidence for overt noun movement in Bulgarian. In the absence of intermediate N-movement, shown in (23b), it is difficult to maintain that N-movement

obtains exclusively in the cases when the article attaches to the noun, as in (22b). We therefore propose that the noun never moves overtly in Modern Bulgarian:[9]

(22) a. momce
[a] boy
b. momce-to
boy-the

(23) a. goljamo momce
[a] big boy
b. *momce goljamo

(24) a. *momce-to goljamo
b. goljamo-to momce
big-the boy

(25) a. *momce-to moe
b. moe-to momce
my-the boy

1.2. A proposal

The empirical generalization is that there is no case in the three Balkan languages examined here, in which the enclitic article triggers obligatory N-to-D movement. In Rumanian, alone, it may act as a trigger for optional N-to-D movement. In the other two languages, it does not have any influence on constituent order. This leads us to propose that all three languages may, while Albanian and Bulgarian must procrastinate movement of a noun inflected for the enclitic article to D. We assume, nevertheless, that this movement takes place at LF to check the features of the definite article in D.

If checking of the enclitic article on the noun may/must wait until LF in the cases when the noun is the only lexical element in the whole nominal phrase, we should duly ask what mechanism rules out the (a) examples in (26)-(28) in which a noun inflected for an enclitic article is preceded by an adjective:

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9. In Old Bulgarian both intermediate N-movement and (longer) N-to-D movement are attested (for details cf. Dimitrova-Vulchanova & Vulchanov 1997, in progress).

(26) Rumanian
a. *frumos bàiatul
nice boy-the
b. bàiatul frumos
boy-the nice
c. frumosul bàiat
nice-the boy

(27) Albanian
a. *i mirë djal-i
ART-good boy-the
b. djal-i i mirë
boy-the ART-good
c. i mir-i djalë
ART-good-the boy

(28) Bulgarian
a. *goljamo momceto
big boy-the
b. *momceto goljamo
boy-the big
c. goljamoto momce
big-the boy

In our framework, there is no reason to believe that the presence of an adjective in a Specifier should block head movement of the noun at LF.[10] The LF configurations we obtain from the (a) examples above are parallel to those reported in the (b) examples, in which the noun has moved overtly to a position higher than the adjective. Notice that in Bulgarian, this movement cannot take place before SPELLOUT, while in the other two languages, it may take place before SPELLOUT. Furthermore, we assumed

10. Of course a theory that takes adjectives to be intermediate functional heads of the kind proposed by Abney (1987, ch. 4) and further developed by Delsing (1993), among others, would be able to explain straightforwardly the fact that N-movement is blocked in the presence of an adjective. However, it would not be able to explain a whole set of data which will be discussed in section 1.3. that show that adjectives are maximal projections. More specifically they project their own functional structure, much in the same fashion as the other lexical heads.

above that at least in noun phrases that contain just the lexical head inflected with the definite article, as in (24b) above, N-to-D takes place at LF in Bulgarian as well.

We explain the unacceptability of the (a) examples in (26)-(27) above by resorting to a requirement on the licensing of functional specifiers, such as (29):

(29) A constituent in a functional specifier must be licensed by agreement with the functional head.

(29) amounts to saying that a functional head must have some morphosyntactic feature-content in order for its specifier to be filled by an AP, or better, the extended projection of an AP. The requirement in (29) applies equally to indefinite DPs and definite DPs. Our proposal goes along the following lines.

We know by empirical observation that the functional heads of the nominal extended projection in the languages under examination are covert, in the sense that there are no morphemes that can be isolated and checked in each separate functional head. Thus, if N is to be identified with α, α equalling the complex [R(oot) - M1 - M2...Mn], the inflectional features M1, M2...Mn do not find exact correspondence with the categorial features for each functional projection assumed between N and D. This lack of correspondence makes it problematic to assume checking of the type which "removes" features by matching an inflectional feature against a categorial feature. Instead, we propose that the number and gender features as well as Case and/or Definiteness are checked through sharing the same inflectional complex. This type of checking can be made available in the chain that is formed, at the latest at LF, by N-to-D movement, with N = α successively passing through the separate functional heads. Thus, categorial features are checked in separate heads, but are shared in the chain formed by the raising of α.

If a functional head is part of the chain created by N-movement through the functional head positions between N and D, then it shares all the features of the head of the chain, and is able to license its specifier. On the other hand, if movement has not taken place in overt syntax, the intermediate functional heads, are not part of that chain at SPELLOUT. Thus, at this stage of the derivation, the specifier in which the adjective appears is not licensed by agreement with the functional head.

Our proposal essentially assumes that, prior to N-raising, the functional heads between N and D lack morphosyntactic feature content, i.e. they have only category labels such as Num(ber), G(ender), etc., and are thus unable to license APs in their specifiers. When it raises, the head noun, which is equipped with all the necessary

morphology, provides for the necessary spec-head licensing (cf. principle (42) below).

The presence of an adjective, therefore, requires head movement prior to SPELL-OUT, in those languages where this is allowed. In those languages where N-movement is not allowed, the highest position of the chain must be filled by an overt or a covert element, or must be identified in some alternative way. The former case is instantiated by the English articles which may be overt (e.g. definite *the*, singular indefinite *a*) or covert (e.g. the null articles for generics and partitives). The latter case is instantiated by demonstratives, which we take to be in SpecDP, and by adjectives inflected for the enclitic article, which we also assume are in SpecDP, as will be argued for in detail below. The principle in (29) also captures certain Scandinavian facts, for example the obligatory presence of the non-affixal article in DPs whose head noun is modified by an adjective.

To summarize, the licensing mechanisms prior to SPELLOUT require either (i) feature- sharing in a chain created by movement of N+art. to D, or (ii) the filling of the target position with a lexical element. If neither of these conditions is met, the lower functional projections are not allowed to have a Specifier hosting an AP.

Below, we discuss a third option to satisfy the licensing requirement, whereby the specifier of the highest head of the chain is overtly filled (cf. principle (44)). This alternative to overt N-movement involves the possibility for the adjective in the highest specifier to move to SpecDP. We develop this analysis in the next section.

1.3. The enclitic article on the adjective

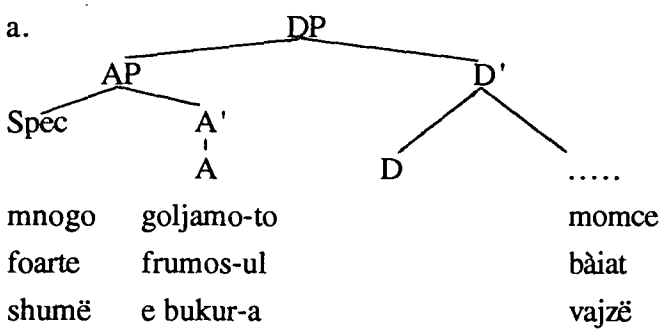
The examples (30)-(32) show that in all three languages under consideration, the adjective does not undergo head movement to D. If this were the case, we would expect the modifier of the adjective to follow the adjective after movement has taken place. But that is consistently ruled out, as shown in the (b) examples:[11]

11. This observation was put forward for Rumanian by Grosu (1988).

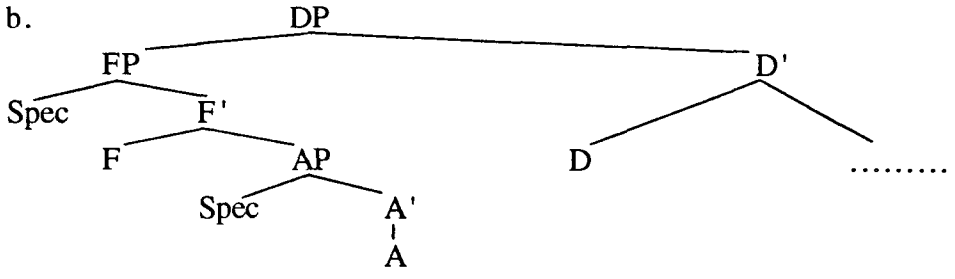
(30)	a.	Bulgarian	mnogo goljamo-to momce
			very big-the boy
	b.		*goljamoto mnogo momce
(31)	a.	Rumanian	foarte frumos-ul bàiat
			very nice-the boy
	b.		*frumosul foarte bàiat
(32)	a.	Albanian	shumë e bukur-a vajzë
			very ART-nice-the girl
	b.		*e bukura shumë vajzë

Having excluded A-to-D movement we have two viable analyses. In the first, the extended projection of AP moves to SpecDP and an encltic article in D phonetically encliticizes onto the adjective, as represented in (33a). In the second, the adjective is inflected for the article before any movement takes place, and checks it in its own functional structure, as represented in (33b). Within the latter scenario the agreement with the head D is achieved through a Spec-Head configuration.

(33) a.



b.



e_i	mnogo goljamo[-to]$_i$	[DEF]	momce
e_i	foarte frumos[-ul]$_i$	[DEF]	bàiat
e_i	shumë e bukur[-a]$_i$	[DEF]	vajzë[12]

We now present evidence for (33b): In all three languages, where a noun is modified by more than one adjective, only the initial adjective carries an enclitic article. However, in Albanian and Rumanian, if the initial modifiers are coordinated, both adjectives must bear the enclitic article, as illustrated in (34)-(35):

(34) a. E gjor-a vajzë e vogël (Albanian)
ART-poor-the girl ART-little

b. E gjor-a dhe e vogl-a vajzë
ART-poor-the and ART-little-the girl

c. *E gjor-a dhe e vogël vajzë
ART-poor-the and ART-little girl

(35) a. frumoasele fete bune (Rumanian)
nice-the girls good

b. frumoasele si bunele fete
nice-the and good-the girls

c. *frumoasele si bune fete
nice-the and good girls

In (34b) and (35b), both adjectival heads in the coordination carry the enclitic article. Note that the two articles do not have different referential indices, i.e. the two adjectives in coordination are not predicated of two independent (sets of) referents.

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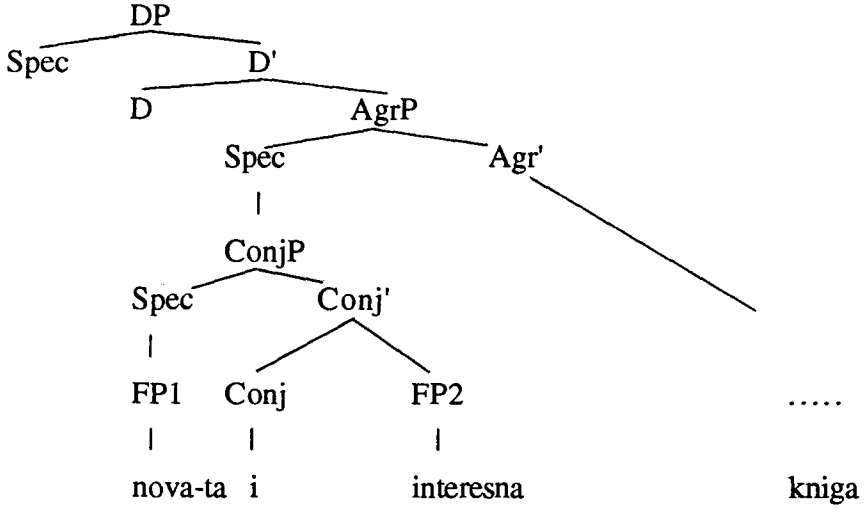
12. We do not take stand on the position of the preadjectival article, which is part of the adjectival root and is probably a very low functional head. It must be so low that nothing can appear between it and the noun.

Thus, we are led to interpret the enclitic article as an inflectional morpheme on the adjectival head. This is possible only if each adjective checks its morphology in its own functional structure, as in (33b). Observe that if the enclitic article was in D and attaches to the AP(s) in Spec-DP by phonological encliticization, only the second adjective would bear an article, which is counter to what we find in (34b) and (35b). Of course, the features represented by the article(s) must ultimately be checked (via Spec-Head agreement) against a functional head of the main N-D projection. For economy reasons that we will see in a moment, the head need not be filled by an overt element, since the features are already visible in the Spec.

This paradigm (34)-(35) is actually not repeated in Bulgarian, where only the first of the coordinated adjectives bears the article, as shown in (36). However, this does not weaken our argument. In a theory of coordination which presupposes binary branching, the first conjunct is higher than the second. It is plausible to suppose that the first conjunct alone raises to SpecDP in these examples.

(36)	a.	nova-ta	i	interesna kniga
		new-the	and	interesting book
	b.	*nova	i	interesna-ta kniga
		new	and	interesting-the book

(37)



The structure corresponding to the Bulgarian example in (36a) is given in (37). We assume that it is permitted for FP1 alone to move to SpecDP. Notice also that, to the extent that it is the initial, not the final adjective which bears the article, the Bulgarian data provide independent support for our argument.

A conclusive argument which excludes the theory in which the adjectival article is generated in the D position is provided by the possibility in Bulgarian to have a head-complement configuration in a left branch. If the article were inserted in D we would expect the article to appear after the complement of the adjective in (38a), as is the case of the *'s* genitive in English (38b). Instead we find the article on the adjectival head in (39a). This clearly contrasts with English (39b):

(38) Bulgarian a. *[AP (mnogo) [A' [A°vern-i][PP na zena si]]]-jat muz
(very) true to wife his -the man
English b. [[NP the man I met yesterday] ['s [.. hat]]

(39) Bulgarian a. [AP (mnogo) [A' [A°vern-i]-jat [PP na zena si]]] muz
(very) true -the to wife his man
"the man very true to his wife"
English b. *the man's I met yesterday hat

A similar situation is attested also for Albanian in the cases when the AP is focused and moves to a position preceding the head noun. The data in (40) provide an illustration of the unmarked construction with N-movement ((40a)), and the focused construction ((40b)), to be discussed in detail in 2.1 below, in which the article attaches to the adjectival head *besnik* (truthful) much in the same way as in the corresponding Bulgarian construction in (39a) above.[13]

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13. Albanian also allows for an alternative construction, as in i) below:

(i) besnik=u burrë ndaj së shoqes
faithful-the man to his wife

We do not find this example as supporting the contrary of what we claim for a couple of reasons briefly mentioned here. Firstly, (40b) is grammatical in Albanian, just like its Bulgarian counterpart. Secondly, the postnominal position of the PP is certainly derived by intermediate N-movement, much in line with the situation otherwise in Albanian DPs where the noun moves independently to a position higher than in e.g., Italian. Now the problem is how *besnik=u* has moved without the PP. A standard solution will be that PP undergoes some kind of "heavy NP/PP" shift and that the AP moves to Spec-DP. The general problem arising with heavy-shift phenomena is to locate the exact position to which the "shifted" item moves. We leave this question open.

(40) a. burr-i tepër besnik ndaj së shoqes
man-the extremely truthful to his wife
b. tepër besnik-u ndaj së shoqes burrë
extremely truthful-the to his wife husband

Note also that in the construction type in (40b) the AP has moved as a constituent, a fact which was used in (30)-(32) above to argue against an A-to-D movement analysis.

Up to this point, we have established that the adjectival article is not in D but in an adjectival functional projection. When the adjective is in SpecDP, D is thus empty. Now the question arises why the empty D that is licensed by the article on an adjective is not available to check an article on the noun. In other words we must now explain the impossibility of the sort of "double definiteness" illustrated in (41):[14]

(41) Bulgarian a. *vernijat muzut
true-the man-the
Rumanian b. *frumosul bàiatul
nice-the boy-the
Albanian c. *e bukur-a vajza
ART-nice-the girl-the

We propose a very general principle formulated as in (42):

(42) Economize functional heads

The economy principle in (42) can be viewed as the core ground of parametric variation in the set of phenomena involving doubly-filled functional projections, in which both the head and the specifier must/may/cannot be filled. Morphological

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14. The term "double definiteness" covers a large set of phenomena, including the cooccurrence of demonstratives and articles, the cooccurrence of two or more nominal articles, and - as far as we know - has never been used for the cooccurrence of an enclitic article on the adjective and an enclitic article on the noun. For example, in Albanian and in Rumanian a demonstrative may cooccur with an article, although in very different configurations and with a different degree of acceptability. We believe that these are different, although related, phenomena and must be dealt with separately.

redundancy is a wide- spread phenomenon across natural languages and any economy driven theory must leave a door open to allow for it.

In the three languages studied here, it is unnecessary to make the head of D visible when its specifier morphologically realizes all the information that constitutes the head. This also appears to be the case when a demonstrative is in SpecDP:

(43)	a.	Bulgarian	tova momce(*to)
	b.	Rumanian	acest bàiat(*ul)
	c.	Albanian	ky dialë/i
			this boy-the

Only Albanian optionally allows for the enclitic article on the noun in the presence of a demonstrative. We take this difference to be at the lexical level, and in particular, related to the lexical properties of the demonstrative. When a child learns a word that checks its features in a functional specifier (SpecDP, in this case), e.g., the demonstrative, (s)he also learns its morphological properties.

In this respect, a parameter is set with respect to the principle in (44) below, the choice being between interpreting the two clauses a. and b. either disjunctively or conjunctively.

(44) A functional projection must be visible at all levels of representation by either
a. making the specifier visible, and/or
b. making the head visible.

(44) accounts for the obligatory presence of the enclitic article at least on one element (the highest) in a definite DP. If no article was present, neither D nor SpecDP would be visible. As a consequence, the whole DP would not be visible and the representation of such a DP would be ruled out. (44) also interacts with (29) in the cases of APs in intermediate functional projections. In these projections the head F is visible by simply taking part in the chain built by either A-to-F movement or by heading a maximal projection FP in spec-head agreement with a functional nominal head (Agr) which is already part of a "visible" chain, namely a chain where the features are "visible" by either N-to-D movement or by making D phonologically filled. If one of these is the case, then F is able to license a Spec position to host an AP according to (29) without problems.

1.4. Summary of proposals and results

Up to this point, we have claimed that the enclitic article in Albanian, Bulgarian and Rumanian never triggers obligatory movement of N to D. Only for Rumanian do we have evidence that it may trigger this kind of movement. We have reached this conclusion by first identifying adjectives whose position is "high" in the structure, and then by observing their position relative to the noun in noun phrases with and without the enclitic article. For the cases where no difference in constituent order was observed between the two types of noun phrases, we have claimed that the enclitic article is not a trigger for N-movement.

We have shown that the head noun moves to intermediate heads in Rumanian and Albanian, but not in Bulgarian. We have also demonstrated that the intermediate heads where the noun can land are different in the former languages: in Rumanian it is the same as in Italian, while in Albanian it is higher still.

We have not tried to give any significant label to any functional projection of the noun phrase or of the adjective phrase for two related reasons: The first is that this issue was not directly relevant to our proposals. The second is that if we can construct a proposal without making recourse to labels, we have a good reason to cast doubts on their theoretical status.

The interaction of principles (29), (42), and (44), that should hold of all functional projections, has allowed us to explain the syntax of the enclitic article in the three languages in question. But we hope that it can open up the way to study a large set of phenomena that have their progenitor in the empirical domain treated by the "doubly-filled COMP Filter" of Chomsky and Lasnik (1977). We are referring here to the wide crosslinguistic variation with respect to the cooccurrence of a functional head with an element in its Specifier.

2. On the fine structure of DP

In 1.1.1 above we mentioned that in Albanian, the noun moves to a very high functional head, independently of the presence of the enclitic article. The specifier of this intermediate high position, we claim, can be the target of a certain type of A'-movement of the AP. In particular, we argue that this is an instance of Focus

movement. This operation is also found to apply to genitive noun phrases. The functional projection in question, which we will from now on call FocP, is situated immediately below DP.[15] In Bulgarian, both a Topic movement and Focus movement are found, but the target projection in this case is external to DP; furthermore, Topic movement is restricted to genitive phrases. In Rumanian, on the other hand, neither extension of DP is found.

By applying the term A'-movement to movement processes inside the DP, we mean to suggest an operator-type movement which is motivated by information structure, and which gives rise to a marked word order.[16]

2.1. Albanian

In section 1.1.1. above, we have seen that the relative order of adjectives in Albanian is fixed in an object-denoting noun phrase. This observation also holds for event nominals, in which, as shown in (45)-(46), the thematic adjective must be lower than the descriptive adjective. Once again, in Albanian the noun precedes both adjectives, while in Italian the noun appears between the high adjective and the low one:

(45)	a.	Albanian	pushtimi i tmerrshëm italian i Shqipërisë invasion-the terrible Italian of-Albania
	b.	Italian	la terribile invasione italiana dell'Albania the terrible invasion Italian of Albania "the terrible Italian invasion of Albania"
(46)	a.	Albanian	*pushtimi italian i tmerrshëm i Shqipërisë invasion-the Italian terrible of-Albania
	b.	Italian	*l'italiana invasione (terribile) dell'Albania the Italian terrible invasion of Albania

15. Cf. the observation made in the text above on our stand about the labelling of functional projections.

16. Crosslinguistically marked constituent orders are induced by interpretive reasons. On the relation between information structure (packaging) and syntax cf. Valduví & Engdahl (1996).

The prenominal position of the adjective in Albanian is marked. In this position, either adjective can appear. This is the case both in object referring nominals (47) and in event nominals (48):

(47) a. tjetr-a grua e bukur
other-the woman ART-nice

b. *e bukur-a grua tjetër
ART-nice-the woman other

(48) a. ?i tmerrshëm pushtimi italian i Shqipërisë

b. ??italian pushtimi i tmerrshëm i Shqipërisë
the Italian invasion terrible the of-Albania

This suggests that the prenominal position is derived by movement of the AP. Furthermore this movement is a sort of A'-movement (if the A/A'- distinction can be shown to make sense for adjectives at all) in the sense that it serves information structure purposes.

If AP-movement is to be assumed in these cases, one should inquire what the target position is. This position follows the demonstrative, which we take, on the basis of parallelisms with other languages, to be in SpecDP (cf. Giusti (1993), Brugè and Giusti (1996)). A Focused AP cannot precede the demonstrative:

(49) a. kjo (shumë) e *bukur(a)* grua tjetër
this (very) ART-nice(-the) woman other

b. *e bukur(a) kjo grua
ART-nice(-the) this woman

c. *tjetra/tjetër kjo grua
other(-the) this woman

(50) a. ky libër i Benit
this book ART-of-Ben

b. ky i Benit libër
this ART-of-Ben book

c. *i Benit ky libër

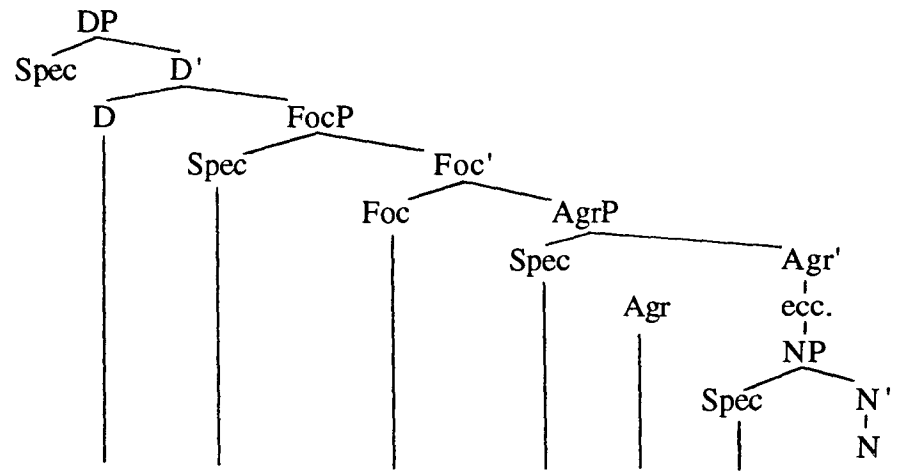
The fact that it can host elements of various categories strongly supports the proposal that it is a derived position of the A'-type. The structure propsed for Albanian is (51):

(51) [DP D [FocP [Foc N(+Art)i] [... ti ...]]]

In definite noun phrases, the article is generated directly on N. The lexical head N moves to Foc and later checks the article in D at LF.[17] When an AP is focused, it moves to SpecFocP. In this case, the enclitic article is directly generated on the adjective. The checking will be done by movement to SpecDP at LF, a position which allows Spec-head agreement with the head D at that level of representation. If SpecDP is filled by a demonstrative, the definiteness features of DP are satisfied. The article we find in (50a) is to be taken as a (redundant) agreement morpheme which is checked in neither position of DP at LF. For the sake of clarity we now present structures for some of the examples discussed above:

17. Alternatively, it is possible to believe that if no FocP is needed, no FocP is projectected. In this case, the article is directly generated and checked in D triggering N-to-D movement at SPELLOUT. Another instance of minimizing the number of the projections is when no demonstrative is inserted. In this case DP and FocP may be taken to conflate in a theory à la Haider (1988). D and Foc would be one and the same position where the article is inserted in definite noun phrases. This article would not trigger N-to-D/Foc because it can encliticize onto the AP in SpecFocP/DP. If we take movement as a last resort, the possibility for the article to encliticize onto the AP would dispense with N-movement.

(52)



a.		(një)		$gruа_i$	[tjetër]	t'_i	[e bukur]	t_i
		(një)	[tjetër]$_j$	$gruа_i$	t_j	t'_i	[e bukur]	t_i
		(një)	[e bukur]$_j$	$gruа_i$	[tjetër]	t'_i	t_j	t_i
b.		[DEF]$_k$		$gruа_i$-ja$_k$	[tjetër]	t'_i	[e bukur]	t_i
		[DEF]$_k$	[tjetr[a$_k$]]$_j$	$gruа_i$	t_j	t'_i	[e bukur]	t_i
		[DEF]$_k$	[e bukur[a]$_k$]$_j$	$gruа_i$	[tjetër]	t'_i	t_j	t_i
c.	kjo	[DEF]		$gruа_i$(-ja)	[tjetër]	t'_i	[e bukur]	t_i
	kjo	[DEF]	[tjetër/ra]$_j$	$gruа_i$	t_j	t'_i	[e bukur]	t_i
	kjo	[DEF]	[e bukur(a)]$_j$	$gruа_i$	[tjetër]	t'_i	t_j	t_i

2.2. Bulgarian

Bulgarian also dispalys an A'-movement inside the noun phrase structure, but of a different kind. Firstly, it involves a complementary distribution between possessor DPs and adjectives, in that topicalization applies exclusively to possessor phrases. Secondly, the target position is higher than the position where demonstratives are found.

Both dative and genitive case in Bulgarian are expressed by the preposition *na*. The *na*-DP can either follow the head noun or be first in the sequence:

(53) a. tezi novi knigi na Ivan
these new books to Ivan

b. ?na Ivan tezi novi knigi
"these new books of Ivan's"

We propose to take (53a) as the basic structure and (53b) as derived via movement, on the basis not only of general theory-internal and cross-linguistic considerations, but also of language internal evidence: the structure with the preposed possessor improves - in fact, becomes perfect - if the possessor is doubled by a clitic. Notice that doubling is also possible, although not perfect, when the possessor remains in situ:

(54) a. na Ivan tezi mu novi knigi
to Ivan these CL-dat.3.s. new books
b. ?tezi mu novi knigi na Ivan
these CL-Dat.3.s. new books to Ivan

The clitic is only present in definite noun phrases and follows the element with the definite article or the demonstrative:

(55) a. tezi mu novi knigi
these CL-dat.3.s. new books
b. novite mu knigi
new-the CL-dat.3.s. books
c. knigite mu
books-the CL-dat.3.s.

The clitic cannot appear in noun phrases containing neither a definite article nor a demonstrative:

(56) a. edna (*mu) nova kniga
a/one (CL-Dat.3.s.) new book
b. *vsicki (*mu) novi knigi
all (CL-dat.3.s.) new books
c. nova (*mu) kniga
[a] new (CL) book
d. kniga (*mu)
[a] book (CL)

A possessor *na* DP can also be fronted in indefinite noun phrases. In this case, however, it is focalized, and not doubled by the clitic, as illustrated in (57) below. We argue below that this construction type is an instance of Focus movement.

(57) a. na Ivan edna nova kniga
"a new book of Ivan's"
b. na Ivan mnogo novi knigi
"many new books of Ivan's"

Notice that the fact that the preposed possessor does not count as the first element of the noun phrase with respect to the placement of the article and to possessor cliticization confirms our hypothesis that the preposed position of the possessor is derived.

Given the relatively free word order in the Bulgarian clause, it is very difficult to establish whether the preposed possessor is actually still inside the DP or has "scrambled" out of the DP. However, the following considerations may suggest that the possessor can form a constituent with the rest of the DP.

The fronted possessor forms a continuous string with the DP from which it originates, when the latter is in object position (58a), as well as when that DP is fronted (58b), embedded under a preposition (58c), and in predicate position (58d):

(58) a. Ceta na Ivan knigata na studentite
I read to Ivan book-the to students-the
b. Na Ivan knigata vcera ja procetox na studentite
To Ivan book-the yesterday I read to students-the
"Yesterday I read a book of Ivan's to the students"
c. s na basta ti kurpata
with to father your(CL) towel-the
with your father's towel
d. Tova e na Ivan kniga
This is to Ivan book
"This is a book of Ivan's"

(58c) provides the strongest argument for the hypothesis that there is a landing site inside the DP for the fronted element.

Of course the *na*-DP can be extracted out of its host DP, as an instance of fronting (59a) or as wh-movement (59b):

(59) a. Na Ivan ja procetox knigata *(mu) na studentite
To Ivan I read book-the *(his) to students-the
"A book of Ivan's, I read to the students"

b. Na koj izvesten gruzki filisof kupi portet(a) (*mu)?
"Of which famous Greek philsopher did you buy [a]/the portrait?"

c. Na IVAN kupix portret(a) (*mu)!
"Of IVAN I bought the/a portrait!

If the *na* DP is fronted as a wh-element (59b), or focalized (59c), the clitic cannot appear. This accords with the facts concerning *na* DP-fronting in indefinite DPs, as illustrated in (57) above .

Only na DPs with possessor reading, hereafter dubbed *possessor*, can be fronted under topicalization,[18] as demonstrated in the example in (60), and only possessors can be doubled or resumed by the clitic. The example in (61) further illustrates this point with an event nominal. The *na* DP lacks a possessor reading (61a,b); hence fronting is not possible, and by default, no clitic can appear in the structure:

(60)	a.	na Aristotel to A.	portret-ut (mu) portrait-the (CL)	(*theme)
	b.	na Rembrandt	potretut (mu)	(*agent)
	c.	na Ivan	potretut (mu)	(possessor)

(61) a. unistozavaneto na grada
destruction-the to the city
"the destruction of the city"

---

18. In nominalizations/event nominals there is a contrast between phrases realizing the possessor, and phrases which realize the external (Agent) and the internal (Theme) argument (cf. Dimitrova-Vulchanova & Giusti, forthcoming, for a discussion). At least for internal argument expressions it can be assumed that they have to stay in their base positions for the sake of proper government. Exactly why this should be the case needs further justification.

b. unistozavaneto mu (theme/*agent/*possessor)
destruction-the CL
"its destruction"

c. *na grada unistozavaneto (mu)

With respect to the interpretation of the arguments in noun phrases, there thus seems to be an interesting asymmetry between object-denoting non-derived nominals and derived event nominals - only the former permit a possessor interpretation. While the na DP in (61) differs from the one in (60) in denoting an inanimate entity, it appears that the contrast does not have to do with animacy constraints, as illustrated in (62) below: both *grad* (city) and *kusta* (house) are [- animate]. Nor does the contrast depend on whether the argument in question is realized as a clitic (62a) or as a possessive adjective (62b). The difference is best summed up by stating that nominalizations do not allow for the realization of the possessor role, or simply do not have this role.[19]

(62) a. unistozavaneto mu (theme)
destruction-the CL

b. negovoto unistozavane (theme)
its destruction

c. pokrivut í (possessor)
roof CL

d. na kustata pokrivut í (possessor)
to house-the roof CL

The restriction to possessors does not hold for wh-movement and parallel focus movement outside the DP. As mentioned in connection with examples (59) and (61) above, in this case the clitic cannot appear:

(63) a. na koj grad opisa unistozavaneto (*mu)?
of which city did you describe the destruction?

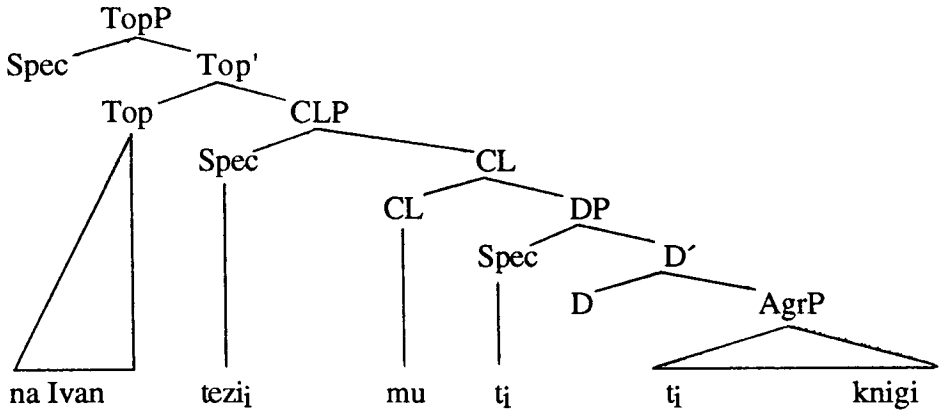
b. na RIM opisax unistozavaneto (*mu)!
of ROME I described the destruction!

---

19. Unless "possessor" is adopted as a cover term for agent and theme, but not for a relation of "true" possession. For a discussion cf. Dimitrova-Vulchanova & Giusti, forthcoming.

We propose that Bulgarian noun phrase structure for topicalization constructions is as represented in (64):

(64)



The position in which the *na* DP lands is identified as SpecTopP, an analysis strongly supported by the fact that the moved possessor phrase receives a topic interpretation. We assume further that the two head positions CL and Top are coindexed due to the inherent agreement and referential properties of the possessive clitic, and that the clitic head raises to Top at LF to license the possessor phrase in SpecTopP, SpecTopP-Top being a licensing configuration.[20] The structure we have proposed for the left

---

20. Alternatively, it can be suggested that the possessive clitic is generated just below D (Cf the analysis by Schick , forthcoming, where the position of the clitic is adjoined to the head of a functional projection FP). However, such an analysis will not account for constructions of the type in (58c) above, unless overt N-to-D movement is assumed.

A second alternative is the analysis (Toman, p.c.) which assumes a PossP rather than TopP/CLP dominating DP, Poss being the base position for the clitic, thus granting the *na* DP and the clitic the required checking configuration. The overt order on this analysis can be derived by local lowering of the possessive clitic to a position adjoined to D. This type of analysis will depend on the general theoretical framework adopted to labelling. We remain agnostic concerning this matter. This option should be rather seen as a possible variant, not as a true alternative to our approach.

Earlier analyses of the clitic inside NP include Pencev's 1993 proposal for a rule adjoining the clitic to the word bearing the article. Of particular interest to our analysis is Pencev's observation that, unlike the article, the clitic neither forms a morphological word with the preceding form, nor do they represent a syntactic constituent.

periphery of the extended nominal projection in Bulgarian is in line with recent proposals for a Split CP analysis (cf. Rizzi (1995), Puskas (1997), among others)).

Being a typical special clitic in the sense of Zwicky (1985), the possessive clitic is not selective with respect to the category it attaches to (e.g., noun+article, adjective+article, demonstrative), neither is it related to phrasal constituents of a particular type/size. For instance the clitic can occur with coordinated DPs, DP-status being signalled by the occurrence of the article. That the clitic appears only after the second DP shows that the coordinated structure is in SpecCLP. These facts clearly indicate that the site of the coordinated DP is an A'-type position. The data supporting this line of argumentation are given in (65).

(65) a. [[DP [DP bratja-ta] i [DP sestri-te]] [mu]]
brothers-the and sisters-the CL
"his brothers and sisters"

b. [kusta-ta i kola-ta] mu
house-the and car-the CL

c. %[[DP kustata [mu]] i [DP kolata [mu]]]
house-the CL and car-the CL

Examples like (65c), in which the possessive clitic is repeated for each of the coordinated DPs, are rather marked and emphatic. As a matter of fact, what is coordinated in (65c) are CLPs, not DPs.

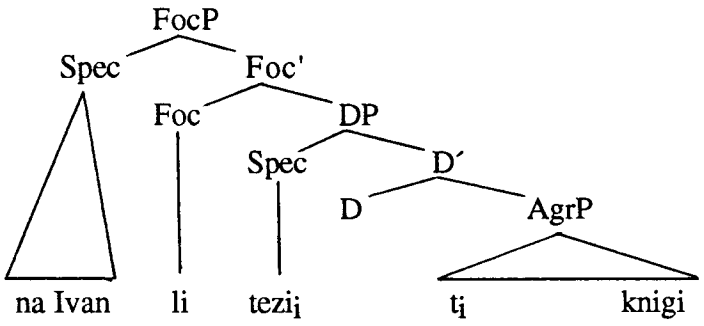
If the fronted constituent is not a topic, then no doubling clitic can occur, as demonstrated in (66a) below. In (66a), the *na* DP in a left peripheral position is only viable if it receives contrastive focus. Thus, we claim that there is also a Focus position in the extended nominal projection in Bulgarian, to be identified with CLP. The head of this projection can only be overtly realized by the question clitic li, as in (66b,c). This type of construction represents the only instance of DP-internal A'-movement of APs or demonstratives in Bulgarian:

(66) a. NA IVAN knigata (*mu)
to Ivan book-the (*CL)

b. na Ivan li tezi (*mu) knigi
of Ivan Qcl these his(cl) books
(questioning "naIvan")

c. tazi li kniga/negovata li kniga
this Qcl book / his-the Qcl book
(questioning "this"/questioning "his")

d.



Note that in the presence of the question clitic *li*, the possessive clitic cannot surface at all, which implies essentially that in the construction type in (66) above, no TopP is projected. It can be suggested that in focus constructions the the two projections collapse into just one, e.g., FocP (cf. Kiparsky (1995) for a diachronic proposal viewing CP in Germanic as having collapsed the Proto-Indo-European [TopP [FocP ...]] into one).

2.3. Conclusions

In this section we have argued that Albanian and Bulgarian, but not Rumanian, display a finer structure in the left periphery of the extended nominal projection, thus allowing for focus and topicalization constructions inside the DP. It has been demonstrated that in Albanian, the Focus projection is located below D and provides designated landing sites for A'-movement applying to both APs and genitive phrases. In Bulgarian, both a TopP and a FocP can be assumed in a structure immediately dominating DP. Topicalization is restricted to possessor *na* DPs and is related to the obligatory surfacing of a doubling possessive clitic which acts as a licenser to the fronted possessor. In focus constructions, in addition to possessor phrases, demonstratives and APs may move to SpecFocP, the latter two categories only in the presence of the question clitic *li*.

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