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Head movement: from Romance mesoclefts to the theory of grammar.

M. Rita Manzini

The repertory of movement processes in early generative grammar and up to Chomsky (1981) included only phrasal movement, from a thematic position to an argumental position (passive, raising, i.e. A-movement) or to a left peripheral position (wh- movement and more generally A₀-movement). Head movement made its appearance at a later stage. As Lightfoot and Hornstein (1994: 1) note, 'as conditions on rules were developed from the early 1970s onwards, it was claimed that they did not apply to root transformations, particularly not to the canonical example of a root transformation, the head movement operation of Subject-Verb Inversion'. Lightfoot and Hornstein (1994:2) go on to note the various 'research foci' that 'in the latter part of the 1980s .. converged on verb movement' including research on verb second (den Besten 1984), incorporation studies (Baker 1988), and the split INFL hypothesis (Pollock 1989). Thus in Chomsky (1986) head movement was fully integrated with phrasal movement with respect to the ECP 'deemed to derive the fundamental locality condition on head movement, i.e. the Head Movement Constraint (Travis 1984).

Despite the descriptive successes achieved by means of head movement (and specifically verb movement) the dishomogeneity between it and phrasal movement resurfaced again within the minimalist framework. Thus according to Chomsky (2001: 37-38)

V-raising is 'not part of the narrow-syntactic computation but an operation of the phonological component... There are some reasons to suspect that a substantial core of head-raising processes, excluding incorporation in the sense of Baker (1988) , may fall within the phonological component. One reason is the expectation of (near-)uniformity of LF interface representations' Verbs are not interpreted differently in English versus Romance, or Mainland Scandinavia versus Icelandic, or embedded versus root structures: more generally, semantic effects of head raising in the core inflectional system are slight or nonexistent, as contrasted with XP-movement, with effects that are substantial and systematic. That would follow insofar as head raising is not part of narrow syntax.

A second reason has to do with what raises 'it has always been taken for granted that the strong V-feature is satisfied by V-raising to T (French vs. English), not VP-raising to [Spec, T], and that the strong nominal feature is satisfied by raising of the nominal to [Spec, T] (EPP), not raising of its head to T. But the theoretical apparatus provides no obvious basis for this choice' These conclusions too follow naturally if overt V-to-T raising, T-to-C raising and N-to-D raising are phonological properties, conditioned by the phonetically affixal character of the inflectional categories.

Other considerations have to do with the nature of the head-raising rule, which differs from core rules of narrow syntax in several respects. It is an adjunction rule; it is countercyclic 'the raised head does not c-command its trace; identification of head-trace chains raises difficulties similar to those of feature movement, since there is no reasonable notion of occurrence; it observes somewhat different locality conditions. All of this is unproblematic if overt adjunction is a phonological process reflecting affixal properties.

Note further that if excorporation is excluded, head movement is not successive-cyclic 'It could be in fact that iterability is a general property of operations of narrow syntax, but these alone.

The non-existence of semantic effects of head raising is an empirical claim, which requires to be evaluated against the fact (cf. section 2). Other points raised by Chomsky (2001) are purely formal. In particular, if head movement is an adjunction, it is countercyclic, in the sense that it does not obey the Extension Condition of Chomsky (1995) and it has the effect that the raised head does not c-command its trace. It is also true that it is not successive-cyclic, and that it has somewhat different locality conditions. Yet in the absence of an explicit discussion, it is not easy to imagine exactly what Chomsky might mean by 'an operation of the phonological component' besides the obvious fact that this excludes head movement as an operation of the narrow syntax.

A possible construal of the notion of 'phonological' head movement is suggested by Embick and Noyer (2001:591) according to whom 'Morphology has recourse to a restricted range of readjustment operations modifying syntactic structures' Included in these readjustments is a mechanism for movement identified here with Morphological Merger as introduced by Marantz (1988) Quoting their work, Matushansky (2006: 96) comments that 'it seems tempting to define

Merge as a general operation of the grammar, occurring in more than one module. Yet precisely this redundancy between syntax and morphology is argued by Manzini and Savoia (2005, 2007) to provide an important conceptual argument against the architecture of grammar implied by Distributed Morphology. For, to the extent that the same operations occur in two different components, their unification becomes a more economical option. If these operations have a partially different form, as foreshadowed by the opposition of (syntactic) head movement to morphological merge, then the grammar is obviously enriched with respect to the simpler model where the two operations are unified. Therefore we can't but agree with Chomsky (2001) on the asymmetries between phrasal and head movement, but we must also reject the one alternative construal of head movement that appears to be well worked out in the literature (cf. Roberts to appear), i.e. in fact a morphological movement.

In section 1, we elucidate our position with respect to a simple case study concerning mesocclisis in the imperative in Romance languages. We show from a purely empirical point of view the morphological merger analysis for this phenomenon proposed by Halle and Marantz (1994) has a number of drawbacks. A fortiori, we exclude the phonological analysis of the same phenomenon as metathesis proposed by Harris and Halle (2005). A syntactic head movement analysis proves superior in practically all respects. We conclude by briefly sketching a possible solution to the resulting tension between the superiority of a syntactic treatment and the objections against head movement advanced by Chomsky (2001) – namely that heads, rather than being base generated in the lowest possible position and moved at PF, are actually generated in the position where they surface. This excludes head movement with all of its undesired corollaries, and at the same time allows for a syntactic analysis (albeit not a movement one) of mesocclisis. Needless to say, the suggested solution has pervasive consequences for grammar. We briefly consider those involving the configurational definition of theta-roles, hence for the classical notion of D-Structure, which we effectively construe as a property of the LF interface.

Whether our idea is on the right track or not – there is a problem it shares with Chomsky's (2001) head-movement at PF, as opposed to syntactic head movement – namely what justifies the apparent locality constraints on head movement if there is in fact no such movement to which (Relativized) Minimality (Rizzi 1990, Chomsky 1995) could apply. This we will consider in section 2. Specifically, returning to our case study in section 1, we shall consider how negative islands effects on mesocclisis are derived in the absence of movement, and we will extend the same treatment to wh- islands. The implications of this account for Minimality effects on phrasal movement/ chains remain beyond the scope of the present article.

1. Romance mesocclisis in the imperative

1.1 Morphological merger

Halle and Marantz (1994: 286) consider a mesocclisis phenomenon in Spanish varieties, whereby in imperatives a clitic cluster appears between a verb stem and its plural *ñn* inflection, as in (1b). This contrasts with the simple enclitic pattern of standard Spanish in (1a).

- (1) a. de- n- me-lo
give 2pl me it
 ōGive it to me!
 b. de- me-lo-n
 give-me-it -2pl

They assume that the syntactic component generates structures of the type in (2a), where the clitic cluster, i.e. Det, is adjoined to the right of the constituent formed by the verb and its plural inflection. It is only in the morphological component that the clitic cluster ādjoins to the terminal

Agr node to which it is already structurally adjacentö (p. 285), yielding a structure of the type in (2b). To be more precise, given the Late Insertion hypothesis, what the syntactic and morphological rules manipulate are abstract feature clusters, which are represented in (2) by the corresponding terminals.

- (2) a. [[_T de] [_{Agr} n]] [_{Det} me lo]
 b. [[_T de] [_{Det} me lo] [_{Agr} n]]]

For these data a morphological merger analysis appears to be immediately motivated by the fact that at least one of the elements being reordered, namely the *-n* inflection, is conventionally a morphological level constituent. Yet this *prima facie* plausibility of the analysis conceals a number of empirical and theoretical problems, which we will briefly review following Manzini and Savoia (1999, 2004, 2005, 2007, 2008a, 2008b, 2009b) (cf. also Kayne (2009)).

From a purely theoretical point of view, the operation remerging the Det constituent from the position in (2a) to the position in (2b) is formally identically to the syntactic operation of movement. At the same time there are obvious constraints on syntactic remerge ñ such as the Extension condition of Chomsky (1995) that are violated by a tucking in movement like (2). Thus ãunder the morphological derivation, the operation of movement in the syntax is actually duplicated by an operation of movement in the morphology: to the extent that the two operations have the same properties a redundancy arises; to the extent that they differ the grammar is considerably enriched' (Manzini and Savoia 1999: 296).

From an empirical point of view several difficulties emerge. First, the correlation between mesocclisis and enclisis must be stipulated. Thus it is only by stipulation that Halle and Marantz (1994) can derive the fact that negation, blocking enclisis in the imperative (on syntactic grounds, since enclisis is syntactic), blocks mesocclisis as well, as in (3b)-(3c). The point here is that in the absence of an explicit adjacency requirement, as Manzini and Savoia (2004a: 169) note, ãthere is no reason why [Halle and Marantzö (1994)] morphological rule that has the power of infixing (part of) an enclitic group shouldn't have the power of infixing (part of) a proclitic group.'

- (3) a. No lo hagan
 not it do.2pl
 ãDon't do it!ö
 b. *No hagan lo
 not do.2pl it
 c. *No haga lo n
 not do it 2pl

Manzini and Savoia (2004) note a further problem. The mesocclisis phenomenon involves the infixation of clitics between the verb base and an agreement inflection. This is duly encoded in treatment of Halle and Marantz (1994). The problem is that there is no reason why the restriction to agreement inflections should hold ñ in other words, why mesocclisis in some language could not split the verb base from a Tense/ Mood/ Aspect inflection¹. Note that this could be compatible with the correlation of mesocclisis to enclisis just noted, for instance if mesocclisis split the verb base from the inflection of the infinitive. For, the latter in Spanish normally cooccurs with enclisis.

¹ It never does, either in Romance languages or in Albanian (Manzini and Savoia 2009 a, b). In more than one occasion when this material was presented, audiences questioned this generalization. For instance it was pointed out to us that in European Portuguese mesocclisis occurs in infinitival environments. Note however that this strengthens our conclusion. For, the clitic appears between the verb inflected with the infinitive (i.e. irrealis) ñr morphology and the finite inflection, as in (i). Crucially it cannot separate the verb base from the ñr morphology.

(i) dar- t-/lh- o- ia
 Give to.you/him it I.would
 ãI would give it to you/himö

The other problems for Halle and Marantz (1994) have to do primarily with the very restricted empirical basis. Thus they only consider the simple data in (1), while even in Caribbean Spanish two further sets of mesocclisis data are found, as noticed by Harris and Halle (2005). First, the *ñn* inflection can be found between the first and the second clitic of a cluster, as in (4); in other words only one clitic is in mesocclisis while the other is in enclisis. Examples of the relevant kind are provided by Manzini and Savoia (1999, 2004, 2005, 2007, 2008a, 2008b, 2009b) for Italian varieties and for Albanian.

- (4) de- me- n lo
 give me 2pl it
 ðGive it to me!ö

Halle and Marantz (1994: 287) construct their analysis so as to exclude sequences of the type in (4). For them, in (2) ðthe positioning of the pronominal clitics is driven by the need of the terminal nodes carrying person and case features [i.e. the clitic cluster] to appear to the left of the terminal node carrying the plural feature [i.e. the verb agreement]. The tucking in of the clitic(s) around the plural imperative suffix re-creates the usual order of affixes in inflected words, with the plural suffix to the right of other feature complexesö They support this proposal with the observation that ðno tucking in occurs when the clitic itself is pluralö as illustrated here in (5) ðand therefore its case and person features already are to the left of a terminal node with a plural featureö

- (5) a. den los/nos
 give.2pl them/ us
 ðGive them/ to usö
 b. *de- los-/ nos- n

In the same way they predict, counter to fact, that *me* in (4) is prevented from tucking in between the verb base and its inflection in that ðit does not fall at the right periphery of the relevant domain; instead it falls to the left of the accusative plural cliticö By the same reasoning, they exclude, as far as we can tell, any splitting of the clitic cluster on either side of the *-n* inflection.

The second set of data that Halle and Marantz (1994) are not aware of involves the copying of the *ñn* plural morphology on the verb and on the clitic, yielding mesocclisis between the inflected verb and the second copy of the inflection, as illustrated in (6) from Halle and Marantz (2005). As far as we can tell, such data cannot be handled by the morphological merger in (2) ñ leaving us to wonder how the continuity between (1) and (6) can eventually be captured.

- (6) venda- n- lo- n
 sell 2pl it 2pl
 ðSell it!ö

Let us summarize so far. The review of the proposal by Halle and Marantz (1994) allows us to draw a provisional list of desiderata for the analysis of mesocclisis in the imperative. First, mesocclisis is possible only in contexts that in the same languages or in closely related ones allow for enclisis. There is no possibility of mesocclisis as a variant of proclisis. A particularly striking illustration of this is provided by negative imperatives, which forcing proclisis as opposed to enclisis, also prevent mesocclisis. As far as we can tell, Halle and Marantz (1994) could only stipulate this fact. Second, it appears to be the case that only finite (i.e. agreement) inflections can be split from the verb base under mesocclisis ñ again a result that can be achieved only by stipulation under morphological merger. Finally, there is the empirical evidence that Halle and Marantz (1994)

are not aware of ñ namely that mesocclisis can split the clitic cluster², and that it can cooccur with the doubling of inflections.

1.2 Phonological metathesis (partial reduplication)

Since the focus of this article is in the first instance whether head movement may be reconstructed as a ‘phonological’ process, it is not inappropriate to briefly consider the analysis of Caribbean Spanish mesocclisis proposed by Harris and Halle (2005), targeting not morphology, but directly PF. Again the *prima facie* plausibility of this treatment depends on the fact that copying as in (6) and mesocclisis as in (1) target a morphological segment like *-n*. The reasons why it is to be rejected are interesting in the present context because they establish that the mesocclisis phenomenon targets higher levels of organization, i.e. morphosyntax.

Harris and Halle consider first the case of copying in (6) (Kopy) which they treat as an instance of partial reduplication. Like Halle and Marantz (1994), they take it that the syntax yields an enclitic structure, of the type in (7a) ñ where the terminals only appear after Lexical Insertion. At the PF interface, reduplication applies to the substring formed by the *ñn* inflection and by the clitic, and then the leftmost part of the reduplication is deleted, as in (7b). The square bracketing in (7b) denotes the portion of the string to be reduplicated, while the ‘ bracket at the end of the input string indicates that the portion of the string following it is omitted in the second copy in the output.

- (7) a. [[_v venda] [_{Agr} n]] [_D lo]
 b. venda [n^ñlo] n^ñ

Inversion of the clitic constituent with respect to the *-n* inflection in (1b) is obtained through another type of partial reduplication, whereby the leftmost part of the reduplicated material is deleted in the first copy, and the rightmost part in the second copy. In particular the ‘ bracket at the beginning of the input string indicates that the portion of the string preceding it is omitted in the first copy in the output, as in (8a). The superficial effect is that of an inversion or, in phonological terms, a metathesis (Verb Inflection Metathesis, or VIM).

- (9) venda [n^ñlo] n^ñ

The key to a successful derivation is placement of the square and angled brackets in the relevant string. Harris and Halle (2005) formulate the readjustment rule for the placement of square brackets as in (9). Crucially, as they emphasize, ‘representations of segmental phonology alone do not suffice to delimit the cases in which Kopy and VIM are possible; abstract (i.e. inaudible) identification of constituents is indispensable’ (p. 202).

- (9) In a string of the form X/n/_{Agr} • /Cl/_DY
 Insert [to the immediate left of /n/_{Agr}
] to the immediate right of /Cl/_D

Harris and Halle (2005) offer a few arguments in favor of their approach. One concerns the fact that ‘both Kopy and VIM occur freely in affirmative imperatives, where clitics follow the verb, but never in negative imperatives, where clitics must precede the verb’ as in (3). ‘This’ follows from the fact that both full and partial reduplication, and hence metathesis, affect only contiguous

² As noticed by Harris and Halle (2005) for Caribbean Spanish and by Manzini and Savoia (1999, 2004, 2005, 2007, 2008a, 2008b, 2009b) for Italian and Albanian varieties, this split observes certain generalizations such as the possibility of having the 3rd person accusative in enclisis and the remaining clitics in mesocclisis ñ but never the reverse. Any discussion of this distribution, however, cannot abstract from a characterization of clitic categories and their order ñ which goes beyond the scope of the present article.

Furthermore, according to Harris and Halle (2005: 206) 'nothing must be added to our formal account' to predict cases like those in (5), since 'the illformed examples are ruled out by independent phonological constraints' in particular the fact that /sn/ is an 'impermissible syllable coda' in word-final position in Spanish. However nothing prevents mesoclisys of the 1st person clitic only, as in (10b), which does not violate any phonological constraint.

- But again, a number of both theoretical and empirical problems arise. From a purely theoretical point of view, the work of Harris and Halle (2005), while making use of the mechanics of reduplication as defined in phonological analyses, is conceptually anomalous with respect to them. The rich phonological literature on reduplication shows that both total and partial reduplication of a lexical string is to be viewed as a type of affixation. According to Marantz (1982: 436)

These affixes are, as we can expect, associated with grammatical/ functional values (e.g. intensive, perfect, plural, etc.). Reduplication is a readjustment rule which copies phonological material from the lexical basis on the skeletal template associated to an affix. Phonological constraints define the melody copying process: The example of reduplication in (11), concerning plural noun formation in Agta (a language spoken in the Philippines), illustrates the copying mechanism (from Marantz 1982: 446).

- According to more recent proposal by Raimy (2000), whose guiding principles are adopted by Halle (2008) the morphology builds reduplicated structures by adding ϕ to the precedence structure of a V[ocabulary] I[tem] (Harrison and Raimy 2004). For instance given the Vocabulary item in (12a) (from the Uto-Aztecan language Tohono Oöodham, cf. Raimy 2000:113), with the precedence structure notated (by the arrows), the reduplication consists in the adding of the loop in (12b), notated here beneath the *ho* subsequence. Following the modular structure of DM, these representations are then passed onto the phonology. The phonology contains a *linearization* process that eliminates loops via repetition, as in [12c] Therefore reduplication is the result of the spell-out of a Vocabulary Item

- [illegible]

Now exactly as in Agta in (11) the reduplication skeleton is the morphology for plurals, so is the loop in Tohono Oöodham in (12). But in the reduplication treatment of mesocclisis, there are no autonomously defined features, justifying the application of reduplication. Rather, mesoclititic formations have exactly the same morphosyntactic make-up and interpretation as the enclitic structures with which they are in free alternation in many varieties.

As a related point, the readjustment rule in (9) contains not only a considerable amount of morphosyntactic level information, but also no information of a prosodic or segmental nature. Thus, if the operation applied on abstract terminals, before the level of lexical insertion, where vocabulary items become relevant (I.e. in morphosyntax as opposed to PF), it would give essentially the same results. This is of course not true of *bona fide* phonological reduplications such as (11) or (12). In other words, Harris and Halleö (2005) reduplication really seems to be a syntactic rule in disguise.

A further problem for Harris and Halle (2005) connects with these general observations. As they themselves note, there are several phenomena in Romance languages where the lexical base is separated from its inflection by other lexical material. One such phenomenon is the ̃parasitic pluralö of Spanish (Harris 1994) under which -s plural morphology interpreted as part of a dative clitic, overtly combines with an accusative clitic in the same cluster, as in (13). Under the metathesis treatment of imperative mesocclisis, the apparent continuity with phenomena such as parasitic plurals cannot be captured. The reason is that parasitic plurals characterize environments where the dative *le/les* ̃to him-her/ to themö does not in fact surface; rather, the suppletive *se* form does. Because there is no **ses* in the language, *se* cannot be the source of the ñs appearing after the accusative *lo* ̃itö in examples like (13). This excludes a treatment in terms of phonological reduplication, which would require **ses* in the underlying string, and necessitates a treatment at the morphological level, where rules operate on abstract terminals³.

- (13) (Ese vino) yo se los regalé (a mis primos)
 that wine I to.them it I.gave to my cousins
 ̃I gave it to them (that wine to my cousins)ö

A different lack of continuity problem arises for data like (14), from the Italian (Calabro-Lucanian) variety of *Senise*. *Senise* is comparable to Caribbean Spanish varieties in allowing for mesocclisis in (14a) and for the doubling of the inflectional material in (14b). In the same contexts, i.e. imperatives with mesocclisis, however, we also find attestations of doubling of the clitic in mesocclisis and in enclisis, as in (14c).

- (14) a. tʃirka- 'm- itə lə Senise (Lucania)
 ask me 2pl it/them
 ̃Ask me for it/them!ö
 b. purtæ- tə- 'm- itə lə
 bring 2pl me 2pl it-them
 ̃Bring it/them to me!ö
 c. ra- 'm- itə mə lə
 give me 2pl me it-them
 ̃Give it/them to me!ö

The question is what kind of treatment Harris and Halle (2005) envisage for clitic doubling processes of the type in (14c). If they apply to (14c) the same phonological treatment that derives inflectional doubling of the type in (14b), they capture the continuity between these two

³ Of course, a different account for mesocclisis in the imperative and for parasitic plurals is only problematic to the extent that the two have common properties. The discussion of Manzini and Savoia (2009a) is devoted to establishing that these two phenomena as well as a number of related phenomena in Italian varieties require a unitary account.

phenomena. Yet we know that copying of clitics is also a process occurring at the much higher syntactic level, since the two copies can be separated by major syntactic constituents (as illustrated below in (16)). A phonological treatment of (14c) amounts to denying that there is any continuity between the various types of clitic copying/ doubling. If on the contrary a phonological treatment for (14b) is combined with a morphosyntactic treatment of (14c), then it is the connection between mesocclisis and different forms of doubling that is not captured. Again it is far from obvious that these are the correct conclusions.

Other problems noted for Halle and Marantz (1994) also remain open, notably the fact that it is simply stipulated that mesocclisis only affects agreement inflections. For this and other reasons⁴, we conclude that a revision of Halle and Marantz (1994) that moves the analysis of mesocclisis further down the PF branch, to the phonological interface proper, is not proceeding in the right direction.

1.3 Syntactic verb movement: Excorporation

If a morphological merger analysis of mesocclisis such as Halle and Marantz (1994) and a phonological level analysis such as Harris and Halle (2005) are not fully satisfactory, what seems to be left is an analysis at the syntactic level. Let us begin with a point on which there is full agreement between Halle and Marantz (1994), Harris and Halle (2005) and us – namely the fact that enclisis in the imperative as in standard Spanish (1a) is derived by syntax-internal operations. Following Rivero (1994) and much related literature we assume that the imperative appears in a high position in the sentence, i.e. within the C field, associated with the modal properties of the verb. Since at least Kayne (1991), enclisis of the pronominal clitic on the verb has been taken to be a consequence simply of the movement of the verb to this high position. The postverbal position of the clitic(s) follows from the raising of the verb if the clitics remain in their ordinary inflectional position.

A considerable body of work initiated by Rizzi (1997) argues that the C field of sentences is articulated in several C heads. The distribution of object clitics suggests that the imperative occupies a higher position than the finite verb involved in V2 contexts such as questions. For, object clitics precede finite verbs in the V2 position; yet they follow imperatives. Keeping C as the conventional label for the properties instantiated by (residual) V2, we notate the position instantiated by imperatives (and infinitives) as C_I , to suggest Irrealis. Since we observe $C_I \nrightarrow$ object clitics and object clitics $\rightarrow$ C, we infer $C_I \nrightarrow$ C, as in (15).

(15) $[C_I \quad [C \quad [I(nfl)]$

The next assumption we will make is that clitics not only correspond to syntactic level constituents but each of them has its own dedicated and categorially distinct position. This conclusion characterizes our work – but can be found in independent work as well. Thus Poletto (2000) has autonomous (and autonomously categorized) positions at least for subject clitics – while autonomous positions/ categories for all object clitics are proposed by Sportiche (1996).

Recall now that in *Senise* there are examples where doubling in the imperative involves a clitic copied both in mesocclisis and in enclisis. Doubling of clitics is anything but a rare occurrence in Romance or other languages – and the two occurrences are typically separated by verbal or other syntactic heads (negation etc.). Here we provide just one example of a relatively well known phenomenon in the literature, concerning the doubling of subject clitics in Northern Italian varieties on either side of the verb in questions, as in (16).

(16) $r\bar{o} \quad drw\bar{o}m \quad r\bar{o} \quad \text{Castellazzo Bromida (Piedmont)}$

⁴ An important part of the criticisms moved to Harris and Halle (2005) by Manzini and Savoia (2009b), Kayne (2009) has to do with the clitic hierarchy implied by phenomena of partial mesocclisis like (4) or (14). Considering this part of the problem would take us too far afield here. Cf. fn 2.

she sleeps she
 'Does she sleep?'

We surmise that the verb in (16) is in C, and that enclisis of the subject clitic depends on its relatively high position. On the other hand clitics will have to occur higher than C in order to surface before the auxiliary. This leads us to identify at least two different positions for clitic categories, as schematized in (17).

(17) [C_I [CL* [C [CL* [I(nfl)]

Consider then the example of *Senise* in (14c) which presents doubling of the clitic in mesocclisis and in enclisis. In accordance with the schema in (17), the two copies of the 1st person clitic will be found in the domain immediately above C and in the domain immediately above I (henceforth the C and I domain). The verb base, that precedes all clitics, will be in the higher modal position C_I, as in (18).

(18) [C_I ra [CL m [itə [CL mə [CL lə *Senise*

(18) does not fix the position projected by the inflectional material. The obvious analysis that comes to mind (Manzini and Savoia 1999) is that the inflection sits in the verbal C head between the clitics, as shown in (19). If verbs move/ form chains in the syntax, (19) can be derived by moving *ratə* to C and then moving the verb base *ra* to C_I, stranding the inflection in C ñ in other words through excorporation. Recall that from a purely theoretical perspective, excorporation is expected on the basis of successive-cyclic head movement; therefore it is not a problem in itself, but only in that it must be blocked in most other environments.

(19) [C_I ra [CL m [C itə [CL mə [CL lə *Senise*

Before we modify this analysis (in (23) below) let us notice its advantage and problems. First, it can easily extend to simple mesocclisis, without clitic doubling, as illustrated in (20a) for example (14a). As for the doubling of the inflection, in (14b), it fits the syntactic schema now defined, if we assume that the first copy of the inflection is attached to the verb base in the C_I position and the lower copy is stranded, as in (20b).

(20) a. [C_I tʃirka [CL m [C itə [CL lə *Senise*
 b. [C_I purtætə [CL m [C itə [CL lə

Various facts noted above as problematic for morphophonological level analyses of mesocclisis equally follow from the syntactic analysis. In particular, the continuity between doubling of inflections and doubling of clitics follows from the fact that both are accounted for under syntactic movement. The fact that mesocclisis is restricted essentially by morphosyntactic properties, mysterious in the phonological treatment of Harris and Halle (2005), is as expected. Nor is there any principled reason why other operations separating inflections from their lexical bases, such as the parasitic plurals in (13), could not be treated in the syntactic component (for an actual treatment see Manzini and Savoia (2009a)). The correlation between enclisis and mesocclisis, that could only be stipulated by Halle and Marantz (1994), is also derived. For, in order for object clitics to appear between the verb base and the verb inflection, there must be syntactic space available for their insertion. This condition is satisfied when the verb base moves high enough to take object clitics to its right (in enclisis), as in imperatives, but not when it remains lower, taking object clitics to its left (in proclisis).

Finally, recall that we objected to Distributed Morphology because of its redundancy with

syntax. The re-merging of the clitic cluster in (2) that Halle and Marantz (1994) postulate as a Morphological Structure operation, is now subsumed by ordinary syntactic Merge of the verbal base and of the clitic constituents in the left periphery of the sentence. In the process, the tucking in operation implied by the movement in (2) is also eliminated, together with the potential enrichment of the grammar that it represents.

It was mentioned that negation blocks both enclisis and mesocclisis, as illustrated in (3). The switch from enclisis in positive imperatives to proclisis in negative imperatives is generally interpreted as an indication of the blocking effect of the negation on head movement, under Minimality. Because of this, the verb cannot move to the high C_1 position (Rivero 1994, Roberts 1994) and remains therefore in I, where clitics precede it, as schematized in (21b) for the *Senise* example in (21a). But mesocclisis is excluded for the same reason, establishing the desired link between the two phenomena.

- (21) a. nun m/ d u purtæ:tə *Senise*
 not me/him-her-them it-them bring.2pl
 ðDonä bring it/them to me/him/her/themö
 b. [_{NEG} nun [_{CL} m/d [_{CL} u [_I purtæ:tə

Face to these potential advantages for a syntactic analysis, there are also residual problems. For instance, as discussed by Chomsky (2001), excorporation is normally taken to be banned, while the account presented here actually requires it⁵. Furthermore, the analysis in (19)-(20) provides no insight as why agreement inflections can be split by the verb base, but not Tense/Mood/Aspect inflections. In other words, if (19)-(20) is the correct structure for mesocclisis, we predict that structures where the agreement inflection is replaced, say, by the infinitival inflection are equally possible ñ which they are not (providing some of the ample motivation in natural languages for excluding excorporation).

Starting with Manzini and Savoia (2004), we have in fact proposed a syntactic account of mesocclisis not based on excorporation. The basis for our analysis is the idea that agreement morphemes within the inflected verb project a position which has the same category and other relevant syntactic properties as a pronominal subject. Thus the internal structure of the inflected 2nd person plural imperative of *Senise* in (14b), as shown in (22a), closely parallels that of an English sentence like (22b). Following Chomsky (1995), we adopt D as the categorial signature of the EPP argument; we take the verb base inclusive of the so-called thematic vowel to correspond to an inflected constituent, whence its I category.

- (22) a. [_I purtæ [_D tə]] *Senise*
 b. [_D you [_I give]]

⁵ Kayne (2009) implements a syntactic analysis for mesocclisis and doubling which scatters the verb base and the inflection in the conventional verbal positions of the sentence not through movement but through the postulation of ðsilentö categories, in the sense of Kayne (2006). Thus mesocclisis with doubling of ñn in Caribbean Spanish, as in (6) in the text, corresponds to the whole inflected imperative moving to a left periphery position where it is followed by the clitics; the stranded inflection is in reality attached to a ðsilentö Aux, as in (i). In this perspective, Kayne (2008) concludes that in simple mesocclisis examples there is probably a silent ñn attached to the verb base as in (ii) (ðsilentö categories are capitalized).

(i) den le AUX-n

(ii) [haga-N]_i lo AUX-n t_i

Elsewhere (Manzini and Savoia 2010, Savoia and Manzini 2010), we have raised both general and empirical issues concerning ðsilentö categories as applied to Romance clitic systems. Many of the general objections apply in the case at hand. Thus what is to restrict the appearance of ðsilentö auxiliaries? Kayne (2009) makes reference to the auxiliaries visibly seen in negative imperatives in some Northern Italian dialects. But those auxiliaries are seen precisely in negative contexts, where mesocclisis never occurs and they embed infinitives or gerunds, as auxiliaries generally do in Romance (see Manzini and Savoia (2005) for extensive exemplification); therefore the silent auxiliary in (i)-(ii) is not their unpronounced counterpart (cf. also fn. 6).

In mesocclisis contexts, we crucially propose that the so-called agreement inflection projects onto the syntactic tree the same position that subject clitics project in varieties where they are present. This applies to mesocclisis with clitic doubling, as in (23a) (replacing (19)), to simple mesocclisis, as in (23b) (replacing (20a)) and to the doubling of the inflection, as in (23c) (replacing (20b)).

- (23) a. [_{CI} ra [_{CL} m [_C [_D itə [_{CL} mə [_{CL} lə *Senise*
 b. [_{CI} tʃirka [_{CL} m [_C [_D itə [_{CL} lə
 c. [_{CI} purtætə [_{CL} m [_C [_D itə [_{CL} lə

The advantages we claimed for the movement analysis of excorporation in (19)-(20) hold of (23) as well. In particular, the correlation between mesocclisis and enclisis follows in the same way, since it depends on the very high position of the verb in C_I ñ which remains constant. Furthermore, the D position taken by the verb agreement material in (23) and the C position taken by the same material in (19)-(20) are adjacent, so that the position of object clitics with respect to them remains invariant. When we come to the blocking of enclisis and mesocclisis by negation, the structure in (23) is compatible with the same type of explanation sketched in (21) for (19)-(20), if we assume the verb base moves from a lower position to C_I across the intervening negation, which blocks it under Minimality.

At the same time, the structures in (23) answer the questions as to why only the agreement inflections of the verb can be split from the verb base in mesocclisis ñ namely because only agreement inflections have a position independently available in the structure, namely that traditionally associated with subject clitics⁶. Finally, the answer of (23) to the excorporation problem is that mesocclisis is not an instance of excorporation at all, so that the reasonable ban on excorporation can be maintained.

1.4 Base generation of the verb in its surface position

At this point we come back full circle to the discussion of verb movement by Chomsky (2001). In the course of the discussion that precedes we have seen how a PF (i.e. morphological merger) construal of verb movement of the type apparently envisaged by Chomsky (2001) leads to a number of problems with the mesocclisis phenomenon ñ for which syntactic head movement provides a better analysis. Yet the general objections of Chomsky (2001) still stand.

It seems to us that there is a logically possible way of solving this tension ñ namely dissociating the positioning of verbs in the syntax from the movement derivation (or its representational counterpart). In other words, we are proposing to have the verb base generated in the position where it surfaces, without any lower copies. For instance in (23) the verb base, instantiating the modal properties of the imperative, would be generated directly in C_I (i.e. project directly that position). Under such a view the analysis of mesocclisis is entirely within the syntactic level excorporation is excluded in principle, yet many of the problems noticed by Chomsky (2001) do not arise ñ simply because they are quite specifically tied to movement.

This proposal is certain to raise more questions than it solves. In particular, one of the results obtained under the syntactic analysis of mesocclisis in the previous section namely the negative island effect depends specifically on movement on. To this we will return in section 2. Before that, a much more basic set of problems needs to be faced ñ which are presumably the (implicit) reason why the logical possibility we are appealing to is not generally entertained. The main problem is that if the predicative verb base is generated in its surface position, then it may not be local with

⁶ As far as we can tell, there is no reconstructing this solution within the framework of Kayne (2009), whose core idea is that the apparently stranded inflection is supported by a zero auxiliary. This is an additional reason for us to reject that proposal (cf. fn. 5).

respect to the arguments it selects. To take just an example, in (23a) the accusative clitic, rather than forming a local configuration with the verb *õgiveõ* is several heads removed from it. The question therefore is whether the theory we are proposing would not force us to abandon a configurational theory of theta-roles ñ presumably a consequence sufficient to exclude it altogether.

In current theories the internal-argument-of relation (the theme theta-role) corresponds to a sister relation between a predicate head and its complement. Now, thematic relations represent a syntactic encoding of what are essentially interpretive primitives. The obvious alternative is to let the relevant interpretations be carried out directly by the LF interface. For instance we may assume that any merged predicative head will introduce a lambda abstraction at the interface. This (predicate, variable) configuration defines what is conventionally known as a theta-role. Theta-role assignment corresponds to the binding of the variable so introduced by argumental/ referential material, for instance the accusative clitic in (23a). This binding is equivalent within the present system to an (A-)movement chain, connecting the position of first merge of an argument (its theta-position) to its surface position.

In other words, following the base generation of heads in their surface position, theta-roles are reconstructed as LF interpretive relations (which they arguably are anyway), and this in turn means that phrasal movement is also reconstructed as (argument, variable) binding at the interface. Effectively what we are reconstructing at the LF interface is D-structure, as a pure representation of thematic structure. This need not be a complication of the model; in a sense it represents a further turn in a minimalist direction ñ in the sense that predicate-argument structure, which is a clearly interpretive primitive of grammar, would now be construed at the LF interpretive interface.

In fact, the model that we are entertaining requires a shift in perspective concerning constituency as well. Adverbial and argumental material is generally thought to be supported by a spine of functional projections of the verb. But if the verb has no lower copies ñ then it stands to reason that its aspectual, temporal and agreement inflections do not either. In other words the empty functional spine disappears, leaving the sequence of functional domains to be defined directly by overtly lexicalized arguments, adjuncts, etc. Again a reversal of the usual perspective is involved. Roughly speaking what is conventionally thought of as the functional spine of the sentence corresponds to a sequence of positions ordered by scopal relations.

There are other general advantages that could follow from such a model, independently of head movement. Thus Chomsky (2008:156) refers to the EPP as a ñmysterious propertyö

which has been an annoying problem ever since it was originally formulated to describe the obligatory presence of expletives in subject position of English-type languages, if nothing raises to this position. EPP problems are considerably more general, however.

But if surface positions and positions of first merge coincide, then the EPP need not be anything more complex than an instruction to lexicalize (Merge/õpronounceõ) material in a certain position, as suggested by Manzini and Roussou (forthcoming).

Going back to the specific topic of this article, while some of the objections raised by Chomsky (2001) really targeted the syntactic movement of heads, at least one of them targets more generally the syntactic positioning of heads, whether by movement or (as here) base generation. This is the argument that head movement/ positioning has no interpretive reflex. We implicitly took the opposite stance. In particular the high position in the sentence that imperatives are taken to lexicalize, C_I , has been associated with properties of irrealis modality. These are not compatible with realis forms of the verb, which are correspondingly excluded from C_I . Vice versa inflectional positions are not compatible with irrealis forms, which must therefore insert in/ project C_I . In other words, the model we are suggesting would allow us to maintain that the syntactic positioning of heads has interpretive reflexes, while avoiding the problems connected with a movement derivation of the relevant structures.

In the rest of the paper we will consider the question whether syntactic island effects, and in particular negative islands in (21), do in fact provide motivation in favour of head movement -- and

if they don't how are the relevant facts to be derived. This issue is obviously relevant to the present suggestion the syntactic positioning of heads need not involve movement ñ but it can of course be examined independently of it (and in fact arises if PF theories of head placement are entertained).

2. If there is no syntactic head movement, how do Minimality effects follow?

In the discussion surrounding (21) we have shown that if mesoclis and enclis are derived by syntactic verb movement, then the blocking effect of negation could be imputed to Minimality (Rivero 1994, Roberts 1994). If head movement is preserved, but as a PF operation, or if it is abandoned in favour of heads being base generated in the syntax in their PF position ñ then Minimality cannot provide the answer as to why there is a blocking effect of negation on mesoclis and enclis.

Note that the blocking effects of negation on imperatives is just part of a larger set of phenomena, involving other forms of the verb as well as other interveners. In the Italian variety in (24) for instance proclis in the infinitival sentence in (24a) alternates with enclis in its negative counterpart in (24b) as well as in the infinitival wh- question in (24c). If we assume that enclis, as in (24a) corresponds to the infinitive being positioned high in the sentence (Kayne 1991), we can impute the triggering of proclis by both negation in (24b) and wh- in (25b) to a Minimality effect, due to the impossibility for the infinitive to move across Neg or Q respectively.

- (24) a. e θ ɔ ddetto di hjama-llo *Rignano* (Tuscany)
 I you have told of to.call-him
 ǎ told you to call himö
 b. e θ ɔ ddetto di no llo hjamare
 I you have told of not him to.call
 ǎ told you not to call himö
 c. e un sɔ ik'ke tti dire
 I not know what you to.tell
 ǎ don't know what to tell youö

Now, in phrasal movement, the crossing a negation or a wh- phrase by measure, manner and other adverbials that are sensitive to them yields ill-formedness. However what we observe in (21) or in (24b-c) is not ungrammaticality ñ the verb, though prevented from raising, simply stays in a lower position, yielding a grammatical sentence⁷. In other words, suppose that there is syntactic head movement and that Minimality accounts for the blocking effects of negation and wh- in (21), (24). While this is sufficient to explain the illformedness of enclis/ mesoclis in such contexts, it is not sufficient to account for the wellformedness of proclis. For, if verb movement is syntactic movement, in minimalist terms it is possible only if it is necessary ñ i.e. in that it satisfies some feature requirement. But if so, what satisfies the same requirement in negative and question contexts?

A way of resolving this inconsistency in the model is suggested by Zanuttini's (1997) discussion of negative imperatives. She assumes that the negative marker that heads NegP-1ö i.e. the clitic negation, ǎ can raise to fill the head of CP. This happens when Neg is the head closest to C: the features of the negative marker constitute the closest features to the head C; hence they are attracted ẽ Since the negative marker satisfies the feature of C, the verb itself need not and thus cannot move to Cö (145-146). In other words, if the verb in C satisfies certain properties, and Neg or Q block the movement of the verb because of their similar properties, then we could let Neg and

⁷ We will return below to cases of negative imperatives, actually the ones addressed by Rivero (1994), which yield ungrammaticality and hence suppletion by subjunctive, infinitives etc.

Q themselves satisfy C. This yields the blocking of verb movement and at the same time the grammaticality of the resulting structure.

But consider the logic of this argument: Neg or Q, where present, lexicalize properties which are lexicalized by the raised V in non-negative, non-interrogative contexts. But then this is sufficient to explain why the verb is not raised in the presence of Neg or Q, namely because its movement is unnecessary and hence impossible under economy. In other words this explanation makes the preliminary step represented by Minimality redundant. This means in turn that whether the verb syntactically moves or not becomes irrelevant to deriving the facts in (21) or (24). For, there is no longer any role for the crossing of Neg, Q by movement. In present terms, if in positive imperatives and infinitives the verb lexicalizes irrealis modality in C_I, the negation, wh- and perhaps other operators are sufficient to lexicalize the same property where they are present, so that the verb associates with the ordinary inflectional position (the latter will be discussed further below, cf. also fn. 7).

The redundancy of Minimality is confirmed by the observation that if we took proclisis vs. enclisis/ mesocclisis alternations to reflect Minimality effects on verb movement, then a further asymmetry with respect to Minimality effects on phrasal movement would arise. The common consensus is that Minimality effects on phrasal movement are universal. Yet a language genetically and typologically very close to (21), like Italian can have enclisis in the imperative even when negated, as in (25)⁸. In other words, enclisis/ proclisis alternations are a strictly language-specific matter ñ which would lead to the conclusion that Minimality also is, in potential contradiction with what precedes.

- (26) a. Mangiatelo!
 Eat.2pl.it
 ðEat it!ö
- b. Non mangiatelo!
 not eat.2pl.it
 ðDonã eat it!ö

Similarly, consider enclisis/ proclisis alternations in the infinitive. Next to languages like (24), we find languages, like Italian, which display no alternation, as in (26). In this case *Rignano* in (24), a Tuscan variety, and Italian, a variety based on Florentine, are truly minimally different, highlighting the fact that the relevant parameter does not depend on any major typological divide.

- (26) a. Ti ho detto di (non) farlo
 you I.have told to not do-it
 ðI told you (not) to do itö
- b. Non so che dirti
 not I.know what to.tell-you
 ðI donã know what to tell youö

Let us then consider what may be said about the parameter between (25b) and (21) or between (24) and (26) if Minimality is abandoned. In discussing (21) we have argued that the insertion of the verb to a high C_I position is pre-empted by the negation which independently lexicalizes the relevant properties of indefinite modality. Evidently, in (25), the fact that the verb moves across the clitic to C_I must mean that the negation is not sufficient to lexicalize the properties of indefinite modality instead of the verb. In other words yet, the parameter is that in (25c), or in

⁸ Italian also allows for proclisis in the negative imperative, apparently in free alternation with enclisis. Since we take free alternation to point to the coexistence of two slightly different grammars, we assume that Italian speakers have not only the grammar in the text but also a grammar requiring proclisis when negation is present, rather like the grammar in (21). Note that this doesn't weaken the point that follows ñ if anything it strengthens it.

(26), indefinite modality properties are lexicalized both by the negation and by the imperative/ infinitive sitting in C_I ñ effectively an instance of doubling. In languages like *Senise* in (21), *Rignano* in (24) properties of indefinite modality, are lexicalized only once, by the negation or wh-operator and cannot be independently lexicalized by the verb in C_I ñ effectively an instance of mutual exclusion.

Note that the solution that we are proposing presupposes that negation/ wh- and the imperative/ infinitive are able to enter into doubling vs. mutual exclusion patterns on the basis of their interpretive properties. In other words it presupposes that the relevant level for the positioning of heads is syntax/ the LF interface, since interpretive properties are not visible at that the PF interface. Therefore the alternative to Minimality that we are suggesting works either under the base generation approach of section 1.4 or under syntactic head movement ñ but not under a PF construal of head movement,

If our line of reasoning is correct, we expect to find more variation in natural languages depending on whether a given property is lexicalized twice (i.e. doubled) or only once (i.e. two lexicalizations are mutually exclusive). In section 2.1 we show that this is in fact the case. The reason why the exact dimensions of the parameter tend to escape theoretical discussion is simply that, as we argue, it straddles the traditional domains of morphology and syntax, being accounted for in different ways in the two different components. In reality, the discussion of section 1, already shows that a phenomenon like mesoclisism involving traditional morphological level constituents (i.e. inflections) is best handled in the syntax, calling into question the separation of the two components, and motivating a unified morphosyntax.

2.1 The general pattern of doubling vs. mutual exclusion ñ and suppletion

Summing up so far, we have argued that the blocking of enclisis/ mesoclisism by negation, wh-, etc. which has been construed as a Minimality effect on syntactic verb movement, is in reality a mutual exclusion effect: either the verb in C_I lexicalizes modal properties or the negation, wh-, etc. do, but the combination of the two is not possible. This behaviour is strictly parametrized, since varieties comparable in all other respects to those that have this effect, allow for what is essentially a form of doubling (modality lexicalized by negation, wh- etc. and by the verb in C_I).

A well-known parameter of the same form affects for instance the combination of two negations. Thus in some languages, two negations normally cooccur taking the meaning of a single negation; this is the so-called negative concord (Heageman and Zanuttini 1991) of a language like standard Italian in (27). In other languages the lexicalization of two negations in the scope of the same logical negation is impossible, i.e. two negations affirm, as in English (28). (28) can be construed as a case of mutual exclusion ñ i.e. negation can only be lexicalized once, and (27) as a case of doubling. In present terms, we could say that inserting a negative adverb (*not*) or argument in English has the effect of lexicalizing the negation for the entire sentential domain, while this is not the case in Italian. Thus by Economy in English no further negation can be merged, while in Italian further negations can be merged and double each other.

- (27) Non mangia niente
not he.eats nothing
- (28) a. He doesn't eat anything/*nothing
b. He eats nothing

Mutual exclusion vs. doubling of similar lexical material is of course also a phenomenon observed at what appear to be lower levels of organization of grammar. Thus consider *I*- clitic pronouns in Romance. In many Romance languages they normally combine. In Italian a dative and an accusative *I*- clitic can combine, as in (29); in French a subject clitic can combine with both, as in (30).

- (29) Glielo da
 to.him-it he.gives
 ðHe gives it to himö
- (30) Il le lui donne
 He it to.him gives
 ðHe gives it to himö

However there are Romance varieties where two *l*-forms cannot cooccur. Let us begin with the relatively unfamiliar case of a subject clitic and an object clitic. The variety in (31) has an obligatory subject clitic in the contexts in (32a-b) which is however excluded in contexts like (31c). The relevant restriction appears to be that a subject and an object *l*-clitic are mutually exclusive, so that in (31c) only the object clitic is present.

- (31) a. $\epsilon l/la$ te $c\epsilon ma$ *Tavullia* (Marche)
 he/she you call(s)
 $\tilde{\alpha}$ He/she call you $\tilde{o}$
- b. t $\epsilon l/la$ $c\epsilon:m$
 you him/her call
 $\tilde{o}$ You call him/her $\tilde{o}$
- c. $\epsilon l/la$ $c\epsilon ma$
 him/her . calls
 $\tilde{\alpha}$ s/he calls him/her $\tilde{o}$

Both Distributed Morphology and Optimality (Harris 1994, Bonet 1995, Grimshaw 1997) account for this mutual exclusion in terms of a straightforward (PF) incompatibility of two *l*-forms. In Manzini and Savoia (2005, 2007, 2008b), working in the framework of a unified morphosyntax, we argue that the mutual exclusion depends on the fact that the definite *l*-morphology of one clitic is sufficient to lexicalize definiteness properties for the entire clitic string, subsuming the lexicalization of other *l*-forms. In other words, the parameter can be expressed in the same way as the negative concord or the enclisis/ proclisis parameter. It is not that the latter are rendered in form of variation at the PF interface ñ rather the double *l*-constraint is raised to the status of a syntactic/ LF interface restriction.

That the *l*- definiteness properties are involved, as opposed to the clitic as whole, is shown by a variety like (32), where the accusative *l*- clitic in (32a) and the dative *l*- clitic in (32b) do not combine. Rather the dative ñ accusative cluster takes the form in (32c), where the *l* dative is followed by a vocalic accusative, reduced to the sole nominal class (and number) specifications).

- (32) a. li daða ?ustu Gavoi (Sardinia)
to.him he.gives this
'He gives this to him'
- b. mi lu/lɔr daða
to.me it/them he.gives
'He gives it/them to me'
- c. li u/ɔr daða
to.him it/them he.gives
'He gives it/them to him'

The best known case of mutual exclusion between two *l*-clitics is between datives and accusatives again, as attested in Spanish. In this language mutual exclusion between accusative and dative gives rise to a suppletion phenomenon known in the literature as Spurious *se*. Thus while the dative clitic does not surface, a different form of the clitic paradigm, namely *se*, apparently takes its

place, as in (33). In other Romance varieties it can be the locative, the partitive or other that takes the place of the dative under the same mutual exclusion.

- (33) a. Marìa le mandó un libro
 Maria to-him/her sent a book
 ðMaria sent a book to him/herö
- b. *Marìa le lo mandó
 Maria to-him/her it sent
 ðMaria sent it to him/herö
- c. Marìa se lo mandó
 Maria SE it sent
 ðMaria sent it to him/herö

Now, recall that the hypothesis being tested is that the apparently morphological double *l*-constraint reflects the same general restriction as the mutual exclusion between two negations or between negation/ *wh*- and high imperatives/ infinitives. Now the outcome of the double *l*-exclusion is typically described in the morphological literature in terms of repair strategies of which suppletion, as in the Spurious *se* phenomenon in (33), is one. If mutual exclusion between negation and the imperative reflects the same kind of underlying constraint as mutual exclusion between two *l*-clitics, we expect suppletion and other repair strategies to apply in negative imperatives as well.

Indeed Rivero's (1994) original discussion of intervention effects by negation on imperatives concerned environments, where the presence of the negation results in the apparent substitution of the imperative by a suppletive form (a negative subjunctive, or infinitive etc.). In general 2nd singular imperatives in Romance present this pattern, for instance in Italian (34), where the negative imperative surfaces as an infinitive.

- (34) a. Mangialo
 Eat.it
 ðEat it!
- b. *Non mangialo
 not eat.it
- c. Non mangiarlo
 not eat.inf.it
 ðDon't eat it!ö

By the discussion of section 2, data like (34) show that the negation subsumes the lexicalization of the properties of the 2nd singular imperative, with which it is mutually exclusive. On the evidence of (25), it does not subsume those of the 2nd plural, which cooccurs with it. Rivero (1994) and Zanuttini (1997) argue that the contrast between 2nd plural imperatives and 2nd singular imperatives of the type in (34) is due to the fact that the latter are 'true' imperatives, while the former are 'surrogate' imperatives, coinciding with indicative forms (or subjunctive ones, etc, according to the language)⁹. In present terms the asymmetry between 2nd singular and 2nd plural can be imputed to the fact that the former is a purely modal form, while the latter is a fully inflected form (lexicalizing EPP properties). The purely modal 2nd singular imperative is mutually exclusive with the negation. The inflectional 2nd plural imperative is not. In varieties like (21) (on Italian cf. fn 8), which display enclisis/ proclisis alternations the mutual exclusion is generalized ñ but its consequences are simply that the 2nd plural form is treated as purely inflection, sitting in I and yielding proclisis (as opposed to the modal treatment of the same form in positive imperatives

⁹ Correspondingly, for Zanuttini (1997) the reason 'true' 2nd singular imperatives cannot be negated is that Neg-1 (i.e. the negative clitic) activates a Mood projection, which can be controlled by indicative, subjunctive or infinitives but not by 'true' imperatives (because of their impoverished inflection, essentially coinciding with the verb base).

sitting in C_I and yielding enclisis/ mesocclisis.

Coming then back to the purely modal 2nd singular, the fact that the negation does not allow for modality to be independently lexicalized by it yields suppletion, in (34) by the infinitive. This leads us to the conceptualization of suppletion itself. In Distributed Morphology suppletive forms are default lexical items which can fill a terminal node if more specialized lexicalizations are unavailable, typically because of the application of some Impoverishment rule. For instance suppletion of *le* by *se* in Spanish (33) passes through the Impoverishment of the [dative] feature (Harris 1994). Elsewhere (Manzini and Savoia 2005, 2007, 2008b) we consider in detail the problems with such a view and we argue that forms like the infinitive in (34c) or the *se* clitic in (33c) are merged because of their positively specified specifications $\tilde{n}$ that precisely in those contexts are sufficient to yield their suppletive interpretation.

Specifically we propose that *se* associates in all Romance languages with middle-passive voice in that it is construed as a free variable, bound as such by antecedent, and yielding coreference (reflexives) or chain reading (passives). That Italian *si* is essentially a variable (generically closed) is independently proposed by Chierchia (1995) for the so-called impersonal reading. We propose that this same characterization allows for the dative reading of *se* in the Spurious *se* examples. By hypothesis, the specialized dative clitic *le* is ruled out by the fact that an accusative *l*- clitic lexicalizes definiteness properties for the entire string $\tilde{n}$ in a sense therefore the *l*- definiteness specifications take the entire string in their scope. We assume that this is what allows a definite (conventionally, 3rd person) reading for the *se* variable.

In the present view therefore not only is there no Impoverishment and no default $\tilde{n}$ but more radically there is no $\tilde{\text{repair}}$ or readjustment of any other sort, and in fact there is no $\tilde{\text{suppletion}}$. Quite simply *se* in virtue of its positive specifications as the variable of the clitic system and when in the scope of the *l*- specifications of the accusative clitic is capable of lexicalizing the second internal argument of ditransitive and other contexts traditional associated with $\tilde{\text{dative}}$. The fact that the accusative *l*- specifications take scope over the entire string is also the reason why the lexicalization of the $\tilde{\text{dative}}$ argument by an *l*- clitic is excluded. Therefore the mutual exclusion of two *l*- forms and the licensing of *se* are linked $\tilde{n}$ but there is no causal relation between them (cf. Kayne (2008) for a quite different implementation of a similar program to ours; cf. also fn.5).

The question that directly interests us here is $\tilde{\text{suppletion}}$ of the imperative by the infinitive in Italian, as in (34c). On the independent evidence of (26) we know that the negation and the infinitive are not mutually exclusive. Now, as in the case of *se*, we expect that the reason why the infinitive can supplant the imperative in negative imperative contexts does not have anything to do with it being an underspecified form. On the contrary it must be able to do so because of properties that are independently motivated for it. Indeed, it is perfectly possible to express commands through matrix infinitives, both positive and negative, as in (35), where the infinitive is interpreted as having a generic subject, as in (35).

- (35) a. Gettare negli appositi contenitori
 dispose.of.-inf in-the appropriate containers
 $\tilde{\text{Dispose of (it) in the appropriate containers}}$
 b. Non sporgersi dal finestrino
 not lean.out-inf-oneself of-the window
 $\tilde{\text{Don't lean out of the window}}$

In fact the subject of matrix infinitives, in this case with imperative interpretation, exactly like the subject of embedded infinitives (in so-called arbitrary control environments) can have not only generic reference but also specific reference $\tilde{n}$ in particular in imperative contexts, a reference coinciding with the hearer (2nd singular). This is illustrated in (36), where the argument against treating the infinitive as a 2nd singular imperative default is particularly clear in the non-negative forms which admit both the imperative, as in (36b), and the infinitive, as in (36a).

- (36) a. Poco darti delle arie
 Little put.on-yourself airs
 ðDonã put on airsö
- b. Datti poco delle arie
 put.on-yourself little airs
 ðDonã put on airsö
- c. Non darti/ *datti delle arie
 not give-inf-youself/ put.on-yourself airs
 ðDonã put on airsö

In this context, the infinitive is ðsuppletiveö for the imperative in (36c), or in (34), simply in the sense that while the negation is mutually exclusive with the 2nd singular imperative, it is not with the infinitive. The latter then survives its positive alternant in negative contexts. However it does so, in virtue of no repair rule ñ what are at stake are not its default properties, but rather its positively specified properties, that also allow it to appear in modal matrix contexts in the absence of the negation¹⁰.

2.2 Summary and open questions

The gist of our proposal concerning what have been construed as Minimality effects on syntactic head movement is that the negation, *wh*- etc. block modal forms of the verb not in that they cannot be crossed by its movement path, but in that they independently lexicalize the irrealis properties otherwise associated with the verb. If we are correct, this mutual exclusion effects is part of a larger set of behaviors, which do not fall under the Minimality description at all. In other words, though the present analysis was motivated by the desire to find some constraint equivalent to Minimality given a non-movement derivation for the positioning of heads, it turns out not to be a notational variant of Minimality at all. On the contrary, while it remains true that a Minimality account of the HMC requires syntactic head movement, the alternative account that we have now sketched is compatible not only with merger of heads in their PF position, as in section 1.4, but also with movement. In this latter case intervention, and hence Minimality, would be just an optical illusion generated by the movement derivation, while mutual exclusion between landing sites would really be at stake. Therefore the conclusions in this section are independent of the conclusions in section 1.

This naturally leads us to one major question left open by the discussion so far: if the blocking effects of operators such as negation and *wh*- on the positioning of verbs are not due to Minimality, but to mutual exclusion effects as defined here, is it coincidental that the same operators provoke Minimality effects on phrasal movement/ chains? A possible answer is that the overlapping between mutual exclusion and Minimality is due to the existence of a natural class of operators (negation, *wh*- etc.) that trigger both. Note that this is not an empirically void hypothesis. For instance, if definiteness properties, that we have attributed to the *l*- morphology of Romance form part of this class, then definiteness effects on phrasal extraction are to be construed together with Minimality effects due to negation, *wh*- etc.

In fact there is an important streak in formal literature denying that negation, and other operators create blocking effects on phrasal movement because of Minimality (cf. recently Abrusan 2007). The present discussion is not irrelevant in this connection, since it removes a possible independent motivation for Minimality coming from the head movement empirical domain. Under

¹⁰ We abstract from the fact that negative imperatives involving the infinitive in reality have not only an enclitic pattern but also a proclitic one in Italian. We assume that Italian is associated with two slightly different grammars. One is as described in the text. The other has mutual exclusion between the negation and the infinitive ñ however in virtue of its inflectional properties, the latter can sit in the I position (Manzini (2009) argues that the ñr infinitival inflection of Romance is an agreement inflection of sorts, introducing a variable EPP argument).

this second alternative, the same view as above could be entertained on the overlapping between blocking effects on head positioning and on phrasal movement/ chains, namely that the same natural class of operators is involved ñ though other scenarios may in fact turn out to be open.

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