On different types of clitic clusters

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1. Introduction

The purpose of this paper is twofold. On the one hand, it shows that in spite of the many previous discussions of Italian and Romance clitic clusters, some properties have gone unnoticed in the literature. Mainly using Italian data, I discuss the properties listed below:

(i) not all clitic clusters occurring in proclisis are also possible in enclisis. In Italian, proclisis seems to be more liberal than enclisis. Following Kayne (1994), I make the hypothesis that (Italian) clusters can be of two main types, in accordance with the LCA: in one type, the pronouns in the cluster occur on one and the same functional head, in the other, the clitics occur on different (adjacent) heads. Due to verb movement, enclisis is possible only with clusters which form a single constituent;

(ii) assuming that there are two clitic positions in the clause, one very high in the IP layer (INFL, the ‘clausal’ clitic position) and one very low in the VP layer (the ‘lexical’ clitic position) (Cardinaletti and Shlonsky 2004), only clitic clusters occurring on one

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1. The original nucleus of this analysis was presented at the LSA Summer Institute workshop on Perspectives on Clitic and Agreement Affix Combinations held at the University of Illinois, Urbana, on July 28, 1999, at the University of Thessaloniki in September 1999, at the University of Geneva in February 2000, at the Workshop on Antisymmetry, held in Cortona on May 15-17, 2000, and at the workshop on The Bantu-Romance Connection, held in Leeds on May 25-27, 2006. The audiences are kindly thanked for questions and comments. Many thanks also go to Andrew Nevins and two anonymous reviewers for very stimulating comments and criticism.

1. Italian differs from Greek, where enclisis is more liberal than proclisis (Terzi 1999).
and the same head are possible in the low clitic position, which only allows enclisis. The clausal clitic position must instead be thought of as a series of adjacent heads;

(iii) in the spirit of Bianchi (2006a), among others, clitic pronouns check person and number features in the clausal clitic position. Person and number features are not checked in the low clitic position, where case is checked;

(iv) clusters containing 3rd person indirect object (IO) clitics, such as Italian cluster *glielo* ‘to-him it’, do not behave differently from clusters containing 1st and 2nd person IO clitics such as *me lo* ‘to-me it’ and *te lo* ‘to-you it’. It is thus not necessary to assume a special syntax for *glielo*, pace Laenzlinger (1993), Heggie and Ordóñez (2005:26), Bianchi (2006a:2038), among others. I suggest that the similarity stems from the fact that Italian 3sg IO *gli* is a person clitic like *mì, tì, si*, etc., differently from e.g. French *lui* and Spanish *le*.

On the other hand, I show that extending the comparison to a different language family such as Bantu, some of the conclusions drawn from the analysis of Romance clusters should be revised. In particular:

(i) contrary to apparent abundant evidence from Romance, IO – DO is presumably not the order in which clitics are merged, but DO – IO is, as is clearly shown by Bantu languages, where the argument order is reversed by clitic pronouns;\(^2\)

(ii) Italian clusters like *me lo* and *glielo* are not telling on the internal order of clitic clusters since there is some evidence that they are merged as single words. Their internal order rather complies with the person hierarchy in the high clitic position;

(iii) the universal status of the Person Case Constraint (Bonet 1991) should be rethought of. The order of the clitics inside the cluster seems to be important and should be taken into consideration to understand this constraint.

Although I will not give a full account of the differences between Romance and Bantu, I will try to relate the contrast between Italian and Bantu to an independent difference

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\(^2\) Following Dryer (1983), Bresnan and Moshi (1990), Krifka (1995), and Cocchi (2000a:88ff), Bantu so called object markers are taken here to be clitic pronouns like Italian / Romance ones. Differently from Hyman and Duranti (1982), I do not distinguish between clitic object markers (e.g. those occurring with no overt object and in Left dislocation) and ‘true’ object agreement (i.e., those co-occurring with an *in situ* object). This case can be taken to be an instance of clitic doubling similar to what is found e.g. in Spanish (Jaeggli 1982, Suñer 1988, Urigereka 1995): it displays similar properties, e.g. sensitiveness to grammatical function, definiteness, referentiality, etc. (Krifka 1995:78f, Cocchi 2000a:89f). As for subjects, Bantu displays systematic subject clitic doubling: subject clitics are obligatory, and double a DP subject when present (similarly to what happens in northern Italian dialects, Cocchi 2000a:100); see also Kinyalolo (2003:346).
between the two languages: in Italian, clitics appear before the finite verb, in Bantu they follow tense markers and appear before the lexical verb. It is uncontroversial that Italian proclitic pronouns occur in the high clitic position. Following Barrett-Keach (1986) and Krifka (1995:1412-4), I assume that in Bantu, the Tense affix is in INFL. Object clitics utilize what I have called the low clitic position.

In Italian, person restrictions seem to be operative also in the low clitic position. This can be accounted for by establishing a relation between the two clitic positions, which is visible in the case of clitic climbing. Since in Bantu, clitics do not raise to the high clitic position, no relation between the low and the high clitic position is established.

2. Cluster internal restrictions

Not all languages that have clitic pronouns display clitic clusters. In those which do, like Italian and some of the Bantu languages (Bresnan and Moshi 1990), clitic clusters display order restrictions not displayed by full arguments. These restrictions may be of different sort. We start from one type of these restrictions.³

The order of two clitic pronouns may vary depending on the clitic pronouns found in the cluster. For instance, in Italian, the unmarked order of full complements is ‘direct object (DO) – locative’, (1a), but in clitic clusters, the locative may follow or precede the other clitic depending on its feature specification: cf. *mi ci* (1b) vs. *ci si / ce lo* (1c).⁴

A similar restriction is found in French. While 1st and 2nd person IO clitics precede DO clitics (2a), the order is reverse when the IO is 3rd person, (2b):

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³ When writing about clitic clusters, it must be mentioned that there is much poorly understood Italian-internal variation. Some readers will not to agree on some judgments reported in this paper. Nor do I agree on some data reported in the literature. Just to give two examples, I find *Gianni ce ne parlerà* ‘Gianni there on-it will-talk’ (Laenzlinger 1993:265) ungrammatical, and I am among the speakers who do not accept *Ti / Vi ci affideranno* ‘[they] you to-us will-entrust’ marked as % in Bianchi (2006a:2039, n.34).

⁴ In example (1c) and throughout, the 3sg.masc DO *lo* stands for the whole DO clitic series, containing the four possible combinations of number and gender features: *lo* (3sg.masc), *la* (3sg.fem), *li* (3pl.masc), *le* (3pl.fem).
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(1)  a. Metterà me / sé / lui in quel posto.
    [he] will-put me / himself / him in that place
b. Mi ci metterà. DO– LOC
    [he] me there will-put
c. Ci si / Ce lo metterà. LOC – DO
    [he] there himself / it will-put

(2)  a. Jean me / te le donne.  IO – DO
    Jean to-me / to-you it gives
b. Jean le lui / leur donne. DO – IO
    Jean it to-him / to-them gives

These differences are also relevant in a comparative perspective. Languages may differ with respect to the order displayed by clitics inside the cluster. Italian and French differ with respect to the order of DO and IO clitics (e.g., the order in (2b) is opposite to the one of Italian *glielo*) and of accusative and locative clitics, (3a) vs. (3b):

(3)  a. Ce lo metterà.  LOC – DO
    [he] there it will-put
b. Jean les y a rencontrés.  DO – LOC
    Jean them there has met

As shown in (4) and (5), Italian and Bantu differ with respect to the order of IO and DO clitics (in (5) and throughout, the glosses of the Bantu examples are those found in the quoted works):

(4)  a. Me lo / Glielo darà.  IO – DO
    [he] to-me it / to-him it will-give
b. *Lo gli / mi darà.

(5)  a. A-ka-bi-mű-h-a.  DO – IO
    he-P3-them-him-give
    ‘He gave them to him.’
b. Umugabo y-a-ki-ba-haa-ye.  DO – IO
    man he-PAST-it-them-give-ASP
    ‘The man gave it to them.’
c. Mukaji u-tshi-mu-p-a. DO – IO   
   woman 1.SU-7.DO-1.IO-give-I  
   ‘The woman gives it to him.’

Bantu languages also differ from Romance languages in that differences like those seen in (1)-(2) are not found. The DO – IO order is also found with 1st and 2nd person clitics:

(6) a. A-ka-mu-ku-léét-el-a. DO – IO   
   he-P3-him-you-bring-app  
   ‘He brought him to you’.

b. Nu-mu-m-pe. DO – IO   
   you:pl-1.DO-1sg.IO-give  
   ‘Give her to me!’

I start presenting a proposal concerning the data in (1)-(3) based on the case properties of clitic pronouns. I will conclude that case is not the (only) property responsible for the word order found inside clitic clusters. We will then move on to the main empirical result of this paper, namely a restriction never noticed before as to which clusters can appear in proclitic and enclitic position in Italian, and to the discussion of this restriction. This will allow us to address the different clitic order between Italian and Bantu pointed out above.

3. On a case-approach to clitic clusters

In Romance languages, 1st and 2nd person clitics are not marked for case, being possible both as DO and IO, while 3rd person clitics are marked for case. Two different forms for dative and accusative exist: cf. Italian gli (to-him) vs lo (him), le (to-her) vs la (her). A classification of French and Italian clitic pronouns is reported in (7) and (8), respectively:

[^5]: Differently from French leur, Italian 3pl IO loro is a postverbal weak pronoun (Cardinaletti 1991), and it thus does not enter the present discussion.
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(7)  a. clitics\_\text{CASE}: le, la, les, lui, leur, y, en
    b. clitics\_\text{CASE}: me, te, nous, vous, se

(8)  a. clitics\_\text{CASE}: lo, la, li, le\_\text{ACC}, gli, le\_\text{DAT}, ne
    b. clitics\_\text{CASE}: mi, ti, ci, vi, si

Assuming that the licensing of case-marked clitics (selected incorporation) is different from that of non-case-marked clitics (free incorporation), Laenzlinger (1993) suggests that (i) two clitics marked for case cannot combine on the same node, and (ii) case-marked clitics must be closer to the host than non-case-marked clitics. This proposal explains the possibility of clusters like French me le in (2a) and their order: me le vs. *le me. The clusters le lui / le leur in (2b) circumvent the constraint in (i) in that lui / leur are taken to be adjoined to a head lower than the one le adjoins to. Locative clitic y and partitive clitic en behave like lui and leur: they give rise to the clusters in (9) where they follow other clitics. Y and en are also taken to occur in a lower head (Laenzlinger 1993:261f) (notice that lui and y cannot co-occur).\textsuperscript{6}

\textsuperscript{6} An alternative way of phrasing Laenzlinger’s proposal is to say that lui, leur, y and en are a different type of pronoun, not clitic but weak in the sense of Cardinaletti and Starke (1999). In French, these pronouns would not occupy the clitic position discussed so far, but a lower position. There is some evidence that these French pronouns are weak rather than clitic. Consider first the fact that lui in (2b) patterns like postverbal moi in that it follows the DO clitic, (ib):

(i)  a. Il me le donne. clitic + clitic
    b. Donne-le-moi! clitic + weak

Following previous work (Cardinaletti and Starke 1999:221, n.32), I consider IO moi as a weak pronoun, which is morphologically different from both clitic me and strong à moi. The same analysis can be suggested for IO lui, which is morphologically different from strong à lui in the same way. If this is correct, the series lui – à lui would not have a clitic counterpart, differently from the tripartite series me – moi – à moi:

(ii) clitic weak strong
    a. me moi à moi
    b. --- lui à lui
(9)  a. Jean les y a rencontrés.
   Jean them there has met
b. Jean l’en informera.
   Jean him about-it will-inform
c. Marie lui en parle.
   Marie to-him about-it speaks
d. Jean y en parlera.
   Jean there about-it will-speak

Laenzlinger’s proposal allows us to understand why in Italian, as in French, sequences like me lo, te lo, ce lo, ve lo, se lo (to-me / to-you:SG / to-us / to-you:PL / to-refl it) are possible and occur in that order. It can also explain the different order between French les y and Italian ce lo (see (3) above): since Italian locative ci is the same lexical item as 1pl ci (see fn. 9), it differs from French y in that it is not marked for locative case. It can adjoin to an accusative clitic and must precede it.

Evidence for the weak status of y comes from the fact that in some fixed expressions, as in (iiiia), it can occur in the position preceding a past participle, a context which is not available to clitic pronouns, as shown by Italian (iiib):

(iii)  a. y compris / inclus … weak pronoun
   there included
b. *vi compreso … clitic pronoun
c. ivi compreso … weak pronoun

Interestingly, Italian allows (iiiic), where the locative pronoun has the longer form ivi. Ivi can be taken to be the weak counterpart of the locative clitic pronoun vi (see note 10), analysed as i + vi = support morpheme + clitic pronoun (see Cardinaletti 1994 and Cardinaletti and Starke 1999:193f for support morphemes). Due to the choice principle of Cardinaletti and Starke (1999), vi is always chosen over ivi because it has a smaller structure. In (iiiic), the weak pronoun ivi is ruled in because clitic vi is independently ruled out from part participles. The phenomenon is not productive, however. For instance, the weak form ic i (built on locative clitic ci) does not exist.

For some differences between Italian and French as regards coordination of clitic pronouns, which might support the above analysis, see Benincà and Cinque (1993:2323).
This proposal seems to find support in Bantu languages, where clitics are not marked for case and restrictions like those seen in Romance are not found. Two 3rd person clitics can combine, as shown in (5). That the two clitics are not specified for case is confirmed by the fact that in some Bantu languages, the sentence is ambiguous, (10):

(10) A-ka-bi-ba-léét-el-a.  
    he-P3-them-them-bring-APPL  
    ‘He brought them (bi) to them (ba).’  
    ‘He brought them (ba) to them (bi).’

Laenzlinger uses his analysis also to rule out the ungrammatical sequence in (11). In Spanish, two 3rd person clitics, one accusative and one dative, are banned. In the grammatical cluster, dative le is replaced by non-case-marked se (spurious se):

(11) *le(s) lo → se lo ‘to-him/them it’

A problematic case for a case-based approach is however provided by the Leismo dialects of Spanish, in which le is not case-marked (being used for both accusative and dative 3rd person animates), still it is replaced by se in cases like (11) (see Nevins 2007 for relevant discussion). Italian provides other problematic cases for a case-based approach to clitic clusters: (i) the clusters gli / le si in (12), where case-marked IO clitics gli and le combine with impersonal and reflexive si, respectively, and (ii) the cluster lo si in (13), where case-marked DO clitic lo combines with impersonal si:

(12) a. Gli / Le si è parlato.  
    to-him / to-her IMP has spoken  
    b. Gli / Le si è presentato.  
    [he] to-him / to-her REFL has introduced

(13) Lo si è visto.  
    him IMP has seen  
    ‘One has seen him.’

In (12) and (13), the case-marked clitics gli, le, and lo occur further from the host than the non-case-marked clitic si, in contrast with Laenzlinger’s condition (ii) The question thus arises as to how gli, le, and lo are licensed in (12) and (13).
Furthermore, it is clear that what matters in the different word orders found with locative ci (see (1) above) is not case but other properties of the pronouns in the cluster. In conclusion, there are some problematic clusters for a case-based approach to clitic clusters. In the following section, we turn to another problematic case, Italian glielo.

3.1. On the apparent special status of Italian glielo

Laenzlinger (1993:254) suggests that the ungrammaticality of the Italian clusters *le lo and *le ne is due to the same constraint that rules out (11) in Spanish: two case-marked clitics cannot combine on one and the same node. To get a grammatical sequence, feminine dative le is replaced by (masculine) gli:

(14) a. *le\textsubscript{DAT} lo  \rightarrow  glielo ‘to-her it’
    b. *le\textsubscript{DAT} ne  \rightarrow  gliene  ‘to-her of-it’

Since gli is also a case-marked pronoun (see (8)), this change is however unexpected. To explain it, Laenzlinger (1993:253) suggests that glielo forms “a unique clitic constituent at the structural level, as opposed to me lo which are two independent clitic constituents”. He provides the impossibility of (15) as an argument for the clitic compound analysis:

(15) *Glielo o la presenterà?  \hspace{1cm} \text{(Laenzlinger 1993:254, fn.13)}
    [he] to-him him or her will-introduce?

But this test does not distinguish glielo from other ‘IO – DO’ clusters, which are also impossible in coordination, (16). Something different should be said about Italian glielo:

(16) *Me lo o la presenterà?
    [he] to-me him or her will-introduce?

Laenzlinger’s claim that glielo has a special status among Italian clitic clusters is shared by other researchers. For instance, Heggie and Ordóñez (2005:26) have recently proposed that glielo is an ‘amalgamation’, to be best analysed in the morphology. Bianchi (2006a: 2038) assumes that in glielo, the two clitics adjoin to one another and move as a unit, while in e.g. me lo, the two clitic pronouns move separately (see section
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5.1 below for the analysis of the two cluster types in terms of Kayne’s 1994 LCA). The common property of these accounts is that clusters containing 3rd person IOs are treated differently from those containing 1st and 2nd person IOs. But the two sequences *me lo* and *glielo* must be treated alike. As I show below, they share all syntactic and phonological properties: they build the same type of cluster, which is possible both in proclisis and enclisis, and in both cases the final vowel of the first clitic is [e] instead of [i]. There is no reason to treat *glielo* differently from e.g. *me lo*. In conclusion, Italian *glielo* seems to be another problematic case for a case-based approach to clusters in that it unexpectedly behaves like e.g. *me lo*.

3.2. Mi ti combinations

A further complication is provided by *mi ti* combinations, which are possible for some speakers of Italian (Seuren 1976:32, Evans et al. 1978:160, Monachesi 1995:42, Bianchi 2006a:2040) and display a difference between proclisis and enclisis not encountered so far. Out of the six combinations of grammatical functions found in proclisis, i.e. both DO – IO and IO – DO, only three can appear in enclisis, namely DO – IO sequences:

(17) a. Lui mi ti presentò / affidò. *mi ti *o
he me to-you introduced / entrusted
b. Lui pensa di presentarmiti / affidarmiti. *mi ti *o
he thinks to introduce / entrust me to-you

(18) a. ?Lui mi ti presentò / affidò quando eri piccolo. *mi ti *o
he to-me you introduced / entrusted when [you] were a child
b. *Lui pensa di presentarmiti / affidarmiti. *mi ti *o
he thinks to introduce / entrust to-me you

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7. Among 1st and 2nd person clitics, *mi ti* is the only possible combination. The others are ungrammatical, in either order and with either interpretation: *mi vi/*vi mi ‘me you:PL’, *ti ci/*ci ti ‘you:SG us’, *vi ci/*ci vi ‘you:PL us’. Two of these combinations are exemplified by *Ti/*Vi e ci affideranno in note 3. This contrast suggests, as in Kayne (2000), that *mi* and *ti* form a natural class, while *ci* and *vi* do not belong to the very same class (see also note 35). *Ti vi/*Vi ti and *mi ci/*ci mi are cases of overlapping reference.
(19) a. Io mi ti presenterò / affiderò.  \( mi_{\text{REFL}} ti_{\text{IO}} \)
    I myself to-you will-introduce / will-entrust

b. Io penso di presentarmiti / affidarmiti.  \( mi_{\text{REFL}} ti_{\text{IO}} \)
    I think to introduce / entrust myself to-you

(20) a. Tu mi ti presenti / affidi così?  \( mi_{\text{IO}} ti_{\text{REFL}} \)
    you to-me yourself introduce / entrust so

b. *Tu pensi di presentarmiti / affidarmiti così?  *\( mi_{\text{IO}} ti_{\text{REFL}} \)
    you think to introduce / entrust to-me yourself this-way

(21) a. Tu mi ti prendesti come segretaria, non come baby-sitter.  \( mi_{\text{DO}} ti_{\text{REFL}} \)
    you me to-yourself took as secretary, not as baby-sitter

b. Tu pensavi di prendermiti come segretaria.  \( mi_{\text{DO}} ti_{\text{REFL}} \)
    you thought to take me to-yourself as secretary

(22) a. ?Io mi ti prendo come segretaria.  \( mi_{\text{REFL}} ti_{\text{DO}} \)
    I to-myself you take as secretary

b. *Io penso di prendermi come segretaria.  *\( mi_{\text{REFL}} ti_{\text{DO}} \)
    I think to take to-myself you as secretary

This is another problematic case for a purely case-based approach to clitic clusters. Before suggesting a different approach, based on both case and person / number properties of clitic pronouns, I turn to the discussion of the different types of clitic clusters found in Italian, some of which display an asymmetry between proclisis and enclisis similar to what we have just seen with \( mi \ ti \) sequences.

4. Many different types of clitic clusters in Italian

In Italian, many different types of clitic clusters exist. They display both syntactic and morphophonological differences. First, while all types of clitic clusters can occur in proclitic position, only some of them are possible in enclitic position. Second, only some clitic clusters display morphological changes on the pronouns entering the cluster.
4.1. **Type 1: Unrestricted clusters with vowel change**

In Type 1 clusters, the first clitic pronoun changes its form when it appears in the cluster. The final vowel is not [i], but [e] (23b,b’) (see section 5.3 for discussion). This type of cluster is possible in both proclitic and enclitic position. Proclisis is found with finite verbs, (23a,a’,b,b’); enclitic clusters occur with infinitival and imperative verbs, as shown in (23c,c’) and (23d,d’), respectively:

(23)  

a. Mi ha dato un libro.  
[he] to-me has given a book  
[b’] Me ne ha dati tre.

b. Mi lo ha dato.  
[he] to-me it has given  
[b’] Me ne ha dati tre.

c. Pensa di darmelo.  
[he] thinks to give to-me it  
[c’] Pensa di darmene tre.

d. Dammelo!  
[he] gives to-me it  
[d’] Dammene tre!

Combinations of this type contain 1st and 2nd clitics in their personal and reflexive usages, e.g. *me lo* in (23) and *me ne* in (23) and (24), 3rd person dative *gli* (*glielo*), reflexive *si* as in (25), locative *ci* as in (26), and impersonal *si* as in (27) and (28):

(24)  

a. Mi libero/Ti liberi/Si libera/Ci liberiamo/Vi liberate/Si liberano di questo.  

b. Me ne libero / Te ne liberi / etc.

c. Penso di liberarmene / etc.

(25)  

a. Si è preso un libro.  
[he] to-REFL has taken a book  
[a’] Si è preso tre libri.

b. Si lo è preso.  
[he] to-REFL it has taken  
[b’] Se ne è presi tre.

c. Pensa di prenderselo.  
[he] thinks to take for-REFL it  
[c’] Pensa di prendersene tre.

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8. From here on, only examples with infinitives will be provided. Enclisis is also possible with gerunds and absolute past participles. I will not discuss these cases here.
(26) a. Ci ho messo un libro.  
   [I] there have put a book  
   b. Ce l’ho messo.  
   [I] there it have put a book  
   c. Penso di mettercelo.  
   [I] think to put there it

   a’ Ci ho messo tre libri.  
   [I] there have put three books  
   b’ Ce ne ho messi tre.  
   [I] there of-them have put three  
   c’ Penso di mettercene tre.  
   [I] think to put there of-them

(27) a. Si è già parlato di questo.  
   IMP has already spoken about this  
   b. Se ne è già parlato.  
   IMP of-it has already spoken (=One has already spoken about it)  
   c. Potrebbe / Ritengo essersene già parlato.  
   [it] could / [I] believe [to] have IMP about-it already spoken too much

(28) a. Si sono comprati troppo mobili, quest’anno.  
   IMP have bought too-many furniture, this year  
   b. Se ne sono comprati troppo.  
   IMP of-them have bought too-many  
   c. Potrebbe / Ritengo essersene comprati già troppo.  
   could / [I] believe have IMP of-them bought already too many

Type 1 combinations are the following:

(29) Type 1:  
   a. mi / ti / ci / vi$_{IO}$ lo$_{DO}$/ ne$_{GEN/PART}$  
   b. mi / ti / ci / vi$_{REFL.IO}$ lo$_{DO}$/ ne$_{GEN/PART}$  
   c. gli$_{IO}$ lo$_{DO}$/ ne$_{GEN/PART}$  
   d. si$_{REFL.IO}$ lo$_{DO}$/ ne$_{GEN/PART}$  
   e. ci$_{LOC}$ lo$_{DO}$/ ne$_{GEN/PART}$  
   f. mi / ti / ci / vi$_{REFL.DO}$ ne$_{GEN}$  
   g. si$_{REFL.DO}$ ne$_{GEN}$  
   h. si$_{IMP}$ ne$_{GEN/PART}$
4.2. **Type 2: Unrestricted clusters with no vowel change**

Type 2 clusters are possible in both proclitic and enclitic position, but they do not display any vowel change on the linearly first clitic. Some examples are provided below:  

(30)  
a. Mi / Ti / Vi ci metterà.  
[he] me / you:SG / you:PL there will-put  
b. Pensa di mettermici / mettertici / mettervicì.  
[he] thinks to put me / you:SG / you:PL there

(31)  
a. Mi ci metterò / Ti ci metterai / Vi ci metterete.  
b. Penso di mettermici / Pensi di mettertici / Pensate di mettervicì.  
[I] think to put myself there / [you:SG] think to put yourself there / [you:PL]  
think to put yourselves there

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9. In (30)-(32), the following combinations with locative *ci* are missing because they are ungrammatical:

(i)  
a. *Ci ci mette. (cf. Ci mette li / (Li) ci mette noi)  
[he] us there puts ([he] us puts there / (there) [he] there puts us)  
b. *Ci ci metteremo. (cf. Ci metteremo li.)  
[we] ourselves there will-put ([we] ourselves will-put there)  
c. *Ci ci metterà un po’ di latte.  
[he] to-us there will-put some milk

I take the two *cis* to be one and the same lexical item that can perform several functions: pronominal and reflexive 1pl, locative, comitative, instrumental. Since they are one and the same lexical item, two *cis* cannot enter one and the same numeration, which explains the ungrammaticality of (i) (see Grimshaw’s 1977 analysis in terms of the Obligatory Contour Principle). A similar analysis holds for other clitics that can perform more than one function, such as *vi* (pronominal and reflexive 2pl, and locative, see note 10), *si* (3rd person reflexive, impersonal, passive), and *ne* (partitive, genitive, source). Sequences of two *vis*, two *sis* and two *nes* are also ungrammatical (see Cinque 1995:195f. For *si si* see note 13). *Ne* is the only clitic that allows haplology (Cardinaletti and Giusti 2006:83): e.g. *Se ne sono andati via molti* ‘REFL NE are gone away many’.
Anna Cardinaletti

   [he] to-me / you:SG / you:PL / him there will-put some milk
   [he] thinks to put to-me / you:SG / you:PL / him there some milk

(33) a. Gianni ci si metterà.
   Gianni there himself will-put
b. Gianni pensa di mettercisi.
   Gianni thinks to put there himself

Type 2 combinations are the following. They all contain locative *ci*:10

(34) Type 2: ok proclisis, ok enclisis, *vowel change
   a. mi / ti / vi\text{DO} \hspace{1em} ci\text{LOC}
   b. mi / ti / vi\text{REFL,DO} \hspace{1em} ci\text{LOC}
   c. mi / ti / vi\text{IO} \hspace{1em} ci\text{LOC}
   d. mi / ti / vi\text{REFL,IO} \hspace{1em} ci\text{LOC}
   e. gli \hspace{1em} ci\text{LOC}
   f. ci\text{LOC} \hspace{1em} si\text{REFL,DO}

4.3. Type 3: Combinations that are only possible in proclitic position

Type 3 combinations, which contain reflexive *si* and what Cinque (1988) calls [+argumental] impersonal *si*, display no vowel change and cannot occur in enclitic position (b. sentences and (39d)). The sentences are possible if the object is realized

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10. Formal / Literary registers of Italian also possess locative clitic *vi*, as in Gianni *vi si oppose* ‘Gianni there refl opposed’, Nulla e nessuno sembra avere la forza di opporvisi ‘nothing and nobody seems [to] have the strength to oppose there refl’ (il Manifesto, 11.7.2000, p. 13) (see Evans et al. 1978:157, n.6). Locative *vi* is more constrained than locative *ci*: e.g., it cannot combine with other clitics: compare *Mi / Ti vi metterà* with (30). This pronoun is nowadays used very rarely and is not discussed in this paper.
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with a strong pronoun, as in (35c)-(39c) and (38c), or a full XP, (39e), (40c). These data show that si can occur in enclitic position by itself, but not inside a cluster: 11

35(a) Gianni mi / ti / ci / vi / gli / le si è rivolto in inglese.
    Gianni to-me/you:SG/us/you:PL/him/her REFЛ has addressed in English
35(b) *Gianni pensa di rivolgermisi / rivolgererti / rivolgerti / rivolgervisi / rivolgerglisi / rivolgerlesi in inglese.
    Gianni thinks to address to-me/you:SG/us/you:PL/him/her REFЛ in English
35(c) Gianni pensa di rivolgersi a me / a te / a noi / a voi / a lui / a lei in inglese.
    Gianni thinks to address REFЛ to me / you:SG / us / you:PL / him / her in English

36(a) Gianni mi / ti / ci / vi si è preso a benvolere.
    Gianni me / you:SG / us / you:PL REFЛ has taken a liking
36(b) *Gianni vorrebbe prendermisi / prendertisi / prendercisi / prendervisi a benvolere, ma non ci riesce.
    Gianni would-like [to] take a liking on me/you:SG/us/you:PL REFЛ, but [he] cannot
36(c) Gianni vorrebbe prendersi me / te / noi / voi a benvolere, ma non ci riesce.
    Gianni would-like [to] take a liking REFЛ [on] me / you:SG / us / you:PL, but [he] cannot

37(a) Gianni ci si metterà un po’ di latte.
    Gianni there to-himself will-put some milk
37(b) *Gianni pensa di mettercisi un po’ di latte.
    Gianni thinks to put there to-himself some milk
37(c) Gianni pensa di metterci un po’ di latte per sé.
    Gianni thinks to put there some milk for himself

11. In (36), past participle agreement with 1pl ci and 2pl vi is optional (Ci / Vi si è presi a benvolere), as is always the case with these forms: Gianni ci / vi ha visto / visti ‘Gianni has seen us/you:PL’ (see note 12 and 28). As for the combinations in (39), note the ungrammaticality of *Non ci si parlò con la dovuta attenzione ‘not to-us IMP spoke with the due attention’ and the grammatical counterpart with a strong IO pronoun: Non si parlò a noi con la dovuta attenzione ‘not IMP spoke to us with the due attention’. Impersonal si gets a 1pl interpretation (Cinque 1988) and is thus incompatible with a 1pl clitic pronoun. For ciREFЛ, SIdent see note 13.
(38) a. Le ci metterà un po’ di latte.
   [he] to-her there will-put some milk
   [he] thinks to put to-her there some milk
c. Pensa di metterci un po’ di latte per lei.
   [he] thinks to put there some milk for her

(39) a. Non mi / ti / vi / gli / le si parlò con la dovuta attenzione.
   not to-me / to-you:SG / to-you:PL / to-him / to-her IMP spoke with the due attention
b. *Non sembra essermisi / essertisi / esservisi / esserlisi parlato con la dovuta attenzione.
   [it] not seems [to] have to-me / to-you:SG / to-you:PL / to-him / to-her IMP spoken with the due attention
c. ?Non sembra essersi parlato a me / a te / a voi / a lui / a lei con la dovuta attenzione.
   [it] not seems [to] have IMP spoken to me / to you:SG / to you:PL / to him / to her with the due attention
   [I] believe [to] have to-him IMP spoken
e. Ritengo essersi parlato di questo a Gianni.
   [I] believe [to] have IMP spoken about this to Gianni

(40) a. (Su quel progetto) non ci si è lavorato abbastanza.
   (on that project) not there IMP has worked enough
   ‘One hasn’t worked enough on that project’
b. *(Su quel progetto) sembra / ritengo non essercisi lavorato abbastanza.
   (on that project) [it] seems / [I] believe not [to] have there IMP worked enough
c. Ritengo / Sembra non essersi lavorato abbastanza su quel progetto.
   [I] believe / [it] seems not [to] have IMP worked enough on that project

Type 3 combinations are the following:

(41) Type 3: *okproclisis, *enclisis, *vowel change
a. mi / ti / ci / vi_{IO} \_s_{REFL.DO}
b. gli / le_{IO} \_s_{REFL.DO}
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c. mi / ti / ci / vi_{DO} \text{ si}_{REFL,IO}
d. ci_{LOC} \text{ si}_{REFL,IO}
e. le_{IO} \text{ ci}_{LOC}
f. mi / ti / ci / vi_{IO} \text{ si}_{IMP}
g. gli / le_{IO} \text{ si}_{IMP}
h. ci_{LOC} \text{ si}_{IMP}

4.4. Type 4 and 5: Combinations that are independently impossible in enclitic position

Some combinations are banned from the enclitic position for independent reasons. They all contain what Cinque (1988) calls [-argumental] impersonal *si, which absorbs Nominative case and is independently ruled out in infinitivals. The first case is provided by the cluster ‘impersonal *si - source ne’ which in proclisis looks like Type 1 clusters in that it undergoes vowel change, (42a). As shown by (42c) with a full PP, [-argumental] *si cannot occur in infinitivals (unaccusative verbs such as uscire are only compatible with this type of *si). The properties of this combination are summarised in (43):

(42) a. Da quella situazione, se ne uscirà presto.
    from that situation IMP from-there will-go-out soon
b. *Sembra / Ritengo essersene già usciti.
    [it] seems / [I] believe [to] have IMP from-there already gone-out
    [I] believe [to] have IMP already gone-out from that situation

(43) Type 4: ok proclisis, *enclisis, ok vowel change
    si_{IMP} \text{ ne}_{SOURCE}

The same restriction operates on clusters which look like Type 2, as in (13) and (44a)-(46a). These clusters are banned from the enclitic position, b. sentences. The independent restriction against [-argumental] impersonal *si with infinitives is illustrated
by the ungrammaticality of (44c) and (46c) with a strong pronoun and (45c) with a full DP:¹²

(44) a. Mi / Ti / Vi si è invitato spesso, ultimamente.
   me / you:SG / you:PL IMP has invited often, lately
   [I] believe [to] have me / you:SG / you:PL IMP invited often, lately
c. *Ritengo essersi invitato solo me / te / voi, ultimamente.
   [I] believe [to] have IMP invited only me / you:SG / you:PL, lately

(45) a. Le si è vendute bene.
   them IMP have sold well
b. *Ritengo esserlesi vendute ad un prezzo eccessivo. (Cinque 1988:557)
   [I] believe [to] have them IMP sold well
   [I] believe [to] have IMP sold few cars

(46) a. Ci si va spesso, ultimamente.
   there IMP goes often, lately
b. *Ritengo andarcisi spesso, ultimamente.
   [I] believe [to] go there IMP often, lately
   [I] believe [to] go IMP often there, lately

The same restriction applies to the sequence $ci_{\text{REFL}} si_{\text{IMP}}$, which necessarily contains [-argumental] $si$ (see Cinque 1995:197f for discussion and the examples in (47)):¹³

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¹² Past participle agreement with 2pl vi is optional: Vi si è invitati spesso, ultimamente is possibile alongside (44a) (see note 28). As discussed in note 11, 1pl ci cannot combine with impersonal si: *Ci si è invitato / invitati spesso, ultimamente. Differently from (45c), the following sentence is possible with past participle agreement: Ritengo essersi vendute poche automobili. In this case, si is [+argumental] and can occur in infinitival clauses, as in (39c,e) and (40c) (see Cinque 1988).

¹³ Ci si is suppletive for *si si, as in Ci si è arrabbiati ‘REFL IMP has got-angry’ (= One has got angry), and Ci si è aiutati ‘REFL IMP has helped’ (= One has helped each other).
(47) a. A Beirut ci si è sparati addosso tutta la notte.  
in Beirut REFLECTIVE IMP has fired all night long  
b. *A Beirut sembra essercisi sparati addosso tutta la notte.  
in Beirut [it] seems IMP to have fired at each other all night long  
c. *Ritengo essercisi aiutati inutilmente.  
[I] believe IMP to have helped each other in vain

Type 5 combinations, which contain [-argumental] impersonal *si, are the following:

(48) Type 5: ok proclisis, *enclisis, *vowel change  
a. mi / ti / vi_{IMP}  
b. lo_{IMP}  
c. ci_{LOC} si_{IMP}  
d. ci_{REFLEX} si_{IMP}

4.5. Summary

The following table summarizes the different types of clusters that are found in Italian. While all of them occur in proclisis, some are banned from the enclitic position. Another property which differentiates Italian clusters is vowel change on the first clitic:

(49)  

+ enclisis  
+ vowel change Type 1 (e.g.: me lo) Type 4 (e.g.: se ne)  
− vowel change Type 2 (e.g.: mi ci) Type 3 (e.g.: mi si)  

If types 4 and 5 are not taken into consideration (since they cannot occur in enclisis for independent reasons), a correlation arises between phonological and syntactic properties:

14. See Monachesi (1995:Ch.4) for other clusters, which enter the types discussed here.
Clusters that exhibit vowel change are possible in both proclitic and enclitic position. The reverse is not true, however: Some clusters with no vowel change can appear in enclisis, while others cannot.

5. Ingredients for the analysis

5.1. The representation of clitic clusters in antisymmetry

In order to differentiate the clitic sequences that appear in an unconstrained manner from those that can only appear in the proclitic position, I propose that the two types instantiate different ways of adjunction to their host, namely the two possibilities made available by LCA (Kayne 1994). The first type of clitic clusters (Type 1, 2 and 4), instantiate the structure in (51), where the two clitic pronouns are adjoined one to the other and thus occur inside one and the same functional head (Kayne 1994:20). The other type of clitic sequence (Type 3 and presumably Type 5), is represented as in (52a), where the two clitic pronouns are adjoined to two distinct adjacent heads (Kayne 1994:21). As shown in (52b), there can also be sequences of three adjacent heads, as in Le ci si può mettere un po’ di zucchero ‘to-her there IMP can put some sugar’.15

15. Our conclusions differ from Terzi’s (1999), who denies the existence of the structure in (52) in Romance languages (see however Ordóñez 2002 for Spanish). As for Type 5 clusters, the comparison with Type 3 suggests that they also utilize structure (52), although the enclitic test is unavailable for independent reasons (section 4.4).
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(51) adjunction of one clitic to the other

```
XP
/ \ 
X 
/ \ 
cl2 X
/ \ 
cl1 cl2
```

me/glue/se/ce lo/ne
mi ci
cl si

(52) a. adjunction to distinct functional heads

```
XP
/ \ 
X 
/ \ YP
/ \ 
cl1 X
/ \ 
mi/ti/ci/vi/gli/le Y
/ \ 
cl2 Y
```

cl si

b. adjunction to three distinct functional heads

```
XP
/ \ 
X 
/ \ YP
/ \ 
cl1 X
/ \ Y le
/ \ ZP
cl2 Y
/ \ ci
```

Z
cl3 Z
cl si

The combination of the two possibilities in (51) and (52), hypothesized but not made explicit by Kayne (1994:21), is found in other sequences containing three clitics (or more). In (52), the material adjoined to the higher functional head or the material
adjoined to the lower functional head can be itself a clitic cluster. In *Me lo / Glielo si dice spesso* ‘to-me it / to-him it IMP says often’, the cluster *me lo / glielo* is adjoined to the higher functional head as in (51), while impersonal *si* is adjoined to the lower one (the cluster in *Quando ce le si è comprate, ... ‘when to-REFL them IMP has bought’, from Cinque 1995:195, see note 13, is of the same type). In *Mi / Gli ce ne vorranno due* ‘to-me/him there of-them will-want two’ (= I / He will need two of them), it is the reverse: *mi / gli* is adjoined to the higher head, while the cluster *ce ne* is adjoined to the lower functional head as in (51). An anonymous reviewer suggests the following example of a sequence of more than three clitics: *Mi ci se ne mette molti* ‘to-me there IMP of-them puts many’: Here, *mi ci* forms a unit that adjoins to the higher head, while *se ne* adjoins to the lower head.

In the next section, we discuss why only structure (51) gives rise to enclitic clusters.

5.2. **Proclisis vs. enclisis**

Following many previous proposals (Kayne 1991, 1994, Belletti 1993, 1999, Rizzi 2000), I assume that enclisis arises via verb movement across the clitic (cluster), specifically via adjunction of the verb to the clitic (cluster). In structure (51), the verb adjoins to the C11 inside the cluster, and enclisis is produced, as in (53):

(53)

```
XP
  /  \
 X  /  \  
  /  X  \  
  / \  cl2 X  \  
  /  \  ...  
  / \  cl1 cl2  
  / \  VP  
  /  ci   
V  cl1  
  /  mi  
  metter
```

In structure (52) there is no way for the verb to attach to the clitic pronouns. If it adjoins to the clitic in the higher head, it skips the lower clitic. If it adjoins to the lower clitic, it should move further pied-piping the clitic, but this is only possible in languages where
the higher pronoun is not clitic but weak (for Greek and some Spanish varieties see Ordóñez 2002:216-223).\textsuperscript{16}

The structure in (53) allows us to understand Benincà and Cinque’s (1993:2325) claim that Italian has ‘one word’ encliticization. Among other properties, their proposal relies on the observation that the verb and the enclitic(s) are written as one single word (for orthographic conventions, see also section 5.5). This claim is to be interpreted in structural terms: in order for enclisis to be possible, the verb must adjoin to a cluster that is formed via structure (51). The verb and the clitic pronoun(s) end up being dominated by one and the same head, as shown in (53).

Benincà and Cinque’s (1993) claim cannot be interpreted in phonological terms, however. The sequence ‘verb + enclitic pronoun(s)’ is not a single phonological word. Phonological processes that apply word-externally do not apply in enclitic clusters. The process of s-sonorization, for instance, which is found word-externally in intervocalic contexts (as in ca[\textipa{\textipa{z}]a ‘house’), does not take place between the verb and an enclitic pronoun: *mettendo[\textipa{\textipa{z}]}i ‘put.GER REFL’. The verb and the enclitic(s) are different phonological words. In Selkirk’s (1995) terminology, (en)clitic pronouns are neither ‘internal clitics’ nor ‘affixal clitics’, but ‘free clitics’, which are adjoined to the same Phonological Phrase as the verb (see Cardinaletti and Repetti 2007 for subject enclitics).\textsuperscript{17}

5.3. Vowel change

Vowel change can be captured via the lowering rule in (54) (Cinque 1995:194):\textsuperscript{18}

\textsuperscript{16} Differently from Greek and Spanish varieties, Italian does not display different ordering possibilities for one and the same combination of clitics.

\textsuperscript{17} S-sonorization does not apply in proclisis either: Lo [s]o / *[\textipa{\textipa{z}}]o ‘[I] it know’.

\textsuperscript{18} Vowel change is not some sort of vowel harmony. It applies in front of all 3rd person clitics, which display low (me la), middle (me lo, me le) and high vowels (me li).

Desouvre (2005:63) differs from the standard analysis in considering me in e.g. (23b) to be the same as the strong pronoun me. A number of considerations speak against this analysis. First, a strong DO pronoun never occurs between the subject and the verb, (ia) and (iiia). Second, vowel change is also possible with 1pl ci and 2pl vi, whose strong counterparts are noi and voi, not ce and ve, (iiib) vs. (iiic):
(54) $[\lambda \ldots i] \rightarrow [\lambda \ldots e]/[\underline{\text{nasal or liquid}}]$, where A is a clitic.

Since it does not apply whenever the phonological context is found, vowel change is not a purely phonological rule. For instance, it does not apply between a clitic pronoun and the verb, as in (55), or between a clitic determiner and the noun, as in (56) (Kaisse 1985).\(^{19}\)

(55) Mi / *Me lava / nuoce.
[he] me washes / harms

(56) i / *e laghi / nidi
the lakes / nests

Vowel change is a morphophonological process that only applies cluster internally. As we have seen, it applies inside a particular type of clitic sequences, namely (some of) those corresponding to structure (51), where the two clitics are dominated by one and the same head. The rule in (54) can be made more precise as follows:

---

(i) a. *Gianni me vede.       b. Gianni vede me.
    Gianni me sees           Gianni sees me

    Gianni us sees           Gianni sees us           Gianni sees us

Desouvrey (2005:78, n.30) notes the potential problem raised by *glielo, where [e] is found which is not present in the corresponding strong from lui, but suggests that this “is due to the phonological harmonization of the third person cluster with clusters including first and second person pronouns”. The more traditional analysis in terms of /i/ to [e] change does not need to make any of these controversial assumptions.

\(^{19}\) In many Italian dialects, both in the North and in the Center / South, clitic pronouns display final –e (Rohlfs 1968:151ff), and the starred form in (55) is possible.
(57) \([\lambda \ldots i] \rightarrow [\lambda \ldots e] / \_\_\_\_ [coronal sonorant]\), where A is a clitic pronoun in structure (51).

Things are however more complex in clusters composed of three clitics. As noted by Kayne (2000:154, n. 10), some speakers allow vowel change also on the clitic that is not immediately followed by a clitic beginning with a coronal sonorant. See his example \textit{Me ce ne vorranno due} ‘to-me there of-them will-want two’ (= I will need two of them) and (58). For some speakers, the same holds for enclitics, as shown in (59):\(^{20}\)

(58) a. Me se ne sono presentate due.
   to-me \textit{refl} of-them have introduced two
   ‘Two of them introduced themselves to me.’
   b. A Mario, lo zucchero, nel caffè, non glie ce l’ho messo.
   ‘to Mario, the sugar, in-the coffee, [I] not to-him there it have put

(59) a. Hanno deciso di presentarmesene due.
   have decided to introduce to-me \textit{refl} of-them two
   b. Ho deciso di non metterglielo.
   [I] have decided to not put to-him there it

The rule in (54) cannot however be simplified as in (60) because the same speakers do not accept vowel change in Type 2 clusters, e.g. \textit{*Me ci metterà} ‘[he] me there will-put’, \textit{*Ha deciso di mettermeci} ‘[he] has decided to put me there’:\(^{21}\)

(60) \([\lambda \ldots i] \rightarrow [\lambda \ldots e] \) where A is a clitic pronoun in structure (51).

A different analysis thus seems to be necessary, which does not make reference to the phonological environment, but still captures the correlation observed in (50) above.

\(^{20}\) The enclitic clusters in (59) must have a representation similar to (51), in which the three clitics are dominated by one and the same head.

\(^{21}\) In the varieties mentioned in note 19, such as the Central variety I speak, both clitics would end in –\textit{e}:
\textit{Me ce metterà, Ha deciso de mette(r)mecce}. 
Notice that Type 1 clusters display the same vowel that is found in the combinations of preposition and determiner such as $in + il > nel$ ‘in the’ or $di + il > del$ ‘of the’, where the linking vowel is [e] and not the epenthetic vowel [i] that appears in clitic pronouns ($mi$, $ti$, etc.), prepositions ($in$, $di$), and determiners ($il$) when they occur in isolation (for epenthesis, see Vanelli 1992, Repetti 2003, Cardinaletti and Repetti 2007, and the references cited there). As we will see below, the syntactic properties of this type of cluster seem to suggest that they are merged as lexical units. This proposal accounts for another property that Type 1 clusters share with single phonological words, namely vowel lengthening (Cardinaletti and Ferrari, in preparation). Clusters like $me$ lo, glielo, etc. are pronounced with a long vowel: [meːlo], [ʎeːlo], etc. We conclude that some clusters are phonological words, and that [e] appears instead of [i] only in this type of clusters. These units consist of a consonantal clitic ($m-$, $t-$, $s-$, $c-$, $v-$, $gl-$, see Kayne 2000:135, Cardinaletti and Shlonsky 2004:534), the linking vowel [e], and the accusative (lo) or partitive/genitive (ne) clitic.

The absence of s-sonorization in cluster $ci$ si (*metterci[z]i ‘[to] put there refl’) confirms that although Type 2 clusters form a constituent in structure (53), they are not phonological words, hence they do not display vowel change (the same holds for proclisis: $Ci$ [s]i / *[z]i va ‘there IMP goes’).  

5.4. On the replacement of le by gli

The above proposals also provide a way to understanding why le is replaced by gli when it combines with accusative and partitive/genitive clitics, as in (14) above. This replacement does not occur when le combines with other clitics, such as locative $ci$, reflexive $si$, and impersonal $si$, as shown in (61):

(61)  a. Le ci vuole un’ora per prepararsi. (see (38a))
     to-her LOC takes an hour to prepare-refl

Rohlfs (1968:168, n.1) makes the interesting observation that vowel change only obtains with clitics that derive from vowel-initial pronouns (ILLU > lo, INDE > ne) and had to have an initial –e in the earliest stages of Italian. In Old Italian, vowel change was not obligatory, but it is by far the most frequent form found in enclisis (Cardinaletti 2004b), where the two clitics and the verb form a constituent as in Modern Italian.
b. Gianni le si è rivolto in inglese.  (= (35a))
   [he]to-her REFL has addressed in English

c. Le si affidò completamente.
   [he] to-her REFL entrusted completely

d. Non le si parlò con la dovuta attenzione.  (= (39a))
   to-her IMP spoke with the due attention

e. Le si è vendute bene.  (= (45a))
   them IMP has sold well

The comparison between (14) and (61) suggests that in proclisis, the replacement of le by gli only occurs in clusters that are inserted as single words. In (61), le and si instead occur as separate constituents, as shown by the fact that the clusters are impossible in enclisis (see (41b,e,g) and (48b); as expected, s-sonorization does not apply: le *[z]i, see section 5.3. Suppose that like 3rd person accusative clitics, le is bi-morphemic (l+e). Differently from word-final –i in gli and other clitics, –e in le cannot be deleted in front of vowel-initial verbs and auxiliaries: cf. Le / *L’apri la porta ‘[he] to-her opened the door’, Le / *L’ha aperto la porta ‘[he] to-her has opened the door’ vs. Gli / Gl’apri la porta, Gli / Gl’ha aperto la porta (an observation due to Franca Ferrari, p.c.). Thus, differently from –i, –e is not an epenthetic vowel, but, I suggest, a class marker. If this is correct, le is morphologically too complex to be the first element in single word clusters, which contain mono-morphemic consonantal clitics (see section 5.3). Le is replaced by the other Italian clitic pronoun that is marked as dative, namely gli.23

In enclisis, le is replaced by gli in one more case, namely when the combination le ci is ungrammatical (38b): A Maria vorrei mettergli un po’ di latte (see (32b)). The constraint on le is thus more general. Morphologically complex clitics cannot be the first constituent in clusters that are dominated by one and the same head (whether they are single words or not). These must contain mono-morphemic consonantal clitics.24

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23. In Italian, –e appears in the nominal declension that does not display gender distinctions (e.g. felice ‘happy.sg’ vs. felici ‘happy.pl.’) (see Harris 1995 for class marker –e in Spanish pronouns). This morpheme is probably also found on strong pronouns me and te (whose final –e according to Kayne 2000:131, 145 has the property ‘singular’).

24. Spanish 3rd person IO clitics le/les ‘to-him/her/them’ are also morphologically complex. The ungrammaticality of *le(s) lo in (11) can be attributed to the same constraint that prevents Italian *le lo,
Interestingly, the replacement of le by gli does not occur when le is not adjacent to the clitic with which it usually forms a unit, as in *A Maria, di zucchero, nel caffè, le ce ne metto / le se ne mette sempre troppo ‘to Mary, of sugar, in-the coffee, [I] to-her there of-it put / to-her IMP of-it puts too much’, and *A Maria, di questo, le se ne è parlato spesso ‘to Mary, of this, to-her IMP of-it has spoken often’. In these cases, le and ce ne / se ne occur in independent heads in structure (52), and no morphological restriction applies.

Notice that final –e in ne has properties similar to –e in dative le: Ne / *N’ammazzò molti ‘[he] of-them killed many’. In both ungrammatical clusters *lo ne / *ne lo ‘it of-it/them’, the linearly first clitic is morphologically too complex to enter the cluster.  

5.5. An aside on orthographic conventions

Since the analyses that differentiate me lo from glielo (see section 3 above) utilize the observation that glielo is written as one word, while all other combinations of clitics are not (me lo, te lo, etc.), it is worth spending a few words about orthography.

I take the implications concerning orthography to go one way only. If two elements are written as one word, they must be considered as a single constituent. If two elements are not written together, they may be one constituent or different constituents. For sequences of Italian clitic pronouns, this means that enclitic clusters, which are written one word with the verb, necessarily arise by structure (51), as shown in (53), while proclitic sequences may be one constituent in structure (51) (e.g. me lo) or distinct constituents in structure (52) (e.g. mi si).

The different orthography of (proclitic) me lo and glielo (two orthographic words vs one, respectively) does not point to a different syntactic and morphophonological behaviour. As I have shown in section 4.1, the two sequences behave in the same way as far as syntax and morphophonology are concerned. It is also interesting to note that

*le ne in (14) and enclitic le ci in (38b). Spurious se is not complex: final –e is presumably an epenthetic vowel like Italian –i, and does not combine with plural –s (*ses lo, Harris and Halle 2005:204).

25. A phonological clue allows Italian speakers to individuate consonantal clitics and morphologically complex clitics: the former consist of sounds different from the coronal sonorant sound that characterizes the latter (Cardinaletti 2004a).
Italo Calvino used to write glielo as two orthographic words: *Il fucile glie l’avevo procurato io* ‘the gun to-him it had got I’ (II barone rampante, Mondadori, 1993). The question is not why glielo is written one word, but rather why the other sequences that behave like glielo are not written in the same way: i.e., *melo, telo*, etc.

Finally a note on the spelling of glielo is in order. Differently from e.g. the *mi* vs. *me lo* case, it seems that in glielo, [i] is not replaced by [e], but [e] seems to be added to [i]. This is illusory, however. Vowel change occurs as in the other Type 1 clusters. The <i> is needed to graphically represent the palatal sound [ʎ]: [ʎe:l0]. If <i> were not present, the sequence would represent the consonantal cluster [gl] as in [gle:ba] ‘glebe’.26

5.6. **On person and number feature checking**

In section 3, we have seen that a proposal based on the case properties of clitics, which seems adequate for French, runs into problems in a comparative perspective. If case were the only property that regulates the order inside clitic clusters, some Italian clusters should be impossible, contrary to fact. The discussion of the different types of clusters confirms this conclusion. In Type 1 and Type 2 clusters, either a DO or an IO person clitic can appear first when the linearly second clitic in the cluster is a genitive or locative pronoun, respectively, (29a-c, f) and (34a-e). In Type 3 clusters, either a DO or an IO clitic can appear first when the linearly second clitic in the cluster is a reflexive pronoun, (41a,c). It thus seems that other properties matter for the construction of clusters.

Kayne (2000) suggests that clitic pronouns can be distinguished into the two classes of person and non-person clitics: the former contains 1st and 2nd person clitics and *si*, while the latter contains 3rd person clitics. There is a long debate as to whether 3rd person pronouns are also marked for person or not. For instance, Bianchi (2006a) and Nevins (2007) have recently argued that they do. Adger and Harbour (2007) and Anagnostopoulou (2005:211) instead take 3rd person IO clitics to be marked with a person feature albeit negative [-person], while 3rd person DOs lack a person feature altogether. I share this view and suggest the following classification for Italian:

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26. It is thus not true that “ie is spelled as e”, as Desouvre (2005:78, n.30) claims.
3rd person accusative clitics and partitive/genitive ne are not taken to contain any person feature. They are marked for the ϕ-features number and gender only (and share the property of triggering past participle number agreement obligatorily, see note 28; Belletti 2006, Cardinaletti and Giusti 2006:77).

As pointed out by Kayne (2000:140), lack of number (and gender) distinctions is typical of person clitics. I hypothesize that person and number are mutually exclusive features (Harley and Ritter 2002, McGinnis 2005). Since Benveniste (1966), it is common to observe that 1pl is not semantically the plural of 1sg, nor is 2pl the plural of 2sg. Reflexive si never displays number distinctions (Kayne 2000:145f), and the same is true of impersonal si and locative ci. Since Italian gli and le do not have a plural clitic counterpart (3pl dative loro is not a clitic pronoun, note 5), they are not marked [singular] and can be analysed as person clitics. Furthermore, in (colloquial) Italian and many Italian dialects gli does not express any number (and gender) distinctions: a sentence like Gianni gli dà un libro can mean ‘Gianni to-him/her/them gives a book’. The same is true of le in other varieties.\textsuperscript{27}

The above classification holds for both the pronominal and reflexive usage of 1st and 2nd person clitics, which always behave the same and must be considered as one and the same lexical item (see note 9). Since according to the classification in (8a), 3rd person IO clitics (e.g. Italian gli and le) are case-marked clitics (dative), person and case features do not exclude each other. Nor do number and case in non-person clitics.

As suggested by Bianchi (2006a:2049), person features are encoded in clausal head positions, and clitic pronouns move to check their person features against these heads. She formulates a Person licensing requirement: “A personal argument of the verb must license its person feature in the functional structure of the clause” (see also Rezac 2005).

In Bianchi’s (2006a:2059) analysis, the objects licensing area is located between VP and TP (while the subjects licensing area is between FINP and TP). I suggest instead that both areas result from splitting the INFL projection, which is traditionally taken to

\textsuperscript{27} By contrasting with 3pl clitic leur, French lui is marked [singular] and cannot be a person clitic. The same can be said of Spanish singular IO le vs. plural IO les. As expected, feature specification can be different in different languages. This is also true of French locative y, which differently from Italian ci, is not a Person clitic.
host clitic pronouns. As shown by Northern Italian dialects which have both subject and object clitics, subject clitic heads are higher than object clitic heads.

Since non-person clitics do not contain person features, but still appear in the high clitic field together with person clitics, they must adjoin to head position(s) different from the person heads. Since non-person clitics express number distinctions, I take the head to which they cliticize to be a Number head. See Shlonsky (1989), Taraldsen (1995), Sigurðsson (2004), Bianchi (2006b) among others for the proposal that person and number features are encoded in separate functional heads.

A reasonable hypothesis is that the heads against which clitic pronouns check person and number features are criterial in the sense of Rizzi (2006). If criterial heads have freezing effects (ibid.), we also understand why clitic movement is not long distance.

In section 6 we will see how person and number heads are hierarchically organised and how this hierarchy accounts for some aspects of the word order inside clusters.28

5.7. Clitic climbing and two clitic positions inside the clause

In restructuring contexts, the high clitic position discussed so far is targeted in clitic climbing. Following Cinque (2004), restructuring implies a monoclausal structure where the higher verb (a modal, aspectual, causative, perception, or motion verb) is

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28. Non-person / Number clitics also express gender distinctions. Number features are encoded differently from gender features: While the former are part of the syntactic (functional) structure associated with the (lexical) noun, the latter are part of the lexical entry of the noun (Ritter 1991, 1993, 1995; De Vincenzi and Di Domenico 1999). This proposal has consequences for other categories: only number features are part of the syntactic (functional) structure associated with past participles and pronouns, while gender is parasitic on number (Di Domenico 1997:131f). Cardinaletti and Chinellato (2005) suggest the following restrictive theory of number, with the consequence that past participle agreement is number agreement only: Masculine singular: no number features (default -o as morphological epenthesis – Ferrari 2005, Cardinaletti and Repetti 2007; or as a word marker – Kayne 2000:140); Feminine singular: [-number] / parasitic gender features (-a) (Chinellato 2004); Masculine plural: [+number] (-i); Feminine plural: [+number] / parasitic gender features (-e).

Since person clitics are not specified for number, past participle agreement must be so-called semantic agreement. It differs from number agreement in that it is optional (see note 11 and 12); notice that lack of agreement is the preferred option for many speakers.
merged in a functional head associated with the infinitival lexical verb. Clitic climbing is thus only apparently long distance: it takes place inside one and the same clause. The question naturally arises as to where clitics occur when clitic climbing does not apply. Sentences like (63a) show that it is necessary to posit a low clitic position, different from the high clitic position usually identified with INFL and discussed in the previous section (Cardinaletti and Shlonsky 2004). Auxiliary switch, an hallmark of restructuring, applies not only when clitic climbing has applied, as in (63b), but also when the clitic appears on the infinitive, (63a) (Rizzi 1976:48, n.18, Cinque 2004).

(63) a. Sarei voluto andarci.
   [I] would-be wanted [to] go-there
b. Ci sarei voluto andare.

The low clitic position is located in the lexical domain (see also Manzini and Savoia 2005). Since person and number heads, like the other criterial heads discussed by Rizzi (2006), only occur in the high portion of the clause, clitics must move to the low clitic position to check other features. Following many previous works (Laenzlinger 1993, Belletti 1993, 1999, Cardinaletti and Starke 1999, among others), I suggest that the first step of clitic movement is motivated by case checking.

This proposal finds some support from Bantu data. Differently from Romance proclitics, which appear higher than tense-inflected verbs, Bantu object clitics follow tense markers. As in Romance, Bantu tense markers can be taken to occur in INFL (Barrett-Keach 1986, Krifka 1995:1412-4). It is tempting to hypothesize that Bantu object clitics occur structurally lower than their Italian proclitic counterparts. Whether their position is the same as the Italian low clitic position or not needs further research that I am not able to address here. As in Italian, however, this position must be located somewhere above the VP, above some of the aspectual heads associated with the lexical verb (Cinque 2004:178, n.47) and iterated for some of these heads (quasi-functional restructuring verbs, Cardinaletti and Shlonsky 2004). As shown by the following

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29. In non-restructuring cases like Avrei voluto [esser già andato] ‘I would-have liked be-there already gone’, ci occurs in the high clitic position of the embedded clause.

30. See Cocchi (2000a:101) and (2003:11) for the different view that in Bantu, tense and aspect markers lexicalize C.
Kinyarwanda example from Dryer (1983:130), the verb that follows the two object clitics is inflected for aspect and has presumably raised to some functional head above VP: 31

(64) Yohañi y-a-yi-mw-opher-er-eje.
   John he-PAST-it-her-send-BEN-ASP
   ‘John sent it to her.’

Differently from Italian, where clitics can appear both in the high and the low clitic position, Bantu clitic pronouns occupy the low clitic position where person features are not checked and clusters are generally not sensitive to person features (see (5) and (6) above). 32

In Italian, the low clitic position only hosts enclitics. The clusters that can appear in the low clitic position are the same that appear in enclisis in the high clitic position (what we have called Type 1 and Type 2 in section 4).

5.8. On the clitic (cluster) derivation

Restructuring contexts make a relationship between the high and the low clitic positions visible. In other words, clitics undergo a two step derivation: they move from their

31. An anonymous reviewer suggests that two clitic positions should be hypothesized for Bantu as well. Object clitics can also be postverbal, as shown by the following Tshiluba example for the DO clitic tshio: n-aka-mu-pa-tshio ‘1.SU-T.1.IO-give-13.DO’ (‘I have given it to him’) (from Willems 1949, pointed out by the reviewer). An account of Bantu in terms of more than one clitic field (in the framework of Manzini and Savoia 2001, 2005) is indeed proposed by Cocchi (2000a,b), (2003). Notice that the postverbal DO clitic (tshio) differs from the preverbal one: tshi (see (5c)). This difference could be used to argue for a different status of the pronoun in the two positions: preverbal tshi is a true clitic, while postverbal tshio is a weak or strong pronoun (for weak pronouns in Swahili and the contrast between clitic wa, weak o and tonic wao ‘they’, see Cocchi 2003:3-4). If this is correct, the analysis proposed in the text can be kept as it is.

32. Some cases where they are are discussed in Cocchi (2000a:114, n.29) and Hyman and Duranti (1982:231ff).
argument positions to the low clitic position to check case and in so doing reverse the order of the full arguments they pronominalize (Laenzling 1993:264f). As we will see, this effect is very clear in Bantu and masked in Italian Type 1 clusters. From the low position, pronouns move to the clausal clitic position to check person or number features.

In Italian, the low clitic position only hosts enclitics. In order to get enclisis, clitic clusters must form a constituent so that the infinitive verb can adjoin to it, as in structure (53). As we have seen for the high clitic position, there are two types of clusters that do so: those with vowel change (Type 1), which are inserted as single words in the lexicon (section 5.3), and those without vowel change (Type 2), which arises by adjunction of one clitic to the other inside one and the same head. If clitics have formed a constituent in the low clitic position, they move as a unit to the clausal clitic position, where they can appear both in proclisis and in enclisis (depending on whether the verb is finite, imperative, or infinitival, see (23) and note 8). If the clitics have not formed a constituent, they move independently to the high clitic position and end up in distinct (person and number) heads in configuration (52). In this case, only proclisis is possible, and enclisis is disallowed.

Notice that if in restructuring contexts, no overt climbing takes place and clitic pronouns are spelled out in the low clitic position, they can be taken to covertly raise to check their person and number features in the high person field. In what follows we see how the proposed system derives the different types of clitic clusters individuated above.

6. **On the derivation of the different types of clusters**

6.1. **Type 1 clusters with IO – DO clitics**

As we have proposed in section 5.3, Type 1 clusters in (29a-c), which display the IO – DO order, are merged as lexical units. I suggest that this order is not due to the order of merging, but is lexically determined. Evidence from French (2b) and Bantu (5), where no such lexical units as in Italian exist, suggest that DO > IO is the merging order of object clitics. The French cluster *le lui*, in which neither pronoun has a person specification, reflects the merging order in a pure way (see note 27). The order inside

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33. For a similar proposal framed in his theory of silent clitics, see Kayne (2006:7).
the clitic cluster is the opposite of the argument order, which is IO > DO (see Anagnostopoulou 2005:211, Bianchi 2006a:2037, among many others). The argument that is closer to the functional head (IO) is attracted first, while the DO is moved second and adjoined to IO in structure (51). This is also very clear in Bantu, where clitic pronouns occupy the low clitic position where person features are not checked and clusters are generally not sensitive to person features (see (5) and (6) above). In Bantu, the order of arguments is IO > DO, as in (65) (Xhosa, Bearth 2003:127), and is reversed in clusters, which display DO > IO (Dryer 1983:132, Bresnan and Moshi 1990, Krifka 1995:1407, Bearth 2003:126f, among others):

(65) Ndi-n ıkà ńmfàzi ńmmtwáná. IO – DO

   I-am-giving woman child
   ‘I am giving a child to the woman.’

The difference between Italian and Haya in (4) and (5a), repeated here as (66), is particularly telling. Since the two languages manifest both word orders in the case of full XPs, as shown in (67), the difference in (66) is surprising:

(66) a. Gliele darà. IO – DO

   *Le gli darà.

   c. A-ka-bi-mú-h-a. DO – IO

      he-P3-them-him-give

(67) a. Darà banane al bambino. DO – IO

      he.will.give bananas to-the child

   b. Darà al bambino banane. IO – DO


      he-P3-give bananas.child
      He gave bananas to the child.’

   d. A-ka-h’ ómwáán’ íbitooke. IO – DO (Hyman & Duranti 1982:218)

      ‘He gave the child bananas.’

Notice that the order manifested by Bantu clitic pronouns (DO – IO) is more frequent in OV languages (like Latin or German), but Bantu languages are VO (Bearth 2003, Kinyalolo 2003:345, and the references quoted there).
I conclude that as clearly shown in Bantu, DO > IO corresponds to the merging order of clitic pronouns. No further requirement is operative in Bantu since object clitics do not reach the high clitic position.\textsuperscript{34} The particular order seen in Italian Type 1 clusters (IO – DO) complies with the person field in the high portion of the clause, where the cluster checks person and number features in the order in (68). A clitic cluster like me lo first checks the number feature of lo against the Number head, and then further moves to check the person feature of mi against the 1st person head; a similar derivation holds of clusters containing 2nd (te lo, ve lo) and 3rd person clitics (glielo) against the relevant person heads, (68a). Since ci is possible both as a 1pl and a locative clitic (see n. 9), it is probably not positively marked with a person feature. Suppose that it targets a –Person head, as in (68b) (for the observation that 1pl and locative ci target the same position, see also Bianchi 2006a:2039, n.34).\textsuperscript{35}

\begin{itemize}
\item[(68) a.] +Person
\begin{itemize}
\item 1st / 2nd / 3rd
\item me lo / te lo / glielo
\item ve lo
\end{itemize}
\begin{itemize}
\item +Number
\item me lo / te lo / glielo
\item ve lo
\end{itemize}
\item b. –Person
\begin{itemize}
\item ce lo
\end{itemize}
\begin{itemize}
\item +Number
\item ce lo
\end{itemize}
\end{itemize}

In the high clitic position, these clusters are also possibile in enclisis. Since they involve one and the same functional head, the verb can adjoin to them providing enclisis.

The data concerning mi ti combinations seen in section 3.2 confirm this approach to the order inside clitic clusters. Mi ti sequences are possible in enclisis when they display

\textsuperscript{34} In Bantu, subject clitics precede the tense marker, (5), and must occupy the high clitic position(s). Subject clitics are not found in the low clitic position (Cardinaletti and Shlonsky 2004). For verb movement across a subject clitic, as in ba-ntu b-aka-tuma-ye ’cl.2-men 2.rel-T/A-send-1.su’ (= The men that he has sent), see Cocchi (2003:10).

\textsuperscript{35} 1pl ci and 2pl vi are taken to derive from locative pronouns (Rohlfs 1968:158f, 161, Calabrese 1995). Since only locative ci is productive today (see note 10), it is reasonable to differentiate them synchronically as in (68a) vs. (68b) (see also Kayne 2000:154, n.21).
the order DO – IO, i.e. the order of adjunction of the two clitics to the low clitic position. The two clitics occur in one and the same head, and enclisis is possible. The order inside the constituent complies with the person hierarchy in the high clitic position where the 1st person head is higher than the 2nd person head (see (68)). The IO – DO \( mi – ti \) sequences only found in proclisis instead require a change in the order of clitics that is not motivated in the low clitic position, but can arise in the high clitic position via the need of person feature checking: the IO \( mi \) ends up before the DO \( ti \) because in Italian, the 1st person head is higher than the 2nd person head (see (68)). The two clitics occur in different, adjacent heads, and are not possible in enclisis in the high clitic position either.

### 6.2. Type 1 and Type 2 clusters with locative \( ci \)

Type 1 and Type 2 clusters containing locative \( ci \) are both possible in the low enclitic position, but the order is different: LOC > DO in \( ce \ lo \), DO > LOC in \( mi/ ti/ vi \ ci \) (see (1), (29e), (34a,b)). I take the two clusters to be minimally different: one must be the order in which the two clitics are merged to check their case features, the other must be derived in some minimally different way.

Evidence from French \( les \ y \) in (9a) indicates that the order of adjunction is DO > LOC, which reverses the argument order LOC > DO. I take the cluster \( mi/ ti/ vi \ ci \) to be the one formed in the syntax: the argument that is closer to the functional head (LOC) is attracted first, while the DO is moved second and adjoined to LOC. The infinitival verb adjoins to the cluster in configuration (53), and an enclitic cluster is obtained. A similar analysis holds for Type 2 clusters \( mi/ ti/ vi/ gli \ ci \) in (34c-e), where the order of adjunction is IO > LOC, which reverses the argument order LOC > IO. Since they target one single head, these clusters are possible in enclisis, (30b)-(32b).

In the high clitic field, these clusters first target the –Person head to check the feature of \( ci \) (see (68b)), and then move to the +Person head to check the person feature of \( mi \), etc.:

\[
\begin{array}{ccc|cc}
1st & 2nd & 3rd & +Person & \text{–Person} \\
mi & ti & vi & gli & ci & mi & ti & vi & gli & ci
\end{array}
\]
As we have seen for the clusters in (29a-c), Type 1 cluster ce lo is merged as a lexical unit. Being merged in one single head, the cluster is possible in enclisis. If this analysis is correct, the word order inside the cluster is not telling on the order of merging of the two clitic pronouns. But why is it ce lo instead of lo ci? The cluster-internal order reflects the order of person and number heads in the high portion of the clause. The cluster first checks the number feature of lo and then targets the -Person head to check the feature of ci, as in (70) (see (68b)):  

\[(70) \quad \text{–Person} \quad ce \ lo \quad +\text{Number} \quad ce \ lo\]

The fact that in Tshiluba, a locative clitic precedes a DO clitic (muana u-mu-tshi-di-a ‘boy 1.SU-18.LOC-7.DO-eat-I’ = The boy eats it there), apparently reversing the argument order DO > LOC (muana u-di-a tshimuma mu nzubu ‘boy 1.SU-eat-I fruit in house’ = The boy eats fruit at home) (Cocchi 2000b:50) seems to be problematic for my proposal. Bantu locatives however behave similarly to objects with respect to many phenomena (Bresnan and Moshi 1990, Cocchi 2000b:44, and references cited there), and in some Bantu languages, locative arguments come in the order LOC > (IO >) DO (Umwáana y-a-taa-yé-mo amáazzi igitabo ‘child he-PAST-throw-ASP-in water book’ = The child has thrown the book into the water, Kinyarwanda, Kimenyi 1976, quoted in Dryer 1983:134). This could be an intermediate step in Tshiluba cliticization, and the order displayed by Tshiluba clitic clusters is indeed compatible with my proposal above.

6.3. Another Type 2 cluster with locative ci

As for the Type 2 cluster ci_{LOC} si_{REFL/DO} cluster in (34f), the two clitics adjoin to the low clitic position starting from the following order of arguments: reflexive si – locative argument ci. That reflexive si is higher than the locative argument is compatible with Manzini and Savoia’s (2001:237) proposal according to which reflexive si is linked to the external argument position (and makes the clause become unaccusative, Kayne 2000:144). The cluster moves to the clausal position to check the features of reflexive si

36. Like lui, French y is not a person clitic (see note 27) and needs not to occur as high in the clitic cluster as its Italian counterpart (see (9a) above).
On different types of clitic clusters

against an unspecified person head (Grimshaw 1997) or 0-person head (Kayne 1993:16) and then targets the –Person head seen in (68)-(70) above:

(71)    –Person
       \( ci_{LOC} si_{REFL} \) \( 0_{Person} \)
       \( ci_{LOC} si_{REFL} \)

6.4. Clusters with impersonal \( si \)

Consider now those clusters that cannot occur in enclitic position. One type contains [-argumental] impersonal \( si \), which gives rise to what we have called Type 4 and Type 5 clitic clusters. In Cinque’s (1988) proposal, [-argumental] \( si \) is merged in INFL and provides INFL with the relevant features to get an impersonal reading. Translating this into our proposal, [-argumental] \( si \) is merged in one of the positions of the high clitic field. If this is true, it follows that [-argumental] \( si \) never gives rise to enclitic clusters in the low clitic position (see also Cinque 2004:176, n.42). This is the simplest case to explain away.

Impersonal \( si \) gives rise to proclitic clusters like \( lo \ si \), discussed in (13) and (45) above (see (48b)). It must target a position that is lower than the Number projection which hosts 3rd person accusative clitics, presumably the same position as reflexive \( si \) in (71):

(72)    +Number     0_{Person}
       \( lo \) \( si_{IMP} \)

If impersonal \( si \) targets such a low position in the string of clitic heads, it is expected that it follows all person clitics (both +Person and –Person): see \( mi / ti / vi \ si_{IMP} \) in (48a) and \( ci_{REFL} si_{IMP} \) in (48c,d). I suggest that the same position is targeted by [+argumental] impersonal \( si \). We expect that it also follows person clitics: see \( mi / ti / ci / vi / gli / le_{IO} si_{IMP} \) in (41f,g) and \( ci_{LOC} si_{IMP} \) in (41h):

(73)    +Person   –Person   +Number   0_{Person}
       1st / 2nd / 3rd
       \( mi / ti/vi / gli/le \) \( ci \) \( lo \) \( si_{IMP} \)
Differently from [-argumental] *si*, [+argumental] impersonal *si* can occur in the low clitic position by itself but in this position, it does not give rise to clusters like the proclitic ones in (41f-h). It can be suggested that *si* is merged in a position higher than the low clitic position, which, following Cinque (2004: 178, n.47), can be identified with an impersonal Voice higher than personal Voice. It follows that *si* cannot give rise to clusters, unless they are merged as single words, such as *se ne* in (29h). What is the location of partitive/genitive/source *ne*, which follows all clitics (for reflexive and impersonal *si* see (29g,h) and (43))?

French (9) provides evidence that en occupies the lowest position in the clitic string. The same can be said of Italian *ne*. Since *ne* does not express any number and gender distinction, we might suppose that it checks a –Number head, which must be taken to be the lowest in the string of clitic heads. Cluster *se ne* in (29h) moves to the high clitic position to check the number feature of *ne* and the person feature of *si*, in this order (a similar derivation holds for the other clusters containing *ne* in (29)):

(74)      0Person
         *se ne* –Number
             *se ne*

6.5. Type 3 clusters with reflexive *si*

Another set of clusters that cannot occur in enclitic position are Type 3 clusters containing reflexive *si*. What prevents the clusters in (41a-d) to occur in the low clitic position? What is wrong in the clusters (41a, b, d) is the fact that a IO and a LOC precede a DO (reflexive *si* being also linked to the internal argument position, Manzini and Savoia 2001:238). These orders cannot be obtained in the low clitic position. I must admit that (41c) is unexpectedly wrong. The observation is however of some relevance that these clusters are rare and for many speakers they are marginal also in proclisis, as pointed out by the two reviewers. An independent restriction must account for their properties.

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37. Partitive *ne* inherits number (and gender) features from Q and obligatorily triggers past participle number agreement (Cardinaletti and Giusti 2006:68, and note 28).
According to our proposal in 5.2 above, clitics that are not possible in enclitic clusters occur in proclisis in distinct functional heads in configuration (52). Type 3 clusters involve combinations of the person heads seen above, in the order in (75):  

(75)  
\begin{align*} 
+& \text{Person} & -& \text{Person} & 0& \text{Person} \\
1\text{st} / 2\text{nd} / 3\text{rd} & \text{mi} / \text{ti/vi} / \text{gli/le} & \text{ci} & \text{si} 
\end{align*} 

The orders in (41a,c) are obtained if the heads containing 1st and 2nd person pronouns are higher than the one containing reflexive si, which targets the same position as impersonal si. 3rd person IO clitics are also higher than reflexive si (see (41b)). The cases in (41e) and (41d) confirm that 3rd person IO clitics are higher than locative ci (see (69)) and locative ci is higher than reflexive si (see (71)).

A final remark concerns Type 1 cluster se lo in (29d), where IO reflexive si must target a position higher than the Number head where accusative clitics check their number feature. I take it to move to the –Person head which hosts 1pl and locative ci, (68b) and (69)-(71). IO si is similar to IO gli in that it has a Person feature albeit negative (see section 5.6). This might also explain why ci is the form that replaces reflexive si when it combines with impersonal si (see n. 13).

We end up with the following field of functional heads in the high portion of the IP layer, located between the subject position and the position reached by the inflected verb:

(76)  
\begin{align*} 
+& \text{Person} & -& \text{Person} & +& \text{Number} & 0& \text{Person} & -& \text{Number} \\
1\text{st} / 2\text{nd} / 3\text{rd} & \text{mi} / \text{ti/vi} / \text{gli/le} & \text{ci/si}_0 & \text{lo} & \text{si} & \text{ne} 
\end{align*} 

In conclusion, the way in which clitic pronouns adjoin to the functional heads in the high portion of the clause depends on their feature specification, namely person and number features. Whether they end up as a constituent on a single head, as in (51), or adjoin to adjacent heads (two or more, see (52)) depends on their derivational history: the former case arises if they cluster in the low clitic position, the latter when this does not happen and the clitics move independently to the clausal clitic field.

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38. In Spanish varieties, clusters me se also enter structure (52) (Ordóñez 2002:215).
7. On the *mi gli* constraint

In Italian and other Romance languages, a 1st or 2nd person DO clitic cannot cooccur with a 3rd person IO clitic (the *mi gli* constraint or Person Case Constraint, PCC, Bonet 1991), as shown in (77a) for Italian. Data are however different in other languages, such as Old Italian and Bantu, as shown in (77b) and (78), respectively:

(77) a. *Ti gli / *Gli ti sei data.
   b. e di come gli ti se’ tutta data ...
      (Dante, Fiore; 173,2)
      and say how [you] to-him yourself are all given
      ‘and say how you gave yourself all to him’

(78) A-ka-mu-ku-léét-el-a.                    (Haya; Hyman & Duranti 1982:231)
       he-P3-him-you-bring-app
       ‘He brought you to him’

Several syntactic analyses have recently been given for the ungrammaticality of (77a) in languages like Italian (Anagnostopoulou 2005, Rezac 2005, Bianchi 2006a, Nevins 2007).

On the basis of the assumption that the verb itself contains the φ-features person and number to check and IOs are always specified for person, Anagnostopoulou (2005) suggests that the person feature on the verbal head is checked by the IO; the DO clitic could only check the number feature on the verbal head, but it does not match it since it contains a person feature. Hence the ungrammaticality of the sequence.

We cannot adopt this analysis. No violation surprisingly arises in Italian with reflexive *sì, a pronoun specified for [+person] under Anagnostopoulou’s (2005:211) assumptions: see *Mi / Gli si è rivolto in inglese in (35a) above. These sequences should be ungrammatical as they are in French (*Elle se lui est donnée entièrement ‘she refl to-him is given entirely’, quoted in Anagnostopoulou 2005:204), but they are not. A different approach should therefore be assumed that takes into account the order of DO and IO inside the cluster. Notice that in Old Italian and Bantu, the 3rd person IO clitic precedes the 1st or 2nd person DO clitic. Also in the possible Italian cluster *gli si, the 3rd person IO clitic comes first (differently from French).39

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39. As for (78), remember that Haya allows IO > DO alongside DO > IO (see (5a), (6a) and (10)). A reviewer finds a contrast between *ti gli and ??gli ti, which recalls the order in (77b). That the clitic order
The data cannot be understood adopting Bianchi’s (2006a) account of the *mi gli* constraint either. Under the hypothesis that IOs are merged higher than DOs, Bianchi takes a 1st or 2nd person DO clitic moved higher than a 3rd person IO one, as in *mi gli*, to give rise to a nested paths configuration. According to her assumptions, nested paths are banned. If however the order of merging is DO – IO, as I have proposed in section 6.1, this analysis cannot be adopted either.

This issue will not be pursued further here. Here it suffices to conclude that the picture is complicated by those languages (e.g. Old Italian and Bantu), in which 1st and 2nd person clitics do not need to appear first, i.e., they do not need to check their person feature in the high clitic position.

8. Conclusion

We conclude with a new view of the serialization of clitic pronouns in clitic clusters. Differently from descriptive grammars and templatic approaches (Calabrese 2001, Perlmutter 1971), which usually report the surface serialization of clitic pronouns, I have shown that the superficial orders of clitic pronouns can be partially different from the order of merging (which is LOC > IO > DO in Italian and Bantu), as is shown by some of the clusters possible in the low clitic position. Other requirements sensitive to the feature make-up of clitic pronouns may vary this word order since clitic movement must continue to the high clitic position(s) to check person and number features.

In the high portion of the clause, there can be more than one head adjacent to the other to host clitic pronouns. The high clitic position must be thought of as an articulated clitic field. In proclitic clusters, clitics can appear in these adjacent heads or inside one and the same head. In enclitic clusters, clitics can only be dominated by one and the same head. This is also true of the low clitic position, where only enclisis is found in Italian. More cluster possibilities are thus possible in proclisis than enclisis in this language.

matters for the *mi gli* constraint is confirmed by the milder effect found in Czech, according to Rezac’s (2005: 125) judgment: *Ukážu mu ho??tě zítra ‘[I] show to-him him/you tomorrow’. In Czech, the two clitics occur in the order seen in (77b) and (78). See however Spanish *Ella se le entregó cuerpo y alma ‘she herself to-him gave in body and soul’ (Rivero 2004:498) and Haya *A-ka-ku-mu-léét-el-a ‘he P3-you-him-bring-app’ (Hyman and Duranti 1982:231).
In conclusion, the properties of clitic clusters can illuminate on the order in which arguments are merged in the lower portion of the clause and on the order of functional projections in the higher portion of clause structure.

References


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On different types of clitic clusters

