Contextuality of Clitic Reduplication in La Cassese

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Abstract

In this paper, we examine more than one occurrence of a single clitic, a phenomenon called clitic reduplication, in La Cassese, which is a Piedmont variety spoken in the La Cassa comune in Northern Italy. We show that the availability of clitic reduplication and positions of clitics in this construction are sensitive to syntactic contexts. Specifically, clitic reduplication is only possible when there is more than one verbal element in a single clause (e.g., compound tense), and in the presence of more than two verbal elements in a single clause, possible positions of clitics vary depending on the combination of the verbal elements. We propose that the contextuality of clitic reduplication in this language can be captured by the copy theory of movement and contextuality of phases. We also argue that clitics in La Cassese undergo phrasal movement (i.e., XP-movement) given Kayne's (1994) Linear Correspondence Axiom. We further suggest that the proposal in this paper can be extended to other languages that allow clitic reduplication, attributing parameterization of clitic reduplication to externalization with uniform syntax across languages, which conforms to the concept of parameterization in the current linguistic theory.

Keywords: Clitic reduplication, Copy theory of movement, Phase Extension/Sliding, Linear Correspondence Axiom, Externalization as parameterization

1 Introduction

Since the seminal work by Kayne (1975), clitics have received much attention in the linguistic theory. In particular, there are three important issues regarding the syntax of clitics that have been investigated in the literature: (i) whether clitics undergo movement or not, and if they move, (ii) what positions they move through in the course of the derivation and (iii) whether they undergo head-movement or phrasal movement. In this paper, we address these issues based on peculiar behavior of clitics in La Cassese, which is a northern Italian variety spoken in the La Cassa comune in the Piedmont region. The phenomenon that we examine is what Benincà and Cinque (2020) call *clitic reduplication*, which involves more than one occurrence of a single clitic in a clause. This phenomenon has actually been observed in a number of languages, as exemplified by Chilean Spanish (1), where the clitic *los* is reduplicated, and La Cassese also allows it as shown in (2), where the quantitative clitic *ne* occurs before *son* 'are' and after *riva* 'arrived' (see section 4 for more languages).[1]

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1. All La Cassese data in this paper are provided by our two consultants.

(1) *Chilean Spanish*
   Los=vamos a ver=**los**
   'We are going to see them.'   ([Uriagereka 1995](#):fn.21)

(2) *La Cassese*
   A   **na**=son riva=**ne**   tanti, 'd cit.
   SCL NE=are arrived=NE many of boys
   'As for boys, many (of them) arrived.'

   As we will see below, whether and how a clitic in La Cassese can be reduplicated depends on the syntactic context in which clitic reduplication takes place. The complex distribution of clitic reduplication in La Cassese leads us to conclude that it cannot be readily explained by approaches that assume a dedicated, fixed position of clitics (e.g., Kayne 1994, Sportiche 1996, Cardinaletti and Shlonsky 2004, Benincà and Cinque 2020, Angelopoulos and Sportiche 2021). We then propose a "dynamic" syntactic account of clitic movement under the copy theory of movement (Chomsky 1995b; see also Bošković 2002 and Martins and Nunes 2017), in which movement of clitics is constrained by phases that are contextually determined by Phase Extension/Sliding proposed by den Dikken (2007) and Gallego (2007). We also argue that under the Linear Correspondence Axiom (Kayne 1994), clitic movement should be treated as phrasal (i.e., XP) movement as proposed by Kayne (1975), Sportiche (1989), Bošković (2002) among others, which is motivated by ordering of clitics in a clitic cluster in a clitic reduplication configuration. In addition, we suggest that verbs do not only undergo syntactic head-movement (which is responsible for Phase Extension/Sliding) but also PF head-movement, which is also constrained by phases. All this means that phases as cyclic domains of syntactic and PF derivations play a crucial role in the syntax and realization of clitics. Finally, we compare La Cassese with other languages that allow clitic reduplication and discuss a point of parameterization under our proposal, which we argue is desirable from the perspective of the recent minimalism that attributes parametric variation (at least in part) to externalization (Berwick and Chomsky 2011, Chomsky 2021).

   The paper is organized as follows: Section 2 presents patterns of clitic reduplication in La Cassese, and shows that this phenomenon cannot be explained by analyses that assume a fixed position for clitics. Section 3 provides our proposal that clitics undergo phrasal movement via the edge of phases, which are contextually determined, and demonstrates how our proposal derives the observed pattern of clitic reduplication in La Cassese. Section 4 briefly discusses applicability of our proposal to clitic reduplication in other languages and argues that parametric variation regarding realization of clitics is reducible to externalization under our proposal, which is desirable under the recent linguistic theory. Section 5 concludes the paper.

2   Data

The first important generalization regarding clitic reduplication in La Cassese is that clitics cannot be reduplicated in a clause with simple tense, whether it is perfective or imperfective; in other words, clitic reduplication is possible only if there is more than one verbal element in a tensed clause. This holds regardless of the argument structure of the main verb (the tensed verb in the case of simple tense and the past participle in the case of compound tense); the contrast between compound tense and simple tense is found with transitive verbs, as in (3), and

intransitive verbs, as in (4). In the case of compound tense you can omit either of the higher or lower occurrence of the clitic in clitic reduplication, as shown in (3b) and (4b). In contrast, in simple tense, the clitic procliticizes to the tensed verb, and cannot encliticize to it, as seen in (3a) and (4a).

(3)   a.   A   {**na=**}mangio{***=na/ne**} tre,   'd pom.
          SCL   NE=eats=NE   three of apple
          'As for apples, s/he eats three.'

    b.   A   {**n'=**}han   mangià{**=ne**} tre,   'd pom.
          SCL   NE=have.3PL eaten=NE   three of apple
          'As for apples, they ate three.'

(4)   a.   A   {**na=**}rìva(***=na/ne**) tanti, 'd cit.
          SCL   NE=arrive=NE   many of boys
          'As for boys, many (of them) arrive.'

    b.   A   {**na=**}son rivà{**=ne**}   tanti, 'd cit.   (= (2))
          SCL   NE=are   arrived=NE many of boys
          'As for boys, many (of them) arrived.'

When a clitic is reduplicated, the one on the finite verb is a proclitic, and the one on the past participle is an enclitic. Thus, as (5) illustrates, a clitic cannot be "sandwiched" by the tensed auxiliary verb and the past participle, whether it is cliticized to the former or the latter.

(5)   A   {na=}son{***=na**} {***ne=**}rivà={ne} tanti, 'd cit.
     SCL   NE=are=NE   NE=arrived=NE many of boys
     'As for boys, many (of them) arrived.'

In addition, clitic reduplication is possible in environments where clitic climbing is possible: modal auxiliary verbs such as 'can' and 'must', as in (6), verbs that select a bare infinitive such as 'want', as in (7), and aspectual verbs that select an infinitival clause headed by a prepositional complementizer, as in (8).[2]

(6)   A   {**na=**}vülo   mange{**=ne**} tanti, 'd pom.
     SCL   NE=must.3PL eat=NE   many of apple
     'As for apples, they must eat many.'

(7)   A   {**na=**}völo   mange{**=ne**} tanti, 'd pom.
     SCL   NE=want.3PL eat=NE   many of apple
     'As for apples, they want to eat many.'

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2. Our consultants prefer to have a clitic just on the lower verb in (6) and (8), which is probably because clitic climbing is generally marked in Piedmont varieties. What is important for our purposes is that clitic reduplication in such environments is in principle allowed, in contrast to the cases of simple tense, where it is never allowed. It also needs to be added here that because of this markedness of clitic climbing, not all logically possible combinations of verbal elements are testable with respect to clitic reduplication in La Cassese.

(8) I   {**na**=}taco a les{=**ne**} tanti.
     SCL   NE=begin to read=NE   many
     'I begin to read many (of them).'

There are also some cases where clitic reduplication is possible in the presence of three verbal elements in a single tensed clause.[3] Note first that in a configuration which involves an 'aux + modal_pp + verb' sequence, the clitic can be procliticized onto the highest tensed verb, and encliticized onto the lower two verbs, as shown in (9).

(9) a. Maria a   **n**='ha podù   giuté.
         Maria SCL NE=has could   help

     b. Maria a   l='ha   podù=**ne** giuté.
         Maria SCL PROSTHETIC=has   could=NE help

     c. Maria a   l='ha   podù   giuté=**ne**.
         Maria SCL PROSTHETIC=has   could   help

In the cases of two occurrences of a clitic, any combination of two occurrences is possible in this configuration; namely, a clitic can be attached to (i) the highest "have" and the intermediate "could" as seen in (10a), (ii) the highest "have" and the lowest "help" as seen in (10b), and (iii) the intermediate "could" and the lowest "help" as seen in (10c). However, (10d) shows that three occurrences of a clitic in a single verbal sequence is disallowed.

(10) a. Maria a   **n**='ha podù=**ne** guité.
          Maria SCL NE=has could=NE help

      b. Maria a   **n**='ha podù   giuté=**ne**.
          Maria SCL NE=has could   help=NE

      c. Maria a   l'=ha   podù=**ne** giuté=**ne**.
          Maria SCL PROSTHETIC=has   could=NE help=NE

      d. *Maria a   **n**='ha podù=**ne** giuté=**ne**.
          Maria SCL NE=has could=NE help=NE
          'Maria could have helped them.'

It thus seems that a clitic can be realized and reduplicated on any verb in a verbal sequence as long as there are no more than two occurrences of the clitic.

A complication arises, however, when there is a different combination of three verbal elements. Consider (11), where a modal is followed by an auxiliary verb + a past participle.

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3. It should be added that clitic reduplication, or clitic climbing which is a prerequisite of clitic reduplication, is not possible if the verbal sequence contains four or more verbs. As mentioned in footnote 2, clitic climbing is marked in Piedmont varieties in general, and this is probably why clitic reduplication with more than three verbs in a verbal cluster is impossible in La Cassese.

(11) a.   A   **na**=pülo avei   mangià   tanti, ’d pom.
         SCL NE=can have   eaten   many of apple

    b.   A   pülo avei=**ne** mangià   tanti, ’d pom.
         SCL   can   have=NE eaten   many of apple

    c. ??A   pülo avei   mangià=**ne** tanti, ’d pom.
         SCL   can   have   eaten=NE   many of apple

    d.   A   **na**=pülo avei=**ne** mangià   tanti, ’d pom.
         SCL NE=can have=NE eaten   many of apple

    e. *A   **na**=pülo avei   mangià=**ne** tanti, ’d pom.
         SCL NE=can have   eaten=NE   many of apple

    f. *A   pülo avei=**ne** mangià=**ne** tanti, ’d pom.
         SCL   can   have=NE eaten=NE   many of apple

    g. *A   **na**=pülo avei=**ne** mangià=**ne** tanti, ’d pom.
         SCL NE=can have=NE eaten=NE   many of apple
         ‘As for apples, they could have eaten many.’

Interestingly, when clitic reduplication does not happen, the lowest verb cannot host the clitic, as seen in (11c).[4] Crucially, in the case of clitic reduplication with two occurrences, only the highest two verbal elements can host the clitic, as shown by the contrast between (11d) on the one hand and (11e) and (11f) on the other. Finally, (11g) shows that more than two occurrences of a clitic is not allowed, just as in (10d). Summarizing this pattern, we can have the following generalizations;

(12) a.   A clitic cannot be reduplicated more than twice in a verbal sequence.

    b.   A clitic cannot be hosted by the lowest verb in the ‘modal + aux + V_{pp}’ sequence.

Note that the lowest verb in this case is a past participle, which can in principle host a clitic in clitic reduplication as we have seen above (e.g., (3b) and (4b)). We cannot thus attribute (12b) to some intrinsic property of past participles. Combined with the pattern observed in (10), all this means that the possible positions of a clitic in clitic reduplication configurations is not strictly fixed but is contextually determined, in the sense that different verbal sequences allow different clitic positions.

    To summarize so far, there are four questions that call for explanations regarding clitic reduplication in La Cassese, which are listed in (13).

(13) a.   Why does clitic reduplication require presence of more than one verbal element?

    b.   Why can a clitic not be "sandwiched" by a tensed verb and a verb that follows it?

    c.   Why can a clitic not occur more than twice in a verbal sequence?

    d.   Why is it the case that a clitic can be hosted by any verbal element in the ‘aux + $modal_{pp}$ + V_{inf}’ sequence whereas it cannot be hosted by the lowest verb in the ‘modal + aux + V_{pp}’ sequence?

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4. Among the two consultants, one rejects (11c), while the other marginally accepted it (thus the judgment is given as "??" here). We suspect that the latter consultant tolerates it simply because he wanted to maintain the intended construction, for which pronunciation of at least one clitic is forced. At any rate (11c) is significantly worse than (11a) or (11b) for him, so we consider the sentence to be on the unacceptable side.

Before introducing our proposal, it should be pointed out here that it would be unclear how (13d) can be explained by approaches that assume a dedicated, fixed clitic position (e.g., Kayne 1994, Sportiche 1996, Cardinaletti and Shlonsky 2004, Benincà and Cinque 2020, Angelopoulos and Sportiche 2021). For instance, Cardinaletti and Shlonsky (2004) discuss clitic placement in the context of clitic climbing and infinitival verbs in Italian, and propose that there are two clitic positions in a clause: one is in the functional (C-T) domain, and the other in the lexical (VP) domain (cf. Kayne 1989). Notice that the past participle *mangià* in (11) is in the lexical domain in their term, and yet the clitic cannot be attached to it, as seen in (11c), (11e), (11f), and (11g). It is thus not clear how Cardinaletti and Shlonsky's account can explain the generalization in (12b) and answer (13d).[5] Likewise, Angelopoulos and Sportiche (2021) propose that a clitic is base-generated as the head of CliticP that is located above TP, but then it would be mysterious why a clitic can be reduplicated in a domain lower than TP (e.g., past participles) and the possible positions of the clitic vary depending of the verbal sequences. All this means that "static" approaches to clitic positions, i.e., those that posit fixed clitic positions, cannot be extended to clitic reduplication in La Cassese, where the distribution of clitics in clitic reduplication is contextually determined. Instead, we need an analysis that contextually changes the placement of clitics depending on the syntactic context where they occur in order to capture all the relevant data, especially the contrast between (10) and (11).

Below we provide a syntax-PF interface account, in which clitics undergo successive-cyclic phrasal movement under the copy theory of movement and the positions of the copies of the clitics are contextually determined by phases.

3 Derivation of Clitic Reduplication in La Cassese

3.1 Phase extension/sliding and positions of clitics

In this section, we propose an analysis of clitic reduplication that is based on the phase theory (Chomsky 2000 *et seq.*) and the copy theory of movement (Chomsky 1993).

Let us start from sentences with simple tense, where clitic reduplication is not allowed. The relevant example is repeated here as (14) from section 1.
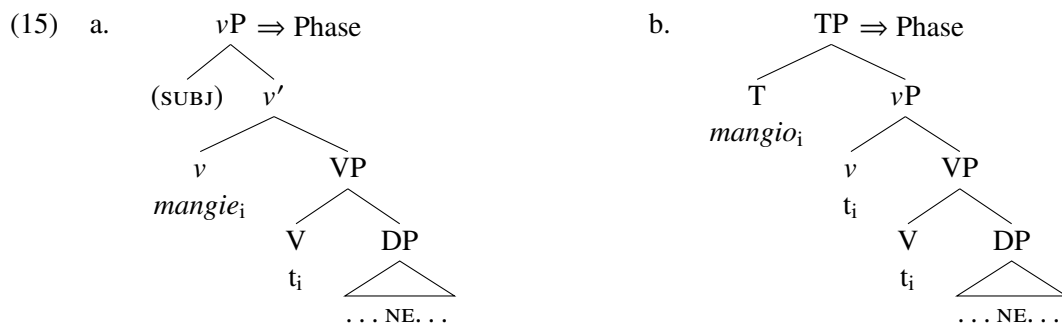
(14) a. A   {**na=**}mangio{***=ne**} tre,   'd pom.
          SCL   NE=eats=NE   three of apple
          'As for apples, s/he eats three.'

   b. A   {**na=**}rìva{***=ne**} tanti, 'd cit.
       SCL   NE=arrive=NE   many of boys
       'As for boys, many (of them) arrive.'

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5. Interestingly, Cardinaletti and Shlonsky (2004:fn.6) themselves note that the case of three occurrences of a single clitic in Cairese, which is a Piedmont variety, as shown in (i) is problematic for their analysis, because there is more than one copy of the clitic in the functional domain in their term. We will briefly discuss the difference between La Cassese and Cairese with respect to three occurrences of a clitic in section 3.4 and 4.

(i) *Cairese*
   I   **m'**=aveisi pusciû=**me** gitè=**me**.
   you me=had   could=me   help=me
   'You could have helped me.'   (Parry 2005:230)

Following Legate (2003), we assume that both transitive and unaccusative *v*P are phases. Thus, the derivation is essentially the same for (14a) and (14b), the only difference being the presence/absence of the external argument. The relevant structure is represented by (15a), which contains the transitive verb 'eat'. (We omit SUBJ(ECT) hereafter, because it does not affect the discussion and we can simplify the tree; the subject always moves first due to the minimality/superiority and clitics from lower positions then "tuck-in" below the subject in the sense of Richards 2001.[6]) Next, T merges with *v*P, and *v* moves to T. Here we adopt Phase Extension/Sliding proposed by den Dikken (2007), Gallego (2007), which extends a phasal domain to a higher phrase via movement of the phase head. Thus, the *v*-to-T movement extends/slides the phase from *v*P to TP, as shown in (15b).[7]

(15) a.

$vP \Rightarrow$ Phase, with (SUBJ) and v'; v' branches to v (*mangie*$_i$) and VP; VP branches to V (t$_i$) and DP (... NE ...)

b.

$TP \Rightarrow$ Phase, with T (*mangio*$_i$) and vP; vP branches to v (t$_i$) and VP; VP branches to V (t$_i$) and DP (... NE ...)

We assume, following Kayne (1975), Sportiche (1989), Bošković (2002) among others, that clitics undergo phrasal (i.e., XP) movement (see section 3.2 for evidence that favors the phrasal movement analysis over the head movement analysis).[8] Under Chomsky's (2000) phase theory adopted here, phrasal movement goes through phasal edges; thus, clitics move to phasal edges (especially in the course of successive-cyclic movement). As shown in (16), then, the clitic moves to the edge of TP.[9]

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6. Building on Benincà (1983, 2017) and Poletto (2000), we assume that the subject clitics *i* and *a* in La Cassese are located in the left periphery, at least higher than TP or FinP, at the end of the derivation, just as in other Piedmont varieties. At any rate, the subject clitic is higher than, hence precedes, non-subject clitics.

7. In the tree representations below we use traces for unpronounced copies only for presentational reasons, as is done in many works that assume the copy theory of movement.

8. Kayne (1975) and Sportiche (1989) propose that clitics are branching XPs, whereas for Bošković (2002) clitics are non-branching elements that are both X⁰ amd XP at the same time under the Bare Phrase Structure theory (Chomsky 1995a,b). The choice between the two positions does not matter for our purposes as long as clitics undergo XP-movement, not head adjunction, in the course of successive-cyclic movement.

9. Alternatively, we can assume that FinP in the left periphery in the sense of Rizzi (1997) is the final landing site of non-subject clitics, given Poletto's (2000) proposal that a finite verb moves to the lower C domain in Piedmont varieties. Our proposal can be easily translated into Poletto's system with one more step of Phase Extension/Sliding from TP to FinP before movement of the clitic, but we do not posit FinP just for ease of presentation.

(16)

$$\text{TP} \Rightarrow \text{Phase}$$

NE$_k$ T′

T vP
mangio$_i$

v VP

t$_i$

V DP

t$_i$

...t$_k$...
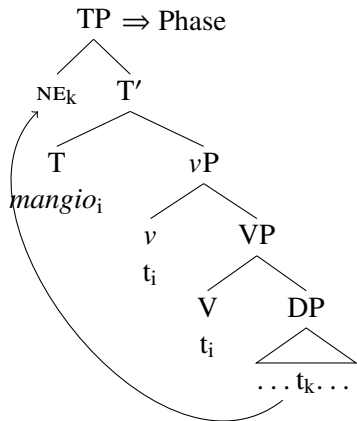
Notice that there is only one copy of the clitic available for PF-realization.[10] It thus follows that in the case of simple tense we cannot have clitic reduplication. The only available copy of the clitic precedes the verb, and it is realized as a proclitic given Kayne's (1994) Linear Correspondence Axiom, since it asymmetrically c-commands the verb (see section 3.2 for more discussion regarding the LCA).
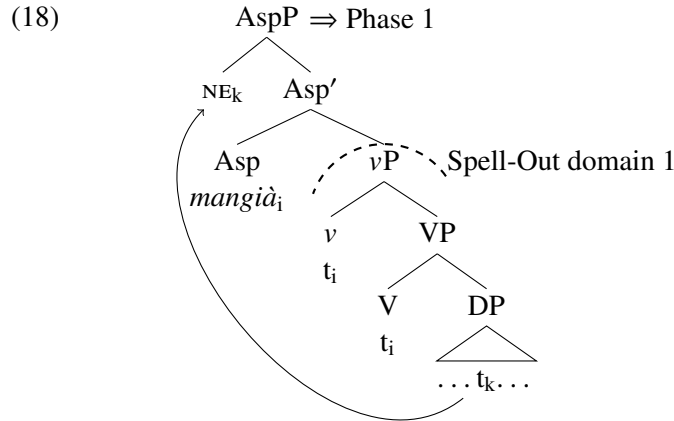
Let us now consider the cases of compound tense, the relevant example repeated here as (17) from section 1.

(17) a. A   **na**=son rivà=**ne**   tanti, 'd cit.
          SCL NE=are arrived=NE many of boys
          'As for boys, many (of them) arrived.'

      b. A   **n'**=han   mangià=**ne** tre,   'd pom.
          SCL NE=have.3PL eaten=NE   three of apple
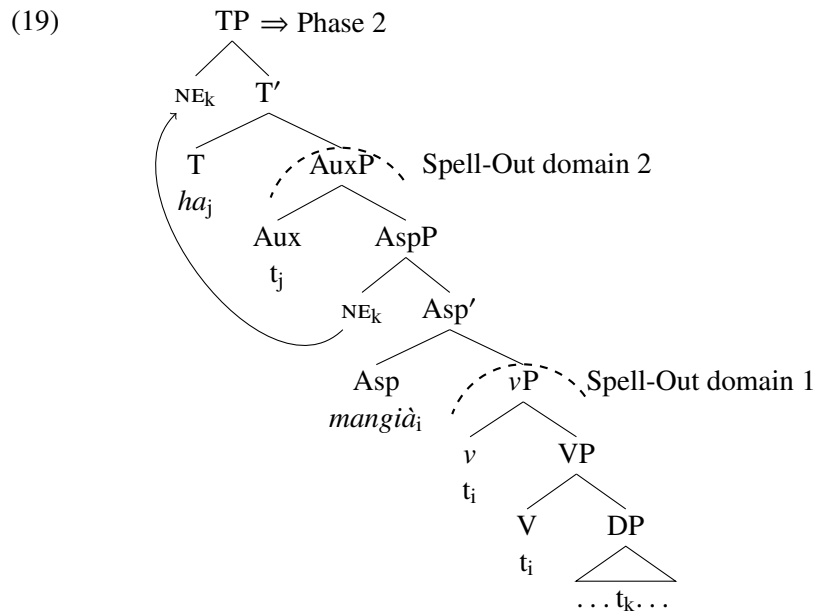   'As for apples, they ate three.'

We assume that a past participle is formed by moving a verb to the head of AspP. The clitic moves to the edge of AspP after Phase Extension/Sliding by V-to-v-to-Asp movement, in order to obey the Phase Impenetrability Condition (Chomsky 2000), by which the complement of a phase head becomes inaccessible to a higher domain upon completion of the phase; namely, the clitic needs to move to the edge of AspP in order to undergo further movement. After the clitic moves to the edge of AspP and the derivation within AspP is completed, the complement of Asp, i.e., vP, is Spelled-Out to the interfaces. This is illustrated in (18).

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10. We follow the standard assumption that the copy of a clitic in the base position is ignored for PF-realization in general. In fact, *ne* is standardly assumed to be extracted from a DP (see Cardinaletti and Giusti 2006), and *ne* cannot be pronounced after *tre* in (14).

8

(18)

$\text{AspP} \Rightarrow \text{Phase 1}$

NE$_k$ — Asp′
Asp — *mangià*$_i$ — *v*P — Spell-Out domain 1
*v* — t$_i$ — VP
V — t$_i$ — DP
… t$_k$ …

This AspP is then selected by AuxP, which hosts an auxiliary verb and constitutes its own phasal domain as an independent verbal domain (cf. Bošković 2014). Then T merges with AuxP, and Aux moves to T, extending/sliding Phase 2 to TP. The clitic moves to the edge of TP, which is the final landing site, and AuxP is Spelled-Out upon completion of the TP phase (i,e., Phase 2). The relevant structure is given in (19).

(19)

$\text{TP} \Rightarrow \text{Phase 2}$

NE$_k$ — T′
T — *ha*$_j$ — AuxP — Spell-Out domain 2
Aux — t$_j$ — AspP
NE$_k$ — Asp′
Asp — *mangià*$_i$ — *v*P — Spell-Out domain 1
v — t$_i$ — VP
V — t$_i$ — DP
… t$_k$ …

Notice here that at this point the lower copy of the clitic at the edge of Phase 1 is higher than, hence would preceed, *mangi'a*. Note also that we have assumed head-movement to take place in narrow syntax, but as Roberts (2010) and Dékány (2018) point out, it is logically possible that there are two types of head-movement: syntactic head-movement and PF head-movement (see also Kayne 1983, Rizzi and Roberts 1989, Chomsky 2000 for the latter possibility). Building on this, we suggest that PF head-movement as well as syntactic head-movement is available in La Cassese (and presumably in some other Romance varieties; see section 4). In addition, we propose that this PF head-movement is a local operation within a single Spell-Out domain; in other words, PF head-movement cannot cross a Spell-Out domain. This is rather natural

given that a Spell-Out domain sent to the PF interface is a domain that is separated from other domains in the derivation. Thus, at PF, *mangià* undergoes PF head-movement to Aux in the Spell-Out domain 2, as illustrated in (20).[11]

(20)
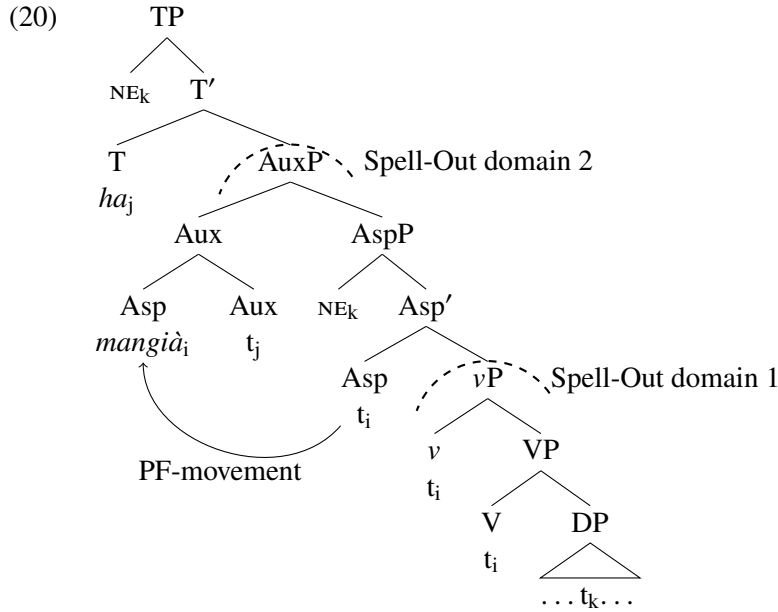
Notice that there are two copies of the clitic that can be realized in (20), unlike the cases of simple tense: the one at the edge of TP, which asymmetrically c-commands the verb, and the one at the edge of AspP, which is asymmetrically c-commanded by the past participle. This means that the higher copy at the edge of TP precedes the verb on T, and the lower copy follows the past participle (when they are realized at PF). Crucially, there is no other copy of the clitic available in the structure, so that the clitic cannot occur between the auxiliary verb and the past participle, as we have seen in (5) in section 2. Thus, our proposal correctly captures the contrast between simple tense and compound tense with respect to the (un)availability of clitic reduplication as well as the possible positions of clitics in clitic reduplication.

## 3.2 Clitic movement as phrasal movement

Before proceeding to the more complex cases of clitic reduplication, we would like here to provide an argument for the phrasal movement analysis of clitics adopted here (Kayne 1975, Sportiche 1989, Bošković 2002 among others). Specifically, the proposal that clitics undergo XP-movement but not head-movement is supported by the observation that in La Cassese the clitic cluster reduplicated on the lower verb follows the verb and retains the same clitic ordering

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11. The PF head-movement under discussion appears to be a countercyclic operation, which could potentially be problematic for the current linguistic theory. One possible way to circumvent this would be to define cycles based on phases; Chomsky (2000, 2001) in fact suggests that movements count as cyclic regardless of the order of the movements as long as they take place in a single phase. Note also that there have actually been proposals in the literature that assume apparent countercyclic operations, e.g., tucking-in in Richards (2001), which is adopted below, and simultaneous movements in Chomsky (2008); these operations can also be considered to be cyclic given the phase-based cyclicity.

as that on the higher verb, as seen in (21), given Kayne's (1994) Linear Correspondence Axiom (LCA).[12],[13]

(21) A   **i=na**=j'=é   rivà=**j=ne**   mach un, 'd cit.
      SCL LOC=NE=PROSTHETIC=is arrived=LOC=NE only one of boys
      'As for boys, only one (of them) arrived there.'

Let us first consider the possibility that clitics would head-adjoin to verbs. Given the LCA, by which X precedes Y iff X asymmetrically c-commands Y, the verb *rivà* should asymmetrically c-command the clitics (note that right-adjunction is not allowed under the LCA).[14] If clitics were to adjoin to a head, the relevant structure of *rivà=j=ne* in (21) should be (22a), not (22b).

(22) a.   b. *
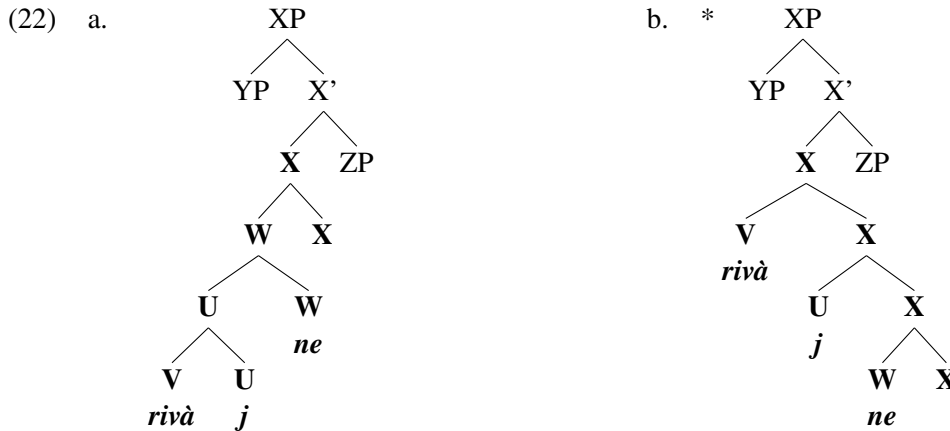
This follows from the LCA. In (22a), V asymmetrically c-commands U; given the definition of c-command (ii) in footnote 14, V c-commands U because every node that dominates V,

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12. See also Bošković (2002) for an argument for the clitic-as-XP approach based on placement of auxiliary clitics in Bulgarian and Macedonian under the LCA and the Bare Phrase Structure theory.

13. Parry (2005) observes the same ordering pattern in Cairese, another Piedmont variety, as represented by (i).

(i) a'=**i**   **le** vag a dè=**i=le**.
     SCL=to.him it I.go to give=to.him=it
     'I'm going to give it to him.' (Cairese, Parry 2005:228)

14. Kayne (1994) assumes a category-based definition of c-command, given in (i).

(i) a. X c-commands Y iff X and Y are categories and X excludes Y and every category that dominates X dominates Y.

     b. X excludes Y if no segment of X dominates Y.

Under this definition of c-command, specifiers are treaded as adjuncts, and no multiple specifiers are allowed, which Kayne argues is a consequence of deduction of the X′-theory from the LCA. However, minimalism does not assume the X′-theory, which is replaced with (and deduced from) the Bare Phrase Structure theory. In fact, in minimalism, multiple specifiers are in principle allowed and have often been assumed (e.g., Chomsky 1995). Thus, instead of (i), we use a more standard definition of c-command which is not category-based. For our purpose, we adopt (ii), which is taken from Chomsky (1995b). The definitions of *dominate* and *contain* are given in (iii).

(ii) X c-commands Y if (a) every Z that dominates X dominates Y and (b) no segment of one contains the other.

(iii) a. X dominates Y if every segment of X dominates Y.

       b. X contains Y if some segment of X dominates Y. (Chomsky 1995b:163)

i.e., X′ and XP, dominates U, but U does not c-command V because U contains (but not dominates) V (see also Chomsky 1995b). Thus, the order of V and U is V > U, where '>' means 'precedes' (likewise, V > U > W > X). On the other hand, if the verb and the clitics were to adjoin to X, as in (22b), the order between V and U cannot be determined since they c-command each other, and hence the structure is excluded by the LCA. What is important for our purpose is that in the legitimate multiple head-adjunction structure (22a), the verb V would asymmetrically c-command the other clitics U (the locative clitic j) and W (the quantitative clitic *ne*). This means that V would be structurally "higher" than U and W, and hence the two clitics cannot move (or excorporate) from X by skipping V. The only legitimate option of further head-movement would be to pied-pipe V along with U and W, which would result in a wrong word order. Even if one assumes that the verb is located in a higher head and the clitics in a lower head, which can capture the ordering of these elements *per se*, the clitics could not cross the past participle, due to the Head Movement Constraint/Relativized Minimality (Travis 1984; Rizzi 1990).[15] Thus, we cannot maintain that the clitics in (21) undergo head-movement in the course of successive-cyclic movement to the final landing site.
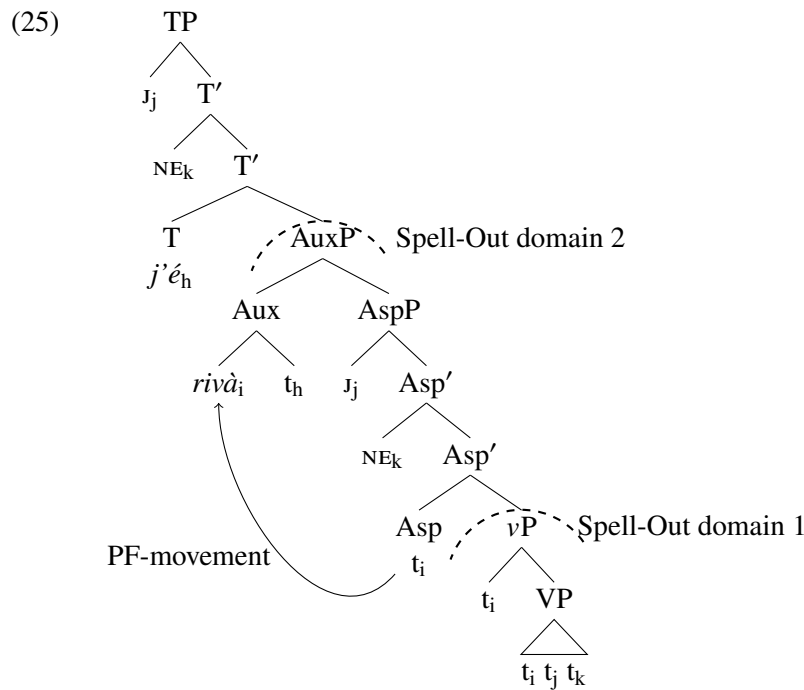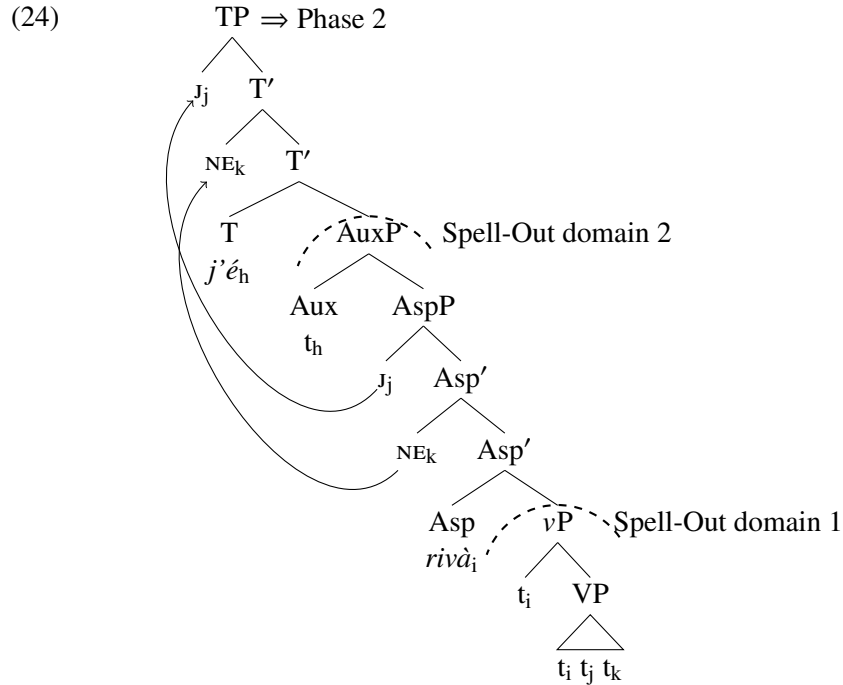
On the other hand, the phrasal/XP-movement analysis can capture the ordering of clitics in (21). As we have seen in section 3.1, the past participle undergoes V-to-*v*-to-Asp movement, which extends/slides the phase to AspP due to Phase Extension/Sliding. Then the locative clitic j moves to the outer edge of AspP and the quantitative clitic *ne* moves to the inner edge of AspP (tucking-in in the sense of Richards 2001), the former asymmetrically c-commanding the latter, which derives the order j > *ne* (under the Bare Phrase Structure theory, a non-branching specifier asymmetrically c-commands elements contained in its sister; see Chomsky 1995b). This is illustrated in (23).

(23)   AspP ⇒ Phase 1
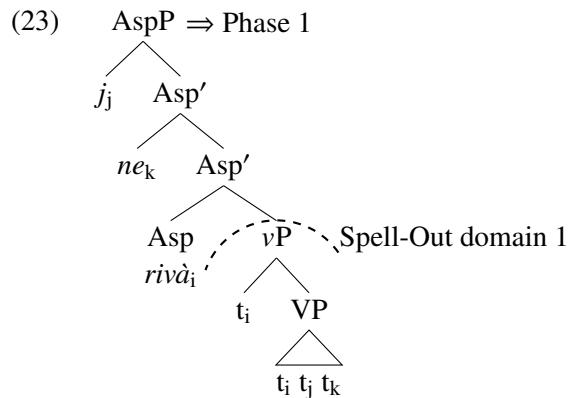
Then the minimality/superiority forces the higher clitic to move to the (higher) specifier of TP first and the lower clitic (*ne*) to move to the lower specifier of TP, which is "tucking-in" in the sense of Richards (2001).[16] The relevant derivation is illustrated in (24). The past participle then undergoes PF-movement to Aux in the Spell-Out domain 2, as shown in (25).

---

15. Even under a feature-based version of Relativized Minimality (Rizzi 2004), the distinction between X⁰/XP movement matters. Given that verbs in general have ϕ-features just like clitics (see, e.g., Roberts 2010), it follows that the clitics cannot cross the past participle.

16. See also Bošković (2016) for arguments that only the highest edge of a phase is accessible to a higher domain and the lower edge becomes accessible only after the highest edge moves out.

(24)　TP ⇒ Phase 2

J$_j$
　T′
NE$_k$　T′
T　AuxP　Spell-Out domain 2
j'é$_h$
　Aux　AspP
　t$_h$
　　J$_j$　Asp′
　　NE$_k$　Asp′
　　　Asp　*v*P　Spell-Out domain 1
　　　rivà$_i$
　　　　t$_i$　VP
　　　　　t$_i$ t$_j$ t$_k$

(25)　TP

J$_j$　T′
NE$_k$　T′
T　AuxP　Spell-Out domain 2
j'é$_h$
　Aux　AspP
　rivà$_i$　t$_h$　J$_j$　Asp′
　　　　NE$_k$　Asp′
　　　　　Asp　*v*P　Spell-Out domain 1
PF-movement　t$_i$
　　　　　　t$_i$　VP
　　　　　　　t$_i$ t$_j$ t$_k$

Notice now that the movement of the clitics across the past participle does not violate the Head Movement Constraint/Relativized Minimality, simply because the clitics undergo phrasal movement (while the past participle is a head). In addition, the past participle *rivà* asymmetrically c-commands *j* and *ne* (and *j* asymmetrically c-commands *ne* as mentioned above). Thus, we can have a legitimate derivation and correctly derive the order *rivà* > *j* > *ne* under the LCA. Therefore, we conclude that clitics in La Cassese undergo XP-movement, not head-movement.[17]

---

17. Kayne (1991, 1994) proposes that clitics do not directly adjoin to V but to functional heads higher than V.

3.3 Clitic climbing contexts

Next, let us consider clitic climbing contexts. We start from the case of bare infinitives as represented by (26), which is repeated from section 2.

(26) A   {**na=**}völo   mange{**=ne**} tanti, 'd pom.
      SCL   NE=want.3PL eat=NE   many of apple
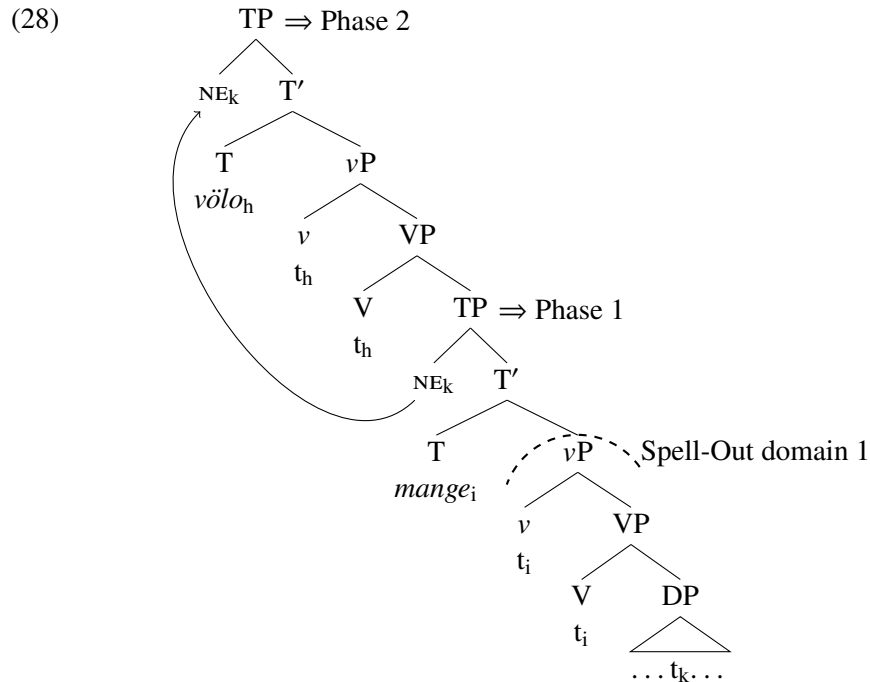   'As for apples, they want to eat many.'

Regarding the structure of infinitive clauses in clitic climbing/restructuring contexts, it has been standardly considered since Rizzi (1982) that they not full CPs but smaller, "truncated" clasues (see, e.g., Wurmbrand 2015, Wurmbrand and Lohninger 2019 for recent discussions from a cross-linguistic perspective; see also Cinque 2004). Here we assume that the infintival clause in (26) is TP, though the discussion here is intact if we assume it is vP. Assuming that the infinitive verb moves to T, which extends/slides the vP phase to TP, the clitic moves to the edge of the TP phase, as illustrated in (27) (even if there is no v-to-T movement of the infinitive verb, the clitic moves to the edge of the vP phase and the derivation that follows is essentially the same; see below for the final position of the infinitive verb).[18]
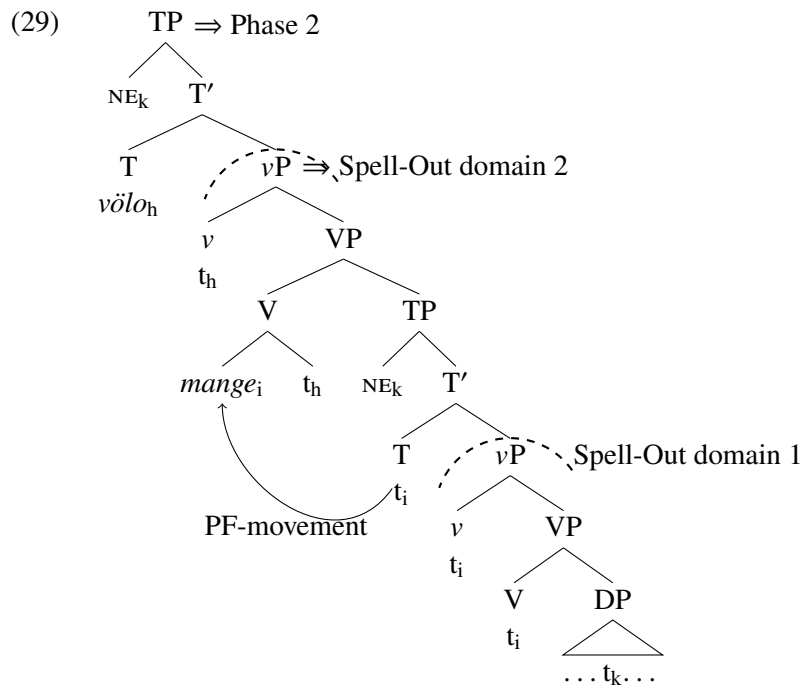
(27)
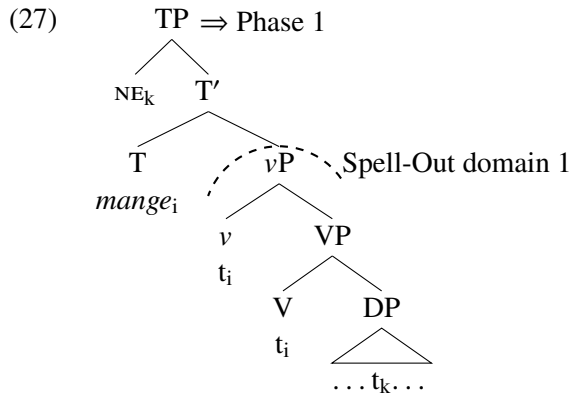
Then the matrix verb 'want' (as V and v) merges above the embedded FinP, T merges to vP, and v moves to T, extending/sliding Phase 2 to TP. The clitic then moves to the edge of the matrix TP. This is illustrated in (28).

This analysis still faces the problem of the Head Movement Constraint/Relativized Minimality in the case of clitic reduplication. Our analysis maintains his insight of the verb and clitics being in seperate positions without facing the locality problem.

18. How we treat the subject of the relevant infinitival clause (PRO in the traditional sense) depends on the assumption of the property of XP-movement that clitics undergo. If the movement in question is a kind of A-movement (cf. agreement between a clitic and a past participle in many Romance varieties), the embedded subject PRO should be treated under the movement theory of control (Hornstein 1999); PRO in Spec,TP as an A-element would block A-movement of the clitic due to Relativized Minimality (whether Relativized Minimality is position-based or feature-based), but moving PRO from Spec,TP would leave a trace (in the conventional sense), which in general does not induce intervention effects (Chomsky 1995b, Bošković 2011). If it is a type of A′-movement (cf. Clitic-Left Dislocation, where clitics are involved and discourse properties are relevant), there would be no Relativized Minimality violation, so that either the traditional PRO analysis or the movement theory of Control can be adopted. In either way, presence of PRO (or its treatment under the movement theory of control) does not interfere with the XP-movement of clitics. We leave it open to tease apart these two approaches, since the main goal of this paper is to explain the distribution of clitic reduplication and it suffices for our purpose that clitics undergo XP-movement but not head-movement (see Grano 2015 for arguments that both PRO and the movement theory of control are actually needed).

14

(28)

```
                    TP ⇒ Phase 2
                   /    \
                NEk      T′
                        /  \
                      T      vP
                   völo_h   /  \
                          v      VP
                         t_h    /  \
                               V    TP ⇒ Phase 1
                              t_h   /  \
                                  NEk   T′
                                       /  \
                                     T     vP ⋯ Spell-Out domain 1
                                   mange_i /  \
                                          v    VP
                                         t_i  /  \
                                             V    DP
                                            t_i   △
                                                 …t_k…
```

Finally, as shown in (29), the matrix vP is Spelled-Out upon completion of Phase 2, and the infinitive verb *mange* undergoes PF head-movement to the matrix V (or v) in the Spell-Out domain 2. This PF head-movement can be considered as implementation of movement of infinitive verbs to a position higher than clitics in Italian and Piedmontese proposed by Kayne (1991).

(29)

```
                TP ⇒ Phase 2
               /    \
            NEk      T′
                    /  \
                  T     vP ⇒ Spell-Out domain 2
               völo_h  /  \
                      v    VP
                     t_h  /  \
                         V    TP
                        / \   /  \
                 mange_i  t_h NEk  T′
                                  /  \
                                 T    vP ⋯ Spell-Out domain 1
                                t_i  /  \
                     PF-movement   v    VP
                                  t_i  /  \
                                      V    DP
                                     t_i   △
                                          …t_k…
```

Note that the infinitive *mange* proceeds (i.e., asymmetrically c-commands) the lower copy of *ne*. Thus, the current proposal correctly captures the word order in (26).

Let us now turn to (30) (repeated from section 2), where the embedded infinitival clause is headed by the prepositional complementizer *a* 'to'.

(30) I   {**na=**}taco a   les{**=ne**} tanti.
      SCL   NE=begin to read=NE   many
      'I begin to read many (of them).'

As for the category of the prepositional complementizer *a*, we assume, following Rizzi (1997), that it is the head of FinP under the fine structure of the left periphery. Regarding the phasehood of the left periphery, Chomsky (2000:106) proposes that CP is a phase because it is "a full clause including tense and force", but remarkably, under Rizzi's fine structure of the left periphery, FinP is separated from ForceP, which is considered to be responsible for force. We thus submit that FinP itself does not constitute a phase (and ForceP does). It then follows that the infinitival clauses under discussion do not involve a phase other than the VP domain. See also Martins and Nunes (2017), who argue based on certain clitic patterns in European Portuguese that control infinitives (i.e., infinitives of the kind discussed here) are not phases.

In addition, we suggest, following Pesetsky and Torrego (2001), that there is a T-to-C movement in embedded clauses. Specifically, Pesetsky and Torrego propose that the complementizer *for* (as well as *that*) in English surfaces as a result of T-to-C movement. Extending this to La Cassese, we suggest that the prepositional complementizer *a* in clitic climbing contexts is base-generated as T and moves to Fin, where it is pronounced as such.[19] Under this analysis, the infinitive (*lese* in (30)) stays in *v*P in narrow syntax, just as infinitival verbs in English are located lower than T (say, *v*P). This means that Phase 1 does not extend/slide beyond *v*P in the inifitive clause selected by a restructuring verb, so that the clitic moves to the edge of the *v*P phase. All this is illustrated in the structure (31).
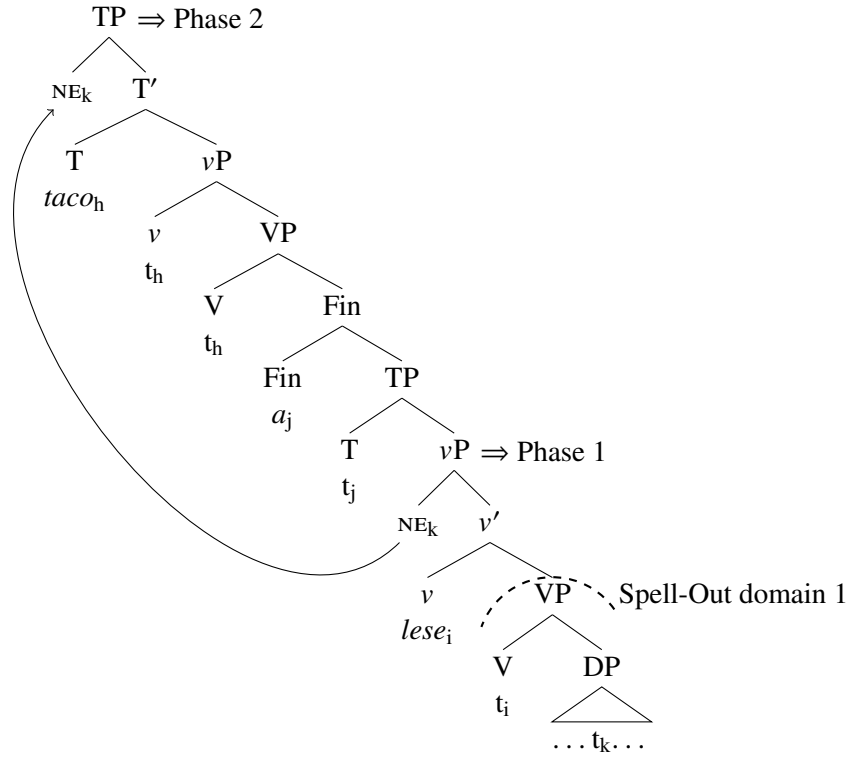
(31)
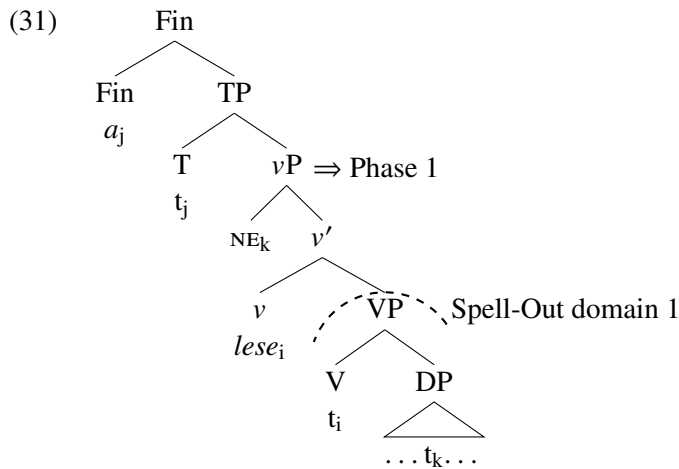
The matrix verb 'begin' then merges above the TP and undergoes head-movement to T, extending/sliding Phase 2 to TP. Then the clitic moves to the edge of TP, as shown in (32).

---

19. It is worth noting that in English T is realized as *to* and C as *for*, both of which are also prepositional elements.

(32) TP ⇒ Phase 2

NE$_k$ T′

T vP
taco$_h$

v VP
t$_h$

V Fin
t$_h$

Fin TP
a$_j$

T vP ⇒ Phase 1
t$_j$

NE$_k$ v′

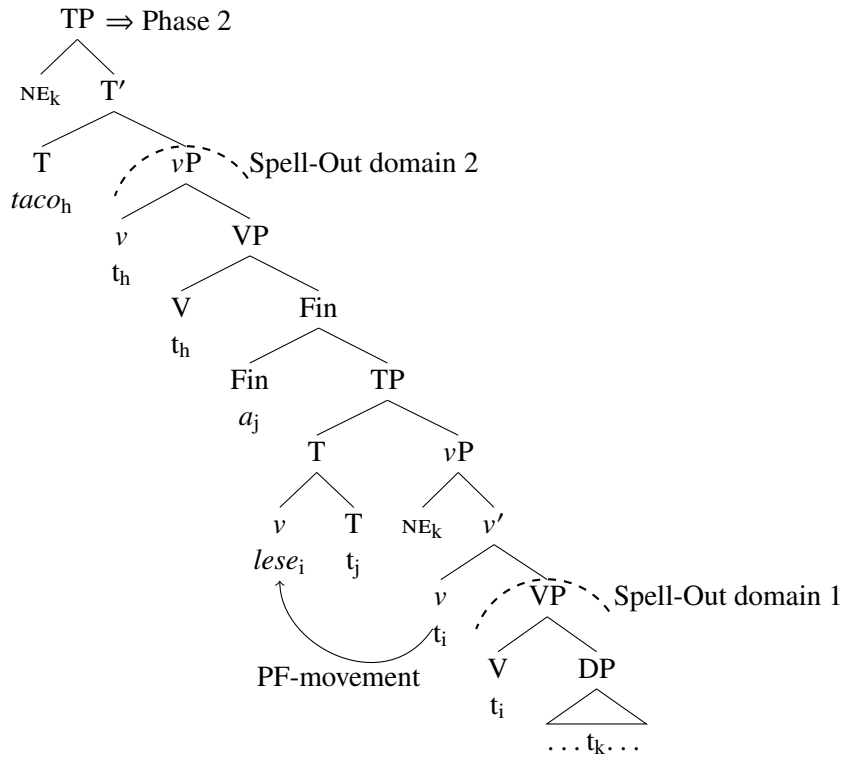v VP Spell-Out domain 1
lese$_i$

V DP
t$_i$
. . . t$_k$. . .

Lastly, in the Spell-Out domain of Phase 2, *lese* undergoes PF head-movement to the embedded T in the Spell-Out domain (we assume that it cannot cross *a*, which is phonological non-null). This is illustrated in (33).

(33) TP ⇒ Phase 2

NE$_k$ T′

T vP Spell-Out domain 2
taco$_h$

v VP
t$_h$

V Fin
t$_h$

Fin TP
a$_j$

T vP

v T NE$_k$ v′
lese$_i$ t$_j$

v VP Spell-Out domain 1
t$_i$

PF-movement V DP
t$_i$
. . . t$_k$. . .

It is now clear that the structure (33) correctly captures the positions of the copies of the clitic that can be realized; the copy at the edge of the matrix TP asymmetrically c-commands the matrix verb *taco*, and the one at the edge of *v*P in the lower clause is asymmetrically c-commanded by the infinitival verb *lese*. Thus, the current proposal, combined with the truncation analysis of infinitival clauses in clitic climbing and Pesetsky and Torrego's analysis of infinitival clauses, captures the clitic reduplication pattern in clitic climbing contexts in La Cassese.
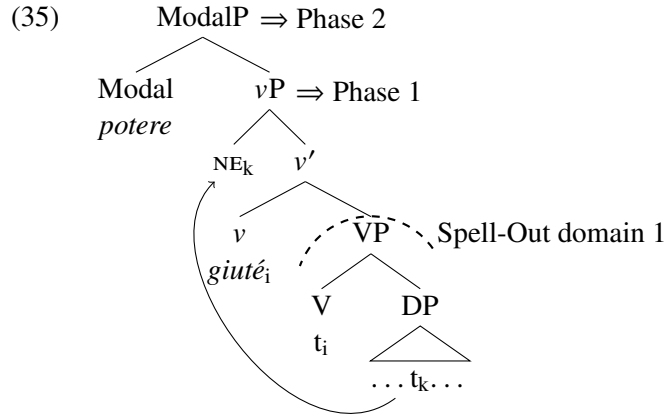
3.4   Aux+Modal.pp+V.inf

As mentioned in section 2, an important observation regarding clitic reduplication in the presence of three verbal elements in La Cassese is that the clitic can be realized with any of the verbal element in the configuration of 'have+modal.pp+V.inf', as shown in (34).
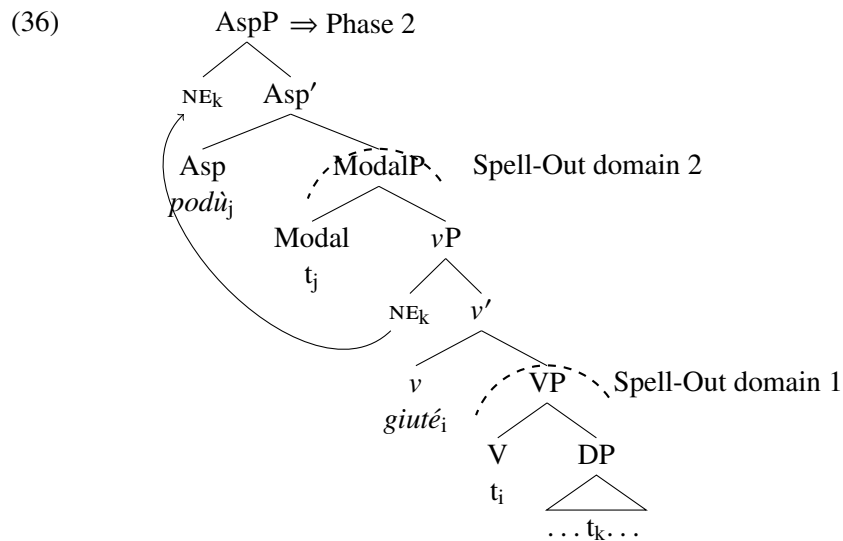
(34) a. Maria a **n**='ha podù   giuté.
         Maria SCL NE=has could   help

b. Maria a l='ha   podù=**ne** giuté.
    Maria SCL PROSTHETIC=has could=NE help

c. Maria a l='ha   podù   giuté=**ne**.
    Maria SCL PROSTHETIC=has could   help

d. Maria a **n**='ha podù=**ne** guité.
    Maria SCL NE=has could=NE help

e. Maria a **n**='ha podù   giutè=**ne**.
    Maria SCL NE=has could   help=NE
    'Maria could have helped them.'

f. Maria a l'=ha   podù=**ne** giuté=**ne**.
    Maria SCL PROSTHETIC=has could=NE help=NE

g. *Maria a **n**='ha podù=**ne** giutè=**ne**.
    Maria SCL NE=has could=ne help=ne

In this subsection we show that this can be straightforwardly captured by the current proposal.

We start from (35), where the clitic moves to the edge of the *v*P phase and Modal is merged above *v*P. ModalP constitutes another phase, because it is an independent verbal element.

18

(35)

ModalP ⇒ Phase 2

Modal *potere*

vP ⇒ Phase 1

NE$_k$ v′

v
giuté$_i$
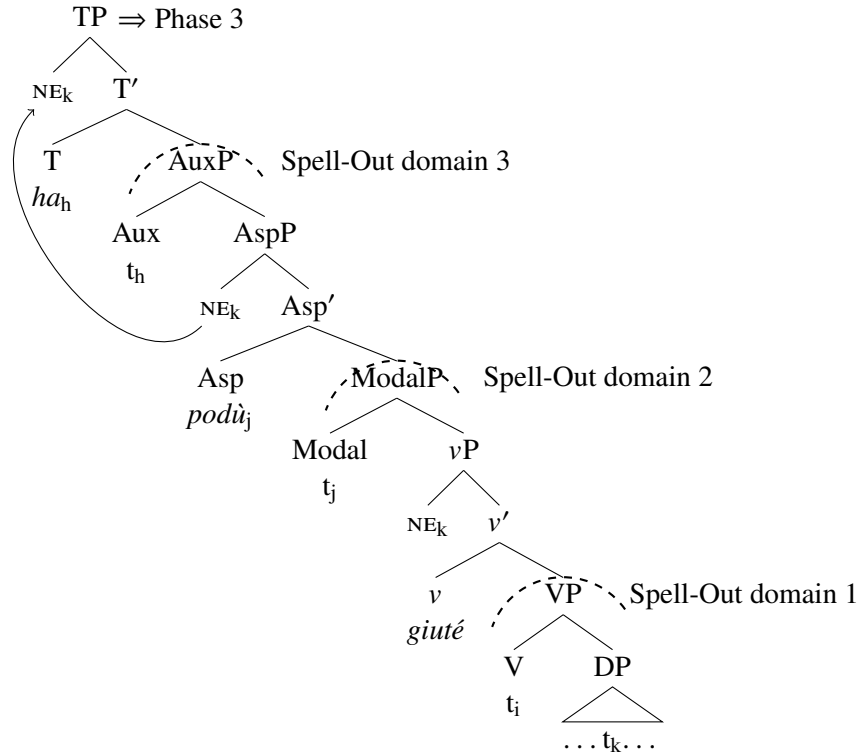
VP Spell-Out domain 1

V   DP

t$_i$

. . . t$_k$. . .

Asp is merged with ModalP and *potere* moves to Asp, extending/sliding Phase 2 to AspP. The clitic *ne* moves to the edge of AspP before completion of Phase 2 (in order to avoid the PIC effect). This is illustrated in (36).

(36)

AspP ⇒ Phase 2

NE$_k$ Asp′

Asp
podù$_j$

ModalP   Spell-Out domain 2

Modal
t$_j$

vP

NE$_k$ v′

v
giuté$_i$

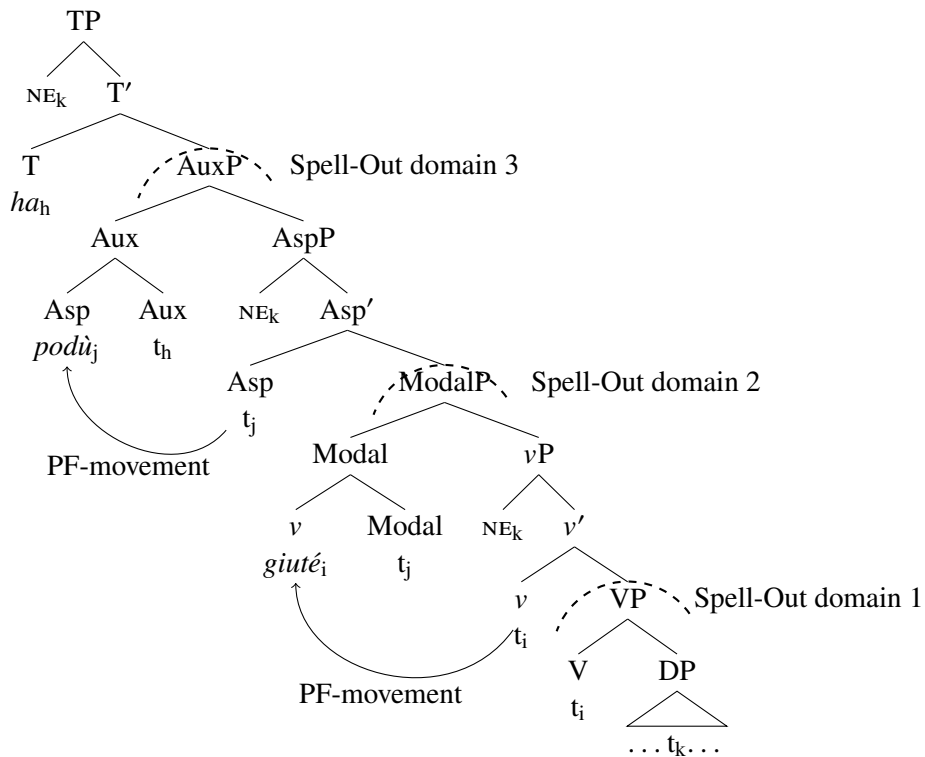VP Spell-Out domain 1

V   DP

t$_i$

. . . t$_k$. . .

Then Aux, which is another phase head, merges above AspP. T merges above this AuxP, and Aux moves to T, extending/sliding Phase 3 to TP. Finally, the clitic moves to the edge of TP, as seen in (37a). At PF, *giuté* and *podù* undergo PF head-movement in the Spell-Out domain 2 and the Spell-Out domain 3, respectively, as shown in (37b).

19

(37) a. TP ⇒ Phase 3

NE$_k$ T′

T *ha*$_h$ AuxP   Spell-Out domain 3

Aux t$_h$ AspP

NE$_k$ Asp′

Asp *podù*$_j$ ModalP   Spell-Out domain 2

Modal t$_j$ *v*P

NE$_k$ *v*′

v giuté   VP   Spell-Out domain 1

V t$_i$ DP

. . . t$_k$. . .

b. TP

NE$_k$ T′

T *ha*$_h$ AuxP   Spell-Out domain 3

Aux   AspP

Asp *podù*$_j$ Aux t$_h$ NE$_k$ Asp′

PF-movement

Asp t$_j$ ModalP   Spell-Out domain 2

Modal   *v*P

v giuté$_i$ Modal t$_j$ NE$_k$ *v*′

PF-movement

v t$_i$ VP   Spell-Out domain 1

V t$_i$ DP

. . . t$_k$. . .

In the structure (37b), the second highest copy of the clitic follows *podù*, and the third highest copy follows *giuté*. Thus, (37b) can potentially realize a copy of the clitic either with *podù* or *giuté* as enclisis to them.

Regarding the impossibility of three occurrences of a clitic in (34g), we suggest that there

is a PF constraint in La Cassese which bans more than two occurrences of a clitic in a verbal sequence in general.[20] This constraint should be language-specific, because Cairese, which is another Piedmont variety, allows three occurrences of a clitic in the same verbal sequence, as shown in (38).

(38) *Cairese*

I   **m'**=aveisi pusciû=**me** gitè=**me**.
you me=had   could=me help=me
'You could have helped me.'   (Parry 2005:230)

Note that the positions of the clitic in Cairese in (38) can be straightforwardly captured by our proposal; see (37b), where the past participle *podù* precedes the second highest copy of *ne* and the bare infinitive *giuté* precedes the third highest copy of *ne*. This means that the syntax of clitic movement is uniform between La Cassese and Cairese, with the point of parameterization being the presence/absence of the ban on three occurrences of a clitic at PF. This is a desirable way of parameterization in the recent linguistic theory, in which it is hypothesized that parameterization should be attributed (at least in part) to externalization (Berwick and Chomsky 2011, Boeckx 2011, Chomsky 2021); see also section 4 for relevant discussion of parameterization.

3.5   Modal+Aux+V.pp

Let us now turn to the even more complex case, in which a modal auxiliary verb is followed by a verb in compound tense. The relevant examples are repeated here as (39) from section 2.

(39) a.   A   **na**=pülo avei   mangià   tanti, 'd pom.
         SCL   NE=can   have   eaten   many   of apple

     b.   A   pülo avei=**ne** mangià   tanti, 'd pom.
         SCL   can   have=NE   eaten   many   of apple

     c. ??A   pülo avei   mangià=**ne** tanti, 'd pom.
         SCL   can   have   eaten=NE   many   of apple

     d.   A   **na**=pülo avei=**ne** mangià   tanti, 'd pom.
         SCL   NE=can   have=NE   eaten   many   of apple

     e. *A   **na**=pülo avei   mangià=**ne** tanti, 'd pom.
         SCL   NE=can   have   eaten=NE   many   of apple

     f. *A   pülo avei=**ne** mangià=**ne** tanti, 'd pom.
         SCL   can   have=NE   eaten=NE   many   of apple

---

20. Note that this does not block more than two occurrences of clitics in total as long as the occurrences are not in one chain. Thus, (21), repeated here as (i), is well-formed, because there are four occurrences of non-subject clitics in total in one sentence but not in one chain or in one cluster.

(i) A   **i**=**na**=j'=é   rivà=**j**=**ne**   mach un, 'd cit.
    SCL LOC=NE=PROSTHETIC=is arrived=LOC=NE only   one of boys
    'As for boys, only one (of them) arrived there.'

g. *A **na**=pülo avei=**ne** mangià=**ne** tanti, 'd pom.
   SCL NE=can have=NE eaten=NE many of apple
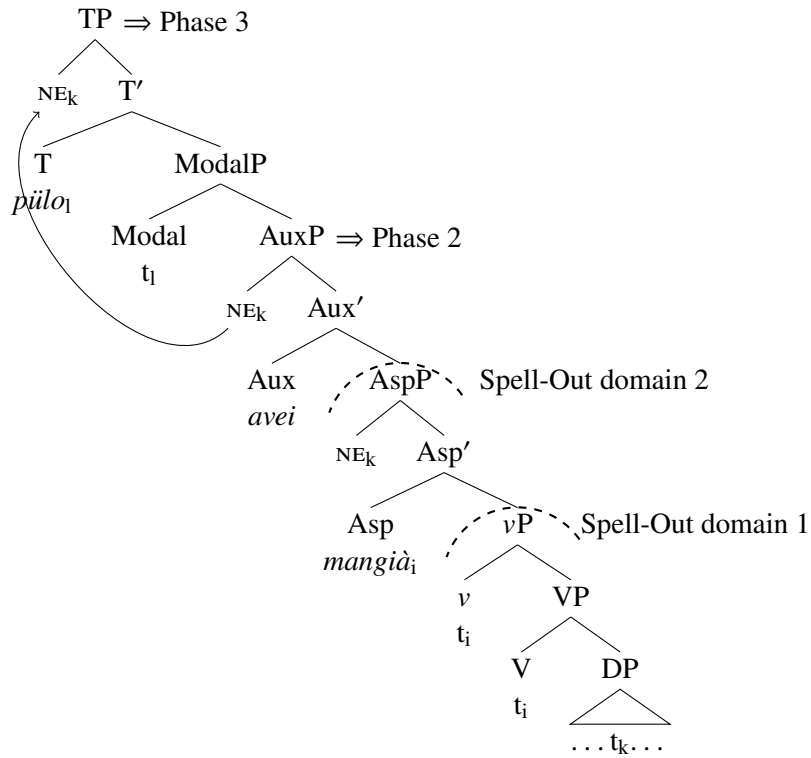   'As for apples, they could have eaten many.'

The generalization here is rather simple; the clitic cannot be attached onto the lowest verb (*mangià*). We show that this can also be explained by our proposal.

    After completion of the AspP phase, Aux (*avei*) is merged with AspP and projects AuxP, which is Phase 2, as illustrated in (40a). The next higher projection is ModalP, which constitutes another phasal domain (Phase 3 here) since it is an independent verbal element. Thus, the clitic moves to the edge of AuxP (i.e., Phase 2). This is shown in (40b). Note that Asp⁰ (*mangiá*) cannot undergo PF head-movement to Aux at PF, since PF head-movement cannot cross a Spell-Out domain. Thus, the position of *mangià* is fixed as Asp.
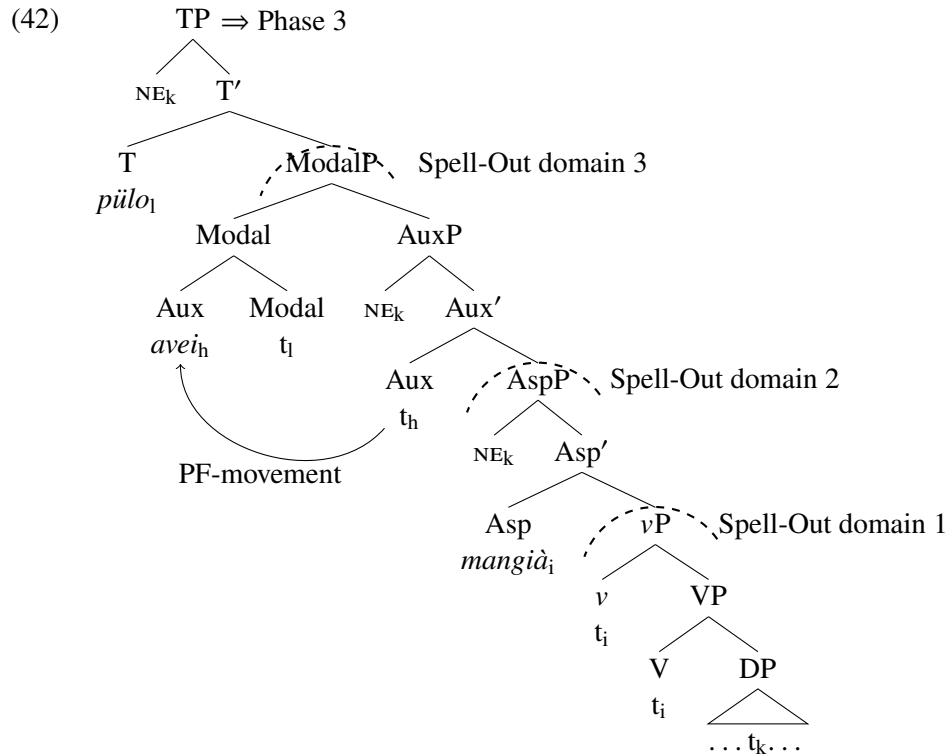
(40) a.

  b.

22
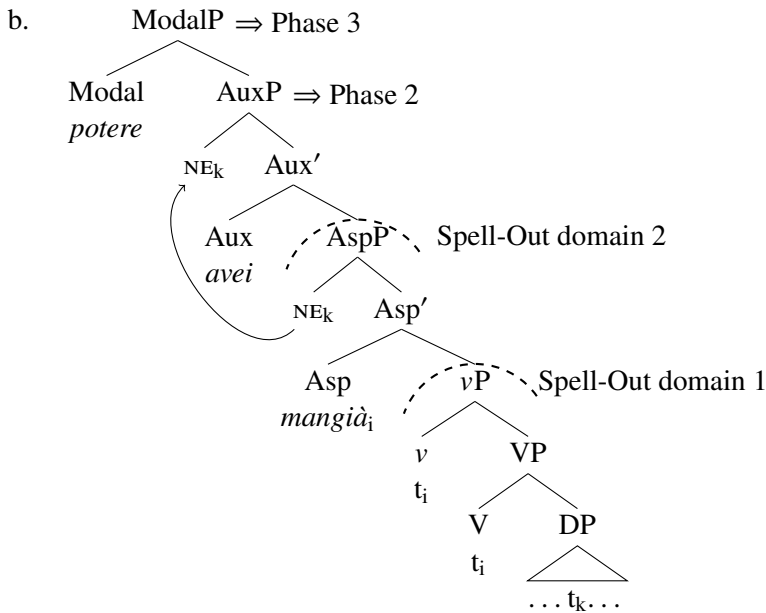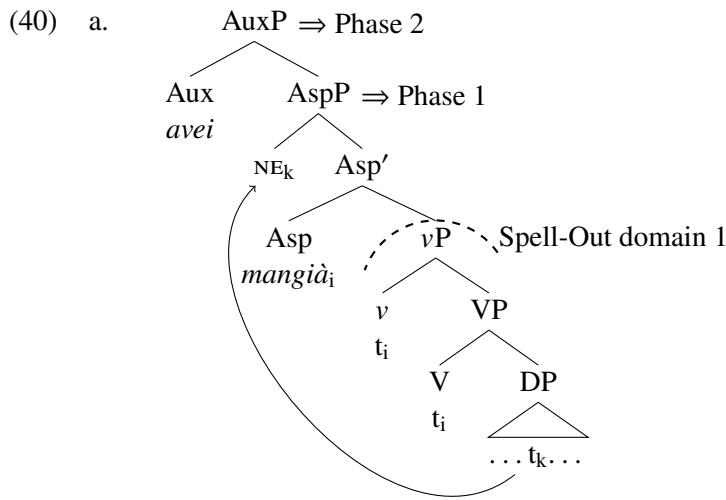
Now T merges with ModalP, and Modal moves to T, extending/sliding Phase 3 to TP. Then the clitic moves to the edge of TP, as shown in (41).

(41)

```
              TP ⇒ Phase 3
             /    \
         NEₖ      T′
                 /    \
               T      ModalP
             pülo₁    /    \
                   Modal    AuxP ⇒ Phase 2
                    t₁      /    \
                        NEₖ      Aux′
                                /    \
                              Aux    AspP     Spell-Out domain 2
                             avei    /    \
                                  NEₖ     Asp′
                                         /    \
                                       Asp    vP    Spell-Out domain 1
                                     mangià₁  /  \
                                             v    VP
                                            t₁   /   \
                                                V    DP
                                               t₁    /\
                                                  . . . tₖ . . .
```

After ModalP is Spelled-Out upon completion of Phase 3, Aux undergoes PF head-movement to Modal in the Spell-Out domain, as in (42).

(42)

TP ⇒ Phase 3

NE$_k$ T′

T
pülo$_l$

ModalP   Spell-Out domain 3

Modal   AuxP

Aux   Modal   NE$_k$ Aux′
avei$_h$ t$_l$

Aux   AspP   Spell-Out domain 2
t$_h$

NE$_k$ Asp′

PF-movement

Asp   vP   Spell-Out domain 1
mangià$_i$

v   VP
t$_i$

V   DP
t$_i$

...t$_k$...

There are three potentially realizable copies of the clitic in this structure: the one at the edge of TP, which asymmetrically c-commands the modal, and the one at the edge of AuxP and the one at the edge of AspP, both of which are asymmetrically c-commanded by *averi*. Thus, the highest copy precedes the modal, and the lower two copies follow *avei*. Crucially, there is no available copy below the lowest verb, *mangià*. Thus, the generalization that the clitic cannot be encliticized onto the lowest verb in this combination of verbs is captured by our proposal.

As for the two copies of the clitic between *avei* and *mangià*, we suggest that a version of haplology forces only one of them to be pronounced; namely, when two elements that have the same form are linearly adjacent to each other, one of them needs to be unpronounced. Regarding whether the cliticization is enclisis onto *avei* or proclisis onto *mangià*, we suggest that at PF, the string is computed from left to right, and as soon as a verb finds a clitic (or a clitic finds a host), the clitic is cliticized onto the verb, obeying the LCA. In (42), *avei* comes first (since it asymmetrically c-commands *mangià*) and it finds the copy of the clitic at the edge of AuxP, so that this copy is pronounced as an enclitic of *avei*. It should be added here that the fact that the two copies of the clitic under discussion are in different Spell-Out domains does not affect the argument. Even if the copy at the edge AspP is computed as procliticizing onto the past participle in the Spell-Out domain (AspP), the constraint discussed above works at the final representation of the string of the entire sentence, which has combined all the Spell-Out domains. Thus, the clitic in the "middle" position in the verbal sequence must encliticize onto *avei*.

Regarding the impossibility of three occurrences of a clitic in one sentence, we proposed in section 3.4 that in La Cassese realization of more than two copies of a clitic in a chain is generally disallowed. We hasten to add here that just positing this global PF constraint on a chain of a clitic does not explain the contrast between the pattern in (39) discussed in this subsection and the one in (34) in the previous subsection; specifically, in (39f) the clitic cannot be pronounced on the lowest verb, whereas it can in (34). The global PF constraint merely bans

realization of a third copy in a chain, and does not specify which copy can(not) be pronounced. What is crucial for the patterns of clitic realization in question is the presence/absence of a copy of the clitic in a position that follows the lowest verb. In (39), there is no copy of the clitic below the lowest verb, as seen in (42), so there is no way to realize a clitic on that verb as an enclitic (and it cannot be procliticized onto the lowest verb either, since the higher verb serves as the first available slot for cliticization in the left-to-right linearization as noted above). In contrast, in (34), there is indeed a copy of the clitic below the lowest verb, as shown in (37b), so that there is a possibility of pronouncing the clitic in the relevant position. Thus, we maintain our proposal that the positions of clitics in clitic reduplication in La Cassese are essentially constrained by derivational cycles (i.e., phases).

To summarize this section, we have proposed that clitics undergo XP-movement, leaving copies at the edge of phases. A phase can be extended/slid to a higher phrase via syntactic head-movement of the phase head (a verbal element here), which explains the contextual nature of clitic reduplication in La Cassese. This proposal, which is combined with the LCA and PF verb movement, correctly captures the difference in possible cliticization sites between the 'modal+aux+V.pp' sequence and the 'aux+modal.pp+V.inf' sequence.

4   Cross-linguistic comparison and a point of parameterization

Finally, we briefly discuss our proposal from a comparative perspective. As Benincà and Cinque (2020) summarize, there are a number of languages that allow clitic reduplication, as shown in (43)-(45) (see also Manzini and Savoia 2005 and Roberts 2016 for more languages).

(43)   *Spoken Italian*
e   **lo**=volevo   far=**lo**   a   giugno
and it=I.wanted   to.do=it   in June   (Vanvolsem 2000:178)

(44)   *Cairese*

   a. A'=**m**   sun fò=**me**   in fazin
       I=to.myself am   made=to.myself a   cake
       'I baked me a cake.'   (Parry 2005:178)

   b. I   **l'**=an   catò=**le**
       they it=have bought=it
       'They bought it.'   (Parry 2005:179)

(45)   *Chilean Spanish*
Los=vamos a ver=**los**
'We are going to see them.'   (Uriagereka 1995:fn.21)

Notice that all these cases involve a sequence of two verbal elements. It is obvious that our proposal can be straightforwardly extended to these languages.[21]

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21. In Argentinean Spanish, the clitic is encliticized to the finite verb as seen in (i).

In addition, as mentioned in section 3.4, Parry (2005) observes that Cairese allows realization of three copies of a clitic in a chain unlike La Cassese, as shown in (46).

(46) I   **m'**=aveisi pusciû=**me** gitè=**me**.
      you me=had   could=me   help=me
      'You could have helped me.'

Recall from section 3.4 that the positions of the pronounced copies can be correctly captured by our proposal; as seen in (37b), the middle copy of the clitic is c-commanded by the modal, and the lowest one by the lowest verb. This means that our proposal correctly captures potential clitic positions in a uniform syntactic mechanism in these two dialects, and the point of parameterization is whether realization of more than two copies of a chain is allowed (Cairese) or not (La Cassese). This way of parametrization can also be immediately extended to explain the difference between languages that allow clitic reduplication and those that do not; it is simply that languages that do not allow clitic reduplication in general have a global PF constraint which bans realization of more than one copy of a clitc in a chain. It is worth adding here that the way of parameterization of clitic realization we propose here is desirable in the recent minimalism, which assumes uniformity of narrow syntax across languages and attributes parametric variation (at least in part) to externalization (i.e., PF); see, e.g., Berwick and Chomsky (2011), Boeckx (2011), and Chomsky (2021). Thus, we conclude that our proposal is appealing from cross-linguistic and conceptual viewpoints.[22]

5   Conclusion

In this paper, we have examined the complex distribution of clitic reduplication in La Cassese. We have argued that possibility of realization of copies of a clitic is contextually determined by phases. The gist of our proposal is that clitics undergo XP-movement to the edge of a phase

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(i) Vámo=**nos** acostumbrándo=**nos** a este pais poco a poco
     'We are getting accustomed to this country little by little.'   (Argentinean Spanish, Nunes 2001:310)

Nunes (2001) proposes an account in which the clitic undergoes reordering in morphology (i.e., in the computation of externalization at PF) in this variety of Spanish (and other varieties that show the same ordering of the clitic). Another possibility may be that the tensed verb undergoes PF movement to a higher domain over the clitic, such as FinP (note that T is not Spelled-Out upon completion the extended/slided TP phase and FinP is not a phase; see section 3.4). In either case, it is an additional PF operation that is specific to such dialects. Thus, we maintain that the syntactic derivation of clitic placement in such varieties is the same as the one in La Cassese (and in any other language) and the surface difference emerges from variation in externalization.

22. A word of caution is in order regarding the notion of externalization discussed here. Externalization is sometimes considered to concern word order variation (see, e.g., Chomsky et al. 2019), i.e., word order variation has nothing to do with narrow syntax, but as Cinque (2023) points out, this position would be incompatible with the LCA-based approach to word order variation, under which variation in movement in narrow syntax (as well as PF-movement under the current proposal) leads to variation in word order. Note here that the term externalization itself means realization of syntactic objects or hierarchical structures at the A-P/S-M interfacec (as well as phonology and morphology), and it does not necessarily follow that word order variation is solely a matter of PF variation with no reference to syntax. It is rather logically possible that different specifications of relevant features in the lexicon lead to differences in application of movement, which then lead to different word orders computed based on the LCA (see, e.g., Biberauer et al. 2014 and Cinque 2023). We here maintain the LCA-based computation of word order without commitment to the issue of word order variation, and interpret "parameter in externalization" in a narrow sense, i.e., as the difference in possibility of realization of more than one copy in a chain.

in order to obey the Phase Impenetrability Condition, and phases can be extended via Phase Extension/Sliding due to syntactic head-movement. Consequently, positions of copies of a clitic can vary depending on syntactic environments (i.e., whether syntactic head-movement takes place or not). We have also proposed that non-finite verbs undergo PF head-movement, which is also constrained by phases, or more precisely, which cannot cross a Spell-Out domain. This PF head-movement explains why a clitic is encliticized onto lower verbs in a multiple-verb configuration. We have then suggested that the analysis we have proposed here can be extended to other languages which also have clitic reduplication; in other words, the syntactic mechanism that derives clitic reduplication should be uniform across languages. The only cross-linguistic difference, which concerns how many clitics can be realized in one tensed clause, is attributed to externalization, which conforms to the recent minimalist view of parametrization.

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