Clitics in Northern Italian Dialects: Phonology, Syntax and Microvariation[*]

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1. Introduction

In recent years, there has been much published on the topic of subject clitic pronouns in the northern Italian dialects. Most of these studies have focused on either the phonology or the syntax of these structures from a cross-linguistic perspective in an attempt to establish the range of variation and to formulate empirical generalizations in this area of great microvariation.[1]

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[1]. Some recent studies on clitics in northern Italian dialects include Pisani (1979), Benincà and Vanelli (1982), Benincà (1983), Brandi and Cordin (1981), (1989), Lombard (1983), Renzi and Vanelli (1983), Vanelli (1984), (1987), Rizzi (1986), Michelini (1989), Poletto (1993a), (1993b), (1996), (1999), (2000), Zörner (1993), (1995).

In this paper we take a different path. We provide an in-depth analysis of both the phonology and syntax of subject clitics in one northern Italian dialect, Donceto (in the province of Piacenza), and we show that (i) a thorough understanding of subject clitics is possible only if we consider both their phonological and syntactic behavior, and (ii) microvariation can be understood only after establishing the true nature of what has been called "subject clitics".

While many of our findings confirm previous analyses, other important aspects of our analysis are quite different from current ones. Based on our analysis of the dialect of Donceto, we make a number of new proposals regarding the nature of many clitics in northern Italian dialects and the relationship between preverbal and postverbal subject clitics, and we show that these proposals allow us to account for microvariation which has until now remained poorly understood or completely unexplained.

1.1. The Basic Data

The dialect of Donceto in the province of Piacenza is typical of one of the many types of paradigms we find in northern Italian dialects.[2] In this dialect the first person singular, first person plural and second person plural forms of the verb have an optional preverbal vocalic segment. The other three forms have an obligatory preverbal clitic. In the second person singular and in the third person masculine singular, the clitic has a VC (vowel-consonant) structure, and in the third person masculine plural, it is a V (vowel). Note that the vocalic portion of the clitic of the singular forms and the first two plural forms is identical, but it is different from the vocalic clitic of the third person plural.[3]

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[2]. Unless otherwise indicated, all data reported in this study are from field research, and we are very grateful to our informants for their time and patience. Most data come from the dialect of Donceto. When comparative data are relevant for the analysis, we use data from a related Piacentine dialect spoken in Gazzoli, a town approximately 5 kilometers from Donceto. The patterns found in Donceto and Gazzoli are common throughout Emilia-Romagna (see Gaudenzi 1889, Mandelli 1995, Repetti to appear, Zörner 1989). For an insightful analysis of the syntactic and semantic properties of subject clitics in the dialect spoken in the city of Piacenza, a dialect related to the one studied here, see Zucchi (1996).

[3]. We are not going to analyze the third person feminine subject clitics *la* 'her' and *e* 'them' in detail because they behave essentially like their masculine counterparts. They will be considered only when relevant to the discussion.

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(1) (ə) 'be:v   'I drink'   (ə) bu'vum   'we drink'
     ət 'be:v 'you:sg drink'   (ə) bu'vi   'you:pl drink'
     əl 'be:və 'he drinks'   i 'be:vən   'they:masc drink'

In (2), the corresponding interrogative sentences are provided. Note that the distribution and the phonological form of the preverbal material are, in some cases, different from what is found in declarative sentences. Note also that in all forms, the preverbal vowel is optional, while the postverbal clitic is obligatory.[4]

(2) (ə) 'be:v-jə   'am I drinking?'   (ə) bu'vum-jə 'are we drinking?'
      (ə) 'be:v-ət   'are you:sg drinking?'   (ə) bu'vi:-v   'are you:pl drinking?'
      (ə) 'be:və-l   'is he drinking?'   (ə) 'be:vən-jə 'are they:masc drinking?'

In this paper, we analyze both the proclitic and the enclitic material, concentrating on the preverbal vocalic segment /ə/. Consider (3), where the declarative data in (1) are organized as to whether the preverbal schwa is obligatory (3a), impossible (3b), or optional (3c). In (4) we reorganize the interrogative sentences of (2) in such a way that the contrast between the occurrence of the vocalic segment in declarative sentences and its occurrence in interrogative sentences is pointed out: in (4a), the preverbal schwa is optional, while it is obligatory in declarative sentences; in (4b) the vowel can be optionally present, while it is absent in declarative sentences; and in (4c) the vowel is optional as it is in declarative sentences.

(3)   declarative sentences:
      a.   ə t be:v   'you:sg drink'
            ə l be:və   'he drinks'
      b.   (*ə) i 'be:vən   'they drink'

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[4]   Notice that in the second person plural form of the verb, the final vowel is short in the declarative form and long in the interrogative form with an enclitic pronoun: [bu'vi] vs [bu'vi:-v]. In the dialect of Donceto, certain consonants (such as /v/) require the preceding stressed vowel to be long. See Ghini (2001) for an analysis of "lengthening consonants" in the northern Italian Ligurian dialect of Miogliola.

   c.   (ə) be:v   'I drink'

        (ə) bu'vum   'we drink'

        (ə) bu'vi   'you:pl drink'

(4)   interrogative sentences:

   a.   (ə) be:v-ət   'are you:sg drinking?'

       (ə) be:və-l   'is he drinking?'

   b.   (ə) be:vən-jə   'are they drinking?'

   c.   (ə) be:v-jə   'am I drinking?'

       (ə) bu'vum-jə   'are we drinking?'

       (ə) bu'vi:-v   'are you:pl drinking?'

1.2. Two Possible Analyses

One analysis of the data in (3) and (4) is that all the preverbal material is a subject clitic. In particular, the preverbal vowels belong to the series of vocalic clitics individuated in works on other northern Italian dialects (see Poletto 1993a, 2000, and references therein). We will refer to this analysis as the 'unified' analysis.

(5)   'unified' analysis of (3)

   a. ə   t   be:v   'you:sg drink'

     ə   l   be:və   'he drinks'

     | |

  subject clitic *subject clitic*

   b.   i 'be:vən   'they drink'

        |

  subject clitic

   c. (ə) be:v   'I drink'

     (ə) bu'vum   'we drink'

     (ə) bu'vi   'you:pl drink'

      |

  subject clitic

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(6) 'unified' analysis of (4)

    a. (ə) be:v-ət   'do you:sg drink?'

       (ə) be:və-l   'does he drink?'

        |

    subject clitic

    b. (ə) be:vən-jə   'are they drinking?'

        |

    subject clitic

    c. (ə) be:v-jə   'am I drinking?'

       (ə) bu'vum-jə   'are we drinking?'

       (ə) bu'vi:-v   'are you:pl drinking?'

        |

    subject clitic

Poletto (2000: 12f) has proposed dividing preverbal subject clitics found in northern Italian dialects into different classes based on their phonological realization: vocalic subject clitics and consonantal subject clitics. She further subdivides subject clitics according to the different features they realize, so that they may be classified as invariable, deictic, number, or person subject clitics.

(7) a. VOCALIC subject clitics:

      • **invariable** subject clitics   (all persons)

      • **deictic** subject clitics   (1st / 2nd pers. vs. 3rd pers.)

      • **number** subject clitics   (3rd pers. pl. masc.)

    b. CONSONANTAL subject clitics:

      • **person** subject clitics   (2nd pers. sg., 3rd pers. sg. masc.)

      • **number** (+gender) subject clitics   (3rd pers. sg. and pl. fem.)

According to Poletto, an **invariable** subject clitic "does not encode any subject feature at all, as it is […] invariable for all persons" (p. 12). Furthermore, "invariable SCLs [subject clitics] are the only clitics that express a theme/rheme distinction. […] [They] may be used to indicate that the whole sentence is new information" (p. 23). The preverbal vocalic segment in (6) might be a candidate for this class of subject clitics.

Another class consists of **deictic** subject clitics. A deictic subject clitic "encodes a deictic feature, as it only has two forms: one used for the first and second person (singular and plural) and one for the third person (singular and plural) […] This type of SCL is sensitive to the +/− third-person distinction or, better, to the distinction between the deictic persons who are present in a conversation (first and second person) with respect to those who are absent (third person)" (p. 13). Some of the subject clitics in (5) might be analyzed as belonging to the deictic class.

Consonantal second and third person singular subject clitics (such as *t* and *l* in (5a)) encode person features (the "±hearer feature" p. 14), and naturally fall into Poletto's **person** class of consonantal clitics. Vocalic third person plural subject clitics (such as *i* in (5b)) encode number ("±plural") and gender ("±feminine") features (p. 14), and might be considered **number** subject clitics.

The other analysis that we will consider challenges the view that all the preverbal material in (3) and (4) is to be considered a subject clitic. We will show that only the consonantal portion of the preverbal clitics in (3a) (namely, /t/ and /l/) and the vocalic segment in (3b) (namely, /i/) are subject clitics. In other words, we will argue that only the **person** and **number** subject clitics in Poletto's typology are true subject clitics. The preverbal schwas in (3a), (3c) and (4) are not subject clitic pronouns at all: the schwa in (3a) is an epenthetic vowel, the schwa in (3c) is, what we call, a subject-field vowel, realizing a functional head of the Infl layer, and the preverbal schwa in (4) is, what we call, an 'interrogative vowel', realizing a functional head of the Comp layer.

(8)   'alternative' analysis of (3)

    a.   ə   t   bev   'you:sg drink'

            ə   l   be:və   'he drinks'

            | |

       epenthetic   *subj.*

       vowel   *clitic*

    b.   i 'be:vən   'they drink'

         |

      subj. clitic

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c.   (ə) be:v   'I drink'
        (ə) bu'vum   'we drink'
        (ə) bu'vi   'you:pl drink'
          |
    subject-field vowel

(9)   'alternative' analysis of (4)
        (ə) be:v-ət   'do you (sg) drink?'
        (ə) be:və-l   'does he drink?'
        (ə) be:vən-jə   'are they drinking?'
        (ə) be:v-jə   'am I drinking?'
        (ə) bu'vum-jə   'are we drinking?'
        (ə) bu'vi:-v   'are you:pl drinking?'
        |
    interrogative vowel

In this paper, we will see that there are many problems with the 'unified' analysis of the preverbal vowels in (3) and (4), and we will develop the 'alternative' analysis of these data. We also investigate the nature of the postverbal material in the interrogative sentences in (4), suggesting that, despite superficial differences and *contra* current analyses, they are subject clitics belonging to one and the same paradigm as the true preverbal subject clitics in (3a) and (3b).

The data we discuss are mainly from the dialect of Donceto. However, since the dialect of Donceto is typical of one of the many types of systems we find in northern Italy, our conclusions can be extended to other northern Italian dialects. We show that once the nature of the pre- and postverbal material is correctly established, the question of microvariation can be addressed successfully.

This paper will be organized as follows. In §2 we investigate the nature of the preverbal clitics in declarative sentences and motivate the analysis in (8) using comparative as well as neurolinguistic data. In §3 we investigate the nature of the preverbal clitics in interrogative sentences (see (9)) and conclude that they are not subject clitics, but are "interrogative vowels" realizing a functional head of the Comp layer. We study many types of interrogative sentences including yes-no questions and questions involving wh-clitics and wh-phrases, and we use data from a number of dialects. In §4 the postverbal clitics in interrogative sentences are considered, and we conclude that they are also subject clitics, belonging to one and the same paradigm as the true preverbal subject

clitics. Our analysis is again supported by cross-linguistic data. In §5 we discuss the different behavior of weak vs. clitic pronouns, accounting for the partial pro-drop properties of northern Italian dialects, and in §6 we conclude the article.

2. Preverbal Clitics in Declarative Sentences

In this section we examine the data presented in (3), and we compare the 'unified' analysis of these data (5) with the 'alternative' analysis (8).

2.1. Second and Third Person Singular: Two Subject Clitics or One?

We begin our investigation of the nature of the preverbal vowel in declarative sentences with an analysis of the second and third person singular forms. Some sequences of vowel + consonant in other northern Italian dialects are analyzed as consisting of two subject clitics: a vocalic clitic and a consonantal clitic. See e.g. the Friulian data in (10), discussed in Poletto (2000: 13).

(10) a. i   ti   mangis   'I you eat'
      | |
   subj.cl. *subj.cl.*

   b. a   l   mangia   'A he eats'
      | |
   subj.cl. *subj.cl.*

If this analysis is extended to the subject clitics [ət] and [əl] in (3a), they should be analyzed as a combination of two subject clitics: a vocalic clitic and a consonantal clitic.

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(11) 'unified' analysis

    /ə/   +   /t/ + /beːv/   'you:sg drink'

    /ə/   +   /l/ + /beːvə/   'he drinks'

     | |

  subj.cl.   *subj.cl.*

Alternatively, these structures can be analyzed as consisting of a single consonantal clitic; the vowel is not a subject clitic.

(12) 'alternative' analysis

    /t/   +   /beːv/   'you:sg drink'

    /l/   +   /beːvə/   'he drinks'

     |

  subj.cl.

Evidence from various sources suggests that the preverbal schwa in the second and third person singular forms is not a syntactic entity, but is an epenthetic vowel.[5]

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[5].   Early studies of northern Italian dialects treated the vowel in the third person singular masculine subject clitic (/Vl/) as epenthetic (Bertoni 1905, Gorra 1892, Piagnoli 1904). More recently, Vanelli (1984) analyzes the second person singular subject clitic in a way which is similar to the one presented here, namely /t/ is analyzed as a subject clitic and the vowel as epenthetic; however, her analysis of the third person singular masculine clitic as monomorphemic (/Vl/) differs from ours. Notice that the data we use to argue against the 'unified' analysis of second and third person singular subject clitics also argue against the analysis of them as being monomorphemic subject clitics with a /VC/ (vowel-consonant) structure. Poletto (2000: 14) takes second and third person singular clitics to have the form *t* + V and V + *l*, respectively, although she claims that "there are reasons to believe that the vowel here is epenthetic" (Poletto 2000: 177, n. 2). However, her analysis of the sentence in (i) contradicts this claim and suggests that at least the vowel on the third person clitic *el* is not taken to be epenthetic. (In this respect, Poletto agrees with Vanelli 1984.) See §2.1.3 and note 10 for further discussion of this case.

(i)   Ara ch'el vien.   'look that he comes'   (Poletto 2000: 21)

2.1.1.   Sensitivity to Phonological Context

First, the relative position of the vowel and the consonant changes depending on the phonological context. In (13a) we see that the vowel precedes the consonant if the following verb begins with a single consonant, but in (13b) the vowel follows the consonant if the following verb begins with an /s/ + stop consonant cluster.

(13) a. ə t beːv   'you:sg drink'   b. t ə skriːv   'you:sg write'
         ə l beːvə   'he drinks'   l ə skriːvə   'he writes'

A change in the order of the two clitics in different phonological contexts is inconsistent with a purely syntactic analysis. However, the patterns illustrated in (13) can easily be accounted for if we consider the subject clitic to consist of a single consonant (/t/ or /l/) which is syllabified through epenthesis. The position of the vowel relative to the consonantal clitic is completely predictable if we consider the vowel to be epenthetic.

Let us now turn our attention to the process of epenthesis in the Donceto dialect as well as other northern Italian dialects (see Repetti 1995a, 1995b). An unsyllabified consonant that cannot adjoin to an adjacent syllable will be syllabified through the insertion of an epenthetic vowel. The position of the epenthetic vowel varies depending on the phonological context. If there is only one unsyllabified consonant, as in (14a), the epenthetic vowel is inserted before it. If there are two unsyllabified consonants, as in (14b), the epenthetic vowel is inserted between the two consonants.[6]

(14) a. C > əC

         /**n**vuːd/   >   [ə**n**'vuːd]   'nephew'
         /mag**r**/   >   ['mæːgə**r**]   'thin'
         /lag**r**ma/   >   ['læːgə**r**ma]   'tear'
         /i vuris**n** par'la/ >   [i vu'risə**n** par'læ]   'they would like to speak'

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[6].   Epenthesis is optional before utterance-initial sC clusters, but mandatory phrase-internally.

(i)   [sp ɛtʃ]/[əspɛtʃ]   'mirror'

(ii)   *[sɛt spɛtʃ]/[sɛt əspɛtʃ]   'seven mirrors'

b. CC > CəC

/**kr**de/	>	[kər'de]	'you:pl believe'
/i vuris**n** **s**tudja/	>	[i vu'risnə stu'djæ]	'they would like to study'

Within a constraint-based approach to phonology, such as Optimality Theory (Prince and Smolensky 1993, McCarthy and Prince 1993), we can use the following constraints to account for the patterns found in the dialect of Donceto.

(15) *Complex I >> DEP >> *Complex II >> SonCon >> Contiguity >> Anchor

*Complex I: no complex onsets or codas that violate the Sonority Sequencing Principle (SSP)

*Complex II: no complex onsets or codas

DEP: no epenthesis

Sonority Contour (SonCon): the coda must be more sonorous than the following onset

Contiguity: no medial epenthesis or deletion

Anchor: no epenthesis or deletion at edges

Sample tableaux are given for /lagrma/ and /nvud/.

(16) /lagrma/	*Complex I	DEP	*Complex II	SonCon	Contiguity	Anchor
(a) 'lægr.ma	*!		*			
(b) 'læ.grə.ma		*	*!		*	
(c) 'læg.rə.ma		*		*!	*	
(d) 'læ.gər.ma ←		*			*	

(17) /nvud/	*Complex I	DEP	*Complex II	SonCon	Contiguity	Anchor
(a) 'nvu:d	*!					
(b) nə.'vu:d		*			*!	
(c) ən.'vu:d ←		*				*

With the 'alternative' analysis of the second and third person singular clitics in mind — namely, that they consist of a single consonant which is syllabified through the insertion of an epenthetic vowel — and considering the process of epenthesis as illustrated above, we can easily account for the data in (13). In (13a), repeated in (18a), the vowel precedes the clitic because there is only one unsyllabified consonant, whereas in (13b),

repeated in (18b), the vowel follows the clitic because there are now two unsyllabified consonants.[7]

(18) a. /**t** + **be**:v/ > ə **t** be:v   b. /**t** + **skri**:v/ > **t** ə **s**kri:v

        /**l** + **be**:və/ > ə **l** be:və   /**l** + **skri**:və/> **l** ə **s**kri:və

We are claiming that the preverbal vowel in (3a) is epenthetic and is not a vocalic clitic. We believe that in cross-linguistic analyses, epenthetic vowels have sometimes been misidentified as vocalic clitics because the quality of the two is often the same (see §3.8). For example, in the dialect of Donceto, the initial vowel in the sentence [ə m læ:v] 'I wash myself' can be either the optional vocalic segment ([ə]) found in sentences such as [(ə) be:v] 'I drink', as shown in (19a), or an epenthetic vowel ([ə]), as shown in (19b).[8]

(19) a. /ə   m   la:v/   >   ə m læ:v

          | |

    subj.-field   *reflex.*

    Vowel   *clitic*

    (optional)

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[7].   In careful speech we also find: [ət əskri:v]/[əl əskri:və]. The vocalic segment before the consonantal clitic can in no way be interpreted as an (optional) vocalic subject clitic, but must be interpreted as an epenthetic vowel. It is inserted in careful speech when the consonantal clitic cannot attach to the following vowel because of a slight pause between the clitic and the verb which prevents resyllabification at the phrasal level. In other words, the conditions in which [ə-təskri:v] is chosen over [təskri:v] are purely phonological and cannot be compared to the free variation found in forms such as (3c): [ə-be:v] vs. [be:v]. These phonological considerations are supported by the following distributional observation: an initial schwa is ungrammatical in the third person singular feminine form, where there is no need for epenthesis.

(i)   la be:və   'she drinks'   la skri:və   she writes'

(ii)   * ə la be:və   * ə la skri:və

[8].   Vanelli (1984: 292) analyzes similar data as we do in (19a), but she explicitly excludes the possibility of the analysis in (19b).

b.   /m   la:v/   >   ə m læ:v

          |

     reflex. clitic

2.1.2.   Present Perfect

There is further evidence that the preverbal schwa in the second and third person singular forms is not a syntactic entity, and therefore cannot be analyzed according to the 'unified' analysis, but is instead an epenthetic vowel. The preverbal vowel in (3a) is not found in the present perfect form.

(20)   a. * ə t ɛ bu'vi:d   b. t ɛ bu'vi:d   'you:sg have drunk'

          * ə l a bu'vi:d   l a bu'vi:d   'he has drunk'

If the preverbal vowel were a subject clitic pronoun – in other words, if there were two subject clitic pronouns (vowel + consonant) – we would expect both clitics to appear in the present perfect form, contrary to fact.

(21)   'unified' analysis

     ə   +   t   + ɛ bu'vi:d   >   *ə t ɛ bu'vi:d

     ə   +   l   + a bu'vi:d   >   *ə l a bu'vi:d

      | |

   subj.cl.   *subj.cl.*

The actual forms do not contain a vowel, just the consonantal clitic. This is consistent with the analysis of these clitics as consisting of a single consonant. In the present perfect, no schwa appears because there is no need for epenthesis. The consonantal clitic can syllabify as the onset of the following vowel (the auxiliary verb).[9]

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[9].   Whereas in simple tenses, the third person singular masculine clitic is different from the feminine one, in compound tenses the third person singular form is the same for masculine and feminine.

(i)   [əl be:və] 'he drinks'   [l a bu'vi:d] 'he has drunk'

(ii)   [la be:və] 'she drinks'   [l a bu'vi:d] 'she has drunk'

(22) 'alternative' analysis

    t + ε bu'vi:d   >   t ε bu'vi:d
    l + a bu'vi:d   >   l a bu'vi:d
    |
  subj.cl.

We predict that the same pattern would hold for lexical verbs beginning with a vowel, but we cannot check this prediction since, to our knowledge, there are no vowel-initial verbs in this dialect.

2.1.3.   Complementizer + Subject Clitic

When the verb in (3a) is preceded by the complementizer [ke], the sequence is realized as [ke ət]/[ke əl] or [ket]/[kel]. Crucially, it is never realized as *[kət]/[kəl].

(23) /so + ke + t + be:v/   a. [ke ət]   b. [ke t]   c. *[k ət]
    'I know that you:sg drink'   (careful speech)

    /so + ke + l + be:v/   [ke əl]   [ke l]   *[k əl]
    'I know that he drinks'   (careful speech)

The forms in (23a) are found in careful speech (see note 7), while the forms in (23b) are the ones found in normal speech where the consonantal clitic syllabifies with the preceding complementizer, and the epenthetic vowel is not needed. The forms in (23c) are never found because it is not possible to delete the vowel of the complementizer in a

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The reason is now clear. In the masculine form the schwa is present in the simple tense because an epenthetic vowel is needed in that context, but it is not found in the compound tense because there is no need for epenthesis. In the feminine form, an epenthetic vowel is never needed (see note 7); in the compound tense the unstressed /a/ of the feminine clitic merges with the stressed /a/ of the auxiliary.

(i')   /l be:və/ > [əl be:və]   /l a bu'vi:d/ > [l a bu'vi:d]

(ii')   /la be:və/ > [la be:və]   /la a bu'vi:d/ > [l a bu'vi:d]

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context in which it is then necessary to insert an epenthetic vowel. (See (30c) and (38c) below for two contexts in which the deletion of the vowel of the complementizer is possible).[10]

2.1.4.   Conclusions

In conclusion, we propose that the second and third person singular form of the subject clitic pronoun consists of a single consonant — /t/ or /l/ — and that the preverbal vowel in (3a) is an epenthetic vowel. We believe that Donceto is not unique in this respect and that our analysis holds for other dialects as well (as we will illustrate below).

(24)   a. 2nd singular subject clitic: /t/

3rd singular subject clitic: /l/

b. the preverbal vowel in (3a) is epenthetic.

Syntactically, the second and third person singular consonantal clitics of Donceto have the same distribution as their counterparts in other dialects. Both clitic pronouns must be repeated in coordinations (25) (see Poletto 2000: 27-28).

(25)   ə t kã:t kõ me e *(t) bal kõ ly   'you:sg sing with me and dance with him'

ə l mã:dʒa la polɛnta e *(l) be:və əl vɛŋ 'he eats the polenta and drinks the wine'

Also, as in other dialects, the third person occurs above negation (26) (see Poletto 2000: 19).[11] Since the second person in Donceto does not occur with preverbal negation, its

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[10].   If our analysis of the third person singular clitic can be extended to the Veneto dialect of Loreo, the sequence [kel] should not be analyzed as in (i) (see note 5 above), but as in (ii), where the vowel /e/ is part of the complementizer.

(i)   Ara ch'el vien.   'look that he comes'   (Poletto 2000: 21)

(ii)   Ara che'l vien.

[11].   Note that two epenthetic vowels are used to syllabify the phrase in (26). Phonologically, there is no reason why a single epenthetic vowel cannot be used, as in *[lən be:v mia], but this is not found. The

position with respect to negation cannot be checked. In the related dialect of Gazzoli, however, where the second person clitic can cooccur with negation, it occurs below negation (27) (see Poletto 2000: 19 and footnote 11 which holds for the Gazzoli patterns in (27) as well).

(26) l   n   be:v   mia   > /l n be:v mia/ > [əl nə be:v mia] 'he does not drink'
     | | | |
     cl.   neg.   drink   neg.

(27) Gazzoli:
     n   t   be:v   mia   > /n t be:v mia/ > [ən tə be:v mia] 'you:sg do not
     | | | | drink'
     neg. cl.   drink   neg.

Phonologically, the quality and position of the vowel in the Donceto clitics in (3a) are identical to the quality and placement of the epenthetic vowel. In other dialects many different forms of the second and third person singular subject clitics are found. (See Poletto 1999: 586 and Vanelli 1984: 288-289 for a sampling of the forms found in northern Italian dialects.)

(28) second person singular: [at], [et], [it], [ət], [ot]
                                  [ta], [te], [ti], [tu]
      third person singular: [al], [el], [il], [əl], [ol], [ul]

The consonantal clitics can combine with different epenthetic vowels in the various dialects, and the position of the epenthetic vowel may vary from dialect to dialect. Notice that while only /Vl/ forms are found for the third person singular, both /Vt/ and /tV/ structures are attested for the second person singular. In those dialects that have /Vt/ and /Vl/ (like Donceto) the patterns of epenthesis are those illustrated in §2.1.1. In those dialects that have /Vl/ and /tV/ structures (like Paduan, see §4.3), sonority

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negative marker and the consonantal subject clitic are never syllabified together for reasons that are not discussed in this paper.

constraints on syllabification result in low-sonority-/t/ being syllabified as an onset and high-sonority-/l/ as a coda. (See Repetti 1995a and to appear for a discussion of the Emilian and Romagnol dialects in which low sonority consonants are syllabifed as onsets and high sonority consonants as codas, as in the case of Riolo in the province of Ravenna: /korn/ > [korn<u>e</u>] 'horn' vs. /tɔrl/ > [tɔr<u>e</u>l] 'yolk'.)

2.2.   Third Person Plural [i]

We now investigate the nature of the preverbal vowel [i] found in (3b). The obligatory preverbal vowel present in the third person plural form is not sensitive to the phonological context. It is mandatory with all verbs, regardless of their initial sound: consonant-initial verbs (29a), /s/ + consonant-initial verbs (29b), and vowel-initial auxiliaries (29c). Given these observations and the fact that its quality is not that of an epenthetic vowel, we conclude that it is not an epenthetic vowel.[12]

(29) a. i be:vən   'they drink'
　　 b. i skri:vən   'they write'
　　 c. i an bu'vi:d   'they have drunk'

This conclusion is supported by data involving the cooccurrence of the subject pronoun with the complementizer: the behavior of the third person plural pronoun [i] in (30) is different from the behavior of the preverbal vowel in (3a) (see (23)).

(30)   /so + ke + i + be:vən/   a. [ke i]   b. *[ke]   c. [k i]
　　 'I know that they drink'   (careful speech)

In (30a) both the preverbal vowel and the vowel of the complementizer are present. In (30b) the preverbal vowel cannot be deleted since it is obligatory. In (30c) the vowel of the complementizer can be deleted in rapid speech because of an optional phonological rule which results in the deletion of one of two adjacent unstressed vowels. The choice of the vowel to be deleted — the vowel of the complementizer or the vocalic clitic pronoun — is made on the basis of faithfulness constraints on input forms: MAX: faithfulness to the pronoun /i/ is more important than faithfulness to the vowel of the

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[12].   The form in (29c) has an alternative pronunciation with gliding of the prevocalic [i]: [j an bu'vi:d].

complementizer since part of the complementizer, /k/, remains after its vowel is deleted. Comparing (30) with (23) we see that the preverbal [i] and [ə] behave differently. Preverbal [i] cannot be deleted (30b), while preverbal [ə] is not mandatory (23b). In addition, the vowel of the complementizer can be deleted and the /k/ syllabified with [i] (30c), but not with [ə] (23c). The fact that (30c) is a possible form shows that the impossibility of the form in (23c) cannot be due to a requirement that [ke] remain unchanged. I. e., if we compare (23c) and (30c) we see that the vowel of the complementizer can indeed be deleted (see also (38c)). These observations support our analysis of the preverbal vowel in (3a) and (3b) as different from each other. While the preverbal schwa in (3a) is an epenthetic vowel, the preverbal [i] in (3b) is not.

Further evidence supporting these observations comes from data from the dialect of Gazzoli, which is nearly identical to the dialect of Donceto. One significant difference between the two dialects is that in Gazzoli the third person masculine singular subject clitic is (obligatory) [õ], not [əl]. Following a complementizer we find the data in (31).

(31) /so + ke + õ+ bɛjvə/   a. [ke õ]   b. *[ke]   c. [k õ]
       'I know that he drinks'   (careful speech)

Like the vocalic clitic [i] (third person plural) of Donceto, the vowel [õ] is a vocalic clitic (third person singular) and not an epenthetic vowel. The optional phonological rule which deletes one of the two adjacent unstressed vowels results in the deletion of the final vowel of the complementizer (compare (31c) with (30c)), but not the obligatory vocalic clitic (compare (31b) with (30b)).

Our preliminary conclusion is that the third person plural preverbal vowel in (3b) is not an epenthetic vowel, but is a subject clitic. It fits into Poletto's (2000) typology of vocalic subject clitics in northern Italian dialects, and like its counterparts in other dialects we can take it to encode the feature [+number]. Similar to other dialects, it occurs higher than negation (32a), and it cannot be omitted in coordinations (32b).

(32) (a)   i n be:vən mia   'they do not drink'
      (b)   i kã:tən kõ te e *(i) balən kõ ly   'they sing with you and dance with him'

2.3. The Analysis of Clitic Placement

The three subject clitic pronouns individuated so far — /t/, /l/, /i/ — undergo the typical

clitic derivation. Following Kayne (1975), we adopt a derivational approach to clitic placement. Sportiche (1989) and Cardinaletti and Starke (1999) interpret the derivation as a two-step movement: XP movement followed by X (head) movement.

This view of clitic derivation accounts for the fact that clitic pronouns occupy a structurally higher position with respect to weak pronouns, which only undergo the XP-movement step. This can be shown both for object pronouns, as in Italian (33), where the dative clitic pronoun *gli* occupies a structurally higher position with respect to the dative weak pronoun *loro*, and for subject pronouns, as in French (34), where the enclitic subject *il* found in interrogative sentences is taken to occur higher than the weak subject *il* found in declarative sentences (Kayne 1983, Rizzi 1986, Rizzi and Roberts 1989, Cardinaletti and Starke 1999:§3.1-2, Vecchiato 2000, among many others).[13]

(33) a. Maria   ha dato loro$_i$ un libro t$_i$.   'Mary has given [to] them a book'
      b. Maria gli$_i$ ha dato t$_i$ un libro t$_i$.   'Mary [to] him has given a book'

(34) a.   [AgrSP il$_k$ a$_i$ …   [VP t$_k$ bu]]   'he has drunk'
      b. [YP a$_i$-t-il$_k$ [AgrSP t$_k$ t$_i$ …   [VP t$_k$ bu]]]   'has-he drunk?'

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[13]   For the present concerns, it is not crucial to establish exactly to which head the verb moves in French interrogative sentences. In (34b), we have called this head Y, analogous to what we suggest for Donceto where the interrogative verb cannot move higher than the Y head since it linearly follows the vocalic segment sitting in the Z head (see (66b) and (66c) in §3.4 below). In any case, there is some evidence that the verb undergoes short movement to a position of the Infl layer and does not reach a head of the COMP layer. Lack of V-to-C movement in interrogative sentences seems to be a property of Romance languages which differentiates them from Germanic languages. Among others, see Kayne (1994: 44, 139, n.15) and Sportiche (1999) for French, Suñer (1994) for Spanish, Munaro (1997), (1999) for other northern Italian dialects, and Cardinaletti (2001) for Italian. A consequence of the Germanic vs. Romance difference is the different distribution of strong subjects, which can follow the raised verb in the former (i) but not in the latter (ii) (see Cardinaletti 2001 for discussion).

(i) a. Did John come?
     b. *German*: Ist Hans gekommen?   'has Hans come?'

(ii) a. *French*:   *A Jean bu?   'has Jean drunk?'
     b. *Italian*: *Ha Gianni bevuto?   'has Gianni drunk?'
     c. *Donceto*: *A(-l) Giani buvi:d?   'has(-he) John drunk?'

The analysis of object clitics in (33b) and the analysis of French subject clitics in (34b) can be extended to the three subject clitics individuated in Donceto, as shown in the derivation (35) for the third person singular. We take the clitic pronoun to adjoin to the X head (whose nature will be discussed in §5.4 and §5.5 below), which is higher than the position occupied by the French weak pronoun *il* in (34a), namely specAgrSP in pre-minimalist terms.

(35) $[_{XP}$ əl$_k$ be:və$_i$ $[_{AgrSP}$ t$_k$ t$_i$ … $[_{VP}$ t$_k$ t$_i$]]]   'he drinks'

Notice that the proposal in (35) differs from previous analyses of subject clitics in northern Italian dialects (such as Rizzi 1986, Brandi and Cordin 1981, 1989, Suñer 1992, Sportiche 1999, Poletto 2000: 19, among others). The previous analyses take the subject to be *pro* and subject clitics to be the realization of the Inflection head (in minimalist terms, subject clitics are merged in the Inflection head(s)). A subject clitic is often taken to enrich the Infl head so that it can license the null subject (see §5.6 for discussion). The previous analyses of subject clitics are all variants of a Sportiche-like approach to clitic placement. Sportiche (1996) assumes that a clitic pronoun always realizes a clausal functional head, whose specifier is related to the DP argument, which can be an overt DP or *pro*.[14]

The previous analyses and the one we are proposing in this article cannot be easily distinguished empirically. As in the case of object clitics, the fact that a subject clitic can cooccur with a strong pronoun (36a) or a DP (36b) in clitic doubling says nothing on the status of the clitic pronoun when it occurs by itself. The clitic pronoun might indeed cooccur with *pro*, as Sportiche (1996) suggests, or be moved from the thematic position, as in the traditional derivational analysis by Kayne (1975).

(36) a. ly əl be:və əl vɛŋ   'he drinks wine'
     b. l ɔm əl be:və əl vɛŋ   'the man drinks wine'

Since Sportiche's analysis is not without problems (cf. Cardinaletti and Starke 1999:

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[14].   As noted by Suñer (2000: fn.18), Manzini and Savoia's (1999) analysis implies that northern Italian dialects are not null-subject languages. In this respect, their analysis is similar to ours, at least for the second person singular and the third person singular and plural.

227, n. 82), the traditional analysis according to which clitic pronouns move from the thematic position and undergo the two-step derivation remains a plausible account of clitic placement. The discussion which follows will show that the proposal in (35) has a number of welcome consequences for the analysis of subject clitics in northern Italian dialects.[15]

2.4. First Person Singular, First Person Plural and Second Person Plural Optional Schwa: Epenthetic Vowel or Vocalic Clitic?

We concluded above that the preverbal vowel in (3a) is not a vocalic subject clitic, but is an epenthetic vowel, and that the preverbal vowel in (3b) is a true subject clitic. We will now consider the nature of the preverbal vowel in (3c).

2.4.1. Epenthetic Vowel?

We first note that this schwa is not sensitive to the phonological context. It is optional with all verbs, independent of their initial sound (37).[16]

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[15]. Two clitics seem to cooccur with *pro* in Italian, namely *ci* in presentational sentences such as (i) and impersonal *si* in sentences such as (ii).

(i)   C'è un libro sul tavolo.   'there is a book on-the table'

(ii)   Si è lavorato bene.   'SI is worked well' ('we have worked well')

It seems to us that neither of these cases can be compared to the subject clitics found in northern Italian dialects. The *ci* clitic in (i) can be analyzed as an locative object clitic (see Moro 1997 for a recent analysis), and the *si* clitic in (ii) is homophonous to a reflexive, object clitic (see Cinque 1988).

[16]. Unexpectedly, the schwa optionally appearing in the first person singular and plural and in the second person plural cannot cooccur with the auxiliary "have".

(i)   a.   (*ə) o buvi:d   'I have drunk'

        b.   (*ə) um buvi:d   'we have drunk'

        c.   (*ə) i buvi:d   'you:pl have drunk'

(37) a. (ə) be:v   'I drink'

    b. (ə) skri:v   'I write'

While we have shown that the preverbal vowel in (3a) is an epenthetic vowel, we can conclude that the preverbal vowel in (3c) is not an epenthetic vowel.

Despite their identical phonological form, we have additional evidence that the two vowels in (3a) and (3c) are different. When the verb in (3c) is preceded by the complementizer [ke], the pattern is different from that found with the schwa in (3a).

(38) /l + sa + ke + (ə) + be:v/   a. [ke ə]   b. [ke]   c. [k ə]

    'he knows that I drink'   (careful speech)

The form in (38a) is found in careful speech and consists of both the vowel of the complementizer and the optional preverbal vowel. In (38b) the optional preverbal vowel is absent, and in (38c) the optional preverbal vowel is present, but the vowel of the complementizer is deleted. In (38) we see that optional vocalic segment [ə] can appear after the complementizer (38a), or can be deleted (38b). But notice in (38c) that the final vowel of the complementizer can be dropped when followed by the vocalic segment.

Comparing the data in (23) and (38), we notice that the vowels in (3a) and (3c) behave differently: the vowel in (3a) cannot replace the vowel of the complementizer (23c), while the vowel in (3c) can replace the vowel of the complementizer (38c). These data confirm the proposal that the vowel in (3c) is different from the vowel in (3a) and is <u>not</u>

Schwa can cooccur with the auxiliary "be". (However, Renzi and Vanelli (1983: 129) claim that in Piacenza the preverbal vowel comparable to schwa is not possible with either auxiliary.)

(ii) a. (ə) so na via   'I am gone away' (I went away)

    b. (ə) sum na via   'we are gone away' (we went away)

    c. (ə) si na via   'you:pl are gone away' (you went away)

We propose that the ungrammaticality of (i) must be due to a phonological (not syntactic) restriction, and specifically a constraint against schwa + stressed vowel. (Notice that the "have" forms are vowel-initial, while the "be" forms are consonantal-initial.) See also note 23.

epenthetic.[17]

Comparing (38) with (30) we see that the preverbal vowel [ə] also behaves differently from the vowel [i]: in (33b) we see that the preverbal schwa is optionally absent, while in (30b) we see that the preverbal [i] may not be deleted. This is not surprising given the fact that the preverbal [ə] is optional in main clauses (3c), while preverbal [i] is mandatory (3b). On the other hand, both preverbal vowels can replace the vowel of the complementizer (compare (38c) with (30c)). These observations support our analysis of the preverbal vowel in (3b) and (3c) as a syntactic element that can replace the vowel of the complementizer, while the preverbal vowel in (3a) is an epenthetic vowel that cannot replace the vowel of the complementizer.

2.4.2. Subject Clitic?

We have seen that the optional preverbal vowel present in the first person singular, first person plural, and second person plural forms is not an epenthetic vowel. There is reason to believe that it is not a subject clitic either. One difference between the subject clitics in (3a) and (3b) and the preverbal schwa found in (3c) is that the former are obligatory, while the latter is optional. Secondly, the Donceto vocalic segment in (3c) does not fit into Poletto's (2000) typology of vocalic subject clitics in northern Italian dialects: its behaviour is not shared by any of the classes of clitics listed in (7).

The schwa in (3c) behaves like Poletto's invariable clitics in that it occurs higher than negation (39a) and cannot be repeated in coordinations (39b). Compare (39) with the data from the Veneto dialect of Loreo: *A no vegno* 'I not come' (Poletto 2000: 18); *A canto co ti e balo co lu* 'I sing with you and dance with him' (Poletto 2000: 24). (Note that the vowel preceding the negation in (39a) can be considered the optional vowel under discussion or an epenthetic vowel; see (19) above.).

(39) a. ə   n   be:v   mia   >   [ə n be:v mia]   'I do not drink'

       | | | |

       cl.   *neg.*   *drink*   *neg.*

   b. (ə) kã:t kõ te e (*ə) bal kõ ly   'I sing with you and dance with him'

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[17].   In turn, the contrast between *[k ət]/*[k əl] in (23c) and [k ə] in (38c) confirms the conclusions reached in §2.1 that in the second and third person singular, the schwa is epenthetic and is not the same schwa as in (3c). If the schwa in (23c) were not epenthetic, (23c) should be grammatical, as is (38c).

However, the vowel in (3c) cannot be considered an invariable clitic. First, it does not express any theme/rheme distinction, but is fully optional. Second, its distribution in the paradigm (first person singular and plural and second person plural) is different from invariable clitics, which are found in other dialects in all persons of the paradigm.[18] Third, while the vocalic clitics studied by Poletto obligatorily cluster with the complementizer (cf. the Veneto dialect of Loreo: *Ara che a vegno* vs. *Ara ch'a vegno* "look that I come", Poletto 2000: 21), the vocalic segment in (3c) does not: see [ke ə] in (38a).

The preverbal schwa in (3c) is also different from the class of deictic vocalic clitics studied by Poletto. First, its distribution in the paradigm is different from deictic clitics, which are found in the first and second person and usually contrast with a pronoun used for the third person (identical for singular and plural). Second, while the schwa must be omitted in coordinations (see (39b)), deictic clitics cannot be omitted in the second conjunct of a coordination structure (cf. Friulian: *I cianti cun te e *(i) bali cun lui* 'I sing with you and dance with him', Poletto 2000: 26). Finally, the preverbal schwa in (3c) cannot be a vocalic number subject clitic because it has a different distribution in the paradigm.

These observations, as well as other properties manifested in wh-questions (see §3.2.3 and §3.3 below), suggest that the vocalic segments in (3c) do not fit Poletto's typology of vocalic subject clitics.

If the schwa in (3c) is not an epenthetic vowel and is not a subject clitic either of the type in (3a) and (3b) or of the type identified by Poletto and summarized in (7), how can we characterize it? Two analyses come to mind. First, the Donceto vowel in (3c) might represent an additional class of vocalic subject clitics not listed in (7) above. Second, the Donceto vowel in (3c) might represent the (optional) realization of a functional head. In the following sections, evidence supporting the second analysis is provided.[19]

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[18]. Notice that it is not possible to hypothesize that the schwa is present in all persons of the paradigm. For the fact that the schwa in (3a) is not the same as the schwa in (3c), see note 17. And the presence of schwa in (3b) is ungrammatical.

[19]. Data from other northern Italian dialects suggest that the Donceto dialect is not unique in displaying pronouns that do not enter the classification in (7). Poletto (1999: 602) herself claims that complementizer and vocalic subject clitics are not adjacent in all varieties, which suggests that the syntactic clustering between the complementizer and the clitics is not always required. Furthermore, Poletto (1999: 591) provides examples of Piedmontese deictic clitics that are similar to the Donceto data in (39b) in that the vocalic segment is not repeated in coordinations: *I cantu cun ti e balu cun chiel* 'I sing

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2.4.3.   The Subject-Field Head Hypothesis

Since the preverbal schwa in (3c) is optional, and if, as we argue, it is not a subject clitic, the question arises as to which element takes the subject role when the schwa is not present. We propose that in the first person singular and plural and the second person plural, the subject is a null weak pronoun (*pro*), much as in Italian. Thus, Donceto is a pro-drop language in these three persons of the paradigm, while it is non-pro-drop in the second person singular and in the third person singular and plural. (See §5.4 below for an account of this distribution.)

(40)

	sg.	pl.
1st	*pro*	*pro*
2nd	t	*pro*
3rd	l	i

If the preverbal schwa in (3c) is not a subject clitic, what is it? We take it to be the (optional) realization of the functional head that hosts the features of first person singular and plural and second person plural. In (41), we call it Z, and we show the derivation for the first person singular.

(41) $[_{ZP}$ (ə) $[_{AgrSP}$ pro$_k$ be:v$_i$ … $[_{VP}$ t$_k$ t$_i$]]]   '[I] drink'

Following current assumptions and exploiting Pollock's (1989) split-Infl hypothesis, we take ɸ-features to be encoded in functional heads. The traditional Infl projection must be split into discrete projections each realizing a ɸ-feature or a set of ɸ-features (see

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with you and dance with him'. Finally, Goria (2002) shows that two Piedmontese dialects (Turinese and Astigiano) that seem to have deictic and invariable clitics, respectively, in fact display an optionality in the paradigms that makes them resemble the Donceto paradigm (also see Parry 1993).

(i)	Turinese	Astigiano	
1st sg.	(i) mangio	(a) mangio	I eat
2nd sg.	it mange	at mange	you:sg eat
3rd sg.	a mangia	a mangia	he eats
1st pl.	(i) mangioma	(a) mangioma	we eat
2nd pl.	(i) mange	(a) mange	you:pl eat
3rd pl.	a mangio	a mangio	they eat

All these data might be reconsidered along the lines suggested here for the Donceto dialect.

Shlonsky 1989, Manzini and Savoia 2000, Poletto 2000, among others). Z in (41) is one of these Infl projections, which build a "subject-field".

In the articulation of the clause structure assumed in Rizzi (1997), the Infl and the Comp layers have different roles in the clause: the Infl layer is the locus of morpho-syntactic features of the verb, while Comp is an interface between the propositional content (expressed by everything dominated by AgrSP) and the superordinate structure or the previous discourse.

(42)   ForceP TopP* FocusP FinP   AgrSP TP ……   VP
         |_____Comp layer_____| |____Infl layer____| |__ verb layer__|
           |_____functional layer_____| |_ lexical layer _|

Assuming (42), the functional heads that encode ϕ-features are located in the Infl layer. We conclude that ZP is located in the subject-field of the Infl layer, and from now on we call the vowel in (3c) a "subject-field vowel". This conclusion is consistent with the syntactic distribution of the vowel in (3c), which does not interact with the Comp layer in any way. As we have seen above, the Donceto schwa does not mandatorily cluster with the complementizer (see [ke ə] in (38a)).[20]

The fact that the 'subject field vowel' occurs before negation, as shown in (43a), cannot be taken to show that the schwa is in the Comp layer, since (non-topicalized, non-focalized) full subjects, which can also precede negation ((43b) and (43c)), do not occur in the Comp layer, but in a designated subject position, specSubjP, located in the Infl layer (see Cardinaletti 1997, 1999, 2001, and the references cited there).

(43) a. ə n be:v mia   'I do not drink'
      b. me (ə)n be:v mia   'I do not drink'
      c. Giani əl nə be:və mia   'John does not drink'

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[20].   Poletto (2000: 36) locates vocalic (invariable and deictic) subject clitics in the Comp layer on the basis of the fact that they cluster with the complementizer (see §2.4.2 above).

(i) [$_{CP}$ inv.SCL$_i$ [$_{CP}$ deict.SCL [$_{FP}$ t$_i$ [$_{IP}$ [$_{NegP}$ [$_{NumbP}$ SCL [$_{HearerP}$ SCL [$_{SpeakerP}$ V$_i$ [$_{TP}$ t$_i$]]]]]]]]]

For further discussion of this hypothesis, see note 33.

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Notice that the schwa preceding the negation in (43a) and (43b) can be considered either the subject-field vowel or an epenthetic vowel (see (19) and §2.4.2). In the former analysis of the schwa in (43b), the subject-field vowel follows the strong subject pronoun *me*. Since strong subjects occur in specSubjP in the Infl layer, the word order in (43b) is further evidence that the Z head is part of the Infl layer. In §3.4 below we discuss another piece of evidence that ZP is in Infl.[21]

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[21]. The questions arises as to what features characterize the Z head. Notice that the three persons of the paradigm realized by the vocalic segment (first person singular and plural and second person plural) seem to have no feature in common. This is illustrated in the following table, where [-number] stands for reference to a singular, [+number] stands for reference to a plural; the first person plural is [+addressee] in its inclusive meaning ('I and he/she/they, and you'), [–addressee] in its exclusive meaning ('I and he/she/they, but not you'). The features [speaker] and [addressee], which express the category "person", go back to Benveniste (1971:ch. XVIII, XX).

(i)	Number	Addressee	Speaker
1st pers.sg.	−	−	+
2nd pers.sg.	−	+	−
3rd pers.sg.	−	−	−
1st pers.pl.	+	±	+
2nd pers.pl.	+	+	−
3rd pers.pl.	+	−	−

If the (identical) vowel found in the first person singular and plural and second person plural is not a simple case of homophony, the question arises as to how one and the same vocalic segment can realize three persons of the paradigm that do not have any feature in common. Suppose that what is wrong in (i) is the value attributed to the number feature. Kayne (1989b)argues that the first person singular is indeed not singular. Suppose that the first person singular is grammatically unmarked for number and that the same is true for the first and second person plural, in view of the possibility that they can refer to both a singular and a plural. For the first person plural, reference to a singular corresponds to the so-called 'Pluralis majestatis', which is used when the speaker refers to himself as "we"; for the second person plural, reference to a singular corresponds to the 'voi di cortesia', which is used to mark distance and/or respect towards the addressee. The feature make-up of pronouns proposed here is illustrated in table (ii).

(ii)	Number	Addressee	Speaker
1st pers.sg.	α	−	+
2nd pers.sg.	−	+	−
3rd pers.sg.	−	−	−
1st pers.pl.	α	±	+
2nd pers.pl.	α	+	−
3rd pers.pl.	+	−	−

2.5. Evidence from Cross-Linguistic Data

We have shown so far that only the second person singular and the third person singular and plural are realized by subject clitics, /t/, /l/ and /i/, respectively, while the preverbal vowels in (3c) are a different syntactic entity. This analysis can be extended to other northern Italian dialects that have a similar distribution of preverbal vocalic material. Cross-linguistic data provide further support for our proposal. While there is very little language variation in the phonological forms of proclitic pronouns of the second person singular and third person singular and plural (44a) (see also (28)), the preverbal vowels comparable to [ə] in (3c) found in other northern Italian dialects display great cross-linguistic variation in their phonetic realization, as shown in (44b), which provides a non-exhaustive list (see Browne and Vattuone 1975, Vattuone 1975, Vanelli 1984, Poletto 1993a, 2000).

(44) a. subject clitics:

second person singular: vowel + /t/; /t/ + vowel
third person singular (mas):   vowel + /l/[22]
third person plural (mas):   (l)i

   b. subject field vowel:

first person singular and plural and second person plural:
[a]   Friulian, Emilian, Romagnol, Lombard, Piedmontese, and Veneto dialects
[e]   Piedmontese and Tuscan dialects
[ə]   Emilian dialects
[i]   Friulian and Piedmontese dialects
[o]Tuscan and Friulian dialects
[u]Ligurian and Emilian dialects

First person singular and plural and second person plural have one feature in common: the lack of number specification, marked as "α" in table (ii). The Donceto vocalic segment in (3c) realizes the persons of the paradigm characterized by [αnumber].

[22].   Wealso find [o] and [u] which are the result of velarization of coda /l/. See Vanelli (1992) for the velarization of coda /l/ resulting in the masculine singular definite article [ol] and [ul] in various dialects.

The subject clitics representing the second and third person singular consist of (at least) /t/ and /l/, respectively, *in all dialects*, and the subject clitic representing the third person plural consists of (at least) /i/ *in all dialects*. This cross-linguistic consistency (44a) contrasts sharply with the great variation found in (44b). Our proposal is compatible with such a distribution: the forms in (44a) and (44b) are two different syntactic entities with different historical developments (see §3.8 for discussion). Alternative proposals that view all forms in (44) as subject clitics cannot account for the cross-linguistic differences between (44a) and (44b).
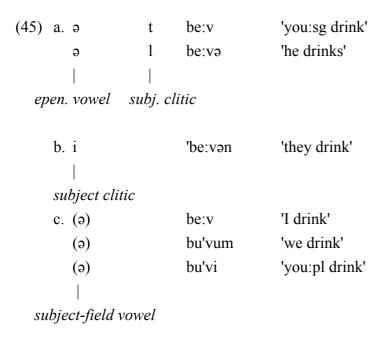
2.6. Evidence from Neurolinguistic Data

The Veneto dialects provide another source of evidence that the true subject clitics should be differentiated from the preverbal vowels in (3c). The evidence comes from data of mild agrammatic aphasic patients. Aphasic patients speaking Veneto dialects (Venetian, Vicentino, etc.) omit subject clitics corresponding to *t/l/i* most of the times (both in sentence completion and sentence repetition tests and in spontaneous production). However, the vocalic segment corresponding to preverbal schwa is totally preserved in Vicentino (Chinellato 2002a).

If the *t/l/i* elements are subject clitics while the vocalic segment corresponding to the schwa in (3c) is not, a possible understanding of these data is that aphasic patients cannot handle the syntax of clitic pronouns. Notice that these aphasic patients master verb agreement quite well, both in the dialect and in Italian, so it cannot be concluded that they have problems with the φ-features encoded by *t/l/i*, but not with the φ-features encoded by the vocalic segment. These patients also have troubles with object clitics. In the Guided Picture Naming and Repetition tests, they have chance-level results (Chinellato, personal communication). These results confirm the hypothesis that they have a deficit with the derivation of clitic pronouns, but not with the syntactic element realized as a vocalic segment. If both the *t/l/i* elements and the preverbal schwa were all subject clitics, there would be no way of accounting for such a selective deficit.

2.7. Conclusions

We conclude that not all preverbal material in (3) is a subject clitic. The only elements that can be considered subject clitics are the consonants /t/ and /l/ in the second and third person singular, respectively, and the vocalic segment /i/ in the third person plural. A first approximation of the 'alternative' analysis of preverbal material discussed so far is given in (45).

(45) a. ə   t   be:v   'you:sg drink'

         ə   l   be:və   'he drinks'

         | |

    epen. vowel   subj. clitic

    b. i   'be:vən   'they drink'

        |

    subject clitic

    c. (ə)   be:v   'I drink'

        (ə)   bu'vum   'we drink'

        (ə)   bu'vi   'you:pl drink'

        |

    subject-field vowel

In the next section we will see that there are other problems with the 'unified' analysis since it cannot account for the behavior of preverbal vowels in questions. The 'alternative' analysis, on the other hand, allows us to capture in a coherent way many phenomena that at first seem unrelated.

3. Preverbal Vowels in Interrogative Sentences

3.1. The Nature of Preverbal Vowels in Interrogative Sentences

Consider the interrogative data in (4), which are repeated in (46) for convenience.

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(46)   yes-no questions:

	without preverbal vowel	*with preverbal vowel*	
a.	be:v-ət	ə be:v-ət	'are you:sg drinking?'
	be:və-l	ə be:və-l	'is he drinking?'
b.	be:vən-jə	ə be:vən-jə	'are they drinking?'
c.	be:v-jə	ə be:v-jə	'am I drinking?'
	bu'vum-jə	ə bu'vum-jə	'are we drinking?'
	bu'vi:-v	ə bu'vi:-v	'are you:pl drinking?'

What is the nature of the preverbal schwa which optionally appears in all forms? We attempt to answer this question in the paragraphs that follow.

3.1.1.   Epenthetic Vowel?

Since the quality of the preverbal vowel in questions is the same as that of the epenthetic vowel, we may ask whether it is epenthetic. The answer is clearly "no" since, as seen in (47), this vowel is not sensitive to the phonological context.[23]

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[23].   In note 16, we saw that the subject-field vowel is impossible with the vowel-initial auxiliary "have" although it is possible with the consonant-initial auxiliary "be", and we concluded that this distribution is due to a constraint against schwa + stressed vowel. This conclusion is supported by the interrogative data. The preverbal vowel, which is optional in yes-no questions in all forms, is only found with consonant-initial auxiliaries, but not with vowel initial ones. In (i) we see that the preverbal vowel found in yes-no questions is not possible with vowel-initial auxiliaries (regardless of whether they are forms of 'have' or 'be'), but in (ii) we see that it is possible with consonant-initial auxiliaries (specifically, [so], [sum], [si], which are forms of the auxiliary 'be'; there are not consonant-initial forms of 'have').

(i)   vowel-initial auxiliaries

    a.   (*ə) a-l buvi:d?   'has he drunk?'

    b.   (*ə) ɛ-l na via?   'is he gone away?' ('has he left?')

(ii)   consonant-initial auxiliaries

    a.   (ə) so-jə na via   'am I gone away' ('have I left?')

Since both the subject-field vowel and the vowel found in yes-no questions, which are different syntactic entities, can optionally occur with consonant-initial auxiliaries, but not with vowel-initial auxiliaries, we conclude that the restriction is phonological, and not syntactic.

(47)   (ə) be:v-jə   'am I drinking?'
       (ə) skri:v-jə   'am I writing?'

3.1.2.   Subject-Field Vowel?

Another possibility is that the schwa found optionally in questions is the same element as the schwa found optionally in the first person singular and plural and second person plural forms in the declarative sentences in (3c). Both are optional and phonologically identical. However, this analysis is also flawed since the preverbal schwa found in declarative sentences is limited to three persons, while the preverbal schwa found in interrogative sentences is found in all forms of the paradigm. If they were one and the same element, the different distribution in declarative and interrogative sentences would remain puzzling.

3.1.3.   Subject Clitic?

Is the preverbal vowel found in questions a subject clitic? We have identified two types of subject clitic pronouns: a consonantal type (second and third person singular) and a vocalic type (third person plural), both of which are obligatory.

One difference between subject clitics and the preverbal schwa found in questions is that the former are obligatory, while the latter is optional. Another difference can be observed in the third person plural form. Preverbal schwa appears in interrogative sentences (48b) while it is absent in declarative sentences (48a), and the quality of the two elements is different: [i] vs. [ə].

(48)   a. [(*ə) i be:vən]   'they drink'   (= 3b)
       b. [(ə) be:vən-jə]   'do they drink?'   (= 4b)

A similar point can be made on the basis of data from the dialect of Gazzoli. In the declarative sentence in (49a), the preverbal position is occupied by the third person vocalic subject clitic [õ], while preverbal schwa is optionally found in the interrogative sentence in (49b).

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(49) a. [(*ə) ð bɛjvə]   'he drinks'

     b. [(ə) bɛjvə-l]   'is he drinking?'

In conclusion, the preverbal schwa in (4) cannot be considered a subject clitic with the same characteristics as the other subject clitics individuated so far for the dialect of Donceto.

Since it occurs in all persons of the paradigm, the preverbal vowel in (4) might be considered an instance of invariable subject clitics in Poletto's sense, which in other dialects also occur in all persons of the paradigm and can occur in yes-no questions (data from Paduan, first discussed in Benincà 1983).

(50) a. A no te parli mai.   'A not you:sg speak ever' ('you never speak')

      A no'l parla mai.   'A not he speaks ever' ('he never speaks')

    b. A ve-to via?   'A go-you:sg away?' ('are you going away?')

      A ze-lo ndà?   'A is-he gone?' ('is he going away?')

The preverbal vowel in (4), however, differs from invariable subject clitics found in other dialects in that it is restricted to interrogative sentences and not found in declarative sentences. It is not obvious that this difference can be expressed in a non-*ad-hoc* way: should the invariable clitic be marked as interrogative in the dialect of Donceto? Or does it belong to another class of vocalic subject clitics not listed in (7)?

A further problem with the analysis of the preverbal vowel in (4) as an invariable subject clitic has to do with the fact that it cooccurs with postverbal enclitics. (See §4 for the analysis of enclitic pronouns.) In a derivational approach to clitics such as the one adopted here (see Kayne 1975 and §2.3 above), there cannot be two subject pronouns moving from one and the same position. Nor can two clitics, in a configurational approach to clitics (see Jaeggli 1982), be linked to one and the same position. If the configuration in (4) were an instance of clitic doubling, the question arises as to why doubling is possible in interrogative sentences but not in declarative sentences (compare (3b) with (4b); also see §4.2.3).

These questions are also raised with regard to the distribution of vocalic clitics in other dialects. In Paduan, for example, preverbal *a* cooccurs with postverbal *to* and *lo* (50b), and invariable clitics also appear in declarative sentences with other subject clitics (50a).[24] Since these same problems are found regarding both interrogative and

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[24].   Similar questions arise with regard to the deictic clitics in Friulian (10).

declarative sentences, there are serious doubts as to the existence of a class of invariable subject clitics.

As noted by Poletto (2000: 23), "invariable SCLs [subject clitics] are the only clitics that express a theme/rheme distinction". They are found in yes-no questions, such as (50b) above, and all-focus sentences, such as (50a) and (51), and are incompatible with wh-, focussed and topicalized constituents, as shown in (52) (data from Paduan, first discussed in Benincà 1983).

(51)   A piove!   'A rains'

(52)   a. Dove (*a) zelo ndà?   'where A is-he gone?'
          b. EL GATO (*a) go visto.   'the cat A [I] have seen'
          c. Co ti, (*a) no voio ndare. 'with you A [I] not want [to] go'

Poletto concludes that "invariable clitics have the pragmatic function of indicating that the whole sentence is new, rather than the function of marking the subject". Although she continues to call them "subject clitics", Poletto (2000: 24) suggests that invariable subject clitics are generated in a wh-position, and then moved to the focus head and to the topic head, as shown in (53). (The clause structure assumed by Poletto adds wh-heads to Rizzi's (1997) split CP hypothesis; see (42) above.)

(53)   [TopicP SCL$_i$ [FocusP t$_i$ [whP   t$_i$ [IP]]]]

In (53), the movement of the clitic through the various Comp heads is taken by Poletto to prevent the occurrence of wh-, focus and topic phrases in the specifiers of these heads. This explains the grammaticality of *a* in (50) and (51) and the ungrammaticality of *a* in (52), where it cooccurs with specifiers.

Given these observations, we propose that the vowel in (50) and (51) is not a "subject" clitic at all, but a different syntactic entity. We think that Benincà's (1983: 25) original analysis of Padovano [a] as a clitic that binds a functional head of the Comp layer (TOP, in her analysis) when this is empty, is on the right track.

Unlike Benincà's analysis, however, we suggest that preverbal vowels are not clitics that bind functional heads, but are elements that realize functional heads.[25] In

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[25].   Benincà's analysis clearly raises the question as to which position is occupied by the clitic *a*. Notice that this position must be higher than the relevant functional head since binding implies c-command.

minimalist terms, preverbal vowels are merged in functional heads. In Paduan (50) and (51), *a* realizes the head activated in sentences that are new information, an empty TOP if Benincà (1983) is correct.

In conclusion, the optional preverbal vowel found in the interrogative sentences in (4) is not an invariable subject clitic. Like the preverbal [ə] in (3c) and the vowel *a* in Paduan (50) and (51), we propose that it realizes a functional head. In the following section, we investigate which functional head it realizes.

3.1.4.   The Interrogative Vowel Hypothesis

The preverbal schwa optionally found in all persons of the paradigm in interrogative sentences is different from the three types of preverbal vowels identified in the 'alternative' analysis in (8): it is not an epenthetic vowel, not a subject clitic, and not the same syntactic element found in the first person singular and plural and second person plural forms in declarative sentences. We propose that the preverbal vowel in (4) is an "interrogative vowel" that (optionally) realizes the functional head activated in questions. In the clause structure (42) proposed by Rizzi (1997), this head is Focus, located in the Comp layer.

Both yes-no questions and wh-questions are incompatible with focused elements, as shown in (54). The ungrammaticality of (54) is explained if question operators and focalized constituents compete for the same projection and hence cannot cooccur.

(54)   a. *GIANNI è venuto?

        John is come?

     b. *A chi IL PREMIO NOBEL / *IL PREMIO NOBEL a chi dovrebbero dare?

        to whom the Nobel prize [they] should give

The sentences in (4) have the following analysis, illustrated in (55) for the second person singular. The schwa is optionally merged in the Focus head. The verb moves from its 'declarative' position following the subject clitic to a position preceding the subject clitic, which we have called Y in (34b). Verb movement is motivated by the need to check the inflectional [wh] feature on the verb (Rizzi 1996) against the Y head. Notice that this feature does not have a morphological realization in the northern Italian dialects, nor does it in Italian and French (while it is morphologically realized in other

languages, see Rizzi 1996: 66 and the references cited there).[26] Whether the verb adjoins to the clitic, as in Rizzi's (1993) analysis of encliticization, or moves to a slightly higher position, as in Kayne (1991), is immaterial for the present concerns. For concreteness, we opt for the former solution.[27]

(55) $[_{\text{FocusP}}$ (ə) $[_{\text{YP}}$ be:v$_i$-ət$_k$ $[_{\text{AgrSP}}$ t$_k$ t$_i$ … $[_{\text{VP}}$ t$_k$ t$_i$]]]]   drink-you:sg?'

3.2. Support from Wh-Questions

3.2.1.   Wh-Questions with Wh-Phrases

The distribution of the preverbal vowel in wh-questions provides further evidence in support of our analysis of this vowel as an "interrogative vowel". Consider the data in (56), which show the distribution of the preverbal vowel in questions containing wh-phrases.

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[26].   For the motivations against the proposal that the enclitic pronouns in (4) are the realization of the inflectional [wh] feature, see §5.3 below. This feature can be said to be realized by the invariable interrogative marker *lo* found in some Franco-provençal dialects (Poletto 2000: 64): cf. *Ven-lo-lou?* 'come-LO-she' (Is she coming?), where the verb inflected for the interrogative feature adjoins to the subject clitic pronoun. In Popular French (Morin 1979) and Québec French (Vecchiato 2000), the verb inflected for the interrogative feature does not move to Y overtly, since it linearly follows a weak pronoun: cf. *Quand il a-ti téléphoné?* 'when he has-TI called?' and *Je peux-ti ajouter quelque chose?* 'I can-TI add some thing?'.

[27].   For simplicity, in (55) we disregard the X head introduced in (35). See §5.4 and §5.5 below.
Notice that verb movement to Y is not obligatory in Donceto. Yes-no questions can also have the same word order as declarative sentences, plus interrogative intonation.

(i)   ət be:v?   'do you:sg drink?'

In this case, the CP layer is not activated, and the interrogative vowel is not inserted. We illustrate this with the third person singular feminine form of a verb beginning with sC and with the third person plural.

(ii)   a.   (*ə)la skri:və?   'is she writing?'
       b.   (*ə) i be:vən?   'do they drink?'

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(56)   wh-phrases: [kwã:t an] 'how many years; how old'
        without preverbal vowel   *with preverbal vowel*
    a. *kwã:t an gɛ-t   kwã:t an ə gɛ-t   'how old are you:sg?'
        *kwã:t an ga-l   kwã:t an ə ga-l   'how old is he?'
    b. *kwã:t an gan-jə   kwã:t an ə gan-jə   'how old are they?'
    c. *kwã:t an go-jə   kwã:t an ə go-jə   'how old am I?'
        *kwã:t an gum-jə   kwã:t an ə gum-jə   'how old are we?'
        *kwã:t an gi:-v   kwã:t an ə gi:-v   'how old are you:pl?'

With wh-phrases like [kwã:t an], the preverbal vowel is obligatory in all forms. Therefore, it cannot be a subject clitic (which is obligatory in the second and third person singular and third person plural) nor the same syntactic entity identified for first person singular and plural and second person plural forms (which is optional and only found in these three forms). The sentences in (56) also show that the Donceto preverbal vowel differs from Paduan *a*, which cannot occur in wh-questions (see (52a) above). We take the preverbal vowel in (56) to be an instance of the "interrogative vowel", realizing the Focus head (while the vowel in Paduan is the realization of the functional head marking new information, TOP, if Benincà 1983 is correct).

These data raise another question: why is the "interrogative vowel" obligatory with wh-phrases but optional in yes-no questions? Compare (56) with (46).

Wh-phrases move into the specifier position of the Focus head realized by the interrogative vowel, as shown in (52).

(57) [FocusP kwã:t an   ə   [YP gɛi-tk [AgrSP tk ti ⋯ [VP tk ti]]]]
      'how old are you:sg?'

Given (52), the "interrogative vowel" can cooccur with wh-phrases. The occurrence of the interrogative vowel is, in this case, not only possible but obligatory in all forms. We would like to propose that the realization of the interrogative functional head (Focus) is required by the wh-phrase itself. The interrogative vowel is the manifestation of Spec-Head agreement between the wh-phrase and the interrogative functional head.[28]

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[28].   Some speakers find (56) without the interrogative vowel not ungrammatical, although they prefer the form with the interrogative vowel. If we are correct that the vowel is an overt manifestation of Spec-Head agreement, these data show that Spec-Head agreement can marginally remain non-overt.

In yes-no questions, an empty operator is usually assumed. The fact that the interrogative vowel is never obligatory in these structures (see (46) above) follows from the hypothesis that the empty operator is merged higher than SpecFocusP and not moved from a lower position, which implies that no Spec-Head agreement with the Focus head takes place. Following Rizzi (2001), we take the empty operator to be merged in the specifier of the projection Int(errogative)P that hosts the complementizer *se* 'whether' in embedded yes-no questions.[29]

(58)   Force   (Top)   Int   (Top)   Foc   Fin   IP

3.2.2.   Interrogative Vowels in Other Dialects

The Donceto dialect is not unique in displaying preverbal interrogative vowels in wh-questions and is thus not unique in differing from Paduan, which does not display the vowel *a* in wh-questions (see (52a) above). Other Emilian dialects allow interrogative vowels to occur in wh-questions (from Poletto 2000: 59-60).

(59)   a. Ks a fen-i?   (Bologna)
            what A do-they?
       b. Perché a magna-t an pom?   (Guastalla)
            why A eat-you an apple?

Poletto (2000: 12) classifies the preverbal vowels found in these dialects as invariable subject clitics. This is confirmed by the fact that the vowel is the same in (59a), where the subject is third person, and (59b), where the subject is second person. Poletto however does not account for the difference between Paduan (52a) and Emilian dialects (59).[30] If the vowels in (52a) and (59) were one and the same element, they should not have such a different distribution.

Instead of assuming yet another class of vocalic subject clitics, we account for this difference by abandoning the notion of "invariable subject clitics" and suggesting, as

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[29].   See De Crousaz and Shlonsky (2000) for the same conclusion based on the distribution of subject clitics in interrogative sentences in Gruyére Franco-Provençal.

[30].   The data in (59), which contain invariable clitics in Poletto's typology, thus represent a counterexample to Poletto's (2000: 25) claim that the interaction with wh-items "is restricted to the deictic class" (also see §3.5.2).

we did above, that the preverbal vowels realize functional heads. The differences are due to the different functional heads activated in Paduan on the one hand and in Donceto and other Emilian dialects on the other, TOP and Focus, respectively.

If this analysis is correct, we predict a number of differences in the distribution of preverbal vowels depending on the functional head realized in each northern Italian dialect, differences which could not be predicted if the preverbal vowels were all subject clitics. Furthermore, we predict that there can be more than one type of preverbal vowel in the same dialect, as we have seen here for Donceto, where we have identified two functional vowels, i. e., the subject-field vowel and the interrogative vowel.

Intra-linguistic and cross-linguistic investigation, which we obviously cannot undertake in this paper, will establish which functional heads are realized by the preverbal vowels in each northern Italian dialect. (See Chinellato 2002b and this volume for a very detailed analysis of the vowel *a* in many Veneto dialects which supports our predictions.)

3.2.3.   Wh-Questions with Wh-Clitics

Now consider the data in (60) which show the distribution of preverbal vowels in questions containing a monosyllabic wh-word.

(60)   wh-clitics: [dõ:d] 'where'
          without preverbal vowel   *with preverbal vowel*
    a dõ:d vɛ-t   *dõ:d ə vɛ-t   'where are you:sg going?'
       dõ:d va-l   *dõ:d ə va-l   'where is he going?'
    b. dõ:d van-jə   *dõ:d ə van-jə   'where are they going?'
    c. dõ:d vo-jə   dõ:d ə vo-jə   'where am I going?'
       dõ:d num-jə   dõ:d ə num-jə   'where are we going?'
       dõ:d nɛ:-v   dõ:d ə nɛ:-v   'where are you:pl going?'

Extending to wh-elements the clitic/weak/strong tripartition proposed by Cardinaletti and Starke (1999) to account for personal pronouns and other categories such as adverbs, the wh-word in (60) can be taken to be a clitic element, i. e., a head. Among other syntactic properties that point to its clitic status, consider the fact that it cannot be

used in isolation: *[dõ:d] 'where?'.[31] The data in (60) show that the distribution of the preverbal vowel with wh-clitics is different from both yes-no questions (46) and wh-questions containing wh-phrases (56).

With wh-clitics the preverbal vowel is impossible in the second person singular, third person singular, and third person plural forms of the verb, as shown in (60a) and (60b), and is optional with the first person singular, first person plural, and second person plural forms of the verb, as shown in (60c). Note that the distribution of preverbal schwa in (60) is identical to the distribution of preverbal schwa in declarative sentences (cf. (3)). Given this fact, as well as the observation that the interrogative vowel does not distinguish among persons, we conclude that the preverbal schwa in (60c) is not the "interrogative vowel," but is the "subject-field vowel" found in the declarative sentences in (3c). In both sets of sentences (interrogative and declarative) the vocalic element appears in the same persons and is optional. In the other persons of the paradigm, preverbal schwa is absent both in declarative sentences and in interrogative sentences containing a wh-clitic (compare (60a) and (60b) with (3a) and (3b)).

Why do we not find the interrogative vowel in (60)? To explain why the interrogative vowel is not present with wh-clitics, we propose that wh-clitics are heads which move into the interrogative head position (Focus°) that is optionally realized as the "interrogative vowel". Thus, wh-clitics and interrogative vowels are mutually exclusive.[32]

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[31]. The fact that the vowel in the wh-form [dõ:d] is long does not imply, as it would in Italian, that it has word stress and is thus to be categorized as a weak form rather than a clitic form. In the Donceto dialect, atonic vowels can be long ([a:'me] 'honey'), as can nasal vowels, whether tonic ([kã:p] 'field') or atonic ([kõ:'tæ] 'to count').
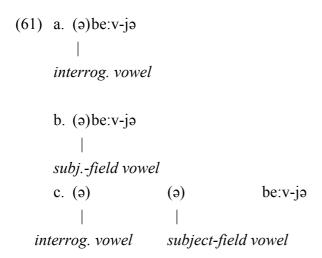
Other northern Italian dialects also have wh-clitics, see Munaro (1997), (1999) and Poletto (2000) for discussion. Some of these cases are discussed in §3.5 below. Italian has a deficient wh-form, *che* 'what', as in *che hai fatto*? 'what [you] have done?' (see Cardinaletti 1994: 71). For French *que* 'what', which also exhibits deficient properties, see Bouchard and Hirschbuhler (1987) and Friedemann (1990).

[32]. If wh-clitics pattern with personal pronoun clitics in undergoing the two-step derivation assumed in §2.3, we might wonder what is the landing site of the XP-movement step of the derivation. We propose that it is the specifier of the Y head hosting the inflectional [wh] feature (see §3.1.4). As in the case of personal pronouns, weak wh-forms need licensing by an inflectional head. The derivation of e.g. *dõ:d ə vo-jə* in (60c) is as in (i) (also see (66c)).

(i) $[_{FocusP} \, d\tilde{o}{:}d_j \, [_{ZP} \, \vartheta \, [_{YP} \, t_j \, vo_i{-}j\vartheta_k \, [_{AgrSP} \quad t_k \, t_i \, \cdots \, [_{VP} \, t_k \, t_i \, t_j \,]]]]]$

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3.3. A Refinement of the Proposal and a Summary of the Data

In view of this conclusion concerning wh-questions with wh-clitics, the analysis of the vocalic segment in the yes-no questions (4c) can be partially rephrased. As stated in §3.1.4, the vocalic segment can be analyzed as an interrogative vowel, but the analysis of it as a syntactic element parallel to the one found in declarative sentences (3c) and wh-questions with wh-clitics (60c) cannot be excluded: both vocalic segments are in fact optional and have the same quality. Furthermore, there is no reason that in (4c) the interrogative vowel and the subject-field vowel cannot cooccur. Hence, there are three possible analyses of the preverbal vowel in (4c): [ə] represents the interrogative vowel (61a), the subject-field vowel (61b), or both the interrogative vowel and the subject-field vowel (61c). (The data in (61) are given for the first person singular.)

(61) a. (ə)be:v-jə
          |
      interrog. vowel

      b. (ə)be:v-jə
          |
      subj.-field vowel
      c. (ə)   (ə)   be:v-jə
          | |
      interrog. vowel   *subject-field vowel*

Evidence in support of this analysis comes from the fact that there are two realizations of the preverbal schwa in yes-no questions for the first person singular and plural and second person plural: short, as in [ə be:v-jə] (corresponding to (61a) and (61b)), and long, as in [ə: be:v-jə] (corresponding to (61c)).

These considerations are also valid for the wh-questions in (56c), which contain wh-phrases. Nothing prevents the interrogative vowel from cooccurring with the subject-field vowel of (3c).

(62) kwã:t an   ə   (ə)   go-jə
                 | |
      interrog. vowel   *subj.-field vowel*

The forms in (4a) and (4b) and (56a) and (56b), on the contrary, have a single analysis: the preverbal schwa can only be the interrogative vowel. (We illustrate this in (63) with the second person singular)

(63) a.   ə be:v-ət
              |
          interrog. vowel

      b. kwã:t an   ə   gɛ-t
                      |
          interrog. vowel

Crucially, the long realization of schwa (represented in (61c) and (62)) is *not* attested with the second and third person singular and the third person plural forms. In these forms, only the short realization of the vowel is possible.
A summary of the interrogative data is provided in (64).

(64)

Preverbal schwa	2nd & 3rd sg. & 3rd pl.	1st sg. & pl. & 2nd pl.
Yes-no questions:	Optional • interrogative vowel	Optional • interrogative vowel or • subject-field vowel or • interrogative vowel + subject-field vowel
Wh-phrases:	Obligatory • interrogative vowel	Obligatory • interrogative vowel or • interrogative vowel + subject-field vowel
Wh-clitics:	Impossible	Optional • subject-field vowel

3.4. More on the Z and the Y head

In §2.4.3, we have called the functional head that hosts the features of the first person singular and plural and the second person plural the Z head and we have shown that it can be realized as schwa. In §3.2.3 and §3.3., we have seen that in yes-no questions and

questions with a wh-clitic, the subject-field vowel precedes the raised verb, and in the latter it follows the wh-clitic. See (46c) and (60c), repeated in (65) for the first person singular.

(65) a. ə be:v-jə   'drink-I'
      b. dõ:d ə vo-jə   'where am I going?'

The Z head realized by schwa must be lower than the Focus head occupied by the wh-clitic, but higher than the Y head to which the verb raises in interrogatives (see (34b) and (55) above). In (66), we provide the structures of the sentences under consideration: (61a) is the structure of a declarative sentence (see (41)), and (66b) and (66c) are the structures of the two interrogative sentences in (65).

(66) a.   [$_{ZP}$ ə   [$_{YP}$ [$_{AgrSP}$ pro$_k$ be:v$_i$ … [$_{VP}$ t$_k$ t$_i$]]]]
      b.   [$_{ZP}$ ə   [$_{YP}$ be:v$_i$-jə$_k$ [$_{AgrSP}$ t$_k$ t$_i$ … [$_{VP}$ t$_k$ t$_i$]]]]
      c. [$_{FocusP}$ dõ:d$_j$ [$_{ZP}$ ə   [$_{YP}$ t$_j$ vo$_i$-jə$_k$ [$_{AgrSP}$ t$_k$ t$_i$ … [$_{VP}$ t$_k$ t$_i$ t$_j$]]]]]

The fact that the Z head realized by schwa is lower than the Focus head occupied by the wh-clitic can be used as further evidence to locate the Z head in the Infl layer (see §2.4.3 above). The fact that the subject-field vowel precedes the raised verb supports the hypothesis proposed above that the Y head to which the verb raises in interrogatives is also in the Infl layer (see note 13 and §3.1.4).

In conclusion, the Donceto schwa in (3c) does not interact with the Comp layer in any way. It does not mandatorily cluster with the complementizer (see [ke ə] in (38a), and can occur with wh-clitics (see (60c)), as well as with wh-phrases (see (62)).

3.5. Wh-Phrases vs Wh-Clitics in Other dialects

3.5.1. Gazzoli

Data from the dialect of Gazzoli provide some evidence that the wh-elements that require the interrogative vowel are structurally higher than those that cannot occur with it. In this dialect, two different forms of wh-words exist, a clitic and a non-clitic one. Consider the two forms for the wh-word 'where': [õ:d] and [õ:də]. Assuming Cardinaletti and Starke's (1999) typology, we take the former to be a clitic element, i. e., a head, the latter to be a 'strong' element, i. e., a phrase. Among other syntactic

properties which point to their different syntactic status, consider the fact that only the latter can be used in isolation, while the former cannot: *[õ:d]?* vs *[õ:də]?* 'where?'. As in Donceto, the 'strong' wh-form requires the interrogative vowel in all persons, and these questions are realized with a long [ə:]. The clitic wh-form, on the other hand, occurs with the vocalic segment only in the first person singular and plural and in the second person plural.

(67)   Gazzoli

    a. *'strong' form (compare with (56))*

*õ:də vɛ-t	õ:də ə vɛ-t	'where are you:sg going?'
*õ:də va-l	õ:də ə va-l	'where is he going?'
*õ:də van-jə	õ:də ə van-jə	'where are they going?'
*õ:də vo-jə	õ:də ə vo-jə	'where am I going?'
*õ:də num-jə	õ:də ə num-jə	'where are we going?'
*õ:də nɛ:-v	õ:də ə nɛ:-v	'where are you:pl going?'

    b. *clitic form (compare with (60))*

õ:d vɛ-t	*õ:d ə vɛ-t	'where are you:sg going?'
õ:d va-l	*õ:d ə va-l	'where is he going?'
õ:d van-jə	*õ:d ə van-jə	'where are they going?'
õ:d vo-jə	õ:d ə vo-jə	'where am I going?'
õ:d num-jə	õ:d ə num-jə	'where are we going?'
õ:d nɛ:-v	õ:d ə nɛ:-v	'where are you:pl going?'

The two wh-forms are semantically distinct along the lines of Pesetsky's (1987) notion of D(iscourse)-linking. The clitic form is non-D-linked, the strong form is D-linked. As is currently assumed (cf. Starke 2001, Rizzi 2002), D-linked wh-phrases are structurally higher than non-D-linked ones and presumably occur in SpecTopicP. On its way to the higher Spec of the Comp layer, the D-linked wh-phrase moves through SpecFocusP, entering a Spec-Head relation with the Focus head and activating it. This results in the obligatory realization of the interrogative vowel.

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3.5.2. San Michele al Tagliamento (Friuli)

The fact that different wh-words either require or block the occurrence of vocalic segments has been previously observed for other northern Italian dialects. The vocalic segments that Poletto calls deictic clitics must occur with wh-phrases, but cannot occur with wh-clitics. The following data are from the Friulian dialect of San Michele al Tagliamento (Poletto 2000: 59-60, 71-72; for the cases in which the presence of the vocalic element is apparently optional, but in fact gives rise to different interpretations – cf. *Coma (i) a-tu fat i compit?* 'how I have-you done the task?', see note 35).

(68) a. *deictic clitic mandatory*

        Quant *(i) mangi-tu?   Quant *(a) van-u a Pordenon?

        when I eat-you?   when A go-they to Pordenone?

    b. *deictic clitic ungrammatical*

        Quant (*i) mangi-tu?   Do (*a) van-u?

        how much I eat-you?   where A go-they?

The distribution of vocalic clitics with different wh-words illustrated in (68) is similar to the Donceto data. If we consider the vocalic segments that Poletto calls deictic clitics to be an instance of the interrogative vowel, we can account for the data as follows. The interrogative vowel is required with wh-phrases (68a); with wh-clitics, the vowel is impossible (68b). The analysis can also be the same as the one proposed above for Donceto: wh-phrases enter a spec-head agreement relation with the Focus head, and this agreement relation is expressed by the interrogative vowel; wh-clitics cliticize to the Focus head and make the realization of the focus head through the interrogative vowel impossible.[33]

The main difference between the Friulian data and the Donceto data has to do with the quality of the vowel. The Donceto preverbal vowel found in interrogative sentences is the same form in all persons (i. e., [ə]), while the Friulian preverbal vowel distinguishes

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[33]. The fact that deictic subject clitics cannot occur with wh-clitics is taken by Poletto (2000:36) to be further evidence for the hypothesis that vocalic subject clitics are located in the Comp layer (see note 20). This is consistent with her hypothesis that the Comp layer hosts subjects. Assuming Rizzi's (1997) articulation of clause structure in (42), it is surprising that subjects and subject clitics are assumed to occur in the Comp layer. The proposal that invariable and deictic clitics are not subject clitics, but, as suggested in this paper, the realization of functional heads also resolves this controversial aspect of Poletto's proposal.

between the first and second persons on the one hand and the third person on the other. In (68) we see that in the third person the vowel is [a], while in the second person the vowel is [i]. This is surprising if, as we suggest, the vowel realizes the Focus head.

Why does the interrogative vowel have two different realizations depending on the persons of the paradigm? Suppose that this vowel realizes a combination of two functional heads. Since there is a split of the paradigm between first and second person on the one hand and third person on the other, we might think that the features involved are person features. The relevant person head incorporates into the Focus head. This provides the realization of [i] in the first and second person of the paradigm and of [a] in the third person.

3.6. Further Evidence Against Deictic Clitics

We have seen that deictic clitics can also be analyzed as the realization of functional categories. In this section, further evidence is provided to this effect.

As seen in §3.1.3, Paduan has a vowel, *a,* that marks the whole sentence as new information. Since it is found in all persons of the paradigm, it can be classified as an invariable clitic, in Poletto's typology. In other dialects, however, a comparable vowel is found only in some persons of the paradigm. In the dialect of Schio (province of Vicenza), studied by Chinellato (2002a, 2002b, this volume), the preverbal vowel *a* that conveys new information is only found in the first and second person singular and plural, i. e., it has the same distribution as deictic clitics in Poletto's typology. In (69a), with *a*, the speaker (S) presumes that the addressee (A) does not know the information in square brackets, while in (69b), without *a,* the speaker (S) presumes that the addressee (A) already knows the information in square brackets.

(69) a. S: Me sento male perché [a go magnà massa].
             [I] feel sick because A [I] have eaten too much
          A: Oh, me despiaze.
             oh, [it] to-me 'dislikes' (= I'm sorry)
      b. S: Me sento male perché [go magnà massa]
             I feel sick because [I] have eaten too much
          A: Te lo gavevo dito, mi.
             [I] to-you it had said, I (= I told you not to eat so much)

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The vowel in (69) is thus similar to Paduan *a* in that it introduces new information. However, it differs from Paduan *a* in that it does not occur in all persons of the paradigm, and furthermore it does not occur in questions: compare Schio **A ve-to via?* 'A go-you:sg away?' with Paduan *A ve-to via* (50b). (See Chinellato's detailed analysis for more information.) With respect to its distribution, the Schio vowel behaves like a deictic clitic, but with respect to its function, it behaves like an invariable clitic.

As with the Donceto schwas in (3c) and (4), the *a* vowel found in Schio does not fit Poletto's typology. To account for the Schio vowel, yet another class of subject clitics should be added to those seen in (7).

Assuming instead that preverbal vowels are the realization of functional heads, it is expected that their syntactic behaviour would differ depending on which functional head they realize. Assuming the clause structure in (70) (proposed in Cardinaletti 1999; see §2.4.3), Chinellato (2002a, 2002b, this volume) suggests that in Schio, *a* realizes the functional head EPP, which hosts the subject in all-focus sentences.[34]

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[34]. Since this head is located in the Infl layer, we expect the Schio *a* to behave like the Donceto schwa in (3c) in that it should not mandatorily cluster with the complementizer. The expectation is borne out. Compare (i) with (38).

(i) a. Vara ch'a vegno. 'look that A [I] come'
     b. Vara che a vegno.

Since the Schio *a* is not the same as the Donceto interrogative vowel in (4), it does not occur in questions. Compare (iia) with (46) and (iib) with (56).

(ii) a. *A ve-to via? 'A go-you:sg away?'
      b. *Quante caramele a ghe-to magnà? 'how many sweets A have-you:sg eaten?'

(70)   SubjP
                       /   \
            Subj°   EppP
         [+subject of   /   \
         predication]   Epp°   AgrSP*
                       [+epp]   /   \
                              AgrS°* TP
                     a   [+phi]

The fact that the *a* vowel is only found in some persons of the paradigm might suggest that it realizes a combination of more than one functional head, like the Friulan *a* discussed in §3.5.2. Since there is a split in the paradigm between first and second person on the one hand and third person on the other, we might think that the relevant feature is a person feature here too. The relevant person head incorporates into the EPP head. This provides the realization of *a* in the first and second person of the paradigm only, the third person being a non-person (Benveniste 1971).

In conclusion, the preverbal vocalic segments in Donceto and Schio realize different functional heads. If the preverbal vocalic segments in these two dialects were all subject clitics, there would be no way to account for the difference in distribution (declarative/interrogative in Donceto vs. only declarative in Schio) or for the difference in meaning (full optionality in Donceto vs. "new information" in Schio).

3.7.   On the Optionality of Vocalic Segments

A final remark concerns the optionality issue. The preverbal vowel is fully optional only in some dialects (as in the Donceto dialect), while in others (as in the Schio dialect), its presence implies a specific meaning, i. e., "new information".

This difference depends on the type of functional head involved. Since in Donceto (3c), a functional head of the subject-field is involved, no meaning difference is expected in this dialect. The subject-field heads are activated anyway depending on the subject merged in the clause. Similar remarks hold for the optional interrogative vowel in the yes-no questions in (4), where we have detected no difference in meaning between the sentences with and without the interrogative vowel. This depends on the fact that the functional head Focus is always activated in questions with enclitic pronouns. (For

other types of yes-no questions, where the Focus head is not activated, see note 27).

It thus cannot be the case that the subject-field head and the Focus head are only present when the vowel is present, and are absent in the absence of the vowel. The sentences with and without the vocalic segment contain the same functional heads and have the same meaning. Thus, schwa optionally realizes otherwise present functional heads.

In the Schio dialect, on the other hand, the vowel *a* realizes a head that contributes to the interpretation of the sentence, namely the head EPP, as does the Paduan vowel *a* which realizes the TOP head (see §3.1.3). In these cases, there is no real optionality, and we might suppose that the relevant heads are not activated when the preverbal vowel is not present in the clause.[35]

3.8. Conclusions and Diachronic Considerations

In the preceding sections, we have seen that in Donceto, interrogative sentences display a rather intricate occurrence of vocalic segments. Some of these data are different from data previously discussed in the literature and confirm the hypothesis that the prevebal vocalic segments in (4) cannot be analyzed as subject clitics. The preverbal vowel in (4) is an 'interrogative vowel' that (optionally) realizes a functional head of the Comp layer, namely the head Focus that contains the interrogative features.

A summary of our revised analysis of preverbal clitics is given in (71), to be compared with the 'unified' analysis in (5) and (6).

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[35]. Poletto (2000: 69) notes that the presence of a vocalic clitic in interrogative sentences sometimes correlates with special interpretations. In Friulian, for instance, the presence of a deictic clitic signals surprise and the request of additional information. This is not the case of the Donceto dialect studied here, where the interrogative vowel is truly optional. The difference in interpretation suggests that different heads of the Comp layer are realized by the vocalic segments in the two dialects.
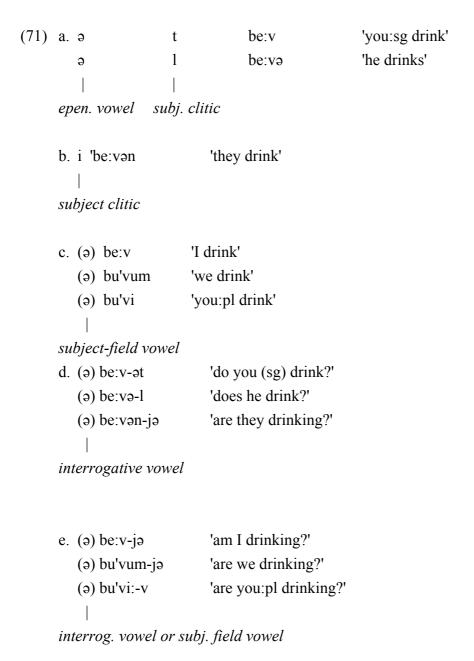
Poletto (2000: 69) reports for another Piacentine dialect (the one spoken in Piacenza) that sentences with the preverbal vowel, what we call the "interrogative" vowel, are used in "out-of-the-blue" questions, an observation which is in line with the results of our field research.

(i)   A mangium-ia l pom?

       A eat-we the apple?

Poletto does not compare (i) with questions without the vowel, but no difference should be expected in the Piacenza dialect either.

(71) a. ə   t   be:v   'you:sg drink'

        ə   l   be:və   'he drinks'

        | |

    epen. vowel   *subj. clitic*

b. i 'be:vən   'they drink'

  |

subject clitic

c. (ə) be:v   'I drink'

    (ə) bu'vum   'we drink'

    (ə) bu'vi   'you:pl drink'

     |

subject-field vowel

d. (ə) be:v-ət   'do you (sg) drink?'

    (ə) be:və-l   'does he drink?'

    (ə) be:vən-jə   'are they drinking?'

     |

interrogative vowel

e. (ə) be:v-jə   'am I drinking?'

    (ə) bu'vum-jə   'are we drinking?'

    (ə) bu'vi:-v   'are you:pl drinking?'

     |

interrog. vowel or subj. field vowel

The proposal that functional heads are realized by vocalic material allows us to account for much of the data from Northern Italian dialects that have not been successfully accounted for in the literature. In addition to accounting for the syntactic properties of preverbal vowels and the syntactic microvariation found in the northern Italian dialects, we can also account for their phonological realization and their diachronic evolution.

While the three true subject clitics (*t / l / i*) are derived from Latin pronouns (Vanelli 1984, 1987) — *t* derives from the Latin nominative *tu*, and *l* and *i* derive from the Latin demonstrative *illu/illi* — it is not obvious which Latin morphemes to posit as the base of the subject-field vowel and interrogative vowel.

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Vanelli (1984, 1987) proposes that the vocalic clitics comparable to [ə] in (3c) derive from the Latin first person nominative pronoun *ego*, which was reduced to a single vowel and then extended to the first person plural and finally to the second person plural. But there are many problems with this historical reconstruction. First, there is great variation in the realization of this vowel across dialects: *a, e, ə, i, o, u* (see (44b) in §2.5). Can all of these forms be derived from the same Latin root? Second, if the diachronic process took place in three distinct steps, we might expect to find historical documentation or dialect data in which the first person singular, first person plural, and second person plural forms are all different (stage 1), or the first person singular and plural forms are the same but are themselves different from the second person plural (stage 2), along with the common pattern in which all three forms are the same (stage 3).

(72)   stage 1   >   stage 2   >   stage 3

    first person singular   α   α   α

    first person plural   β   α   α

    second person plural   γ   γ   α

While cross-linguistic data in support of stage 2 can be found (for example, in the Florentine dialect the first person singular and plural clitics are [e] and the second person plural clitic is [vu] (Vanelli 1984: 290, n. 20)), data for the first stage are lacking (Renzi and Vanelli 1983: §1.2). These facts lead us to suspect that the historical evolution suggested above might not be correct. Furthermore, to our knowledge, no one has proposed a historical analysis of the interrogative vowel.

So where do the preverbal vowels represented in (3c) and (4) come from? We propose that the functional heads discussed so far are listed in the lexicon as a non-specified vocalic segment which gets an optional default realization via the "epenthetic" vowel. We call the phenomenon of the realization of a functional head with "default" phonological material "syntactic epenthesis" to express the similarity with phonological epenthesis.

Cross-linguistic investigation, which we cannot undertake in this paper, will establish whether the realization of the preverbal vowels is done via the default vowel used in

phonological epenthesis or in some other way in other dialects.[36] We also leave open the typological question as to why "syntactic epenthesis" is manifested in the northern Italian dialects but is apparently quite rare across languages. A more detailed investigation might show that this phenomenon, which, to our knowledge, has never been discussed in the literature, is more wide-spread across languages.[37]

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[36]. A first examination shows that in other Northern Italian dialects, the preverbal vocalic segments have the same phonetic realization as the epenthetic vowel. (We have found a different realization only when the vocalic segment realizes two functional heads, see §3.5.2 and §3.6, and when it contributes to the interpretation of the sentence, see §3.7) Although this seems to be the most economical system, it is not clear whether the preverbal vocalic segments must necessarily be identical to the epenthetic vowel.

[37]. Another good candidate for syntactic epenthesis might be found in the Swedish construction in (ia) and (ib), involving motion and aspectual verbs, respectively. The connecting element [□] realizes a functional head in the extended projection of the lexical verb embedded under the motion and aspectual verb (Cardinaletti and Giusti 2001).

(i) a. Han går (och) tar sig en grogg.   'he goes (and) takes a grogg'
     b. Hans slutar (och) skriver.   'Hans stops (and) writes'

[□] is only optionally phonetically realized, contrary to the connecting element found in the true coordinations and infinitival constructions in (ii), which is always obligatory.

(ii) a. Maria och Johan kommer.   'Maria and Johan come'
      b. Han kommer att åka på semester.   'he comes to go on vacation'

Furthermore, while the connecting element in (i) is most naturally pronounced [□], the connecting elements in (ii) can also be pronounced [ok] and [at], respectively (many thanks to Verner Egerland for very helpful discussion on this topic). (Note, however, that [□] is not usually the epenthetic vowel in Swedish.)

Syntactic epenthesis in Northern Italian dialects also looks similar to a phenomenon found in Yorùbá: all empty functional heads – C(omp) and T(ense) in the verbal domain, K(ase) and D(eterminer) in the nominal domain – get a default realization via a high tone (Victor Manfredi, Class lectures, Venice, March 2001).

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4. Postverbal Clitics in Interrogative Sentences

One aspect of interrogative sentences that we have not yet explored is the appearance of an enclitic pronoun that is mandatory in all persons (4). Our analysis of these clitics will have important consequences for the issue of subjects and of clitics in general.

The first observation is that the postverbal clitic found in interrogative sentences appears, in some cases, to be closely related or identical to the preverbal clitic found in declarative sentences, while, in other cases, the two elements appear to be unrelated. Secondly, while the postverbal clitic is always mandatory, the preverbal material is optional in some forms.

(73)

		preverbal position (declarative)	postverbal position (interrogative)
a.	second person singular:	[ət-]/[tə-]/[t-] mandatory	[-ət]/[-t] mandatory
	third person singular:	[əl-]/[lə-]/[l-] mandatory	[-l] mandatory
b.	third person plural:	[i-]/[j-] mandatory	[-jə] mandatory
c.	first person singular:	[ə-] optional	[-jə]/[-j] mandatory
	first person plural:	[ə-] optional	[-jə] mandatory
	second person plural:	[ə-] optional	[-v] mandatory

Because of the differences in distribution and in phonological form, many researchers have proposed that proclitics and enclitics belong to two different paradigms, and the postverbal material has often been analyzed not as a clitic pronoun but as an inflectional affix (Benincà and Vanelli 1982, Benincà 1983, Fava 1993, Munaro 1999, Poletto 2000 and the references quoted therein). This is a very costly analysis since it implies that paradigms of pronouns must be marked as 'proclitic/enclitic' or as 'declarative/interrogative' or as 'word/affix' in the lexicon.

In the following paragraphs, we show that the analysis of subject clitics developed so far renders the two paradigm hypothesis unnecessary, and we argue instead for the single paradigm hypothesis. (In §5.1 and §5.4, French is also included in the

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Finally, the vowels used by children in the acquisition of free functional morphemes might be analyzed as another instance of syntactic epenthesis: they are the proto-syntactic devices that children use to fill functional heads before they learn the relevant lexical items (cf. Bottari, Cipriani and Chilosi 1993/94).

discussion.) Since, as we have shown, the preverbal optional schwa in (73c) is not a subject clitic, it should not be compared with the postverbal material, which, we will argue, should be considered to be a subject clitic belonging to one and the same paradigm as the three true proclitic pronouns individuated so far. The differences between the true proclitic pronouns and the enclitic pronouns can be accounted for with phonological and/or syntactic explanations.[38]

4.1. Second and Third Person Singular and Third Person Plural

We can easily account for the data in (73a) and (73b) with the single paradigm hypothesis. We have identified three true subject clitics: the second and third person singular forms (consonantal clitics) and the third person plural form (vocalic clitic). In (74) we see the underlying form of these subject clitics and the output forms attested in various contexts.

(74)	subject clitic	preverbal position (mandatory)		postverbal position (mandatory)	
a.	/t/	[ət-]	[ət-be:v]	[-ət]	[be:v-ət]
		[tə-]	[tə-skri:v]	[-t]	[vɛ-t]
		[t-]	[t-ɛ bu'vi:d]		
	/l/	[əl-]	[əl-be:və]	[-l]	[be:və-l]
		[lə-]	[lə-skri:və]		
		[l-]	[l-a bu'vi:d]		
b.	/i/	[i-]	[i-be:vən]	[-jə]	[be:vən-jə]
		[j-]	[j-an bu'vi:d]		

The proclitic and enclitic forms of these persons are similar in two ways: the clitics are mandatory both preverbally and postverbally, and the surface forms can be straightforwardly derived from the underlying forms. We have seen that we can derive the proclitic forms from the underlying form of the subject clitic by considering the phonological context in which each appears (§2.1.1 and §2.2). We will now see that we

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[38].   See Toman (1992) and Peperkamp (1997) for the discussion of proclisis vs. enclisis in phonology, and Benincà and Cinque (1993) and Rizzi (1993) for proclisis vs. enclisis in syntax.

can account for the enclitic forms in the same way. As assumed above, in questions the verb moves from its 'declarative' position following the subject clitic to a position preceding the subject clitic.

(75) a.   t - be:v   > be:v - t   > be:v ə t   'do you:sg drink?'
      b.   l - be:və   > be:və - l   > be:v ə l   'does he drink?'
      c.   i - be:vən > be:vən - i > be:vən j ə 'do they drink?'

In (75a), the postverbal consonantal clitic cannot be syllabified, so an epenthetic vowel is inserted before it: *be:vət*. Its position is consistent with the placement of epenthetic vowels illustrated in (14). And, as expected, an epenthetic vowel is not necessary if the verb ends in a vowel (76).

(76) vɛ-t   *vɛ-ət   'are you:sg going?'
      gɛ-t   *gɛ-ət   'are you:sg having?'

In (75b), the enclitic form of the third person singular is identical to the input form. The /l/ of the input can always be syllabified with the word-final vowel (representing the inflectional morpheme of the third person singular form), so epenthesis is not necessary. In (75c), the proclitic form of the third person plural pronoun is [i] before a consonant and [i] or [j] before a vowel (see note 12). The explanation of the phonological difference between the proclitic and the enclitic form of this pronoun is slightly more complex than in the preceding cases. Why is an epenthetic vowel necessary in the enclitic form? And why do we find the epenthetic vowel <u>after</u> the clitic rather than <u>before</u> it? The forms in (77) represent some candidate outputs for an input /be:vən-i/.

(77) /be:vən-i/ > a. *'be:vən-i
                     b. *'be:vən-
                     c. *'be:vən-əj
                     d. *be:və'n-əj
                     e. 'be:vən-jə

The form in (77a), in which the output is faithful to the input, is not found because of the productive rule of apocope in these dialects: only the inflectional morphemes /a/ and /ə/ and epenthetic /ə/ are permitted word-finally. For example, the recently introduced 'euro' is pronounced [ewr] (with loss of the final /o/) in Donceto. If we assume that /a/

(realized as [a] or [æ] in stressed open syllables) is the only low vowel, and [ə] has no specified place features, then the constraint relevant in ruling out this form can be formulated as: $*V_{[-low]}\#$.[39]

The form in (77b) is not found because the mandatory subject clitic is deleted (in violation of the MAX constraint; see the discussion of (30c)). The output in (77c), in which the clitic /i/ is glided after the epenthetic vowel (schwa), is not found because of metrical constraints active in this dialect, and specifically the Weight-to-Stress Principle (WSP) which favors a stressed *heavy* syllable. Therefore, a word ending in a falling diphthong (i. e., a heavy syllable) will have final stress: [ba'gaj] 'child', and not *['bagaj]. Stress shift, resulting in the form in (77d) is not possible because of a constraint that prohibits stress on epenthetic vowels (HEAD-DEP). Hence, while a final heavy syllable is usually stressed ([fju'lEN] 'child'), it is not stressed in a form like ['ferəm] 'still' (*[fe'rəm]) because the final syllable contains an epenthetic vowel. (See Repetti 2000 and to appear for a discussion of the metrical structures of northern Italian dialects.) Therefore, the form in (77e), in which the clitic /i/ is glided before epenthetic schwa, is found.

In conclusion, the true subject clitics, the second and third person singular and third person plural, have the lexical forms given in (74), namely /t/, /l/, and /i/. These clitics are mandatory in both proclitic and enclitic position, and the output forms can be accounted for by considering the phonological constraints active in this language.

Since proclitics and enclitics are one and the same element, we also expect that they cannot give rise to any doubling. This prediction is borne out, as shown in (78). [40]

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[39]. To be precise, a lexical vowel is permitted word-finally (for example, [bɔbi] 'Bobbio (place name)'), but not a vowel representing an inflectional morpheme (except /a/ and /ə/).

[40]. In some dialects, sentences parallel to (78) are possible in the third person singular (Poletto 2000: 54-55). According to Poletto, this is another piece of evidence in support of the two-paradigm hypothesis since one and the same element cannot appear simultaneously before and after the verb.

(i) a. Sok a l a-lo fait? 'what he has-he done?'   (Rodoretto di Prali [Pied.-Prov.])

   b. La baɲ-la?   'it rains-it?   (Pra del Torno [Provençal])

Notice however that the double occurrence of clitics is also marginally attested in the case of object clitics. See (ii) from Berretta (1985: 194), Kayne (1989a: 256, n.37) and the references cited there.

(78)　* ət beːv-ət

　　　* əl beːvə-l

　　　* i beːvən-jə

4.2.　First Person Singular and Plural and Second Person Plural

In this section we analyze the relationship between the preverbal vowel (which we have claimed is not a true subject clitic, but a subject-field vowel) and the postverbal material in the first person singular and plural and second person plural. We conclude that the two elements are independent syntactic entities and that the enclitic elements can be analyzed as subject pronouns.

4.2.1.　Optional Preverbal Vowels vs. Mandatory Postverbal Clitics

The data in (73c), repeated in (79), show that the issue of optionality varies depending on the position. For the first person singular and plural and second plural, the preverbal vowel is optional, while the postverbal clitic is mandatory. (Compare with the other persons of the paradigm where clitics are mandatory in preverbal and postverbal position (74).)

(79)　　preverbal position　　　　　postverbal position

　　　　(optional)　　　　　　　　(mandatory)

　　　　[ə-]　[ə-beːv]/[beːv]　　　　[-jə]　[beːv-jə]

　　　　　　　　　　　　　　　　　[-j]　　[vo-j]

(ii)　　Ancora una volta mi hanno voluto riconfermarmi la fiducia.

　　　'once again [they] to-me have wanted [to] reconfirm to-me the confidence'

However, (ii) is never used as evidence to suggest a two-paradigm hypothesis for object clitics. Whatever analysis turns out to be correct for (ii), it can be extended to (i). We tentatively suggest that both (i) and (ii) can be accounted for in the copy theory of movement (Chomsky 1993) by assuming that in these (exceptional) cases, both the trace and the head of the chain are spelled out. As for (i), we take enclitic *lo* and *la* to be the head of the chain, while in (ii), proclitic *mi* is the head of the chain. This is an independent difference due to the different syntactic derivation of the two cases. See note 65 for a possible derivation of (ib).

[ə-] [ə-bu'vum]/[bu'vum]   [-jə] [bu'vum-jə]

[ə-] [ə-bu'vi]/[bu'vi]   [-v] [bu'vi:-v]

This is the first argument that the enclitic material should not be compared with the preverbal vowel. The two are different syntactic entities. If, as we claim, the preverbal vowel is not a subject clitic, the postverbal material can well be analyzed as a subject clitic. Notice that it behaves like the true subject clitic pronouns discussed in §4.1 in that it is mandatory.

4.2.2.   The Phonological Form of the Preverbal Vowel and Postverbal Clitics

Furthermore, we see that the preverbal vowel and the enclitics are phonologically unrelated. In this section we show that the enclitic forms can in no way be phonologically derived from the preverbal schwa.

In (80) we apply the analysis of question formation adopted above: the verb moves from its declarative position following the vowel to a position preceding it.

(80) a. ə - be:v   >   be:v - ə   >   *be:v-ə   (81) [be:v-jə]

     b. ə - bu'vum >   bu'vum - ə >   *bu'vum-ə   [bu'vum-jə]

     c. ə - bu'vi   >   bu'vi - ə   >   *bu'vi-ə   [bu'vi:-v]

There is no phonological rule or process that would allow us to account for the phonological differences between the predicted outputs (as shown in (80)) and the actual outputs in (81). Let us consider the first person singular, [be:v-jə], given a proposed input form /be:v-ə/. In (82) two possible outputs for the input /be:v-ə/ are provided. Candidate (82a) is not the actual output although there is no phonological constraint ruling out this form. And candidate (82b), the actual output, should incur a fatal violation due to the fact there is no reason to insert an epenthetic glide before schwa: epenthesis is not necessary in that position, and glide formation is not otherwise attested in this context.

(82) /be:v - ə/   >   a. *'be:v - ə

                             b. 'be:v - jə

Furthermore, consider the form in (83), the interrogative form of the phrase [(ə) go] 'I have'.

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(83) /go - ə/   >   a. *go - ə

                                       b. *go -

                                       c. go - j

Given the proposed input /go - ə/, we might expect the output in (83a) which is most faithful to the input, or the output in (83b) with deletion of the final vowel. But these are not the attested forms. Instead, the output consists of the verb followed by a glide, as in (83c). Again, this is surprising since output /j/ is unrelated to anything in the input and gliding is not expected in this context.

Similar problems arise in the analysis of the other two forms. The first person plural form, [bu'vum-jə], and the second person plural form, [bu'vi:-v], are not the output forms we expect given the proposed inputs /bu'vum-ə/ and /bu'vi-ə/, respectively.

(84) /bu'vum-ə/   >   a. *bu'vum-ə

                                       b. bu'vum-jə

(85) /bu'vi-ə/   >   a. *bu'vi-ə

                                       b. bu'vi:-v

The forms in (84a) and (85a) are the forms most faithful to the input. These forms do not violate any of the high-ranking constraints in the language, and we would expect them to be selected as the output forms. However, they are not. The form in (84b) is the actual output form despite the fact that a /j/ is inserted: as stated above for the first person singular, neither glide insertion nor epenthesis is expected. Similarly, the form in (85b) is the actual output form despite the fact that input /ə/ is replaced by output [v]. There is no phonological reason to expect this type of a process.

Given the problems with the analysis in (80), we conclude that the attested output forms — [be:v-jə], [bu'vum-jə], [bu'vi:-v] — are not related to the posited inputs — /be:v-ə/, /bu'vum-ə/, /bu'vi-ə/, respectively. This conclusion is consistent with the conclusion reached previously that the schwa occurring in (3c) is not a subject clitic, but a different syntactic entity. Since the enclitic material is unrelated to the preverbal vowel, nothing prevents us from considering it a subject clitic pronoun (see §4.2.5 for an account of its phonological form).

4.2.3.   Apparent Clitic Doubling

In yes-no questions (86a) and wh-questions with wh-clitics (86b), the proclitic vowel may cooccur with the enclitic element (see §3.3 above).

(86)   a.   ə beːv   ~   ə beːv-jə

          ə bu'vum   ~   ə bu'vum-jə

          ə bu'vi   ~   ə bu'viː-v

      b.   ə vo   ~   dõːd ə vo-jə

          ə num   ~   dõːd ə num-jə

          ə nɛ   ~   dõːd ə nɛː-v

We have already pointed out in §3.1.3 that in a derivational approach to clitics (cf. Kayne 1975), there cannot be two subject pronouns moving from one and the same position. Nor can two clitics, in a configurational approach to clitics (cf. Jaeggli 1982), be linked to one and the same position. Notice that the 'doubling effect' problem is directly linked to the issue of the different distribution and quality of the material in proclitic vs. enclitic position that we have discussed in §4.2.1 and §4.2.2 above and can be solved in the same way.

If the preverbal vowel in (79) is not a subject clitic but a different syntactic entity, as we have argued so far, (86) is not an instance of doubling and thus does not present a problem. While the preverbal [ə] realizes a functional head, the postverbal [jə]/[v] in (79) can be taken to be enclitic pronouns. In the next paragraphs we explain this proposal more fully.[41]

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[41].   If the preverbal vowel in (86) were a subject clitic, the cooccurrence of a preverbal and a postverbal subject clitic could be analyzed as an instance of clitic doubling, much as in the analysis by Kayne (1972) of French enclitics. This analysis cannot however distinguish among the different persons of the paradigm. It cannot account for the fact that 'doubling' is only possible in (86) with the first person singular and plural and the second person plural, but cannot appear in (78) with the second and third person singular and the third person plural. If (86) were an instance of 'doubling', further assumptions need to be made in order to explain the contrast between (86) and (78). This is another reason not to consider the preverbal vowel in (86) as a subject clitic.

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4.2.4.   Preliminary Conclusions

In §2.4 we have argued that the preverbal vowel found in the first person singular and plural and the second person plural is **not** a subject clitic pronoun. We have analyzed the preverbal [ə] as the realization of a functional head, and we have taken the subject of these sentences to be a null weak pronoun (*pro*), as in Italian (§2.4.3). As for interrogative sentences, we have adopted an analysis whereby the verb moves from its "declarative" position to a position preceding the subject clitic pronoun, and in §4.1 we developed an analysis of the enclitic material that does not make recourse to the two-paradigm hypothesis. In §4.2.1-4.2.3, we have seen that if the postverbal elements in (79) are not related to the preverbal vowel, we can analyze them as enclitic subject pronouns. We suggest that the enclitic pronouns in the first person singular and plural and the second person plural are the true subjects of the clause on a par with the subject clitics in the other three persons of the paradigm. The proposal is summarised in (87).

(87)   (a) preverbal subject   (b) enclitic subject pronouns
                    (declarative sentences)   (interrogative sentences)

1st sg.	*pro*	/i/
1st pl.	*pro*	/i/
2nd pl.	*pro*	/v/

In what follows, we analyze the phonology of the enclitic pronouns in (79) and (87), and we address the syntactic question behind these data: why does *pro* occur in declarative sentences and subject clitics occur in interrogative sentences in these three persons of the paradigm?

4.2.5.   The Phonological Form of Enclitic Pronouns

In (88), we propose that the underlying form of the first person singular and plural enclitic pronouns is /i/, although they are pronounced [jə] or [j]. We suggest that the analysis in §4.1 for the third person plural pronoun /i/ also applies to the first person singular and plural enclitic pronouns. /i/ is realized as [jə] in enclitic position because of the prosodic constraints active in this dialect. (See (77).)

(88)   /be:v-i/   >   [be:v-jə]   'am I drinking?'
       /buvum-i/   >   [bu'vum-jə]   'are we drinking?'

This analysis predicts, correctly, that if the verb ends in a stressed vowel, the pronoun should be able to syllabify with it with no epenthesis (and with gliding of the /i/). The

form [go-j] does not violate any of the constraints mentioned in §4.1: it does not end in an unstressed vowel, and the word-final falling diphthong is stressed. (We also find [go-jə] in careful speech.)

(89) /go-i/   >   [go-j]   'am I having?'

The second person plural clitic, /v/, surfaces unchanged as [v]. (See footnote 4.)

(90) /bu'vi-v/   >   [bu'vi:-v]   'are you:pl drinking?'

The subject clitics proposed for Donceto are listed in (91).

(91) *proclitic subj. pronouns*   *enclitic subj. pronouns*

-	-	i	i
t	-	t	v
l	i	l	i

Notice that the forms of the (true) subject pronouns in (91) are all diachronically motivated. As Vanelli (1984, 1987) and others have noted, the subject clitic pronouns are derived from Latin nominative pronouns. Although Vanelli's diachronic hypothesis raises some questions with regard to the syncretism displayed by preverbal vocalic segments in (3c) (see §3.8 above), it appears to be successful in accounting for the forms of the enclitic pronouns, which we argue are true subject clitics in all six persons. As Vanelli proposes, the first person singular (enclitic) pronoun derives from the Latin first person nominative pronoun EGO > io; it was reduced to a single vowel, /i/, and then extended to the first person plural, which shares the feature [+speaker].[42] This clitic has not been extended to the second person plural form, which, instead, uses the enclitic form /v/ that derives from the Latin pronoun VOS. Therefore, the dialect of Donceto is at stage 2 in the chronology illustrated in (72). (See §3.8 for a discussion of the evolution of the subject clitics *t, l* and *i*.)

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[42]   Why has the same not happened with strong pronouns? Notice that it is generally true of clitics, i. e., also of object clitics, that more syncretism is found with clitic pronouns than with strong pronouns. We believe that the reason for this difference is due to the fact that strong pronouns are less frequent than clitic ones (due to the 'Minimise structure' principle discussed in Cardinaletti and Starke 1999:§7; see §5.1 below), and therefore less subject to diachronic change and hence more regular.

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Furthermore, the enclitic forms of the pronoun are remarkably uniform across dialects (see §4.3 for an account of some microvariation), while the proclitic forms comparable to the schwa in (3c) display great cross-linguistic variation: see (44b) in §2.5.

Based on a detailed study of the dialect of Donceto, diachronic considerations, and cross-linguistic evidence, we conclude that the postverbal non-schwa elements in (4) are true subject clitics. In the second and third person singular and in the third person plural, they are also found preverbally (3a), (3b).

4.3. Microvariation in the Phonology of Enclitic Subjects

We have claimed that the (true) subject clitic pronouns belong to a single paradigm whether they appear preverbally or postverbally, and that differences between the realization of the proclitic and enclitic forms can be accounted for phonologically. We have illustrated this claim by providing a detailed study of the Donceto subject clitic pronouns which are realized differently in different contexts, and we have accounted for the different forms by considering the constraints on phonological structure active in the language (§4.1 and §4.2.5).

In this section we will show that the same analysis applies to other northern Italian dialects. Since each dialect ranks constraints differently, we predict that different output forms will be found given the same or similar inputs. As seen in the data in (92) through (94), the realization of the proclitic and enclitic subject pronoun varies from dialect to dialect, but we claim that for each dialect the output forms, whether proclitic or enclitic, are derived from the same input.[43]

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[43].   In (92)-(94), a word-final unstressed /a/, which is the inflectional morpheme representing the third person forms of first conjugation verbs (and in Bellunese also the second person singular), is raised to [e] before clitics. The raising of unstressed /a/ to [e] in front of subject clitics cannot be used as an argument for the existence of an interrogative inflection, *pace* Fava's (1993) analysis of similar facts in Vicentino (see §5.3). Vowel raising is in fact also found with enclitic object pronouns occurring with imperative verbs: *magna la minestra!* 'eat the soup!' vs. *magnela!* 'eat it!'.

In Venetian, where the phenomenon is also attested, the verb final vowel /a/ is raised to [i] when an enclitic is added. This is found both with enclitic objects (i) and (in archaic forms) with enclitic subjects (ii).

(i)   a.   *compra el giornal!* 'buy the newspaper!'

(92) **Paduan** (Benincà and Vanelli 1982):

a. magno   b. magno   -(**i**)

te-magni   magni   **-to**

el-magna   magne   **-lo**

magnémo   magnémo   -(**i**)

magnè   magnè   **-o**

i- magna   magne   **-li**

"I/you/he, etc. eat"   "Do I/you/he, etc. eat?"

(93) **Bellunese** (N. Munaro, personal communication):

a. magne   b. magne   **-e**[44]

te-magna   magne   **-tu**

al-magna   magne   **-lo**

magnon   magnon   **-e**

magné   magné   **-o**

i- magna   magne   **-li**

(94) **Verona** (A. Niero, personal communication):

a. magno   b. magno

te-magni   magni   **-to**

el-magna   magne   **-lo**

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b. *compri-o!* 'buy it!'

(ii) a. *el compra el giornal* 'he buys the newspaper'

b. *compri-o el giornal, paron?* 'buys-he the newspaper, sir?' ('are you buying the newspaper?')

[44]. This form is actually pronounced with a short final vowel, although morphologically there are two identical vowels word-finally. Vowel shortening is due to the fact that Bellunese does not permit long vowels in the output. The presence of the enclitic /e/ in the first person singular is supported by data with other verbs. (Data are from N. Munaro, personal communication.)

(i) ɔ   ɔ-e   'I have'/'have I?'

son   son-e   'I am'/'am I?'

poss   poss-e   'I can'/'can I?'

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	magnemo	magnemo	
	magnì	magnì	**-o**
i-	magna	magne	**-li**

We illustrate our point using the data from the dialect of Padua (92), repeated below in phonetic transcription (95).

(95) Paduan

a.	'maɲo	b. 'maɲo	-(j)
	te-'maɲi	'maɲi	-to
	el-'maɲa	'maɲe	-lo
	ma'ɲemo	ma'ɲemo	-(j)
	ma'ɲe	ma'ɲe	-o
i-	'maɲa	'maɲe	-li

We will show that the dialects of Donceto and Padua have nearly an identical paradigm of subject clitic pronouns with the same distribution (compare (96) with (91)).

(96) Paduan

proclitic subj. pronouns		*enclitic subj. pronouns*	
-	-	i	i
t	-	t	o (< /v/)
l	i (~li)	l	i (~li)

In Paduan, as in Donceto, the first person singular and plural pronouns are realized only enclitically. The input form /i/ is faithfully realized in the output (97a), with optional gliding after the /o/ (97b). Unstressed word-final falling diphthongs are disfavored in this dialect, as in the dialect of Donceto (see §4.1). In Donceto, these diphthongs are avoided in favor of a form with a rising diphthong (see (77)), while in Paduan the final glide can be optionally deleted (97c).

(97)   /maɲo - i/   /maɲemo - i/
    a.   ['maɲo-i]   [ma'ɲemo-i]
    b.   ['maɲo-j]   [ma'ɲemo-j]
    c.   ['maɲo]   [ma'ɲemo]

The second person plural form has a subject clitic in postverbal position only. The clitic /o/ is realized faithfully in the output.[45]

(98) /ma'ɲe - o/   >   [ma'ɲe - o]

In §4.2.5 we attempted to account for the form of the subject clitic synchronically as well as historically. What is the etymology of the /o/ in (98) above? We claim that an earlier form of this pronoun was /v/ (99a), as in Donceto. Since final /v/ is not permitted, an epenthetic vowel was added after the /v/.[46] For reasons that will be fully explained in the following paragraphs, the vowel /o/ was added, resulting in the reconstructed form */ma'ʲe - vo/ in (99b).

(99) a. */ma'ɲe - v/
       b. */ma'ɲe - vo/
       c. /ma'ɲe - o/

In Old Paduan, there was a tendency to delete intervocalic /v/: for example, *zòene* < Lat. *iōvene* 'young', a tendency that is still productive today: for example, [sa'ɛre] is an alternate pronunciation of [sa'vɛre] 'to know' (Rohlfs 1966: 293, Zamboni 1974: 41). Hence, the intervocalic /v/ of /maɲe-vo/ was deleted, resulting in /maɲe-o/ (99c). The /o/ which historically was an epenthetic vowel was reinterpreted as the subject clitic pronoun when the /v/ was deleted.

We now investigate the third person singular clitic, /l/, which is realized as [el] proclitically and [lo] enclitically.[47]

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[45].   In (95), taken from Benincà and Vanelli (1982), the second person plural enclitic is transcribed -*o*. Benincà (1983) instead reports -*u*. P. Benincà (personal communication) informs us that these are phonetic variants, and furthermore that the final vowel tends to be glided. All of these variants — [ma'ɲe-o], [ma'ɲe-u], [ma'ɲe-w] — derive from input /ma'ɲe-o/ with, respectively, no changes in the output, vowel raising word-finally, or avoidance of hiatus through diphthongization (*HIATUS).

[46].   We will see below that the form in (99a) was ill-formed for another reason as well: a constraint banning syllabification of enclitics with their hosts.

[47].   Evidence that the third person singular form is /l/ come from the fact that it is realized as /l/ when epenthesis is not necessary: Padua: *l e* 'he is'; Belluno: *lu l parla* 'he speaks' (Zamboni 1974: 58).

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(100)   /l - maɲa/   >   [e̱l - 'maɲa]

        /maɲa - l/   >   ['maɲe - ḻo]

Notice that an extra vowel is inserted in both output forms. Two questions immediately come to mind. First, if the extra vowel is an epenthetic vowel, why does its position vary (i. e., it inserted <u>before</u> the unsyllabified /l/ proclitically and <u>after</u> the unsyllabified /l/ enclitically)? Second, why does the quality of the epenthetic vowel differ in the two forms (i. e., it is /e/ in the proclitic form and /o/ in the enclitic form)?

The analysis of the proclitic form is given in (101). As in Donceto (see §2.1.1), an epenthetic vowel is inserted before an unsyllabified consonant, and in Paduan the epenthetic vowel is /e/.[48]

(101)   /l + maɲa/   >   [e̱l 'maɲa]

Enclitically, we might expect a form similar to that found in Donceto, but this is not the case.

(102)   /maɲa + l/   >   *[maɲe-l]

The form *[maɲe-l] is not found because of a constraint against the syllabification of enclitics with their hosts (a constraint which also applies to the form in (99a)). This constraint has to do with the prosodic representation of clitics, a topic we have not yet explicitly addressed, and an issue which is unresolved in the literature.[49] We begin by

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[48].   Unlike Donceto, in Paduan the epenthetic vowel is inserted before /l/ with verbs beginning with /s/ plus consonant clusters.

(i)   /l skrive/   >   [e̱l skrive]   'he writes'

While utterance-initial /s/ + consonant clusters are tolerated in Donceto and Paduan, internal /s/ + consonant clusters are not tolerated in Donceto while they are in Paduan.

[49].   Some of the proposals for the prosodic treatment of clitics include the adjunction or incorporation of the clitic into the Prosodic Word (PrWd), the incorporation of the clitic into the Phonological Phrase, the creation of a special prosodic category called the Clitic Group, etc. (Auger to appear, Buckley 1998,

noting that, prosodically, verb + enclitic structures are treated differently in Donceto and in the Veneto dialects. In Donceto, constraints that apply to prosodic words but not across word boundaries also apply to verb + enclitic structures. For example, /v/ is considered a "lengthening consonant" which lengthens the preceding stressed vowel (see Ghini 2001 and note 4). Its effects are found within a word (103a) and within a verb plus enclitic structure (103b), but not across word boundaries (103c).

(103) a. *dur'miv   dur'mi:v   'I was sleeping'
      b. *'gi-v   'gi:-v   'do you:pl have?'
      c. 'gi vent an   *'gi: vent an   'you:pl have twenty years' ('you are twenty
                                                                       years old')

Therefore, in Donceto we assume that the verb + enclitic structure is treated phonologically as a Prosodic Word.

In the Veneto dialects, on the other hand, constraints that apply to Prosodic Words do not apply to verb + enclitic structures. For example, in Paduan we find a slight lengthening of the stressed vowel in a penultimate open syllable (similar to what we find in standard Italian) (104a). (We indicate slight lengthening of the vowel with a single dot after the vowel.) This process does not apply across word boundaries (104b), and crucially it does not occur with verb + enclitic structures (104c). (The same holds in Venetian for the third person singular. For those speaker who have enclisis in the second person singular form of interrogatives, the verb displays a closed syllable: *gas-tu*, so vowel lengthening cannot be checked. See footnote 62.)

(104) a. *'galo   'ga·lo   'rooster'
          *'sito   'si·to   '(internet) site'
      b. el 'ga la 'gondola   *el 'ga· la 'gondola   'he has the gondola'
          te 'si to a'migo, ti *te 'si· to a'migo, ti 'you are your friend'
      c. 'ga-lo   *'ga··lo   'does he have?'
          'si-to (ndà casa) *'si··to (ndà casa) 'are you:sg (gone home)?'

Therefore, in Veneto dialects we assume that verb + enclitic structures are not Prosodic Words (although we do not take a position as to the exact prosodic representation of

Green ms, Grijzenhout and Kraemer ms, Loporcaro 2000, Monachesi 1996, Nespor and Vogel 1986, Peperkamp 1997, Selkirk 1995).

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these structures).[50]

Now that we have established the fact that verb + enclitic structures in the Veneto dialects are not Prosodic Words, we understand why the enclitic cannot be syllabified with the verb in (102).[51] In these dialects, the enclitic pronouns must form their own prosodic unit, and specifically their own syllable.[52]

Since the enclitic cannot be adjoined to the verb in (102), an epenthetic vowel is added.[53] We expect the resulting form to be *[maɲe-l<u>e</u>] (105a). However, this form is also unattested. In (105b), we see that the epenthetic vowel used in this context is not the usual one. Instead of /e/, we find /o/.

(105)   /maɲa + l/   >   a. *['maɲe-l<u>e</u>]

  b. ['maɲe-l<u>o</u>]

Why is a different epenthetic vowel used in (101) and (105b)? Since word-final position is reserved for (vocalic) inflectional morphemes, the word-final epenthetic vowel is in a morphologically salient position. And /e/ is a morphologically marked vowel that represents plural and feminine, two marked categories, in the (pro)nominal system. In

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[50].   The fact that verb + enclitic structures are not treated as Prosodic Words also argues against an analysis of the enclitics as inflectional affixes (Benincà and Vanelli 1982, Benincà 1983, Fava 1993, Poletto 2000). Also see §5.3 below.

[51].   Perhaps cases of an epenthetic [t] in interrogatives (for example, *son-<u>t</u>i* 'am I?' in many Veneto dialects (Zamboni 1974: 50, 59)) might be explained along these lines. Namely, consonant epenthesis is a means of keeping the enclitic /i/ from syllabifying with the verb.

[52].   Apparent exceptions can be explained on independent grounds. The syllabification of enclitic /i/ as an offglide — /maɲo-i/ > ['maɲo-j] 'do I eat?' — is due to a high ranking constraint banning hiatus vowels: *HIATUS (see footnote 45 above). And the syllabification of proclitic /l/ as the onset of vowel-initial verbs — /l e andao/ > [l e an'dao] 'he is gone' ('he went') — is due to the fact that other candidate outputs with an epenthetic vowel fare worse: *[l<u>e</u> e an'dao] has a *HIATUS violation, and in *[<u>e</u>l e an'dao] the /l/ would be resyllabified as the onset of the verb (or incur an ONSET violation), so epenthesis did not result in a better structure. However, we do optionally find [el ɛ] along with [l ɛ] 'he is' in Belluno (Zamboni 1974: 59).

[53] The epenthetic vowel is added <u>after</u> the clitic, not <u>before</u> the clitic which would result in a violation of *HIATUS.

(105a) we have a morphologically marked vowel in a morphologically salient position, an undesirable structure given the fact that [e] is epenthetic. Instead a *morphologically neutral* vowel is used in final position: /o/ (105b).[54]

In Paduan the default <u>phonological</u> vowel is different from the default <u>morphological</u> vowel.[55]

(106)   Paduan   default phonological vowel: /e/
                    default morphological suffix: /o/

There is much evidence from the Italian dialects and from standard Italian of the use of a morphologically neutral vowel rather than the usual epenthetic vowel in positions reserved for inflectional morphemes, a phenomenon we call *morphological epenthesis*. Although, as far as we are aware, we are the first to identify this phenomenon, epenthetic vowels with lexical properties are widely attested (see Steriade 1995).

We provide two examples of *morphological epenthesis* from the history of Italian.[56]

In Latin, the third person plural form of the verb ended in the inflectional morpheme /nt/. Given various historical phonological changes, we would expect the Italian forms to end in /n/. However, this is not found (107a).

(107) AMANT   >   a. *aman   '(they) love'
                    b. *aman<u>i</u>
                    c. aman<u>o</u>

Since Italian verbs (like most words) end in a vowel, the consonant-final form in (107a) is ill-formed. Hence, a final vowel must be added. We do not find the usual epenthetic vowel (/i/) in this context (107b),[57] because verb-final /i/ usually represents the second person singular morpheme (*ami* 'you:sg love'). Instead, a morphologically neutral vowel is used: /o/ (107c).[58]

A similar explanation applies to the forms of the masculine singular definite article in Italian. (See Vanelli 1992, Tranel and Del Gobbo 2002, and Repetti ms for a discussion of the definite article in Italian, and Clivio 1971, Butler 1972, Telmon 1975, Vanelli 1992, Repetti 1995b, and Repetti 1997 for the definite article in northern Italian dialects.) The underlying form of the article is /l/, which surfaces faithfully if the /l/ can be syllabified (108a). If the /l/ cannot be syllabified, the epenthetic vowel /i/ (see note 57) is inserted before the /l/ (108b). This is precisely the same process we saw for Donceto (14) and Paduan (101). As in Donceto, if there are two unsyllabified consonants, the epenthetic vowel is inserted between them. However, surprisingly, the epenthetic vowel /i/ is not used (108c). Instead we find the morphologically neutral vowel /o/ used in this morphologically salient position (108d).

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[57]. We will assume that the epenthetic vowel in Italian is /i/. This is the vowel used to break up unacceptable consonant clusters historically (alisna > les[i]na 'awl', blas(phe)mat > bias[i]ma 's/he blames') and synchronically in popular spoken varieties of Italian (atmosfera > at[i]mosfera 'atmosphere', psicologo> p[i]sicologo 'psychologist').

[58]. The standard explanation of why /o/ is found in this form of the verb has to do with analogy between the first person singular and third person plural forms of the verb 'to be' (Rohlfs 1968: 255; Maiden 1995: 130-131). In Latin the inflectional morpheme for the first person singular form of the verb was /o/. This vowel was generalized to all first person singular forms, even if the (irregular) Latin form originally did not have one: SUM > *son > son+o 'I am'. The third person plural form of the verb 'be' was similar to the first person singular form, and, therefore, also acquired a final /o/: SUNT > *son > *sono* 'they are'. In other words, given the formal identity of <u>son</u> 'I am' and <u>son</u> 'they are', when <u>son</u> 'I am' became <u>sono</u>, the verb meaning 'they are' also changed to <u>sono</u>. The final /o/ of the third person plural form of this particular verb was then extended to all verbs.

(108) a.   /l/ > [l]   /l + amico/   > [la.mi.ko]   'the friend'

     b.   /l/ > [il]   /l + kane/   > [il.ka.ne]   'the dog'

     c.   /l/ > *[li]   /l + spɛkkjo/ > *[lis.pɛk.kjo]   'the mirror'

     d.   /l/ > [lo]   /l + spɛkkjo/ > [lo+s.pɛk.kjo]   'he mirror'

As these two examples from Italian show, the default phonological vowel /i/ is not used in morphologically salient positions.

Returning to the analysis of subject clitics in Paduan, we have seen that we can derive proclitic [el] and enclitic [lo] from the same input /l/. A similar analysis holds for the second person singular forms: proclitic [te] and enclitic [to].

(109)   /t - maɲi/   > [te - 'maɲi]

        /maɲi - t/   > ['maɲi - to]

In the proclitic form, the /t/ cannot be syllabified, so an epenthetic vowel (/e/) is inserted. However, it is inserted *after* the /t/ rather than *before* it.

(110)   /t - maɲi/   > a. *[et - 'maɲi]

                          b. [te - 'maɲi]

As suggested in §2.1.4 above, sonority constraints may dictate whether a consonant is syllabified as an onset or as a coda, with low sonority onsets and high sonority codas being the preferred forms. Therefore, while high sonority /l/ is syllabified as a coda (101), low sonority /t/ is syllabified as an onset (110b).

Some possible output forms are suggested in (111) for the verb+enclitic structure for the second person singular.

(111)   /maɲi + t/ > a. *['maɲi-t]

                        b. *['maɲi-te]

                        c. ['maɲi-to]

The form in (111a) is not found because of the ban on the syllabification of enclitics with their host. The form in (111b) is also unattested because word-final position is a morphologically salient position which requires a morphologically neutral vowel. Therefore, the morphologically neutral vowel /o/ is used, and we find the form in (111c).

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We propose that the third person plural clitic has two allomorphs: /i/ and /li/ and that the choice between the two is phonologically conditioned.

(112)   /li~i - maɲa/   >   [i - 'maɲa]

         /maɲa - li~i/   >   ['maɲe - li]

Proclitically /i/ is chosen over /li/ because of a constraint that favors the shorter allomorph: *STRUCTURE. (See Tranel and Del Gobbo 2002 and references therein for a discussion of the *STRUCTURE family of constraints.) This constraint is crucially ranked higher than the ONSET constraint (requiring syllables to have onsets).

(113)

li~i maɲa	*STRUCTURE	ONSET
(a) li maɲa	*!	
(b) i maɲa ⬅		*

Enclitically, /li/ is chosen over /i/ because of the high-ranked constraint barring vowels in hiatus (*HIATUS), metrical constraints disfavoring final unstressed falling diphthongs (*VG#), and the MAX constraint blocking deletion of the mandatory clitic.[59] All these constraints are ranked higher than *STRUCTURE.[60]

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[59].   In Donceto, the forms of the first person singular, first person plural, and third person plural clitics are identical (91). This is not the case in Paduan. Here the first person singular and plural clitics are identical: /i/, but the third person plural has two allomorphs: /i/ and /li/. Similarly, in the dialect of Bologna, the enclitic forms of the first person singular and plural pronouns are identical to each other but different from the third person plural form: ['kræd-ja] 'do I believe?', [kar'dæn-ja] 'do we believe?', ['krædn-i] 'do they believe?' (data are from Gaudenzi 1889).

[60].   Zamboni (1974) reports an alternative pronunciation ['maɲe-j]. If we assume that alternative forms mean variable rankings of constraints, then *VG# and *STRUCTURE have a variable ranking. In addition, given the fact that for the first person singular, both [maɲo-j] and [maɲo-] are found (97), *VG# and MAX also can have a variable ranking. So the final ranking for Padua is: *VV >> MAX ~ *VG# ~ *STRUCTURE >> ONSET. Similar variants are found in the dialect of Verona: [ɛ-li]/[ɛ-j] 'are they?', [ga-li]/[ga-j] 'have they?' (Zamboni 1974: 50).

(114)

maɲa li~i	*HIATUS	*VG#	MAX	*STRUCTURE
(a) 'maɲe-li ←				*
(b) 'maɲe-i	*!			
(c) 'maɲe-j		*!		
(d) 'maɲa-			*!	

Independent evidence of this account comes from the patterning of the masculine plural accusative clitics. The following data from Bellunese (N. Munaro, personal communication) show that the third person forms of the accusative clitics are identical to the third person forms of the subject clitics. For the third person singular we find [al] in proclitic position and [lo] enclitically (115a), and for the third person plural we find [i] in proclitic position and [li] enclitically (115b).

(115) a. <u>Al</u> magne   'I eat it'
         Magne-<u>lo</u>!   'eat it!'
     b. <u>I</u> magne   'I eat them'
         Magne-<u>li</u>!   'eat them!'

5. Clitic vs. Weak Pronouns

We have proposed that in the first person singular and plural and the second person plural, the subject is different in declarative and interrogative sentences (see (87) and §4.2.4). How is the correct subject chosen in the two cases? In other words, why is the enclitic pronoun in (116a) not possible in proclitic position in (116b)?, and viceversa, why is the null subject *pro* not possible in interrogative sentences, as shown by the contrast between (117a) and (117b)? (We leave out the optional preverbal schwa.) We address the latter question in §5.1, while the answer to the former question is postponed to §5.4.

(116) a. be:v-jə   'am I drinking?'
         bu'vum-jə   'are we drinking?'
         bu'vi:-v   'are you:pl drinking?'

   b. *i be:v   'I drink'

      *i bu'vum   'we drink'

      *v bu'vi   'you:pl drink'

(117) a. *be:v *pro*   'am I drinking?'

       *bu'vum *pro* 'are we drinking?'

       *bu'vi: *pro*   'are you:pl drinking?'

   b. *pro* be:v   'I drink'

      pro bu'vum   'we drink'

      pro bu'vi   'you:pl drink'

5.1. Clitic Pronouns in Interrogative Sentences

Consider the derivation of clitic pronouns adopted in §2.3. A consequence of the two-step clitic derivation is that clitic pronouns occupy a structurally higher position with respect to weak pronouns. This is shown for subject pronouns in French (118), which reproduces the currently assumed analysis of French declarative and interrogative sentences. (See §2.3 above.)

(118) a. $[_{AgrSP}$ il$_k$ a$_i$ … $[_{VP}$ t$_k$ bu]]   'he has drunk'

     b. $[_{YP}$ a$_i$-t-il$_k$ $[_{AgrSP}$ t$_k$ t$_i$ … $[_{VP}$ t$_k$ bu]]] 'has-he drunk?'

     c. *$[_{YP}$ a$_i$-t $[_{AgrSP}$ il$_k$ t$_i$ … $[_{VP}$ t$_k$ bu]]] 'has he drunk?'

In declarative sentences, as in (118a), the weak subject pronoun *il* is taken to occur in specAgrSP. In interrogative sentences, as in (118b), the postverbal pronoun *il* is taken to be a true clitic, i. e., a head. The subject pronoun cliticizes (i. e., adjoins) to a functional head of the Infl layer, which we have called Y here, and the verb adjoins to the subject pronoun. We follow Rizzi's (1993) Theory of Encliticization reported in (119).

(119)   We have enclisis if:

        a. the verb is morphologically complete under the cliticization site;

        b. the verb must move at least as far as the cliticization site.

Enclisis is permitted in (118b) because the verb is morphologically complete, i. e., it has checked all its morphologically relevant features before adjoining to (the clitic is adjoined to) the head Y (as stated in §3.1.4, the features on Y are not morphologically expressed in French). The representation in (118c), where the verb has moved across the weak subject pronoun *il*, is considered to be ungrammatical.

The French paradigm shows that there is a correlation between the scope of verb movement and the occurrence of clitic pronouns. When verb movement across the subject takes place, as in interrogative sentences, the head-movement step of the clitic derivation becomes possible.

Why is (118c) ungrammatical? According to the choice principle discussed in Cardinaletti and Starke (1999:§7), a clitic pronoun should always be preferred over a weak pronoun. In their Deficiency Theory, a clitic pronoun has a structure smaller than a weak pronoun, and 'Minimise Structure' requires that the smallest possible structure is chosen ("economy of representations"). Since in interrogative sentences, the clitic pronoun *il* is possible, it must be used, as in (118b). The sentence in (118c), which contains the weak pronoun *il*, is ruled out.

The analysis developed for French allows us to account for the interrogative sentences in Donceto and to explain the contrast between (116a) and (117a).

As assumed above, verb movement applies in Donceto interrogative sentences. The verb moves to the left of the subject clitic pronoun, and the verb-enclitic order is produced. We illustrate the derivation for the second person singular.

(120) $[_{YP}$ be:v_i-ət$_k$ $[_{AgrSP}$ t$_k$ t$_i$ ... $[_{VP}$ t$_k$ t$_i$]]]   'drink-you:sg?'

In the first person singular and plural and in the second plural of the Donceto dialect, the paradigm is formally identical to French (118). We illustrate the derivation for the first person singular. Declarative sentences contain the weak subject *pro*, as shown in (121a), which is parallel to (118a). In interrogative sentences, verb movement makes a clitic pronoun possible, as shown in (121b), which is parallel to (118b). According to the Minimise Structure principle, a clitic pronoun is preferred over the weak pronoun *pro*. The starred sentence in (121c) (also see (117a)) is parallel to French (118c).[61]

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[61]. A reviewer asks in which sense *pro* should be "stronger" that a clitic pronoun and comments as follows: "Since *pro* is related to agreement, one would think that it should be 'weaker' than a clitic, given the lesser degree of morphological independence from the verb that agreement has compared with clitics". Our understanding of the difference between *pro* and clitic pronouns is in terms of the

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(121) a. $[_{AgrSP}$ pro_k be:v_i … $[_{VP}$ t_k t_i]]   '[I] drink'
    b. $[_{YP}$ be:v_i- jə$_k$ $[_{AgrSP}$ t_k t_i … $[_{VP}$ t_k t_i]]]   'drink-I?'
    c. *$[_{YP}$ be:v_i $[_{AgrSP}$ pro_k t_i … $[_{VP}$ t_k t_i]]]   'drink [I]?'

The existence of subject enclitic pronouns in the first person singular and plural and in the second plural, which do not have proclitic pronouns, is thus a consequence of the syntactic derivation and in particular of the scope of verb movement. This is rather straightforward, given that enclitic pronouns are found in interrogative sentences, and the verb in interrogative sentences is taken to move to a higher position with respect to the verb in declarative sentences.

5.2. Microvariation in Interrogative Sentences

While in Donceto three persons have preverbal subject clitics (/t/, /l/ and /i/) and all six persons are represented postverbally, this is not the case in all dialects. However, the data are not random, and the generalization can be summarized as follows (Renzi and Vanelli's 1983 'Generalization 9').

(122)   *If interrogative sentences are formed via subject-inversion (i.e., via verb movement, A.C. & L.R.)*,
       (i) the number of enclitic pronouns found in interrogative sentences is equal to or greater than the number of proclitic pronouns in declarative sentences, and
       (ii) the subject pronouns found in proclitic position are also found in enclitic position.

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clitic>weak>strong hierarchy, and only amounts to the fact that *pro* must be considered a maximal projection, parallel to a weak pronoun, which is stronger than a clitic pronoun in that hierarchy. As shown in Cardinaletti (2002), null clitic pronouns do not exist. If they existed, sentences with and without clitic pronouns should behave in the same way, but this is not what is found. Consider Italian sentences with an anticipatory clitic pronoun. When an anticipatory clitic pronoun is present, as in *L'ho già comprato, il giornale* "[I] it have already bought, the newspaper", we have an instance of Right Dislocation; when there is no clitic pronoun, as in *Ho già comprato, il giornale* "[I] have already bought, the newspaper", we have an instance of a different construction with different syntactic properties, namely Marginalization. If null clitic pronouns do not exist, it follows that a null subject (*pro*) can only be a maximal projection, hence a weak pronoun.

The data in (92) through (94), repeated below as (123)-(125), illustrate the generalization. Paduan and Bellunese are very similar to Donceto in that three clitics are present in declarative sentences and six in interrogative sentences. In the dialect of Verona, declarative sentences display three subject clitics and interrogative sentences display four subject clitics.

(123) **Paduan** (Benincà and Vanelli 1982):

	a.			b.		
		magno			magno	-(**i**)
	te-magni			magni	**-to**
	el-magna			magne	**-lo**
		magnémo			magnémo	-(**i**)
		magnè			magnè	**-o**
	i- magna			magne	**-li**
		'I/you/he, etc. eat'			'Do I/you/he, etc. eat?'	

(124) **Bellunese** (N. Munaro, personal communication):

	a.			b.	
		magne		magne	**-e**
	te-magna		magne	**-tu**
	al-magna		magne	**-lo**
		magnon		magnon	**-e**
		magné		magné	**-o**
	i- magna		magne	**-li**

(125) **Verona** (A. Niero, personal communication):

	a.			b.	
		magno		magno	
	te-magni		magni	**-to**
	el-magna		magne	**-lo**
		magnemo		magnemo	
		magnì		magnì	**-o**
	i- magna		magne	**-li**

The Paduan and Bellunese enclitic paradigm is derived in the same way as the Donceto dialect. Verb movement to the head Y produces the verb-enclitic order in the second and third person singular and in the third person plural. In the other persons of the paradigm, the verb also moves higher than in the corresponding declarative sentences. Verb movement makes the enclitic subject possible instead of the null category *pro*. To

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account for the Verona data, we suggest a similar analysis: verb movement to Y produces the verb-enclitic order in the second and third person singular and in the third person plural. In the second person plural, the verb also moves higher than in the corresponding declarative sentences, and the enclitic pronoun appears in the second person plural as in Donceto, Paduan and Bellunese. No verb movement to Y, however, takes place in the first person singular and plural and hence, differently from the other dialects, no enclitic pronoun shows up in these persons.

In other dialects, such as the dialect of Trieste, verb movement to Y does not take place in any person, and subject pronouns are proclitic in both declarative and interrogative sentences. (See note 27 for the same possibility in Donceto and note 62 for Venetian and French.)

(126) **Trieste** (M. Viezzi, personal communication):

	a.		b.	
		magno		magno?
	te-magni		**te**-magni?	
	el-magna		**el**-magna?	
	magnemo		magnemo?	
	magné		magné?	
	i-magna		**i**-magna?	

In the literature, there is no account for the generalization in (122). We provide one, based on our analysis of the distributional differences between proclitic and enclitic paradigms. Since in our analysis, the occurrence of the clitics in postverbal position depend on the scope of verb movement, we predict that in enclitic position we would find the same pronouns that we find in proclitic position or more (but not fewer). Because of verb movement, pronouns of certain persons of the paradigm can become available in interrogative sentences that are not possible in declarative sentences.[62]

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[62] As the italicized if-clause in (122) explicitly states, the generalization is valid for those dialects where verb movement produces a verb-enclitic order. A dialect such as Venetian, which has three proclitic pronouns ([ti], [el], [i]) but only two enclitic pronouns ([lo], [i]), does not contradict this generalization contra *prima facie* evidence.

(i) a. Ti ga do libri. (ii) a. *Cossa ga-s-tu?
you have two books what have-you? (What's the matter with you?)
b. El ga do libri. b. Cossa ga-lo?

In conclusion, microvariation in the occurrence of proclitic vs. enclitic pronouns is due to the different scope of verb movement in the different dialects.

Since the true subject clitic pronouns all belong to the paradigm that derives from Latin nominative pronouns (see §4.2.5), a third claim should be added to the generalization in (122), which can be formulated as in (iii).

(127)   *If interrogative sentences are formed via subject-inversion,*

…

(iii) The surface forms of all the enclitic pronouns are fully predictable, as are those of proclitic pronouns.

As we have seen in §4.3, no remarkable cross-linguistic variation is found, and all surface differences are due to minor phonological constraints active in the individual languages.

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	he has two books		what has-he?
c.	I ga do libri.	c.	Cossa ga-i?
	they have two books		what have-they?

As the contrast between (iia) and (iii) shows (from Poletto 2000: 29), second person singular interrogatives do not display enclitic pronouns because they are not formed by verb movement, which makes the absence of a second person singular enclitic pronoun a trivial consequence.

(iii)   Coss' ti ga?   'what you have' (What's the matter with you?)

Poletto (2000: 29) proposes that in (iii), the verb moves to C together with the subject clitic. A disadvantage of Poletto's analysis is that it cannot be extended to account for e.g. French (iv) (Poletto and Pollock 1999) and Caribbean Spanish (v) (from Ordoñez and Olarrea 2000).

(iv)   Quand tu pars?   'when you leave' (When do you leave?)

(v)   Qué tú quieres?   'what you want' (What do you want?)

In (iv) and (v), the subject pronoun that appears between the wh-phrase and the verb cannot have been moved to C together with the verb because it is not a clitic but a weak pronoun. Our analysis, on the other hand, can capture the parallelism between Venetian (iii) (and related constructions in other dialects, see (126)) and French (iv) and Caribbean Spanish (v).

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5.3. **Against the Two Paradigm Hypothesis**

Our proposal makes previous analyses of enclitics superfluous. To account for the differences between proclitics and enclitics in French and northern Italian dialects, various researchers have adopted the "two paradigm" hypothesis and assumed that enclitic elements do not belong to the same paradigm as proclitic elements, but have a special status (§4). For French, Friedemann (1995) analyzes enclitic elements as agreement markers, and Sportiche (1999) as morphological affixes on the verb. As for northern Italian dialects, Benincà and Vanelli (1982), Benincà (1983) and Fava (1993) speak of an interrogative conjugation, with the enclitic pronoun incorporated as an affix into the verbal form (also see Rohlfs 1968 and Zamboni 1974); Poletto (2000: 55) takes them to be agreement morphemes on the verb (whose features are checked in a special functional position, AgrC, located between vocalic and consonantal proclitics); Munaro (1999: 11, 19) takes them to be a different series of subject clitics occurring in Type°.

There is a high cost of these analyses: paradigms of pronouns must be marked in the lexicon as either 'word/affix' or 'proclitic/enclitic' or 'declarative/interrogative'. First, it is desirable not to posit a word vs. affix lexical difference in the absence of definitive evidence; the null hypothesis is that proclitic and enclitic elements are the same lexical items. Second, it is desirable to derive the proclitic vs. enclitic status of clitic pronouns from independent phonological and/or syntactic principles (see note 38). Furthermore, apart from subject clitics, no other type of subject is marked as to its occurrence in declarative and interrogative sentences. Finally, no two-paradigm hypothesis is necessary for other clitic pronouns, such as object clitics (see note 40), and an unmotivated difference is thus postulated between subject and object clitics. Our analysis is superior to the above-mentioned analyses because it does not force us to make any of these ad hoc assumptions.

Another positive consequence of our analysis is that it can predict the cross-linguistic variation concerning the number of subject clitics found in preverbal vs. postverbal position, which varies from dialect to dialect (§5.2). If enclitic elements were not pronouns but agreement markers, morphological affixes, or a different series of subject clitics, there would be no way to account for Renzi and Vanelli's generalization in (122): we might expect fully regular paradigms (i. e., enclitic pronouns are always obligatory), or enclitic paradigms with arbitrary differences with respect to the proclitic paradigms, something which is not found across languages.

Furthermore, under these other approaches we might expect greater variation in the phonological form of enclitic pronouns with respect to proclitic pronouns, something

which is again not found across languages (see claim (iii) in (127)). While the observed phonological uniformity would remain mysterious under the above approaches, our proposal straightforwardly accounts for it. As we have shown in §4.3, the phonological differences between proclitics and enclitics are minor and can be derived via productive phonological rules.

Finally, all the above analyses (apart from Munaro 1999) make one wrong empirical prediction concerning the phonology of verb-enclitic sequences. Since they analyze enclitic material as an inflectional morpheme on the verb, the verb + enclitic should count as a Prosodic Word, contrary to what is found (see §4.3).

5.4.   Weak Pronouns in Declarative Sentences

We now address the question raised by the contrast between (116b) and (117b): why is an overt clitic ungrammatical in proclitic position and a null subject is found instead? The answer to this question also allows us to understand why in declarative sentences, some persons of the paradigm have a null subject (*pro*), while the other persons have a proclitic pronoun (see (40)).

Under the hypothesis that *pro* is a weak pronoun (Cardinaletti and Starke 1999:§3.4; also see note 61), the sentences in (117b) show that in preverbal position, a weak pronoun is used instead of its clitic counterpart. According to the choice principle discussed in Cardinaletti and Starke (1999:§7), this is an unexpected state of affairs since, as we have seen in §5.1, a clitic pronoun should always be preferred over a weak pronoun. Since the Donceto dialect has clitic pronouns, i. e., those used in enclitic position, why is a weak pronoun used in preverbal position instead of its clitic counterpart? Given that a weak pronoun is only possible if the clitic alternative is independently ruled out, we should look for a reason that excludes the occurrence of preverbal clitic pronouns in these persons of the paradigm.

Notice that under the hypothesis that *pro* is the null counterpart of the French weak pronouns *je*, *tu*, *il*, etc., the very same question arises in French for all persons of the paradigm. Since French has clitic subject pronouns (i. e., those used in enclitic position in interrogative sentences), why are weak pronouns used preverbally in declarative sentences instead of the clitic counterparts?

We suggest that the correlation between the distribution of subject clitics and verb movement is the answer here, too. The impossibility of preverbal clitics in the first person singular and plural and in the second person plural of Donceto and in all persons

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in French declarative sentences has to do with the limited scope of verb movement. As seen in §5.1, a pronoun can cliticize (i. e., move a step further than its weak counterpart) only if the verb moves sufficiently high in the Infl layer. Thus, in the persons of the Donceto paradigm that have proclitic pronouns (second person singular and third person singular and plural), the finite verb must move to a higher head with respect to those persons that have *pro* as a subject (first person singular and plural and second person plural).

As seen in §5.1 for interrogative sentences, the extra step of verb movement makes the head-movement step of the clitic derivation possible. When the verb does not undergo this extra step, the occurrence of a clitic pronoun is prohibited and the presence of a weak pronoun is ruled in. The same analysis holds for French, *modulo* pro-drop. While the weak pronoun is null in Donceto, it is overt in French, due to the negative value of the pro-drop parameter. We provide the relevant structures in (128), where we call the extra head X (see (35)). As suggested above for interrogative sentences, we can understand the ungrammaticality of (128d) as the result of an economy consideration ("economy of representations"). The movement of the verb to a higher position makes a subject clitic pronoun available, which is preferred over the weak counterpart because it has a smaller structure.[63]

(128) a. *French*: $[_{\text{AgrSP}} \textit{je/tu/il}_k \; V_i \ldots [_{\text{VP}} \; t_k \; t_i \;]]$

I/you/he, etc.

b. *Donceto 1ˢᵗ sg, 1ˢᵗ pl, 2ⁿᵈ pl*: $[_{\text{AgrSP}} \textit{pro}_k \quad \text{be:}v_i \ldots [_{\text{VP}} \; t_k \; t_i \;]]$

[I]   drink

c. *Donceto 2ⁿᵈ sg, 3ʳᵈ sg, 3ʳᵈ pl*: $[_{\text{XP}} \; \text{ət}_k \; \text{be:}v_i \; [_{\text{AgrSP}} \; t_k \; t_i \; \ldots [_{\text{VP}} \; t_k \; t_i \;]]]$

you drink

d. *Donceto 2ⁿᵈ sg, 3ʳᵈ sg, 3ʳᵈ pl*: $*[_{\text{XP}} \; \text{be:}v_i \quad [_{\text{AgrSP}} \; \text{pro}_k \; t_i \; \ldots [_{\text{VP}} \; t_k \; t_i \;]]]$

drink   [you]

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[63]. Standard Italian has the same structure as (128b) in all persons of the paradigm. Thus, it behaves like French (128a) *modulo* pro-drop.

(i) $[_{\text{AgrSP}} \; \textit{pro}_k \quad V_i \ldots [_{\text{VP}} \; t_k \; t_i \;]]$

What is X in (128c)? As stated in §2.4.3 above, φ-features related to the subject are encoded in functional heads of the subject field. Thus X is a functional head of the subject field. Assuming Rizzi's (1993) proposal concerning encliticization in (119) above, we find proclisis in (128c) because the verb is not morphologically complete when it moves to X. In X, it checks the relevant inflectional features which are part of its morphological make-up.

The scope of verb movement is often related to the features that the verb must check overtly. The proposal in (128) implies that the verb must overtly check more features in the second person singular and the third person singular and plural with respect to the other persons of the paradigm. The comparative data that we discuss in next section provide evidence that our proposal is on the right track.

5.5. Microvariation in Declarative Sentences

The subject proclitics *t / l / i* are not present in all northern Italian dialects; data are however not random and some generalizations hold, as observed by Renzi and Vanelli (1983).

(129)   (a) Generalization 1:   If a variety has at least one subject clitic, it is the second person singular.

   (b) Generalization 2:   If a variety has two subject clitics, they are the second and third person singular.

   (c) Generalization 3:   If there are three subject clitics, they are the second person singular, third person singular and third person plural.

In Renzi and Vanelli 's (1983) typological study of subject clitics in Romance, they observe that in all dialects that have subject clitic pronouns, there is a clitic for the second person singular. Furthermore, if a variety has only one subject clitic, it is the second person singular (for example, in Franco-Provençal). In our terms, this means that the second person singular verb must move higher than the verbs conjugated in the other persons, making the clitic pronoun possible instead of the weak counterpart *pro*. Similarly, 'Generalization 2' states that if a variety has two subject clitics, they are the second and third person singular (for example, the dialect of Milan). In this case, both the second and the third person singular verb must move higher than the verbs

conjugated in the other persons. And 'Generalization 3' says that if there are three subject clitics, they are the second person singular, third person singular and third person plural, suggesting that the third person plural verb (as well as the second and third person singular verbs) must move higher than the verbs conjugated in the other persons (this is the case in very many northern Italian dialects, including Donceto and Padua, as we have seen). In conclusion, language variation in the occurrence of proclitic pronouns is due to the different scope of verb movement.

Suppose now that in the different persons of the paradigm, the verb moves to different heads. In the dialects where only the second person singular proclitic is attested, the verb only moves to the functional position realizing this feature, as in (130b). In the dialects where both the second and the third person singular proclitics are attested, the verb moves to both functional heads, as in (130c), and this is the reason why both clitics are possible. In the dialects where all three subject clitics are attested, the verb moves to all three functional heads, as in (130d). (Compare with (130a) for the first person singular and plural and the second person plural.)

(130)   3rd pl.   3rd sg.   2nd sg.

a.				[AgrSP *pro*	V_i]
b.			V_i	[AgrSP	t_i]
c.		V_i	t_i	[AgrSP	t_i]
d.	V_i	t_i	t_i	[AgrSP	t_i]

The implications in (130) are in compliance with the serialization of pronouns suggested in Poletto (1999). On the basis of a number of tests (for example, order with respect to negation, occurrence in coordinations), Poletto (1999: 595) shows that the third person plural can be structurally higher than the third person singular, which can be structurally higher than the second person singular.

(131)   3rd pl.   3rd sg.   2nd sg.
         /i/   >   /l/   >   /t/

This is exactly what is expected under our proposal that the different realizations of proclitic pronouns (as well as enclitic ones) are correlated with the scope of verb-movement. The serialization of functional heads in the subject-field arrived at in this

paper is the following.[64]

(132)   1st sg. & pl., 2nd pl   wh   3rd pl.   3rd sg.   2nd sg.
         [$_{ZP}$ ə   [$_{YP}$ [$_{X''P}$ /i/   [$_{X'P}$ /l/ [$_{XP}$ /t/ [$_{AgrSP}$ *pro*]]]]]]

Note that (overt) verb movement does not correlate with the *number* of distinctions in the verb inflectional paradigm. While the distribution of proclitic pronouns can be the same across dialects, verbal inflection may be different. Compare the following paradigms of Paduan and Bellunese on the one hand and Donceto on the other.

(133) a. *Paduan*   b. *Bellunese*   c. *Donceto*

         vegno   magne   be:v
      te vien   te magna   ət be:v
      el vien   al magna   əl be:və
         vegnemo   magnon   bu'vum
         vegni   magné   bu'vi
      i vien   i magna   i 'be:vən

In Paduan and Bellunese, the distribution of the proclitic pronouns seems to correlate with the poverty of inflection (see Poletto 1993b: 209 among others): the subject clitics occur in the three persons of the paradigm that have the same verbal form, i.e. *vien* and *magna*. This fact is, however, not replicated in Donceto, where the proclitic pronouns appear in the same three persons of the paradigm, while the verbal forms are morphologically distinct, cf. *be:v*, *be:və*, *be:vən* (see Renzi and Vanelli 1983: §1.2.1 for the same observation for other dialects).

As has been observed many times for a number of other languages (see Vikner 1997 for a detailed survey), (overt) verb movement does not correlate with the *number* of distinctions in the verb inflectional paradigm, but with the *type* of distinctions encoded in the verbal inflection. The three dialects in (133) all encode distinctions related to subject-agreement features.

If clitic pronouns occur when verb movement takes place, these observations support the current view that what motivates (overt) verb movement is a rather abstract notion

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[64].   In (132), the location of the YP projection in the subject-field may at first seem surprising. Consider however the fact that questions always imply the involvement of the addressee by the speaker. The inflectional [wh] feature can thus be naturally taken to be related to the subject-field.

that does not necessarily have a morphological reflex in the entire paradigm of verb inflection. Further cross-linguistic investigation is of course needed in this area to establish exactly what triggers verb movement to the X head(s) in the different northern Italian dialects.[65]

5.6. Conclusions

We have proposed that the distribution of subject clitics correlates with overt verb movement. In order for a clitic pronoun to occur, the verb must move sufficiently high in the structure. This allows us to explain both the differences between the proclitic and the enclitic paradigms and the differences between the persons that have a proclitic pronoun and those that have *pro* as the subject. We have also seen that our analysis accounts for both language-internal differences and cross-linguistic variation in northern Italian dialects, and for the distribution of clitic and weak subject pronouns in French.

No previous analysis has made use of a single explanation for all these cases. The two hypotheses on which our analysis is based — (i) that the subject clitics are true clitic pronouns which undergo the derivation typical of clitic elements: XP-movement followed by X°-movement (see §2.3), and (ii) that the presence of a subject clitic

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[65]. After having analyzed the X head(s), we are in a position to provide the full derivation of interrogative sentences containing second and third person singular and third person plural pronouns. The tentative solution that we propose is the following: the pronoun first cliticizes to the X head and then moves further to Y. The verb adjoins to X and then to the pronoun adjoined to Y, pied-piping the trace of the pronoun.

(i) $[_{YP} [t_k \text{ be:və}_i] - t_k [_{XP} t_k t_i [_{AgrSP} t_k t_i \cdots [_{VP} t_k t_i]]]$ 'drinks-he?

This proposal also accounts for the subject clitic reduplication seen in note 40. If in (i) both the trace and the head of the chain are spelled out, we get subject clitic reduplication. In (ii), we illustrate the tentative derivation of example (ib) in note 40.

(ii) $[_{YP} [la_k \text{ baɲ}_i] - la_k [_{XP} t_k t_i [_{AgrSP} t_k t_i \cdots [_{VP} t_k t_i]]]$ 'it rains-it?'

implies that verb movement has applied, otherwise *pro* occurs (see §5.1 and §5.4) — are not shared by any previous analyses (such as Rizzi 1986, Brandi and Cordin 1981, 1989, Suñer 1992, Sportiche 1999, Poletto 2000, among others).

These previous analyses take subject clitics to be the realization of inflectional heads, and the subject to be invariably *pro*. The clitic pronoun is often taken to enrich the Infl head so that it can license the null subject.[66] Notice that this hypothesis cannot explain why a pronoun appears enclitically in those persons (first person singular and plural and second person plural in (4c)) which do not require it in proclitic position. Why does Infl license a null subject in declarative sentences, but not in interrogative sentences? To account for these cases, a second hypothesis is needed, here referred to as the "two paradigm" hypothesis, that claims that in interrogative sentences, a different paradigm of clitics is used. The traditional analyses thus need two different hypotheses, one of which is very controversial (see §5.3), while our analysis needs only one which is based on the cross-linguistically well-known interaction between verb movement and argument placement (see Holmberg 1986 for objects and Cinque 1999:§5.1 for subjects).

Some of the previous analyses also assume that the presence of a subject clitic blocks the verb in a lower position with respect to the cases in which the clitic pronoun is absent. A sentence with a subject clitic is thus taken to be parallel to the following paradigms, where the position of the verb is taken to depend on whether the higher head is occupied by the complementizer or not (Rizzi 1982).

(134) a. Se Gianni *fosse* arrivato in tempo, …

     If John *had* arrived on time, …

   b *Fosse*ᵢ Gianni tᵢ arrivato in tempo, …

     *Had*ᵢ John tᵢ arrived on time, …

If subject clitics are not the realization of functional heads, but true clitic pronouns, as we suggest here, this type of parallelism looses any descriptive power. As suggested

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[66]. Poletto (1996: 280) assumes that subject *pro* is present in the clause (in specAgrP) and is licensed by the subject clitic sitting in the Agr head even in those cases where she claims that the subject clitic is thematic and has moved from the VP-internal thematic subject position. Poletto does not address the questions raised by her assumptions. If the subject clitic is thematic, the subject *pro* can only be expletive (in order to prevent a violation of theta theory). If *pro* is expletive, it should not need to be licensed by the subject clitic. Our proposal allows us not to make any such problematic assumptions.

above, the presence of a clitic pronoun rather signals that the verb has moved higher than the cases where no clitic pronouns appear.

Some of the previous analyses also consider vocalic segments to be able to license *pro* (cf. Poletto 1996 for the dialect of Basso Polesano). Since in the dialect under consideration here, the vocalic segments in (3c) are optional, it is not at all clear that the role of these vocalic segments is that of licensing *pro*. The same holds of the optional vocalic segment found in Schio (see §3.6). Furthermore, the vocalic segment which occurs in interrogative sentences (4) is not able to license a null subject. In this case, a pronoun appears enclitically even in those persons (first person singular and plural and second person plural in (4c)) which do not require it in proclitic position.[67]

Our analysis shows that the link between the distribution of *pro* and the distribution of vocalic segments is not direct, but mediated by verb movement. The vocalic segment in (3c) occurs in those persons of the paradigm in which the verb stops in declarative sentences in a functional head lower than the subject-field; this makes the presence of the weak pronoun *pro* necessary instead of a subject clitic.

6. Summary and Conclusions

6.1. The New Analysis of Subject Clitics

The analysis of subject clitics in the Donceto dialect proposed here has the following features:

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[67].   Vocalic subject clitics are also optional in Gruyére Franco-Provençal, as shown in (i).

(i)   (I) medzè dou fre ti lé dzoa.   '*I* eats some cheese all the days' (S/He eats cheese every day)

The optionality of *i* in (i) is analyzed by de Crousaz and Shlonsky (2000) in terms that are compatible with the vocalic clitic being a licensor of *pro*. They suggest that when the vocalic segment is present, it licenses *pro*; when it is absent, we are dealing with an instance of topic-drop (where an empty operator in specTopicP binds a variable in subject position). This analysis cannot be extended to the Donceto dialect. It predicts, among other things, that the vowel is absent in embedded contexts, where the complementizer licenses *pro*. The prediction, correct for Gruyére Franco-Provençal, is not for Donceto, since we have seen in (38) that the vocalic segment [ə] is optional in embedded clauses as it is in main clauses.

• In the second person singular, third person singular and third person plural, the subject clitic is a true pronoun. In these persons, the language is non-pro-drop, and the subject clitic is obligatory.

• In the first person singular, first person plural, and second person plural, the preverbal vocalic segment occurring in declarative sentences is not a subject clitic. The subject is a null category (*pro*), much as in Italian. The preverbal vocalic segment is the (optional) realization of a functional head of the Infl layer, the subject-field head hosting the feature [α number] (see note 21).

• In all persons of the paradigm, the enclitic pronoun found in interrogative sentences is a true subject clitic pronoun.

By claiming that in the second and third person singular and third person plural, the preverbal clitic is a a true subject clitic and is the same subject clitic found in postverbal position in questions, our analysis correctly predicts the following:

• The (true) subject clitic is always mandatory (either in proclitic or in enclitic position).

• "Doubling" is excluded.

• The output form (proclitic or enclitic) is directly related to its input form, with the minor differences being due to phonological considerations.

By claiming that in the first person singular and plural and in the second plural, the vocalic segment in proclitic position and the pronoun in enclitic position are two different syntactic entities (namely, the default realization of a functional head and a subject clitic pronoun, respectively), our analysis correctly predicts the following:

• The syntactic distribution of proclitic and enclitic segments is different (optional or mandatory).

• They can cooccur in interrogative sentences giving rise to apparent "doubling".

• Their phonological shape is such that no phonological constraints necessarily relate them.

The proclitic and enclitic pronouns have the lexical representations given in (135). The differences between the proclitic and the enclitic paradigm and the microvariation observed have been accounted for via verb movement.

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(135) a. *preverbal subjects (declarative sentences)*

       pro   *pro*

       t   *pro*

       l   i

b. *enclitic subjects (interrogative sentences)*

       i   i

       t   v

       l   i

We have proposed the following serialization of functional heads in the subject-field.

(136) $[_{ZP}$ ə $[_{YP}$ $[_{X''P}$ $^{/i/}$ $[_{X'P}$ $^{/l/}$ $[_{XP}$ $^{/t/}$ $[_{AgrSP}$ *pro*]]]]]]

6.2. The New Analysis of Preverbal Vocalic Segments

Our non-'unified' analysis of the data in (3) and (4) is based on the fact that there is clear evidence that the preverbal schwa in (3a), (3c) and (4) is not a subject clitic. We have suggested a new analysis in which there are three different types of schwa: the vowel in (3a) is epenthetic, the vowel in (3c) is a subject-field vowel, and the vowel in (4a) and (4b) is an interrogative vowel (in (4c) it is either an interrogative vowel or a subject-agreement vowel or both).

(137)   new analysis (compare with (5) and (6))

    a. ə t be:v   'you:sg drink'

       ə l be:və   'he drinks'

       |

       epenthetic vowel

    b (ə) be:v   'I drink'

       (ə) bu'vum   'we drink'

       (ə) bu'vi   'you:pl drink'

        |

       subject-field vowel

c. (ə) be:v-ət   'do you (sg) drink?'

   (ə) be:və-l   'does he drink?'

   (ə) be:vən-jə   'are they drinking?'

    |

interrogative vowel

d. (ə) be:v-jə   'am I drinking?'

   (ə) bu'vum-jə   'are we drinking?'

   (ə) bu'vi:-v   'are you:pl drinking?'

    |

interrogative vowel or subject-field vowel

The difficulty in distinguishing epenthetic vowels (3a) from other syntactic entities ((3c) and (4)) is due to the fact that their phonetic quality is the same.

While we provide independent analyses for the vowels in (3a), (3c) and (4), we nonetheless propose that the identity of the vowel used in these three contexts is not a coincidence. They are all cases of the default realization of an empty position, be it a phonological nucleus (i. e., 'epenthesis') as in (137a), or a syntactic (functional) head (i. e., what we call 'syntactic epenthesis'), as in (137b)-(137d). The syntactic head is a head of the Infl layer in the case of the subject-field vowel in (137b) and a head of the Comp layer in the case of the interrogative vowel in (137c) (or either in (137d)).

This analysis has proven to be crucial in developing a new analysis of subject clitics in interrogative sentences, thereby solving the long-standing problem of the different distribution and phonological form of proclitic and enclitic subject clitics.

In conclusion, we hope that the optional presence of vocalic segments will be given more attention in future research and possibly analyzed along the lines suggested here. We also hope to have shown that a detailed analysis of both the phonological and the syntactic properties of sentences may help to unravel intricacies that would remain mysterious under purely phonological or purely syntactic accounts.

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