The vowel system of San Valentino in Abruzzo Citeriore

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Abstract: This work focuses on the vowel system of the Italo-Romance dialect spoken in the village of San Valentino in Abruzzo Citeriore. Based on novel fieldwork data, the article describes the vowel system of Sanvalentinese from a phonetic and phonological point of view and accounts for a number of puzzling evolutions in the light of a reconstruction of previous stages of the dialect.

Keywords: Italian dialects, vowel differentiation, mobile diphthongs, metaphony

1. Introduction

This contribution describes and analyses the vowel-system of the Italo-Romance dialect of San Valentino in Abruzzo Citeriore (henceforth San Valentino) in order to provide an account of some puzzling phonological features and attempt a reconstruction of a previous stage of the dialect. The article is organised as follows: in this section we introduce the dialect under investigation by overviewing the surrounding dialectal area (1.1) and presenting the vowel system we are going to investigate in detail (sections 1.2 and 1.3 illustrate the outcomes of Latin vowels in the stressed and unstressed positions, calling attention to the data that are of particular interest). In section 2 we provide a detailed description and analysis of the data at hand. Section 3 summarizes our proposals and provides some final remarks.

1.1   The dialectal area of San Valentino

The dialect of San Valentino in Abruzzo Citeriore is spoken in a village with a population of approximately 2000 inhabitants, located in the Abruzzi.

Figure 1 – Detail of the *Carta dei dialetti d'Italia* (Pellegrini 1977)

The town lies on top of a hill overlooking the Pescara river valley, 40 km from the Adriatic Sea. The Sanvalentinese dialect belongs to the Upper-Southern group, more specifically it is an Eastern Abruzzese dialect of the Chietino group (Giammarco 1979: 88).

The dialectal area where Sanvalentinese is spoken is characterized by several phonological features. We focus here on vocalic differentiation by position (Wartburg 1950:142, Weinrich 1958 1969:176, Rohlfs 1966 § 8-10, 31-32, 36-39 62-63, 80-81 Carosella 2005) and mobile diphthongs. Vocalic differentiation by position refers to a situation whereby tonic open syllables evolve displaying a richer inventory of vowels than closed syllables: the former undergo tonic lengthening or breaking under sentence stress, while the latter display a smaller inventory of vowels that do not undergo lengthening, often lax vowels or light diphthongs. The differentiation by position characterizes a subgroup of the Upper-Southern dialects shown in Figure 1 that includes Southern Abruzzi, non-salentine Apulia, Northern and Central Lucania, and Northern Calabria through Molise (Rohlfs 1966:30, Savoia 1989, and Marotta & Savoia 1994 for Southern Abruzzi; Ziccardi 1919 for Molise; Zingarelli 1899, Merlo 1912, De Gregorio 1939, Rohlfs 1966:30, Stehl 1980, Loporcaro 1988, Carosella 2005 among others for Apulia; Marotta & Savoia 1994 and Carpitelli & Savoia 2008 for Lucania; Marotta & Savoia 1994 for Northern Calabria).

In the vocalic differentiation of Sanvalentinese and nearby dialects, open syllables of proparoxytonic words pattern with closed syllables in displaying short/lax vowels, as shown in (1):

(1)   Open vs. closed position in San Valentino

open syllable		closed syllable
Paroxytones	*Proparoxytones*	
pei̯tə < PĔDEM	ˈmɛtərə < MĔTERE	ˈpɛttə < PĔCTU(M)
nou̯və < NŎVU(M)	ˈrɔtələ < RŎTULU(M)	ˈkɔllə < CŎLLU(M)

Another phonological feature common to the dialects of the area is the alternation driven by sentence/phrase stress and simple word stress, which yields mobile diphthongs. Certain vowels break under sentence stress. This results in diphthongs surfacing in the sentence/phrase final position and in isolation, whereas simple vowels appear in sentence-internal position under ordinary word stress.

The examples in (2)-(3) illustrate this situation with data from Abruzzese and Apulian dialects featuring an alternation between (a) diphthongs in syllables bearing sentence/phrase stress (") and (b) simple vowels in syllables bearing only word stress ('):

(2)   a. Nu "f**ui**lə   < FĪLUM   (*Palmoli,* Rohlfs 1966:30)
          'a thread'
       b. Nu 'f**i**lə "nairə
          'a black thread'

(3)   a. A "f**oi**kə   < FĪCUM   (*Vico del Gargano,* Rohlfs 1966:30
          'a fig'
       b. 'f**i**ka "sekk
          'dried fig'

In Sanvalentinese, the vowel/diphthong alternation concerns the outcomes of Proto-Romance *ɛ, *ɔ, *u. As shown in (4), the simple vowels [e, o] and the central rounded vowel [ɵ] occur in phrase internal positions, while the diphthongs [ei/ou/əu] occur in the sentence/phrase final position:

(4)

	Phrase internal position	Phrase final position

*ɛ > Lu **'petə** sa
The foot his
'his foot'

sə faʧə mələ a lu **"peitə**
to.himself= he.made ill to the foot
'he hurt his foot'

*ɔ > **'korə** ma!
Hearth my
'my darling'

allu **"kourə**
to.the hearth
'to the hearth'

*u > **'nɵʧ**i nuʧjɪllə
walnuts and hazelnuts
'walnuts and hazelnuts'

e ccu bbonə li **"nəuʧə**
are more good the nuts
'nuts are tastier'

As previously mentioned, the diphthongised allophones appear in sentence final position and thus also when the word is uttered in isolation. Given the peculiar alternation between diphthongs and simple vowels recorded in this dialect in sentence medial and in sentence final position, we will henceforth mark sentence stress when words appear in isolation.

1.2. Vowel inventory in the stressed position

Having outlined some outstanding phonological features of the dialectal area, we can now introduce the vowel system of Sanvalentinese (in (5) and Table 1)[2] and call attention to the phonological features worthy of investigation. As can be observed in the following table, the present-day system features a double series of allophones in complementary distribution in the open and closed positions. Since vowels in open positions undergo tonic lengthening, only long nuclei (allophonic heavy diphthongs or long vowels) may appear in stressed open syllables of paroxytones, with lax vowels occurring elsewhere (with the remarkable exception of [ei] < *i occurring in the closed position). The reflexes of *ɛ, *ɔ in open positions display diphthongs alternating with simple tense vowels (cf. the mobile diphthongs described above) and lax vowels in closed positions. The dialect also displays some phonologically puzzling data: a stressed schwa in open positions alternating with a full [a] in closed positions as outcomes of *a; the back vowels [ọ], and [ɑ] respectively evolved from Proto-Romance *i, and *e. This [ọ] < *i vowel is of an intermediate quality, being different from both [o] and [ɔ], also present in the language, and alternates with the diphthong [ei] in closed position. On top of that, a considerable number of allophones, namely five, are on record as outcomes of *u.

(5)   Evolution of tonic vowels in the dialect of San Valentino:

Latin	Ī	Ĭ	Ē	Ĕ	Ā/Ă	Ŏ	Ō	Ŭ	Ū

Proto-Romance	*i	*e	*ɛ	*a	*ɔ	*o	*u

Open position	ọ	ɑ	e/ei̯	ə	o/ou̯	u	u/ɵ/əu̯
Closed position	ei̯	ɑ	ɛ	a	ɔ	ɔ	ɔ/wʊ

Table 1. Illustration of the tonic vowel system of Sanvalentinese

P.Rom	*Open syllables*			*Closed syllables* *(and open syllables of proparoxytones)*		
*a	ˈtrə:və	TRABEM	'beam'	ˈpassə	PASSUM	'step'
*ɛ	ˈpei:ṭə	PĔDEM	'foot'	ˈpɛttə	PĔCTOREM	'breast'
*e	ˈmɑ:sə	MĒNSEM	'month'	ˈpɑʃʃə	PĬSCEM	'fish'
*i	ˈfọ:lə	FĪLUM	'thread'	ˈlei̯bbrə	LĪBRUM	'book'
*ɔ	ˈvouwə	BŎVEM	'ox'	ˈkɔllə	CŎLLEM	'hill'
*o	ˈfju:rə	FLŌREM	'flower'	ˈtɔnnə	ROTŬNDUM	'round'
*u	ˈmu:rə	MŪRUM	'wall'	ˈfɔʃtə	FŪSTUM	'trunk'
	ˈləu:mə	LŪMEN	'light'	ˈʧwʊʧʧə	CIŪCUM	'donkey'

1.3. Vowel inventory in unstressed positions

Unstressed vowels, on the other hand, exhibit a mapping that is rather common across Upper Southern dialects: in the pre-tonic position, reflexes of front vowels (*i/e/ɛ) appear as [ə], reflexes of back vowels (*u/o/ɔ) converge to [u], and *a remains unchanged. In the post-tonic position, all vowels reduce to [ə]. However, in particular configurations – most notably noun phrases, but not exclusively – some final vowels, namely [a, i, u], may resist reduction and surface as full vowels (Bafile 1997, Ledgeway 2009 for Neapolitan). For Sanvalentinese this situation is illustrated in (6) with data from Pescarini & Pascetta (2014):

(6)   a. kɔss einə nu bɛll**u** parlə` 'This is something good to say/hear'
       b. mˈaripwʊrt**i** təu ? 'Are you bringing me back home ?'
       c. na bbɛll**a** kəsə 'A nice house'

In Table 2. we show the mapping from the Proto-Romance heptavocalic system in all of the aforementioned contexts: open, closed, and unstressed positions:

Table 2.

Proto-Romance	*i	*e	*ɛ	*a	*ɔ	*o	*u
Open Position	[o]	[ɑ]	[ei]/[e]	[ə]	[oṷ]/[o]	[u]	[u]/[əṷ]/[ɵ]
Closed Position	[ei̯]	[ɑ]	[ɛ]	[a]	[ɔ]	[ɔ]	[wʊ]/[ɔ]
Pretonic Position	[ə]	[ə]	[ə]	[a]	[u]	[u]	[u]
Word-final	[ə]	[ə]	[ə]	[ə]	[ə]	[ə]	[ə]

Pre-tonic reduction is a synchronically active phenomenon, as shown in (7), where the evaluative suffixes -ɑttə/-ɑllə trigger an alternation due to stress shift. Notice that [o̞] and [ɑ], which are reflexes of Proto-Romance *i and *e, synchronically reduce to schwa, as opposed to other back vowels, which reduce to [u]. We discuss this further in section 2.

(7)   a. "pɑlə   →   pə'l-ɑttə
            hair   hair-DIM
      b. "vo̞nə   →   və'n-ɑllə
            wine   wine-DIM
      c. "kəsə   →   ka's-ɑttə
            house   house-DIM
      d. "vou̯wə →   vu.'v-ɑttə
            ox   ox-DIM
      e. "tɔnnə   → tun'n-ɑttə
            tuna   tuna-DIM

Once the vowel system of San Valentino has been illustrated, we provide a phonological representation of the inventory and an account of the puzzling phonological features outlined above.

2. The Sanvalentinese vowel system

2.1 The reflexes of *a

The evolution of Proto-Romance *a in tonic position displays two allophones according to position: a schwa-like [ə] allophone in the open position, and [a] in the closed position. In addition, [a] is also found in the pre-tonic position and, sporadically, in word-final position (as previously shown in section1.2). This alternation is puzzling, as one might expect the melodically weaker schwa-like allophone to occur in the weaker prosodic positions (closed, pretonic) and the melodically stronger allophone [a] to surface in the stronger prosodic positions (open, tonic). To account for the presence of [ə] in the open tonic position, we propose that, like the outcomes of *i, *ɛ and *u, and consistently with the typology of the dialectal area (detailed in section 1.1), also the outcome of *a in the open position had a diphthongised allophone under sentence stress. This broken allophone, a reconstructed heavy centering diphthong [ɛɐ]/[ɛə], was eventually monophthongised.

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Similar diphthongs arising from *a in open position under sentence stress are attested in several Upper-Southern dialects like the Lucanian dialect of Gorgoglione (Savoia 2015:335-336), exemplified in (8)[3]:

(8) a. "nɛɐsə < NASUM 'nose'   (Gorgoglionese, Lucanian)
     b. "lattə < LACTEM 'milk'

In Gorgoglionese, *a breaks in the open position under sentence stress (8a), while simple [a] occurs in the open sentence-internal position and in the closed position (8b), as is customary in these dialects. In the neighbouring dialect spoken in Cirigliano, located 6.3 km from Gorgoglione, on the other hand, a weak schwa allophone appears in the open position, while [a] surfaces in the closed position, as illustrated in (9):

(9) a. "nə:sə < NASUM 'nose'   (Cirigliano, Lucanian)
     b. "lattə < LACTEM 'milk'

We can safely hypothesise that dialects such as Gorgoglionese, where a diphthong surfaces in the open position, represent a previous diachronic stage with respect to the dialect of Cirigliano, where monophthongation to schwa has targeted a previously centering [ɛɐ]-type diphthong. In view of the above data, we extend this reconstruction to Sanvalentinese and propose that the allophone [ə] originated through monophthongation of a centering diphthong [ɛə], which in turn originated from the breaking of *a in open position under phrasal stress.

2.2 The reflexes of mid-front vowels

The outcomes of the Proto-Romance *ɛ are [e] in the open position, alternating with [eɪ] under phrasal stress and [ɛ] in the closed position, whereas *e resulted in a low-back vowel [ɑ]. To account for the presence of the low-back allophone [ɑ], we appeal to a previous stage of the language, when an underlying /e/, broke and surfaced as an [ɑɪ]/[aɪ] diphthong, both in the open and – exceptionally – closed positions. This diphthong eventually underwent monophthongisation resulting in [ɑ]. Consistently with our proposal, [ɑɪ] and [ai] diphthongs, as well as [ɑ] (all resulting from *e) have been documented throughout the Eastern Abruzzi-Apulian area (Teramo, Opi, Gessopalena, Tufillo, Andria, Altamura, Ruvo di Puglia, Palo del Colle, Gravina di Puglia, Molfetta among many others cf. Rohlfs 1966:85, Loporcaro 1988, Savoia 1989, 2015, Passino 2016). More importantly, our informant recognises these diphthongs as an archaic feature of Sanvalentinese, as spoken by previous generations. Again, the emergence of a double series of allophones follows the general pattern described for the dialects of the area, i.e. tense vowels alternating with heavy diphthongs in the open position and lax vowels in the closed position.
  .
2.3 The reflexes of mid-back vowels

The outcomes of *ɔ in open position are [o]/[oʊ] respectively under word and sentence stress and [ɔ] in the closed position. As is customary in this dialectal area the alternation of tense/lax and diphthongized allophones is regulated by position and phrase stress.
     The outcome of Proto-Romance *o displays the allophone [u] in the open position and [ɔ] in the closed. We propose that the surfacing of [u] in the open position results from the monophthongation of an [aʊ]-type diphthong, with which [o] was alternating in a previous stage of the language. The monophthongation that we propose must have taken place before that of [oɪ] and [ɑɪ] that are recognised as archaic, since our informant has no recollection of this diphthong in the language.

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[3] /a/ breaks in the open position also in other dialects of the area such as Agnone (Ziccardi 1910).

However, diphthongation of *o in open position is common across the dialectal area (Rohlfs 1966:99). [ɑu̯] < *o is documented in the neighbouring dialect spoken in Casalincontrada (De Lollis 1890-1892), in Opi, Pescasseroli, Alberobello, Andria among others while [eu̯] < *o has been reported in Popoli (Savoia 1989), Agnone (Rohlfs 1966:99) among others, providing support for our reconstruction. The reconstruction of a diphthongised allophone is consistent with the phonological features described in the dialectal area of investigation.

2.4 The reflexes of high vowels

This section deals with high vowels, which display a number of unexpected outcomes. In order to provide an explanation and propose a coherent representation of high vowels in the system, it is worth introducing Sanvalentinese metaphony and its bearing on morphology, described in the next section.

2.4.1 Metaphony in San Valentino

Another factor bearing on vowel differentiation in the evolution from Latin to the Italo-Romance dialects is metaphony, an assimilatory process according to which word-final unstressed high vowels, which eventually became centralised or disappeared in some dialects, influenced stressed word-internal vowels, causing raising or diphthongisation (Lausberg 1976:228, Loporcaro 2011:127). As opposed to the general situation, in restricted areas of the Italian peninsula, including the area of San Valentino, metaphony was only triggered by *-i (which eventually reduced to schwa in absolute word-final position), and targeted also /a/. The metaphonic alternations of Sanvalentinese are outlined in Table 3.

Table 3. Vovel differentiation and metaphony in Sanvalentinese

Proto-Romance	*i	*e	*ɛ	*a	*ɔ	*o	*u
Open Position (non metaphonic)	[ọ]	[ɑ]	[e]/[ei]	[ə]	[o]/[ou]	[u]	[u],[ɵ]/[əu]
Open Position (metaphonic)	[i]	[i]	[i]	[i]	[ɵ]/ əu̯	[ɵ]/ əu̯	[ɵ]/ əu̯
Closed Position (non metaphonic)	[ei̯]	[ɑ]	[ɛ]	[a]	[ɔ]	[ɔ]	[wʊ]/[ɔ]
Closed Position (metaphonic)	[jɪ]	[jɪ]	[jɪ]	[jɪ]	[wʊ]	[wʊ]	[wʊ]

   Table 4 illustrates the metaphonic alternations as occurring in actual words. In the case where alternations hold between sentence-final and sentence-internal position, we indicate the latter allophones in brackets, since they do not occur in words spoken in isolation.

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Table 4. Metaphonic alternations in Sanvalentinese

Open position				*Closed position*		
Sg.	Pl.			Sg.	Pl.	
'trə:və	'tri:və	'beam'		'passə	'pjɪssə	'step'
"peɪ̯tə ('petə)	'pi:tə	'foot'		'pɛttə	'pjɪttə	'breast'
'mɑ:sə	'mi:sə	'month'		'paʃʃə	'pjɪʃʃə	'fish'
'fo̞:lə	'fi:lə	'thread'		"leɪ̯bbrə	'ljɪbbrə	'book'
"voṷwə ('vo:wə)	"vəṷwə ('vɵwə)	'ox'		'kɔllə	'kwʊlle	'hill'
'fju:rə	"fjəṷrə ('fjɵrə)	'flower'		'tɔnnə	'twʊnnə	'round'
'mu:rə	"məṷrə ('mɵrə)	'wall'		'fɔʃtə	'fwʊʃtə	'trunk'

Whether metaphony can still be analysed as a synchronic process at all is a much debated question. Despite the fact that final -i (*i.e.* the metaphonic trigger) has undergone reduction to schwa in Sanvalentinese, it is our contention that a floating *-i* as a plural exponent can be posited in the dialect, where metaphony expresses gender/number distinctions. The argument in favour of the presence a floating *-i* is supported by the fact that, as discussed in section 1.3, in the dialect of San Valentino, word-final [i] may surface in phrase-internal positions, as shown in (10) with data from Pescarini & Pascetta (2014)[4]:

(10) a. 'ajə   kum'bri:tə 't**ʃ**ɛrt**i** 'bbən**i**   'ljɪbbrə
      I.have   bought   some good   books
      'I bought some good books'
   b. 'ajə   kum'bri:tə 'bbən**i**   'ljɪbbrə
      I.have   bought   good   books
      'I bougth good books'
   c. 'ajə   kum'bri:tə 'ljɪibbr**i**   bbəunə.
      I.have   bought   books   good
      'I bougth good books'

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[4] In (10a) the final –i does not induce metaphonic raising of the quantifier stem-internal vowel. This is not necessarily a problem for our general analysis of metaphony. However, the discussion of this topic far exceeds the scope of this paper and will be addressed in future work.

By observing Table 3, we find that metaphonic outcomes – like their non-metaphonetic counterparts – have different allophones distributed according to position: the allophones [i] and [əu] [ɵ] in the open position and the light diphthongs [jɪ] and [wʊ] in the closed. Most noteworthy, different outcomes of Proto-Romance high vowels are documented in metaphonic and non metaphonic position, although high vowels do not usually display metaphonic alternations, since by definition a high vowel cannot be subject to raising. We address all these questions in the next section.

2.4.2 The reflexes of high-front vowels

We have previously shown that the outcomes of *i in the open position is the back vowel [ǫ]. This vowel, however, does not phonologically pattern with the other back vowels. Back vowels in Sanvalentinese uniformly reduce to [u] when occurring in the pretonic position (after a stress shift), mid-back vowels raise to high back light dipthongs under metaphony, and surface as lax back allophones in the closed position. Conversely, [ǫ] reduces by centralising to *schwa* (as is customary for front vowels), yields a high front vowel in metaphonic position, and displays a front allophone in the closed position, i.e. [ei][5].

To account for the gap between phonology and phonetics, we propose again that *i diphthongised to [oi̯] in the open position under sentence stress and then further monophthongised to [ǫ], a mid-back allophone phonetically different from the outcomes of *o and *ɔ. Breaking of the outcome of *i is very common in the dialectal area of San Valentino, where diphthongs of different colours are attested (Rohlfs 1966: 54). The outcome [oi̯] in the open position has been documented by Rohlfs (1966: 54) and Savoia (1989, 2015) in neighbouring dialects like Popoli, located 21 km from San Valentino along the valley of the Pescara river, as well as in other Upper Southern dialects of the Adriatic area such as Andria, and Bitonto (Rohlfs 1966: 54). Above all, the allophone [oi̯] is recognised as an archaism by our Sanvalentinese informant and can thus be said to be documented in a previous stage of the language we are investigating and support our analysis. In addition, Rohlfs (1966: 54-55) also documents a number of front-rounded [ø] as outcomes of *i, proposing, as we do, a previous stage where *i diphthongised to [øi].

The [ǫ] allophone extended to the sentence-internal position, as we have suggested in previous cases. The expected allophone in the closed position, given the underlying /i/, should be [jɪ], a light high-front diphthong. Lowering of [jɪ] to [je] is compatible with the regression described by Maiden (1991: 201) and Barbato (2008: 285), wherein a metaphonic alternation is analogically extended to cases where it is not etymologically justified in order to signal the number opposition. Under regression, outcomes of high vowels lower in the singular forms, in order to replicate the singular/low vs. plural/high pattern present in the paradigm.

It is more difficult to explain why /e/ surfaces as the heavy diphthong [ej], usually found in the open position, instead of surfacing as [je], in a dialect that almost everywhere else seems to distribute long vowels/heavy diphthongs in the open position and short vowels/light diphthongs in the closed position. In the nearby dialect of Casalincontrada, however, heavy diphthongs are documented also in the closed position (De Lollis 1890-1892). Heavy diphthongs as non metaphonic *i outcomes are also documented in Apulia in Minervino Murge among others (Stehl 1986). Be that as it may, the diachronic events just described result in different outcomes of high front vowels in metaphonic and non-metaphonic position, as illustrated in (11):

(11) FĪLU(M)   >   'fǫ:lə   FĪLI > 'fi:lə   'thread/-s'
      LĪBRU(M)   >   'lei̯bbrə   LĪBRI > 'ljɪbbrə   'book/-s'

This situation is rare in Romance, since high vowels cannot be targeted by raising processes. To account for the phenomenon, one could wonder about the situation in the past: Why is it that

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[5] This outcome is exceptional since diphthongs are usually restricted to open positions, although some exceptions to this generalisation are also found in other dialects of the area. However, it is important to note that it is a front allophone.

underlying -i̱ unexpectedly underwent a different diachronic path in metaphonic and non-metaphonic position so as to yield vowels of different phonetic quality? Why did diphthongisation of /i/ not take place in the metaphonic position under sentence stress yielding also [oi] and then the monopthong [ǫ]? We know that, historically, diphthongisation in the open position took place after metaphony and that in many dialects, such as Popoli (situated 20 km from San Valentino), breaking affected metaphonic high vowels as well as non metaphonic vowels, as shown in (12):

(12) a. Non-metaphonic   b. Metaphonic   (Popoli; Savoia 1989, 2015:83-84)
          ['roi̯də] < RIDO   ['poi̯də] < PEDES

Conversely, in Sanvalentinese, the diphthongisation to [oi̯] has only occurred in the non-metaphonic position, yielding a situation in which two different phonetic outputs are present as reflexes of the same vowel *i. This unusual state of affairs, we argue, depends on the influence of a final /i/ to the stressed internal *i in a previous stage of the language. We propose that at that stage a bond was created on the vocalic tier between identical melodies, which prevented the stem-internal /i/ from breaking.

While in canonical metaphony the final /i/ *induces* the raising of stem-internal, stressed non-high vowels through a harmonic process, in the process we have described here the final /i/ *prevents* the stem-internal /i/ from breaking. Both processes yields an alternation in metaphonic and non-metaphonic positions. The phenomenon we have described took place diachronically. The stressed /i/ diphthongisation is no longer active, and moreover the diphthong has monophthongised. Likewise, the dialect of San Valentino displays different outcomes of the high-back vowel *u in metaphonic and non metaphonic position. We discuss this issue in the next section.

2.4.3 High back vowels in open diphthongising position

The attested reflexes of Sanvalentinese *u are more than the three expected allophones regulated by position and stress. Table 3 shows [ɵ]/[u] in the open position, [wʊ]/[ɔ] in the closed position and [əu̯], the broken allophone, under sentence stress. Because the data are rather complex we start by discussing the outcomes in the open diphthongising position, the one that characterizes words uttered in isolation or hit by sentence stress. In this position the broken allophone [əu̯] is on record, which corresponds to word internal [ɵ]. [u], on the other hand, does not break under sentence stress. It thus shows no alternation with a diphthong and is usually found in the masculine singular of words that etymologically ended in –*u*. [ɵ], on the other hand, is found in feminine nouns. The former are shown in (13a) and the latter in (13b), where the alternation between word and sentence stress is attested[6]:

(13) a. "m**u:**rə < MŪRU(M)   'wall
          "m**u:**tə < MŪTU(M)   'dumb'
          "f**u:**sə < FŪSU(M)   'spindle'
          "ʃk**u:**rə < OBSCŪRU(M) 'dark'

      b. ˈf**ɵ:**nə/ "fəunə   <FŪNE(M) 'rope'
          ˈl**ɵ:**nə/ "ləunə   <LŪNA(M) 'moon'

To account for these different evolutions of Ū we propose the following scenario: the reflex of *u surfaced as [u] in sentence-internal position, while the broken allophone [əu] surfaced under sentence stress (and thus in isolation). [wʊ] was the allophone of the closed position. From a phonetic point of view, these are in fact the expected allophones according to the typology of the language, where vowel differentiation and breaking under sentence stress take place.

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[6] For ease of exposition words with word-stress and sentence stress are indicated in isolation. However, the forms with simple word stress may never occur in isolation, where they bear sentence stress.

However, in a number of words, namely the nouns of the 2nd and 4th inflectional classes, the presence of unstressed word-final [u] < Ŭ prevented stressed word-internal [u] from breaking to [əu] under sentence stress. In our view, diphthongisation was blocked by the influence of a similar vowel. As we have seen in the case of final /i/ in the previous section, interaction between identical melodies prevented breaking. Since the nouns of the 2nd and 4th inflectional classes ending in [u] < Ŭ were masculine nouns, we propose that the blocking of the breaking process created a situation whereby, under sentence stress (and therefore also when the words were uttered in isolation), a tonic unbroken [u] was reanalysed as a masculine singular exponent and [əu] as a feminine exponent. Evidence for the reanalysis of the simple/broken vowel as respectively masculine/feminine gender exponents is discussed next. First of all, stressed [u] resisting diphthongisation under sentence stress was analogically extended to masculine nouns that etymologically did not end with *u, *e.g*. fj**u**:mə < FLŪMEN * fj**əu**:mə. In addition, among the nouns belonging to declensions not ending in [u], some have developed a double gender corresponding to slightly different meanings, as shown in (14), where a neuter noun of the Latin 3rd declension yielded two outcomes with different gender. Accordingly, under sentence stress, it appears respectively with the allophone resisting to breaking in the masculine and with the broken allophone in the feminine:

(14)   masculine   feminine
      a. LUMEN >   ″l**u**:mə 'light'   ″l**əu**mə 'lamp'

Such cases provide further evidence for our suggestion according to which stressed internal [u] was reanalysed as a masculine exponent and analogically extended to other masculine nouns that etymologically did not end with *u. They also back up the proposal that the regular outcome under sentence stress in the singular, namely [əu], also became a feminine gender exponent opposed to [u], the masculine gender in the diphthongising position.

As illustrated in Table 5, the outcome of *u in the plural under sentence stress is also [əu]. This situation results in a paradigmatic oppositions yielding a *morphomic* pattern of allomorphy (Maiden 2005, 2009) for adjectives under sentence stress. In fact, feminine singular and plural (invariable), as well as masculine plural converge to the same output form, whereas the masculine singular stands out, since final *u blocked breaking in the diphthongising context, as shown in Table 5:

Table 5. L pattern of allomorphy in the diphthongising context (sentence final, isolation)

	SG	PL
M	″ʃku:rə	″ʃkəu̯rə
F	″ʃkəu̯rə	″ʃkəu̯rə

'dark'

This situation, we argue, has dictated further changes involving the outcomes of Ŭ, as discussed next.

2.4.4 High back vowels in open non diphthongising position

We have proposed that *u generally evolved as [u] in open position, alternating with [əu] under sentence/phrase stress. In open word-internal position under simple word-stress, however, words that did not end with -*u*, display the presence of a central rounded vowel [ɵ] instead of the expected [u]. This puzzling outcome deserves an explanation. We have proposed above that the reanalysis of [u] as a masculine singular exponent created paradigmatic oppositions in the diphthongising context, the one under sentence-stress and of words uttered in isolation. We suggest now that the situation found in the diphthongising context drove further changes in order to replicate the same paradigmatic opposition also in the open position of non diphthongising contexts. More specifically, we argue, the allophone [ɵ], a back rounded centralised vowel was backformed from the diphthong [əu̯] by fusion

of the phonetic characteristics of the vowels in the diphthong. This happened in order to maintain the pattern that distinguishes the masculine singular from the other forms of the paradigm shown in Table 4. Accordingly, after backformation a correspondence obtains between words uttered in isolation (with sentence stress) and words in sentence-internal position (with simple words stress). In Table 5 the pattern found in the diphthongizing context is repeated and compared to the pattern obtained via backformation of [ɵ] < [əu̯], shown in Table 6.

Table 5. Paradigmatic opposition existing in the diphthongising context (phrase final, isolation)

	SG	PL
M	″sku:rə	″skəu̯rə
F	″skəu̯rə	″skəu̯rə

'dark'

Table 6. Analogical extension via backformation in non diphthongising context (phrase-internal)

	SG	PL
M	″sku:rə	″skɵrə
F	″skɵrə	″skɵrə

'dark'

A number of words still exist in which [u] instead of [ɵ] in the sentence-internal position alternates with [əu̯] under sentence stress (cf. ccu/ccəu̯ < PLŪS[7]), hinting at the existence of this previous diachronic stage.

2.4.5 High back vowels in closed position

In the previous sections we have proposed that the five reflexes of *u arose as an effect of a number of analogical processes. The first concerned the extension of stressed [u] in diphthongising position to all masculines. The second the backformation of [ɵ] from [əu̯] in order to maintain a paradigmatic correspondence, which arisen in the diphthongising open position, also in the non diphthongising open position. We argue that to explain the presence of both [ɔ] and [wʊ] in the closed position as outcomes of *u we appeal again to paradigmatic pressure and analogy.

If we observe the attested distribution of allophones illustrated in Table 7, we observe again a pattern of allomorphy akin to what has been shown for the open position:

Table 7. Analogical lowering in closed position

	SG	PL
m	'ʧɔtʧə	'ʧwʊtʧə
f	'ʧwʊtʧə	'ʧwʊtʧə

'dunce'

In this case, we explain the origin of the allophone [ɔ] from analogical lowering of the high back vowel, with the aim of creating a seemingly metaphonic alternation. The phenomenon has been dubbed regression and is reported in Maiden (1991: 201), for dialects where metaphony has been morphologised. Vowel lowering extends the same pattern to the closed position context, like it has been extended to the open non diphthongising position by means of the backformation of [ɵ] (see above). After lowering, the outcome of *u in the closed non-metaphonic position coincides with the outcomes of the other back vowels.

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[7] Paolo Acquaviva (p.c.) pointed out that elements such as aspectual adverbs never participated in gender alternations.

3. Final remarks

In this contribution we have tried to explain some puzzling evolutions by reconstructing the diachronic scenario by means of data from geolinguistic variation. We have argued that, in a previous stage, Sanvalentinese conformed with how vocalic differentiation worked in the dialects of the area: all vowels diphthongised in open position under sentence stress. In (15) we illustrate our proposal for the tonic system in non-metaphonic position in this previous stage of the language indicating in bold the outcomes that are attested in the present-day dialect or that speakers can recollect:

(15) The tonic vowel-system of San Valentino (reconstruction):

	Ī	Ĭ	Ē	Ĕ	Ā/Ă	Ŏ	Ō	Ŭ	Ū
Proto-Romance	*i		*e	*ɛ	*a	*ɔ	*o		*u
Open position	i/**oi̯**		e/**ɑi̯**	**e/ei̯**	a/ɛə	**o/oṷ**	o/au		**u/əṷ**
Closed position	ei		**ɑi**	ɛ	a	ɔ	ɔ		**wʊ**

Subsequently, due to a number of diachronic changes, some purely phonological, others driven by paradigmatic pressure, the system reached the present stage. We illustrate the changes affecting the hypothetic reconstructed system in (16), where vowels deleted by monophthongation of diphthongs are in brackets, while > indicates analogical changes.

(16) Evolution of the present tonic vowel-system of San Valentino (reconstruction):

	Ī	Ĭ	Ē	Ĕ	Ā/Ă	Ŏ	Ō	Ŭ	Ū
Proto-Romance	*i		*e	*ɛ	*a	*ɔ	*o		*u
Open position	(i)/o(i)		(e)/ɑ(i)	e/ei̯	(a)/(ɛ)ə	o/oṷ	(o)/(a)u		u > ɵ /əṷ
Closed position	ıi̯ >ei̯		ɑ	ɛ	a	ɔ	ɔ		wʊ > ɔ

We have also illustrated an effect of word-final vowels on word-internal stressed vowels that recalls metaphony. However, while metaphony induces assimilatory changes in word-internal vowels that result in raising or breaking, we have pointed out cases in which word-final vowel influence word-internal vowels so that they *resist* to unconditioned changes such as vowel breaking.

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