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THE ORIGIN AND SPREAD OF VELAR ALLOMORPHY IN THE SPANISH VERB: A MORPHOMIC APPROACH

1. INTRODUCTION

A characteristic of Spanish verbal morphology is the category of verbs which display a velar allomorph exclusively in the 1sg. present indicative and all of the present subjunctive. Such verbs are of three types: those in which the velar consonant is voiced, as in *tener* 'to have' in (1); those in which it is voiceless, as exemplified by the verb *crecer*, in (2) and a final group of verbs, of which *caer* 'to fall' in (3) is characteristic, which all have a vowel at the end of the default root form and the voiced velar consonant is preceded by the glide [j].

(1)

	Present Indic	Present Subj.	Future	Condicional
1sg.	tengo	tenga	tendré	tendría
2sg.	tienes	tengas	tendrás	tendrías
3sg.	tiene	tenga	tendrá	tendría
1pl.	tenemos	tengamos	tendremos	tendríamos
2pl.	tenéis	tengáis	tendréis	tendríais
3pl.	tienen	tengan	tendrán	tendrían
	Imp. Subj. (ra)	Imp. Subj. (se)	Preterite	Imp. Indic.
1sg.	tuviera	tuviese	tuve	tenía
2sg.	tuvieras	tuvieses	tuviste	tenías
3sg.	tuviera	tuviese	tuvo	tenía
1pl.	tuviéramos	tuviésemos	tuvimos	teníamos
2pl.	tuviérais	tuviéseis	tuvisteis	teníais
3pl.	tuvieran	tuviesen	tuvieron	tenían
	Imperative	infinitve	Gerund	Participle
2sg.	ten	tener	teniendo	tenido
2pl.	tened			

(2)

	Present Indic	Present Subj.	Future	Condicional
1sg.	crezco	crezca	creceré	crecería
2sg.	creces	crezcas	crecerás	crecerías
3sg.	crece	crezca	crecerá	crecería
1pl.	crecemos	crezcamos	creceremos	creceríamos
2pl.	crecéis	crezcáis	creceréis	creceríais
3pl.	crecen	crezcan	crecerán	crecerían
	Imp. Subj. (ra)	Imp. Subj. (se)	Preterite	Imp. Indic.
1sg.	creciera	creciese	crecí	crecía
2sg.	crecieras	crecieses	creciste	crecías
3sg.	creciera	creciese	creció	crecía
1pl.	creciéramos	creciésemos	crecimos	crecíamos
2pl.	creciérais	creciéseis	crecisteis	crecíais
3pl.	crecieran	creciesen	crecieron	crecían
	Imperative	infinitve	Gerund	Participle
2sg.	crece	crecer	creciendo	crecido
2pl.	creced			

(3)

	Present Indic	Present Subj.	Future	Condicional
1sg.	caigo	caiga	caeré	caería
2sg.	caes	caigas	caerás	caerías
3sg.	cae	caiga	caerá	caería
1pl.	caemos	caigamos	caeremos	caeríamos
2pl.	caéis	caigáis	caeréis	caeríais
3pl.	caen	caigan	caerán	caerían
	Imp. Subj. (ra)	Imp. Subj. (se)	Preterite	Imp. Indic.
1sg.	cayera	cayese	caí	caía
2sg.	cayeras	cayeses	caíste	caías
3sg.	cayera	cayese	cayó	caía
1pl.	cayéramos	cayésemos	caímos	caíamos
2pl.	cayérais	cayéseis	caísteis	caíais
3pl.	cayeran	cayesen	cayeron	caían
	Imperative	infinitve	Gerund	Participle
2sg.	cae	caer	cayendo	caído
2pl.	caed			

This velar allomorphy and its particular distribution has been a point of special scrutiny by both scholars of Spanish and Romance Linguists because of all the verbs which display this type of allomorphy in Spanish, the only one which can be explained as an effect of regular sound change is the verb *decir* 'to say'; all the other verbs which display such allomorphy are the result of analogy. Moreover the phenomenon is attested in various guises and paradigmatic distributions in a number of other Romance varieties.

From a pan-Romance perspective Maiden (2001, 2004) has used the distributional history of velar allomorphy (and historically related phenomena) to support the theoretical claim that some morphological phenomena in inflectional paradigms should be considered as autonomous from semantics and syntax, the velar allomorphs (or rather, their distribution) being signs of autonomous morphological structures in the verb paradigm. He terms these structures morphomes, following the terminology of Aronoff (1994) and the set of cells in which the velar allomorphs appear in Spanish (and other Romance varieties) are identified as constituting a morphome with the arbitrary title of the L-pattern[1].

Morphomes are considered to be autonomous morphological abstract structures in that the allomorphy in their cells cannot be reduced to any phonological or semantic common conditioning. The problem with the L-pattern in Spanish[2] is that the velar allomorphy can be reduced to a simple phonological generalisation: the occurrence of non-front vowels in the

[1] The term 'L-pattern' has no semantic or phonological significance but rather was adopted by Maiden because in conventional representations of the verb paradigm on paper, the cells which comprise the L-pattern resemble a rotated letter 'L'

[2] This is also the case for Italian. A phonological account of the velar allomorphy in Italian has been advanced by Burzio (2004), however c.f. Maiden (2009) for a rejection of this claim on the basis of comparative Italo-Romance evidence.

desinences. However, O'Neill (2011) has argued that such a phonological correlation between velar allomorphy and non-front vowels in Spanish is a historical accident and that velar allomorphy is **not** phonologically conditioned in Spanish. Thus, the cells of the paradigm in which the velar allomorphs occur are semantically heterogeneous and although they share a phonological common denominator this is not a conditioning factor of the allomorphy.

It is Maiden's claim that the historical data suggest that the allomorphy is morphologically conditioned in that speakers are aware of this purely paradigmatic distribution of allomorphy (the L-pattern) and have internalised it to form part of their grammar. With particular reference to the velar allomorphs, this would mean that on account of the impossibility of deriving these forms and their distribution by phonological or semantic rules, the purely morphological distribution is learned and this distribution is matched to a particular velar allomorph. This hypothesis has been supported diachronically in that the forms which constitute a morphome show a tendency[3] towards what Maiden has termed **coherence** in that they 'show persistent resistance to any morphological change liable to disrupt their peculiar paradigmatic distribution. If an analogical change affects one 'cell' of the paradigm in which the relevant allomorph occurs, it affects all the others in the same way. The relationship of mutual implication between 'cells' always survives intact.' (Maiden 2004)

This tendency towards coherence is attested in the history of the velar allomorphs in Spanish since old Castilian possessed more verbs which displayed such allomorphs and whose

[3] This is defined as a tendency and not a rule since highly frequent irregular verbs sometimes can disrupt the coherence of the morphomic pattern on account of their forms being so frequent that they correspond to individual memorized items (c.f. O'Neill 2010 for a full discussion). An examples of such forms from old Spanish are the verbs *ser* 'to be' and *haber* 'to have' which displayed the velar allomorphs *vaiga* and *haiga* in old Spanish only in the present subjunctive cells and forms such as **vaigo* or **haigo* are not attested in the 1sg. present indicative.

distribution was limited to the L-pattern cells. The greater number of velar verbs in old Castilian is on account of verbs which etymologically contained velar allomorphs which were later lost (see the examples in (4)) and verbs which acquired the velar allomorph through analogy but later lost this allomorph c.f. (5). For brevity, only the 1sg. present indicative has been given, however, it is of crucial importance to note that the velar was attested in all of the L-pattern cells.

(4)

Old Spanish: 1sg. present indicative	**Modern Spanish: 1sg. present indiative**	**Gloss**
cuego	cuezo	*to cook*
ungo	unzo/uño	*to yoke/to unite*
espargo	esparzo	*to scatter*
tango	taño	*to play*
plango	plaño	*to mourn*
frango	fraño	*to break*
cingo	ciño	*to gird*
(con)stringo	constriño	*to constrict*
tingo	tiño	*to dye*

(5)

Old Spanish attested velars	**Modern Spanish Form**	**Gloss**
suelgo	suelo	*to be accustomed*
muelgo	muelo	*to grind*
duelga	duela	*to hurt*
calga	-	*to be necessary*
fuigo	huyo	*to flee*
fiergo	hiero	*to harm*
remango	remano	*to remain*
tuelgo	-	*to take away*
distruigo	distruyo	*to destroy*
restituigo	restituyo	*to restitute*
falgo	-	*to fail*

prengo	prendo	*to grasp*

The main point about these forms is that the appearance of a velar in any one of the L-pattern cells usually implies its form in all of the other cells[4].

Maiden's studies (2001, 2004) on the morphome have afforded a new approach with which to analyse the origin and expansion of the velar allomorphs in Spanish. However, his insights have not been pursued within the field of Spanish philology. In this article, I seek to explore the advantages which the recognition of the morphome can afford to the historical explanation of the spread of the velar allomorphy in Spanish. In doing so I hope to highlight two points:

(a) The incorporation of the morphome within the explanation of the origin and extension of velar allomorphy offers a more convincing, rigorous and theoretically motivated account of recurrent patterns of morphological development, as opposed to recourse to the word 'analogy'

(b) Maiden's conclusions (1992, 2001) for the spread of the velar in Romance and particularly Italian are not entirely valid for Spanish since they predict the wrong result. I argue that the explanations offered by Maiden need to be nuanced, along with the concept of the morphome itself.

[4] Bybee (1985:68-74) argued that the subjunctive forms are derived from the form of the 1sg. present indicative since this is the most frequent and less marked form . However, Malkiel (1992:307) has proven that this hypothesis is not supported by the historical data since there is no evidence to suggest that the velar element appeared first in the 1sg. present indicative forms, rather, the generalisation which confirms the morphome is confirmed: its appearance in one of the L-pattern cells implied its existence in all of these cells.

The structure of this article will be the following: I summarise the origin of the velar allomorphs and the L-pattern morphome, paying particular attention to the effects of the sound yod on verb morphology. I then provide a critical assessment of all previous accounts before presenting my own. I provide independent evidence as to why this account is superior and finally I discuss the theoretical implications of my findings and conclusions.

2. ORIGIN AND DEVELOPMENT OF THE VELAR ALLOMORPHS IN SPANISH

The particular paradigmatic distribution of the velar allomorphs are phonological in origin in that they are the result of a lack of palatalisation of the velar consonant before back vowels as opposed to its palatalisation and affrication in the other cells of the paradigm. In the passage from Latin to Romance velar consonants underwent a process of palatalisation and affrication exclusively before front vowels. In Ibero-Romance this process caused a phonemic split of the velar consonants /k/ and /g/. Before back vowels these consonants remained velar[5] (although /k/ was subject to voicing and /g/ to become an approximant or was lost[6]) whilst before front vowels they were pronounced in old Spanish as the dental affricatives [d͡z] and [t͡z] depending on the voicing contexts[7]. Within verb morphology, the verbs which were sensitive to these different phonetic contexts were those that (a) were not of the Latin 1st conjugation (b) did not contain the etymological [j] in the desinence and (c) whose roots ended in a velar consonant.

[5] c.f. LOCĀLE > *logar* 'place', IOCU > *juego* 'game'
[6] c.f. NEGĀRE > *negar* 'to deny', LIGĀRE > *liar* 'to tie' (Penny 2002:68)
[7] VĪCĪNU > *vezino* 'neighbour', IACĒRE > *yazer* 'to lie'

The second condition warrants further explanation since it will be of particular importance in the forthcoming discussion.

2.1 The Latin Verb Conjugations and the sound [j]

Latin verbs are considered to fall into four different conjugation classes which determined the inflectional endings of each different verb form: Thus, the infinitives for the four conjugations respectively end in –ĀRE, -ĒRE, -ĔRE and –ĪRE. Relevant for the present discussion are the present-tense forms of non-first conjugational verbs. Third conjugation verbs (those with the infinitival ending –ĔRE) can be divided into two subclasses: those whose *imperfectum* root always terminates in –I (sometimes referred to as fifth conjugation verbs) which I shall term the '3a. conjugation' and those which are not subject to the same restriction, henceforth the '3b. conjugation'[8]. The relevance of the different types of conjugational patterns is relevant to the present discussion because, if we examine the present tense forms of non first-conjugation verbs, it is apparent that the only verbs whose roots could, in the present tense, display a dual development in accordance with the effects of palatalisation and affrication of velar consonants were those of the 3a conjugation which lacked the stem final –I as shown in (6) for the present tense forms of the Latin verbs LUCĒRE 'to shine', DĪCERE 'to say', FACERE 'to do' and VINCĪRE 'to bind', each representative of the different conjugational classes. Although not particularly numerous, these verbs did contain the very frequent DĪCERE 'to say' which would

[8] An example of the former is the verb FACERE 'to do' and of the latter 'DĪCERE' 'to say' whose 3sg. imperfect and future indicative forms are respectively FAC**I**ĒBAT, FAC**I**ET and DĪCEBAM, DĪCET

undergo the process of affrication in all cells of the verbal paradigm **except** in the L-pattern cells since in these cells the velar consonant was followed by a back vowel.

(6)

	indicative	**subjunctive**	**indicative**	**subjunctive**
1sg.	LŪCEŌ	LŪCEAM	VINCIŌ	VINCIAM
2sg.	LŪCĒS	LŪCEĀS	VINCIS	VINCIĀS
3sg.	LŪCET	LŪCEAT	VINCIT	VINCIAT
1pl.	LŪCĒMUS	LŪCEĀMUS	VINCĪMUS	VINCIĀMUS
2pl.	LŪCĒTIS	LŪCEĀTIS	VINCĪTIS	VINCIĀTIS
3pl.	LŪCENT	LŪCEANT	*[winkent]	VINCIANT
	indicative	**subjunctive**	**indicative**	**subjunctive**
1sg.	DĪCŌ	DĪCAM	FACIŌ	FACIAM
2sg.	DĪCIS	DĪCĀS	FACIS	FACIĀS
3sg.	DĪCIT	DĪCAT	FACIT	FACIAT
1pl.	DĪCIMUS	DĪCĀMUS	FACIMUS	FACIĀMUS
2pl.	DĪCITIS	DĪCĀTIS	FACITIS	FACIĀTIS
3pl.	*[dikent][9]	DĪCANT	*[fakent]	FACIANT

The phonological outcome of the root final velar consonant in the **non** L-pattern cells was not uniform but depended upon the phonetic context. Where the velar consonant was preceded by a vowel it was subject to the normal process of affrication (c.f.(7)), the same outcome was also produced when preceded by the consonant /ɾ/ (c.f. (8)); when preceded by a nasal consonant, however, the outcome was /ɲ/ (c.f.(9)) and when preceded by a voiceless consonant (which are primarily those verbs which were formed with the Latin ingressive infix –SC- /sk/-) the outcome was the voiceless affricate /ts/ (c.f.(10) & Penny 2002:178-179). When

[9] This form is reconstructed proto Ibero-Romance forms which different from the Classical Latin desinence –UNT/-IUNT. It is hypothesized that the Ibero-Romance verb forms, along with the great majority of other Romance variants, with the notable exception of Standard Italian, must be derived from a paradigm in which the desinence is –ENT, presumably through analogy with the other present indicative forms and in particular the 3sg. form.

preceding a back vowel, however, i.e. exclusively in the L-pattern cells, the velar consonant was always maintained

(7) these verbs are from Latin DICŌ ‘I say’, REDŪCŌ ‘I reduce’ and ADDŪCŌ ‘I adduce’.[10]

	Indicative	Subjunctive	Indicative	Subjunctive	Indicative	Subjunctive
1pl.	digo	diga	redugo	reduga	adugo	aduga
2pl.	dizes	digas	reduzes	redugas	aduzes	adugas
3pl.	diz(e)	diga	reduz(e)	reduga	aduz(e)	aduga
1pl.	dezimos	digamos	reduzemos	redugamos	aduzemos	adugamos
2pl.	dezides	digades	reduzedes	redugades	aduzedes	adugades
3pl.	dizen	digan	reduzen	redugan	aduzen	adugan

(8) These verbs are from Latin SPARGŌ > *espargo* ‘I scatter’ and ERIGŌ > *yergo* ‘I erect’

	Indicative	Subjunctive	Indicative	Subjunctive
1pl.	espargo	esparga	yergo	yerga
2pl.	esparzes	espargas	yerzes	yergas
3pl.	esparz(e)	esparga	yerz(e)	yerga
1pl.	esparzemos	espargamos	erzemos	ergamos
2pl.	esparzedes	espargades	erzedes	ergades
3pl.	esparzen	espargan	yerzen	yergan

(9) [11]These verbs are from Latin TANGŌ ‘I tocuh’, CINGŌ ‘I surround’ and FRANGŌ ‘I break’.

[10] Other Latin verbs which could have shown this development were: CŎQ(U)Ō ‘ cook’,

[11] Other Latin verbs which could have shown this development are PINGŌ ‘paint’, FINGŌ ‘make up, touch’, *RINGO ‘to snarl’, STRINGŌ ‘draw tight’, TINGŌ ‘wet, dye’. Also, attested in Old Spanish with the velar allomorph are the verbs FRANGŌ > *frango* ‘I break’ and IUNGO > *ungo* ‘I join, yoke’. As Martín Vegas (2007:170-171) has pointed out, in old Castilian they contained competing allomorphs in the non L-pattern cells: those ending in a palatal nasal and also ones ending in /nd͡ʒ/; thus the forms *uñe, uñes* from the verb *uñir* ‘to yoke’

	Indicative	Subjunctive	Indicative	Subjunctive	Indicative	Subjunctive
1pl.	tango	tanga	cingo	cinga	frango	franga
2pl.	tañes	tangas	ciñes	cingas	frañes	frangas
3pl.	tañe	tanga	ciñe	cinga	frañe	franga
1pl.	tañemos	tangamos	ciñemos	cingamos	frañemos	frangamos
2pl.	tañedes	tangades	ciñedes	cingades	frañedes	frangades
3pl.	tañen	tangan	ciñen	cingan	frañen	frangan

(10) These verbs are the Classical Latin COGNŌSCŌ 'I know' and spoken Latin MERĒSCŌ 'I deserve'

	Indicative	Subjunctive	Indicative	Subjunctive
1pl.	conosco	conosca	meresco	meresca
2pl.	cono(s)çes	conoscas	mere(s)çes	merescas
3pl.	cono(s)çe	conosca	mere(s)çe	meresca
1pl.	cono(s)çemos	conoscamos	mere(s)çemos	merescamos
2pl.	cono(s)çedes	conoscades	mere(s)çedes	merescades
3pl.	cono(s)çen	conoscan	mere(s)çen	merescan

These etymological velar allomorphs, however, cannot account for all the cases attested in old Castilian. In particular, regular sound change cannot explain the velar allomorphs present in the frequently occurring verbs *facer* 'to do', *tener* ' to have', *venir* 'to come' and *poner* 'to put' whose velar allomorphs (*tengo, vengo, pongo, salgo, valgo*) are present in the first attestations of Castilian orthography and also the verbs *salir* 'to go out' and *valer* 'to be worth' whose velar allomorphs (*salgo, valgo*) occurred alongside the forms *valo, salo* (Ménedez Pidal 1941). The development of the velar in these verbs, along with its development in other verbs

and *frañe, frañes frañir* 'to break' alternated with forms *unze, unzes, unzir* and *franze, franzes, franzir* respectively. This is because the various results of the Latin consonantal sequence NG + front vowel, which could either result in /ɲ/ (c.f. UNGULA > *uña* 'nail'), /nʤ/ (c.f. *RINGELLA > *renzilla* 'quarrel') or even in the case of QUINGĔNTI > *quinientos* 'five hundred' the result can be /n/. For the verb *uñir/unzir* the most frequent forms were those ending in the sound /nʤ/ from which the modern verb *uncir* 'to yoke'.

such as those in (3) of the type *caer* 'to fall' (*caigo*), is intrinsically linked to the argued presence and effects of yod on the previous consonants exclusively in the L-pattern cells. This matter will be fully addressed in the following section.

2.2 The effects of yod and its importance for the L-pattern morphome and the velar allomorphs of Castilian.

Of great importance for the development of the L-pattern morphome is what Maiden (2004; 2010) has termed the 'yod- effect' whereby unstressed prevocalic E or I in Classical Latin became the glide [j] in the spoken language of the late empire and triggered a number of phonological changes on either the preceding consonant or the vowel in the preceding syllable via metaphony and/or metathesis (see O'Neill (2012) for an overview).

The effects of yod on the preceding consonant and vowel are of a complex and varied nature (c.f Ménedez Pidal 1940: 290-291; Penny 2002:47-51; 62-65) and this complexity is increased when taking into consideration verbal forms since such forms do not always display the expected developments. For example, according to sound change the reflexes of FACIŌ and IACEŌ ought to have been *faço, yaço* and not the old Spanish attested forms *fago* and *yago*. Likewise, verbs forms which originate from spoken Latin /t/ + [j] should have produced the sound /t͡s/ and Modern Spanish /θ/ but such forms are not attested at any time of the language, thus: SENTIŌ > *siento* 'I feel', PARTIŌ > *parto* 'I divide'. On the basis of the lack of the expected sound change some scholars have suggested that yod was deleted from the desinences

of a number of verbs and thus SENTIŌ > [sɛnto] not [sɛntjo], PARTIŌ > [parto] not [partjo]. However, O'Neill (2012) argues, on the basis of comparative Ibero-Romance data and historical data from Spanish, that yod must have had identical affects on verbs as on nouns, as the principle of regularity of sound change would predict, and that its disappearance is a matter of morphological levelling and is intimately linked with the extension of velar allomorphy in Spanish.

It is to be noted that many verbs which display an non-etymological velar allomorph in old Spanish, e.g. *tengo, vengo, salgo, valgo,* ought to have displayed a palatal consonant as a result of the effects of yod, thus: [teɲo] < TENEŌ, [βeɲo] < VENIŌ, [saʎo] < SALIŌ and [βaʎo] < VALEŌ. Furthermore, those verbs whose root ended in a voiced velar or dental consonant (/g/ or /d/) and which did display a palatal consonant in the L-pattern in old Spanish, as a result of the regular sound change[12], are also attested with velar allomorphy. Thus, the reflexes of the Latin AUDIŌ 'I hear'and FUGIŌ 'I flee' displayed the palatal consonant [ʝ] at the end of the root in the 1sg. present indicative and all the present subjunctive forms in old Castilian[13] as displayed in (11). In modern Spanish the verb *oír* displays a velar allomorph and, in both the medieval documentation and dialectally, velar allomorphs are well attested for the L-pattern reflexes FUGIŌ (*fuiga, fuigan*).

[12] /d/+[j] and /g/+[j] (c.f. PODIU > *poyo* 'hill, bench', FĀGEA > *faya* > *haya* 'beech tree' (Penny 2002:64)

[13] Note that the palatal sound is also attested in verbs such as VIDEŌ 'I see' and RĪDEO 'I laugh', but in subsequent development this sound was deleted when followed by a front vowel (c.f. *riya* > *ría, veya* > *vea,* and also , *seya* > *sea,*) and thus the only verbs of this type which maintained the sound were those which had a back vowel in the root

(11)

	Indicative	Subjunctive	Indicative	Subjunctive
1pl.	oyo	oya	[fuʝo]	[fuʝa]
2pl.	oes	oyas	[foes]	[fuʝas]
3pl.	oe	oya	[foe]	[fuʝa]
1pl.	oimos	oyamos	[foemos]	[fuʝamos]
2pl.	oides	oyades	[foetes]	[fuʝates]
3pl.	oen	oyan	[foen]	[fuʝan]

The pattern of allomorphy in which [ʝ] occurred in the L-pattern was also analogically extended to a number of other verbs whose root either ended in /d/ or in a root final vowel but lacked the etymological [j] such as CADAM > *caya* 'fall', CRĒDAM > *creya* 'believe'; RĀDĀM > *raya* 'scrape'; RŌDAM > *roya* 'gnaw'; VĀDAM > *vaya* 'go'; TRAHAM > [traʝa] > *traya* 'bring' (Lloyd 1987: 296-297; Malkiel 1973-74:333; Penny 2002:174-175). Examples of the present tense forms in old Spanish are given in (12).

(12)

	Indicative	Subjunctive	Indicative	Subjunctive	Indicative	Subjunctive
1pl.	cayo	caya	royo	roya	trayo	traya
2pl.	caes	cayas	roes	royas	traes	trayas
3pl.	cae	caya	roe	roya	trae	traya
1pl.	caemos	cayamos	roemos	royamos	traemos	trayamos
2pl.	caedes	cayades	roedes	royades	traedes	trayades
3pl.	caen	cayan	roen	royan	traen	trayan

Once again, these verbs are attested with a velar allomorph c*aya* > *caiga, roya* > *roiga, traya* > *traiga, vaya* > Osp. *vaiga*). There seems, therefore, to be a link between palatal consonants, largely produced by the effects of yod, and the rise of the verbs characterised by a velar

consonant. This link is either associated to the attested sound change followed by a latter analogical development of these verbs into the velar series (the cases of *oigo, fuigo, caigo,* etc.) or the lack of the regular development of yod upon the consonants and in its place one finds a velar consonant (the cases of *fago, yago, tengo, vengo,* and perhaps *salgo, valgo*).

The explanations as to the precise details of the rise and spread of the velar element in Castilian are various and differ from scholar to scholar and therefore I shall briefly outline the most accepted accounts in the academic literature before presenting my own account.

2.3 Explanation offered by Menéndez Pidal

Menéndez Pidal (1941:292-293) denies any effects of yod for the verbs FACIŌ 'I do', IACEŌ 'I lie' and assumes pre-literary Castilian forms such as [fako], [jako]; however, for the cases of Latin, TENEŌ 'I have', VENIŌ, 'I come', SALIŌ 'I leave' and VALEŌ 'I am worthy', the first two of which, along with reflexes of PONŌ[14] 'I put', display velar allomorphs in the L-pattern cells from the first testimonies of written Spanish (*tengo, vengo, pongo*), the scholar draws upon comparative evidence from Portuguese in which the congener forms do have a palatal nasal (*tenho, venho*) and states that 'el portugués representa el estado primitivo … el esp.[añol] un estado posterior *tengo,…vengo*' (1941:294) and the explanation which is offered for the form ending in the velar consonant is 'la imitación de los verbos en *–ngo* que vacilaban *plaño* –

[14] This verb lacked an etymological yod in Latin and must have either acquired one through analogy with TENEŌ (c.f. Portuguese *ponho – ponha*) or directly acquired the velar allomorph through analogy with *tengo.*

plango' (ibid. 1941:294[15]). Here, Pidal is referring to the verbs that displayed an etymological root final velar in the L-pattern cells which alternated with a palatal nasal consonant in the rest of the paradigm (c.f. (9)). In these verbs there was a tendency to regularise the paradigm in favour of the majority form and thus there was hesitation between the forms *plango-plaño, frango – fraño, tango – taño* which was later resolved in favour of the palatal nasal. Thus, it seems that Ménendez Pidal is of the opinion that there ought to have existed proto-Castilian paradigms of the present tense of the verbs *tener* and *venir* of the type in (13) which then became modified to *tengo, tenga, vengo, venga,* due to the alternation between the sounds [ɲ] and [ŋg] being frequent in other verbal forms of the type *plango - plaño*. The argument is that the etymological form [teɲa] entered into a period of free variation with [teŋga] which was then resolved in favour of [teŋga].

(13)

	Indicative	Subjunctive	Indicative	Subjunctive
1pl.	[ˈteɲo]	[ˈteɲa]	[ˈβeɲo]	[ˈβeɲa]
2pl.	[ˈtɛnes]	[ˈteɲas]	[ˈβɛnes]	[ˈβeɲas]
3pl.	[ˈtɛne]	[ˈteɲa]	[ˈβɛne]	[ˈβeɲa]
1pl.	[teˈnemos]	[teˈɲamos]	[βeˈnimos]	[βeˈɲamos]
2pl.	[teˈnetes]	[teˈɲates]	[βeˈnites]	[βeˈɲates]
3pl.	[ˈtɛnen]	[ˈteɲan]	[ˈβɛnen]	[ˈβeɲan]

With regards the forms SALIŌ 'I leave' and VALEŌ 'I am worthy' we are told (Menéndez Pidal 1941:294) that the old forms *salo*[16]*, valo* were ousted by the forms *salgo* and

[15] A similar explanation is also offered by Bourciez (1967:216-217) and Lloyd (1987:164)

[16] Here however, there is some disagreement amongst scholar since Elvira (1998:195) states with reference to the velar allomorph that 'el verbo *salir* se mostró más decidido a la hora de incorporar el incremento velar y no conoce

valgo 'a imitación de los verbos con *n*'. That is, the verbs ending in root /n/ had 1sg. present indicative forms ending in *–go* and so this ending was also adopted by verbs whose root ended in /l/. A similar rationale is given to the adoption of the velar by the verbs whose root ended in the palatal sound [ʝ] (c.f. (11) and (12)); it is merely stated (Menéndez Pidal 1941:294) that they 'tomaron la *g*' characteristic of the verbs of type *tengo, vengo, salgo, valgo* etc without entering into the fine details of this analogical process.

There are a number of criticisms which can be directed at this account of the spread of velar allomorphy in Spanish. Firstly the explanation is highly succinct and general and amounts to nothing more than stating that the velar originated in a number of frequent verbs and from here it was analogically copied by other verbs. When Pidal attempts a more detailed analysis, e.g. the explanation as to the adoption of the velar in the verbs *tengo, vengo,* on account of the alternation between the sounds [ɲ] and [ŋg], there is also room for criticism. As has been noted by Malkiel (1974: 328, n. 43) and reiterated by Maiden (1992:302), the class of verbs which displayed the alternation of the type *frango – frañes* were much less frequent than those verbs which displayed the alternation *teño – tenes*, and additionally, the etymological forms ending in *–ngo* were being ousted by the palatal nasals (c.f. the latter forms *taño, fraño*). Therefore, given that these forms ending in *–ngo* were themselves subject to levelling from the rest of the paradigm, it is unlikely that such forms would be at the forefront of any analogical changes, let alone to have an analogical effect over such frequent verbs as *tener* 'to have' and *venir* 'to come'.

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soluciones paralelas a las anteriores.' Here he is referring to the verb *valer* 'to be worth' which is attested in old Castilian as *valo, vala* and also in Old Leonese (c.f. Egido Fernández 1996:364).

In conclusion, then, the succinct analysis of Menéndez Pidal is too general to elucidate the fine workings of the extension of the velar in Spanish. Moreover, the validity of the fine details which he does offer are questionable.

2.4. Explanation offered by Penny (2002)

Penny (2002:174) follows Menéndez Pidal with regard to the effects of yod on the verbs of early Spanish, however, the basis of his explanation as to the extension of the velar to verbs with root final /n/ slightly differs from that of Menéndez Pidal. He concurs on the basis of the Galician-Portuguese forms *teño - tenho, veño - venho* and the old Italian forms *tegno, vegno* that it is feasible to suppose an etymological yod in the forms TENEŌ, VENEŌ which persisted long enough to palatalise the preceding nasal consonant giving pre-literary Castilian forms such as [teɲo], [beɲo] in the 1sg. present indicative and the stem forms [teɲa], [beɲa] in the present subjunctive as shown in table (13) . His explanation as to the change [teɲa] > *tenga*, however, makes no recourse to variation between the sounds [ɲ] and [ŋg] from other verbs of the type *tango – taño* (c.f. (9)) and notions of hypercorrection therein but rather refers to patterns of sound alternation within the lexeme of particular verbs. In the specific case of *tener* 'to have' and *venir* 'to come' this is the alternation which exists between the forms of the lexical root which ended in [ɲ] (the L-pattern cells) and the other forms of the present indicative which ended in [n]: [teɲo] vs. [tɛnes] (cf. (13)). With regards the substitution of the forms with the palatal nasal with the sequence [ŋg], Penny (2002:175) asserts that alternation between the

sounds /ɲ/ and /n/ was 'unprecedented in Spanish....[and] was therefore replaced, as also occurred in Italian, by another (namely, /ng/ vs. /n/) which was already established in the language.' As to the inclusion of the velar in the verbs of the type *salgo, valgo, caigo, traigo*, and its propagation to a wealth of other forms, no reference is made to alternations within the paradigms of these lexemes but rather it is simply stated that the inclusion of the sound /g/ at the end of the root of the L-pattern cells is indeed to be recognised as a pattern and 'this pattern because it had originated in a number of frequent verbs, became attractive to Spanish speakers and began to spread to verbs whose Latin root had not ended in a velar' (Penny 2002:178-179).

The one major point to be raised with regards to Penny's account is that his explanation regarding the forms *tengo, vengo* is actually counter to fact since there was no etymological nor otherwise attested alternation /ng/ vs. /n/ at this stage of the language. This alternation was actually unprecedented. The alternation which did exist with /ng/ was only either with the sounds /d^{z}/ or /ɲ/ but crucially not with /n/ (c.f. the paradigms in (8) of *espargo - esparzes, yergo - yerzes,* and in (9) of *frango - frañes, tango - tañes, plango - plañes,*). This fact is explicitly stated by Maiden (2001:297) for both Castilian and Italian. In his analysis of the velar, which shall be summarised shortly, he classifies the lexemes of the Castilian type *tengo – tienes* as novel allomorphy which he defines as (Maiden 2001:297) 'the creation, by morphological or lexical means, of patterns of alternation whose distribution is **unprecedented**.'

In conclusion, Penny identifies the cells which displayed the velar allomorphy as constituting a pattern and his explanation of the extension of this velar pattern is because of its

'attractiveness to speakers. The fine details regarding the adoption of this pattern, however, are not examined in depth for the different verbs and when they are, as with the case of the verbs ending in a nasal consonant, the explanation is not supported by the data.

2.5. Explanation by Malkiel

The account of Malkiel (1974) for the origin and extension of the verbs characterised by velar allomorphs in the L-pattern cells varies from the previous two accounts in two important ways. Firstly, Malkiel advocates a much more favourable view of the effects of yod on root final consonants of verbs in pre-literary Castilian in that he not only presupposes pre-literary Castilian forms such as [teɲo] from TENEŌ, but also the forms [fa͡so], [ja͡so] for the continuants of FACIŌ and IACEŌ. Secondly, although Malkiel employs different terminology, he acknowledges the existence of morphomic structure in the L-pattern cells (a substantial number of years before Aronoff's original work and Maiden's subsequent insights) and notes that due to the effects of yod, these cells would have exhibited a large degree of allomorphy. This recognition of the L-pattern morphome is important for his explanation of the spread of the velar allomorphs in that he refers to the morphomic pattern as (Malkiel 1974:315) 'deep morphology' which he defines as the fact that 'Speakers [were], simply aware of the separate stem variant of the 1st sg. pres[ent] ind[icative] and the entire subj[unctive], [and] were - one gathers - eager to preserve its separateness.'.

With regards to the triumph of the velar forms in the L-pattern cells, the emphasis of the explanation of Malkiel is also focussed on the different types of alternations existent between the L-pattern and non L-pattern cells. It is his opinion that the velar allomorph was favoured because it constituted a sharper distinction than the other types of alternations. More specifically, he motivates the change of pre-literary [fa͡tso], from the supposed proto-Castilian paradigm given here in (14), to attested [fago] with reference to the morphophonemic alternations which ought to have existed between [fa͡tso] and the other forms of the present [fad͡zes], [fad͡ze]; i.e. the alternation between [t͡s] and [d͡z][17].

(14)

	Indicative	Subjunctive
1pl.	[fa͡tso]	[fa͡tsa]
2pl.	[fad͡zes]	[fa͡tsas]
3pl.	[fad͡ze]	[fa͡tsa]
1pl.	[fad͡zemos]	[fa͡tsamos]
2pl.	[fad͡zetes]	[fa͡tsates]
3pl.	[fad͡zen]	[fa͡tsan]

He hypothesises that this distinction which was based only on voicing was (Malkiel 1974:316) 'less than satisfying all over the Peninsula' since it constituted 'a hazy, imprecisely contrasted set'; likewise for the adoption of the velar by *tengo, vengo*, whose proto-paradigms he hypothesises would be those of (13), Malkiel (1974:325) refers to 'the meagreness of the contrast /n/ - /ɲ/ as a hindrance to the survival of certain morphophonemic sets' and goes on to

[17] Portuguese maintained a distinction between the results of /k/ + [j] and /k/ + front vowel, the first producing a voiceless sibilant the second a voiced one (FACIŌ > *faço,* DĪCIS > *dizes* (Williams 1938: 79 & 67); Spanish however underwent secondary voicing upon the results of /k/ + [j], thus ĒRĪCIU > *erizo,* DĪCIT > *dize* (Penny 2002: 63 & 66). The reasons for this are unclear and much debated (c.f. Malkiel (1971, 1993) for a full discussion. Trusting Malkiel's conclusions in what follows I shall assume that in pre-literary Castilian /k/ + [j] > /ts/.

suggest that this also does 'hold true of /l/:/ʎ/ as well.' Here, of course, he is referring to the adoption of the velar by the verbs ending in /l/ (old Castilian *salgo, valgo, duelgo, muelgo)*.

The same line of argumentation, however, cannot be maintained for the verbs which etymologically contained /d/ + [j] and /g/ + [j], (c.f. (11) & (12) of the type *fuyo – fues, oyo - oes*). This is because there is a phonologically robust alternation in these cases, namely Ø – [ʝ]; also, in these forms one cannot claim that there is an extension of a velar consonant at the end of the verbal root as in the case of *salir – salgo, venir – vengo,* since in this class of verbs the velar is proceeded by the glide [j] and therefore the root has been incremented by [jg]: modern Spanish *caigo, traigo, oigo;* old Spanish *raigo, roigo, distruigo*, *restituigo*, *vaiga*, *haiga*. Malkiel explains the appearance of these forms by way of recourse to a blending of two competing variants of the verb 'to bring'. The sources of these competing forms are of a complex nature[18], but regardless of their etymology, the relevance for the present discussion is that in medieval times in the Iberian Peninsula there could have existed two competing present tense variants which conveyed the semantics of 'to bring'. These are given below in (15).

(15)

	Indicative	Subjunctive	Indicative	Subjunctive
1pl.	trago	traga	trayo	traya
2pl.	traes	tragas	traes	trayas
3pl.	trae	traga	trae	traya
1pl.	traemos	tragamos	traemos	trayamos
2pl.	traedes	tragades	traedes	trayades
3pl.	traen	tragan	traen	trayan

[18] They could be both from Latin TRAHERE and perhaps the late Latin form *tragere (reconstructed through the old Portuguese infinitive *trager* and modern Romanian *trage*, or both from the forms reflexes of TRAHERE and the forms with dessinential –g- resulting for the analogical influence of *digo, adugo* etc. (c.f Malkiel (1974:335-336) for a full discussion)

Thus, according to Malkiel (1974:335-336) ‘the coexistence of *trago* and *trayo* in neighbouring dialects was apt to lead to some such compromise form as *traigo*, cutting a path primarily for *caigo, raigo,* and, secondarily, for *oigo, roigo, huigo,* etc.’. These forms, however, do not escape a further explanation in terms of a more sharper phonological distinction of alternants which is motivated on account of the nascent tendency in Spanish to prefer the syllable structure Consonant + Vowel to the detriment of hiatus. The velar, however, was preferred over the palatal consonant at the onset of the syllable since according to Malkiel (1974:336) ‘it was obviously gratifying to speakers endowed with one spark of initiative to place in this favoured position a full-blown consonant, such as /g/, rather than having a mere semi-consonant, such as /j/, perform the crucial role.’.

The explanation of the velar allomorphy given by Malkiel is based around the morphophonemic alternations between the forms of the present indicative in which the velar allomorph in the L-pattern cells constitutes a more ‘attractive’ and phonologically more robust alternation for speakers. The rationale behind this is, as Malkiel explicitly states (Malkiel 1974: 344) that 'speakers of certain languages may reject a given morphophonemic alternation as being too thin or inadequate on account of the insufficient contrasts provided by the variable ingredients at issue.'

There are many points in which I both concur and disagree with Malkiel, however, I shall save my criticisms until I present my own hypothesis.

2.6. Explanation offered by Maiden

Maiden has propounded his ideas on the origin and spread of the velar allomorph in both Ibero-Romance and Italo-Romance in two main articles (c.f. Maiden 1992 & 2001). From these works it is clear that Maiden, as with Malkiel, is of the opinion that in both Castilian and Italian the spread of the velar allomorphy is predated by a situation in which the cells of the L-pattern displayed a large degree of varying types of allomorphy due to the effects of etymological yod and also the palatalisation of velars. Thus, he advocates a situation in pre-literary Spanish whereby the forms [faʦ͡so], [teɲo] and [saʎo] existed prior to Old Spanish *fago, tengo, salgo.* He provides evidence from similar, and attested, old Tuscan forms, in which, due to regular sound change the lexemes displayed alternations whereby there was a different allomorph in the L-pattern cells[19] than the other cells. These alternations were of various types and in modern Italian have often been replaced by a velar allomorph. This is illustrated by the present tense paradigms in (16) for the relevant verbs in old Tuscan along with the forms in (early) modern Italian.

(16)

verb	1sg. pres. indic	3sg. pres. indic.	alter-nation	1sg. pres. indic	3sg. pres. indic.
venire 'to come'	vegno	viene	[ɲ] - [n]	vengo	viene
valere 'to be worth'	vaglo	vale	[ʎ] - [l]	valgo	vale

[19] It ought to be noted that both in old Tuscan and standard Italian the L-pattern include sthe 3pl. present indicative as well as the 1sg. of this tense and the present subjunctive

sedere 'to sit'	seggio	siede	[dːʒ] - [d]	seggo	siede

Maiden highlights the fact that, as is the case with the verbs above in (16), '[the] generalization of a velar REPLACES a historically regular alternant, giving rise to alternation patterns (/ŋg/ vs. /n/; /lg/ vs. /l/; /gg/ vs. /d/) for which there is no historical precedent.'. This creation of novel allomorphy is also applied to the appearance of the velar in the Spanish forms *tengo, salgo* and *caigo.* Regarding a motivation for such an analogical change favouring the velar allomorphs and with particular reference to the reflexes of TENEŌ and VENIŌ, Maiden refers to Malkiel's hypothesis in favour of this change as one in which there was a need to establish a more robust and adequate alternation within the verbal paradigm than the etymological [faʦ͡so] – [faʣ͡ze] and [teɲo] – [tɛne]. This scholar (Maiden: 2001: 306) does not merely replicate the argument of Malkiel but further qualifies and nuances this hypothesis by elaborating on his own thesis, first propounded in Maiden (1991), that the verbal paradigm as a whole, unlike the nominal and adjectival paradigms, is distinctively characterized by root allomorphy because of the numerous cases where there is not a one-to-one matching between lexical meaning and form. Thus, the option of the alternation [ŋg] – [n] over [ɲ] – [n] etc. is nothing more than a way of reinforcing and emphasizing the basic nature of the verbal paradigm which he (Maiden 2001:306) identifies as being 'entropic' and thus desires maximal contrasts and tends to create or even increase allomorphy.

As for the other cases of the extension of the velar, Maiden (2001) makes reference to an interesting characteristic of morphomes which he defines as their tendency towards **convergence** which refers to the historically attested fact that morphomes 'tend over time to

acquire certain common phonological characteristics across all verbs in which they occur.'(Maiden 2004). He describes the extension of the velar allomorph in both Spanish and Italian as being the result of the desire of the L-pattern morphome to have more phonological coherence. Specifically, he states (Maiden (2001:45).

> *Io avevo interpretato questi fatti, invece, come una specie di 'livellamento analogico' paragonabile sotto certi aspetti a quella per cui da suono .. soniamo si passa a suono - suoniamo— ma con questa differenza fondamentale che la base del 'livellamento' non è un rapporto di maggiore trasparenza tra forma e significato lessicale, ma un rapporto di maggiore trasparenza tra forma fonologica e un'entità paradigmatica autonomamente morfologica. Si tratterebbe, a tutti gli effetti, di una specie di convergenza, di un concretizzarsi, formale per cui l'insieme eterogeneo di categorie morfosintattiche avrebbe acquisito una veste fonologica sempre più uniforme, sostituendo le varianti palatali con allomorfi velari e allo stesso tempo introducendosi in verbi in precedenza invarianti.*

With regard to the Spanish data, however, whilst the explanation of the spread of the velar in terms of the substitution of a palatal allomorph by a velar one can successfully explain the supposed changes of the type [faʧ͡so] > *fago,* [teɲo] > *tengo,* [saʎo] > salgo, it runs into problems with verbs of the type (11) & (12) whose root, in old Spanish, ended in a root final palatal in the L-pattern cells which was latter modified by the addition of a velar (c.f. *oya > oiga, vaya > vaga, fuya > fuiga, roya > roiga, raya > raiga, traya > traiga, distruya > distruiga, caya > caiga*) and not by the substitution of the palatal allomorph by a velar allomorph which would have produced the following unattested forms: *oga, vaga, fuga, roga, raga, traga, caga.* Whilst avoidance for the latter form, *caya > caga,* may be explained in terms of homonymic clash with the forms of the distasteful verb *cagar* 'to shit', this cannot be evoked for the other forms[20]

[20] Whilst it is true that a number of these forms coincide with forms of other verb, e.g. *traga vaga, fuga,* with the –*ar* verbs *tragar* 'to swallow', *vagar* 'to wander', *fugar* 'to escape', I consider the arguments which would account

In summary, Maiden's explanation is one based around the notion of alternations within the present tense and the recognition of the L-pattern as a grammatically real component of the grammar of speakers, which shows the tendency to become characterized by a velar allomorph.

3. Recapitulation and Proposal

In the foregoing I have summarised the various accounts of the origin and spread of the velar allomorphs in Spanish. Regarding its origins, the different explanations differ with regard to the effects that yod had upon verbs in the pre-literary stage of Castilian. These differences generally yield different explanations for the velar allomorphs in *hago, yago*. With reference to the spread of the velar element the accounts can be divided into those which make recourse simply to analogy (Ménendez Pidal), those which identify the L-pattern as consisting of a pattern which is then analogically extended (Penny), those which recognise the importance of a more abstract morphological element for the collection of cells in the L-pattern and suggest that the expansion of this pattern is due to the fact that speakers wish to maintain it (Malkiel) and the velar element thus constitutes a more robustly phonetic form in the context of morphophonemic alternations in the present tense (Malkiel, Maiden). Finally, Maiden proposes that the expansion of the velar element to the detriment of the other types of allomorphy in the L-pattern is a manifestation of a

for the infix *–ig-* in these via recourse to homonymic clash weak. This is because homonymic clash is widespread in languages and does not usually present problems for speakers. Thus, the velar forms for the Spanish verb *venir* 'to come' coincide with the present indicative forms of the verb *vengar* 'to seek revenge'. Furthermore, the 3sg. pretrerite form of this verb coincides with the word for 'wine': *vino*.

tendency in morphomes for the root-forms to converge on a particular distinctive phonological form.

For my part, I find Maiden's explanation particularly attractive since it has striking similarities with a number of other developments within the history of the verbal morphology of a number of Ibero-Romance languages[21]. However, I consider that it fails to account for the fine-grained details of the Spanish data in a convincing way. The explanation, I maintain, needs to be modified by concentrating less on patterns of alternation within the present tense and more upon the actual different allomorphs attested within the morphome. Furthermore, the question of what type of allomorphy the velar element really represents, needs to be addressed, along with its proposed morphological segmentation and classification in the verbs which contain this element.

Before embarking on a full scale consideration of these questions I briefly summarize the events which have made such questions pertinent.

3.1 My account

I maintain that in the spoken Latin of the Iberian Peninsula the etymological yod was maintained in the L-pattern forms of the verb. Corroboration for this hypothesis comes from a wide number of other Romance varieties but in particular the closely related variety

[21] Specifically the development of the vocalic allomorphy present in Spanish *–ir* verbs and Portuguese *–er* and *–ir* verbs (c.f. O'Neill (forthcoming) and the development of the Strong Preterites in both these languages (O'Neill 2010, Maiden 2001) and also in the Asturian varieties (O'Neill 2010)

Portuguese[22], which contains verbs which display a special type of allomorphy exclusively in the L-pattern and whose forms are in accordance with all the different types of consonantal development caused by yod. This, I claim, resulted in a great degree of different types of allomorphy exclusively in the L-pattern cells of 2nd, 4th, and 3a conjugations. A selection of this possible allomorphy caused by yod is given below in (17).

(17) These are reflexes of the Latin METIŌ(R) 'to measure', FACIŌ 'to do', TENEŌ 'to have', SALIŌ 'to leave', AUDIŌ 'to hear' and FUGIŌ 'to flee'.

	Indicative	Subjunctive	Indicative	Subjunctive	Indicative	Subjunctive
1pl.	[mɛt͡so]	[mɛt͡sa]	[fat͡so]	[fat͡sa]	[t̪eɲo]	[t̪eɲa]
2pl.	[mɛtes]	[mɛt͡sas]	[fad͡zes]	[fat͡sas]	[tɛnes]	[t̪eɲas]
3pl.	[mɛte]	[mɛt͡sa]	[fad͡ze]	[fat͡sa]	[tɛne]	[t̪eɲa]
1pl.	[metimos]	[met͡samos]	[fad͡zemos]	[fat͡samos]	[tenemos]	[t̪eɲamos]
2pl.	[metites]	[met͡sates]	[fad͡zetes]	[fat͡sates]	[tenetes]	[t̪eɲates]
3pl.	[mɛten]	[mɛt͡san]	[fad͡zen]	[fat͡san]	[tɛnen]	[t̪eɲan]
	Indicative	Subjunctive	Indicative	Subjunctive	Indicative	Subjunctive
1pl.	[saʎo]	[saʎa]	[oʊ̯̃jo]	[oʊ̯̃ja]	[fuj̪o]	[fuj̪a]
2pl.	[sales]	[saʎas]	[oʊ̯̃es]	[oʊ̯̃jas]	[foes]	[fuj̪as]
3pl.	[sale]	[saʎa]	[oʊ̯̃e]	[oʊ̯̃ja]	[foe]	[fuj̪a]
1pl.	[salimos]	[saʎamos]	[oʊ̯̃emos]	[oʊ̯̃jamos]	[foemos]	[fuj̪amos]
2pl.	[salites]	[saʎates]	[oʊ̯̃etes]	[oʊ̯̃jates]	[foetes]	[fuj̪ates]
3pl.	[salen]	[saʎan]	[oʊ̯̃en]	[oʊ̯̃jan]	[foen]	[fuj̪an]

To this allomorphy caused by the yod-effect and whose domain is exclusively the L-pattern one must add those verbs of the Latin 3b. conjugation with root final velars which were subject to affrication and palatalisation in all the cells of the paradigm with the exception of the

[22] Evidence for the effects of yod on consonants in the verb can also be found within Spanish, thus, /n/ + [j] is attested in the old Spanish *muñir* 'to summon' < MONEŌ,

L-pattern cells which would be characterised by a velar consonant at the end of the root (c.f.(8) &((9)).

Thus, the situation in proto-Ibero-Romance was one in which the reflexes of Latin non-1st conjugation verbs showed a high degree of allomorphy which in many cases was correlated with the semantically heterogeneous cells of the L-pattern. Moreover, the original phonological conditioning of this allomorphy had either been lost or blurred[23]. In this way, the L-pattern morphome was born, since a number of verbs displayed allomorphy precisely in these cells. This collection of cells could then be said to have become morphomic*,* in that it became an abstract grammatical reality for speakers. That is, speakers were faced with a large number of allomorphic roots for lexemes which they had to memorise. These allomorphs of differing types all shared the same paradigmatic distribution, the L-pattern cells. This purely morphological distribution was then internalised to form part of the grammar and thus it was not the case that speakers memorised all the different inflectional forms in which the unpredictable allomorphs occurred (e.g. [t̪eɲo], [t̪eɲa], [t̪eɲas], [t̪eɲa], [t̪eɲamos], [t̪eɲates], [t̪eɲan] for the verb *tener*), rather they memorised the allomorph [t̪eɲ] and this was associated with the L-pattern

[23] In the cases of allomorphy produced by yod, this sound had combined with the preceding consonant to create a new set of palatal phonemes (/n/ + [j] > [ɲ], /t/ + [j] > /t͡s/ etc. (c.f. **Error! Reference source not found.** for specific details) which were no longer phonologically conditioned. In the cases of paltalisation, or retention, of the velar, the phonetic context which had caused this sound change, the front vowel, was indeed still present, however, at this point in Ibero-Romance palatalisation and affrication of velars was no longer a phonological/phonetic rule. This is because the phonetic result of this process, /t͡s/ or /d͡z/ (DĪCIT > *dize*) coincided with the output of other sound changes and thus was not restricted to occurring before front vowels, e.g. old Spanish *março* 'marzo', *calça* 'stocking'. Likewise, it was neither the case that the pronunciations of velar occlusives were restricted to appear only before back vowels; this is due to (a) the lack of the palatalisation of velars before front vowels in the present subjunctive of first conjugation verbs, e.g. *llegue* < PLICEM*, pague* < PACEM*,* (c.f Maiden 2001) and (b) the Latin sound [kw], written via the grapheme <QU> maintained its pronunciation long enough to escape the effects of palatalisation but then subsequently underwent a sound change whereby it lost the pronunciation of the glide resulting in a velar occlusive pronunciation which could occur unchanged before front vowels, e.g. *aquella* 'this', *querella* 'law-suit'.

morphome. Diachronic evidence supports this assumption via the formal coherence which these cells display. That is, if the allomorphy is levelled it is levelled in all cells (c.f. (4)), and likewise, if a velar allomorph is adopted it is also adopted exclusively in these cells (c.f. (5)).

From the point in which the L-pattern is characterised by a large degree of different types of allomorphy (see (8), (9), (17)) there are two tendencies which will be considered separately. The first is to level this allomorphy and have a biunique relationship between form and meaning in accordance with Humboldt's Universal. This type of levelling is attested in old Spanish for a number of verbs in which the most frequently occurring forms replace the allomorphy in the L-pattern[24] (c.f. TANGŌ > *tango* >> *taño* 'I play', FRANGŌ > *frango* >> *fraño* 'I break', CINGŌ > *cingo* >> ciño, TINGŌ > *tengo* >> *tiño* 'I dye', SPARGŌ > *espargo* >> *esparzo* 'I scatter', RINGŌ(R) > *ringo* >> *riño* 'I scold'). Note that for these verb this levelling did not take place until the 15th century (Kania 2011:138), for other verbs, however, such changes must have taken place at the pre-literary stage of the language (c.f. VINCŌ > [βeŋko] >> *venzo* 'I defeat', SUCCUTIŌ > [sokot͡so] >> *sacudo* 'I shake', PARTIŌ > [parɾ͡so] >> *parto* 'I divide', RESPONDEŌ > [respɔnt͡sa] >> *respondo* 'I reply'). The second tendency, which is of particular relevance with regards the velar allomorphy, is not for there to be levelling within the lexeme but rather for there to be levelling across lexemes with regard to the L-pattern cells and the velar element. That is, the allomorphy in the L-pattern cells of the lexemes is not eradicated but the different types of allomorphy present in a substantial number of lexemes is made more predictable in that the allomorphy in the L-pattern cells tends to

[24] However, there are examples in which it is the L-pattern allomorph which becomes dominant across the paradigm, e.g. *ergir* 'to erect' < ERIGO and *muñir* 'to summon' < MONEŌ.

converge upon a certain phonological characteristic, in the present cases this is upon a velar allomorph. I am terming this convergence 'morphomic levelling'[25].

Thus far I am in general agreement with both Maiden (1992, 2001) and Malkiel (1974) as to the recognition of the morphome, the effects of yod in proto-Castilian and the convergence towards the velar element. I differ from these authors in respect of the particular motivations for the spread of the velar consonant.

With regard to the change [fa͡tso] > [fago] recall that Malkiel offers an explanation for this change in terms of insufficient morphophonemic contrast. Maiden (1992) endorses this explanation but gives a more sophisticated account in terms of the verbal paradigm being entropic and thus desiring maximal contrasts and tending to create or increase allomorphy.

In my opinion, such explanations add an unnecessary level of complication and abstractness to a matter which can be explained away in terms of simple proportional analogy, which Maiden (1992:43, 55) actually also advocates, with the present tense forms of the verbs of the type [diko] – [di͡ʤe] (see (7)). From the types of alternations existent in the Ibero-Romance verbs as expounded in (17) and the velar allomorphs of (7), (8) & (9) it becomes clear that the most frequent alternation both in terms of type and token frequency was undoubtedly that of the verbs of (7) ([diko] – [di͡ʤe]), in which the final root consonant [ʤ] alternated with a velar occlusive (/k/ or /g/) exclusively in the L-pattern cells. This is due to the inclusion of the

[25] Note that both the standard type of levelling and 'morphomic levelling' could apply to the same lexeme across different speech communities; hence why there are thirteenth century attestations of non velar forms of *salir: sala, salamos* (Kania 2011: 135-136).

reflexes of the common verb DĪCERE ‘to say’ and also the derivatives of –DUCERE such as *reducir* ‘to reduce’, *aducir* ‘to aduce’ etc. Thus, it seems plausible that the verb FACIŌ and IACEŌ in which the same final root consonant [d͡z] alternated merely with its voiceless counterpart [t͡s], acquired the velar allmorph in the L-pattern. Thus [fat͡so] > *fago*; [ɟat͡so] > *yago*. Moreover, this hypothesis gains strength when one takes into account the relative productivity that the alternation [g] – [d͡z] must have had in the late Latin/early Romance of the Iberian Peninsula on account of the number of semantically related derivatives[26] [nɔd͡ze] ‘nut’ - [nokale] ‘nut tree’ (see Martín Vegas 2002:117-173). Basically, the motivation for the changes [fat͡so] > *fago*; [ɟat͡so] > *yago* is proportional analogy with *digo*, supported by the high frequency and productivity of the alternation [g] – [d͡z].

As for the spread of the velar to other lexemes, I favour an explanation which makes direct reference to the actual L-pattern cells and their phonological exponence rather than phonological alternations within lexemes. After the analogical changes described above of the type [fat͡so] > *fago,* there were a considerable number of high-frequency verbs which in the L-pattern cells ended in a velar consonant + desinences; specifically: *-go, -ga, -gas, gamos, -gades, -gan*. This also coincided with the large number of originally ingressive verbs which through regular sound change displayed the same terminal elements, although in this case the velar consonant was voiceless (c.f. *meresco, floresco, consoco, nasco, aparesco* of the type in (10)). Given such a situation, I believe it plausible that speakers could have interpreted the velar endings, due to their type and token frequency, as being characteristic of the L-pattern

[26] Much of these derivatives, however, in modern Spanish have become semantically opaque, thus: *paz* ‘peace’, *pagar* ‘to pay’, *hoz* ‘sickle’ – *ahogar* ‘to drown’ (Martín Vegas 2002:163-166)

morphome. What I am suggesting is that the forms *nasco, aparesco, digo, fago, redugo, frango, cingo* were analysed as composed of a root *nas-, apares-, di-, fa-, redu-* plus the desinences *–go, -ga, -gas, -gamos, -gades, -gan* for the L-pattern cells. This particular segmentation has also been suggested by Martín Vegas (2002:168) who notes that 'con un análisis de este tipo no hablaríamos de una inserción de *–g-* en determinados verbos, sino de la extensión de un esquema/modelo de flexion que caracteriza porque la 1ª persona del pres.[ente] ind.[icativo] y el pres.[ente] subj.[untivo] terminan en *–go, -ga, -gas…*'. I, however, would extend this analysis to motivate the velar element in all the verbs of Castilian and even the earliest ones of the type *vengo, tengo, salgo*. With specific reference to the Castilian proto-forms [teɲo] [βeɲo], [saʎo], [tɔʎ] of these were analysed as having the roots [teɲ]- [βeɲ]-, [saʎ], [tɔʎ] and were made to coincide with the morphological model with velar endings in the L-pattern, then this would, through regular sound change, produce the attested forms *tengo, vengo*, *salgo, tuelgo*[27], since palatal consonants were, and still are, banned from the coda of the syllable in Castilian. The expected outcome in the history of the language is for the palatal consonant to loose its palatality (c.f. DOMINE > [doɲe] > *don* vs. DOMINA > *doña,* GALLU > *gallo* vs. GALLICU > [gaʎgo] > *galgo* and also PIGNORA > [peɲra] > *pendra* > *prenda*, (Penny 2002) and COLLOCŌ > [kweʎgo] > *cuelgo* (Malkiel 1974:322)).

[27] Note that I have not supposed this development for reflexes of VALERE > *valer* since Kania (2011:136) has noted that in earliest attestations of the L-pattern forms of this verb, the forms *valo, vala vala* heavily outnumbered those with the velar insert, which do not become significant until the 15th century. Therefore, for this verb it is most likely that there occurred standard analogical levelling whereby [βaʎ] > [βal] which then acquired the velar allomorph not through morphomic levelling but through standard proportional analogy on the basis of phonological similarities of its forms with *salir.*

I maintain that this alternative analysis is preferable for a number of reasons. Firstly, this explanation obviates the problems, first pointed out by Malkiel, inherent with explaining the origin of the velar forms in *tengo* and *vengo* via hesitation between the sounds /ɲ/ and /ŋg/ in verbs such as *plango – plaño,* which supposedly through hypercorrection were paradoxically levelled in favour of /ŋg/ in those verbs in which the velar was **not** etymological ([teɲo] > *tengo,* ([βeɲo] > *vengo*) but in /ɲ/ in which the velar was etymologically expected and attested (*plango > plaño, tango > taño, frango > fraño, cingo > ciño*). Secondly, this explanation can, in a straightforward way, explain why in verbs of the type *caigo, traigo, oigo*, the velar element is preceded by the glide [j], without any tenuous references to the double etymology of the forms of *traer* and the blending of the forms *trayo* and *trago*[28] into *traigo* which acted as a catalyst for all other forms in *–ig-*. The explanation would be that these verbs were analysed as having the roots [kaj], [traj], [oj] to which the endings [go], [gas], [ga]… were concatenated.

This hypothesis, moreover, could also give an explanation to the hybrid types of forms of Medieval Spanish such as *plazgo* 'I please'*, yazgo* 'I lie'*, reduzgo* 'I reduce'. The first set of these words, in the earliest testimonies, displayed the alternation of the root final velar /g/ with the sound /d͡ʒ/: *plago* vs. *plaze; yago* vs. *yaze* and *regugo* vs. *reduze*. However, the velar L-pattern forms came to be characterised by the sound [d͡ʒg]: *plazgo* vs. *plaze; yazgo* vs. *yaze* and

[28] Note also that, on the basis of her rigorous study of the velar element in medieval Spanish texts, Kania (2011:144) casts doubts on Malkiel's explanation for the velar element in *traer* via the blending of *trago* and *trayo* since 'rather than competing forms… in Castilian all evidence point to the merely sporadic use of *trago*. Thus it cannot be considered influential in the analogical change *trayo > traigo.'* (ibid.).

reduzgo vs. *reduze.* If we analyse the substitution of *yago* > *yazgo* alongside the substitutions *tango* > *taño* 'I touch' under the influence of *tañe*, it can be appreciated how only the latter form can be explained in a straightforward way via levelling of the allomorph of the lexeme in favour of the most common form, *tañ-*. This, however, cannot be applied to *yazgo* on account of the presence of the voiced velar, (which in the modern language has become voiceless) since in this case the L-pattern forms would have the allomorphs: *yazg-,* whilst the rest of the paradigm would have the allomorph which lacks the velar consonant, *yaz-*. If however, the velar consonant is not considered to be part of the root but part of the ending (or a post radical formative which is neither an ending nor a root), then the forms adhere to the same principles as the cases of the substitutions *tango* > *taño.* That is, there has taken place a levelling in favour of the most common form *yaz-*. Thus *yago* was not parsed as *yag-* concatenated to an ending /o/ but rather the root was *ya-*and the ending was /go/. From this form the root has been levelled in favour of the form *yaz-* producing the inflectional form *yazgo*[29]. (see Martín Vegas 2002 for a similar account). Indeed the only forms to resist this analogical levelling are the very frequently occurring verbs *facer* 'to do'*, decir* 'to say', *tener* 'to have' and *venir* 'to come' since even excluding the velar element, these verbs have different root allomorphs in the L-pattern cells than in the rest of the paradigm and in particular the present indicative (*fa-* vs. *faz-, di-* vs. *diz-, ten-* vs. *tien-, ven-* vs. *vien-*). However, it ought to be noted that in the CORDE corpus (Real Academia Española: consulted September 2010) there is one attestation of *fazca* and also 235 cases of L-pattern forms containing the root *tieng-* and 46 cases of *vieng-*.

[29] The alternation attested between the voiced and voiceless velars (*yazgo – yazco, conduzgo –conduzco*) is to be expected if the forms originating from the incohative verbs and those from verbs of the type *digo – dices, fago – faces* are given the same morphological analysis: root + *go, gas ga…* The voicing quality of the velar consonant merely depended on the historical path the verb had taken and thus the confusion of forms. However, it seems clear that the sequence with the voiceless velar came to be more associated with the previous consonant written as <*z*>, especially when the lexical root was the same in the majority of the forms.

Finally, another advantage of the explanation propounded here is that it can account for the irregular sound change that took place in the class of verbs which contained the Latin inceptive reflex –SK. As Penny (2002:180) notes, according to regular sound change, in the L-pattern cells this suffix was realised as /sk/ (c.f. MUSKA > *mosca* 'fly') due to it always being followed by a back vowel. In the non L-pattern cells however, in which it was followed by a front vowel, the regular outcome was /t͡s/, (c.f. PISCĒS > *peçes* > *peces* 'fishes'); thus, old Spanish present tense reflexes of the Latin verb COGNŌSCERE 'to know', as shown in (10) and repeated here along with the modern forms in (18) , display different allomorphs in the L-pattern than in the rest of the present tense (and the rest of the paradigm).

(18)

	Indicative	Subjunctive	Indicative	Subjunctive
1pl.	**conos**co	**conos**ca	**conoz**co	**conoz**ca
2pl.	conoçes	**conos**cas	**conoc**es	**conoz**cas
3pl.	conoç(e)	**conos**ca	**conoc**e	**conoz**ca
1pl.	conoçemos	**conos**camos	**conoc**emos	**conoz**camos
2pl.	conoçedes	**conos**cades	**conoc**éis	**conoz**cáis
3pl.	conoçen	**conos**can	**conoc**en	**conoz**can

Towards the end of the fifteenth century, however, the root final sibilant /s/ was replaced by the sound /t͡s/ (perhaps at this time modified to the dental sibilant /s̪/), which was characteristic of the majority of the forms of the paradigm (Penny 2001:108). As with the examples such as *yazgo* above, this change cannot correspond to a process of levelling in favour of the lexical root of the majority of forms if the velar element is included within the root

allomorph since such verbs would have two allomorphs: [konoʧ]- and [konosk]-, and levelling would suppose the ousting of the latter, leaving behind a paradigm, well attested in the Asturian and Galician varieties, in which the root is invariable [konoθ][30]- and there is no velar, thus, *conozo, conoces, conoce..; conoza conozas, conoza...* I maintain that in Castilian the process of levelling did take place but the root allomorphs were not [konoʧ]- and [konosk]- rather [konoʧ]- and [konos]-, and the velar element was included as part of the ending. Accordingly the effect of levelling produces the attested modern Castilian forms in (18) in which the graphs <*z*> and <*c*> are graphemes of the same sound /θ/.

4. CONCLUSION

My analysis here concurs with both that of Maiden (1992, 2001) and Malkiel (1974) with regards to the recognition of the morphome; I differ from these authors with regard to the relationship between the morphome and the existence and spread of the velar consonant. Malkiel, at times, considers this to be a velar infix which is concatenated to the root and its spread due to the robust phonological distinction between a lexical root ending in a velar when compared to the other forms of the present (*tengo* vs. *tienes* being preferred to [teŋo] vs. *tienes*). Maiden, whilst implicitly endorsing this theory sees the velar as an allomorph of the lexical root, and explains the rise of the velar verbs in terms of novel patterns of allomorphy motivated by a curious case of levelling in which the L-pattern morphome tends to converge on a similar phonological form. Whilst I would endorse the theory that the spread of the velar

[30] in accordance with the regular latter sound change /ʧ/ > /θ/

allomorphy in Spanish is intimately linked to the tendency of convergence in the L-pattern morphome, I suggest that the convergence was not upon velar root allomorphs but rather a velar formative which could be analysed as an allomorph of the verb 'endings', and that this formative was bereft of any meaning or grammatical function at all. This, to my mind not only affords a more perspicuous explanation of the Spanish data but also offers a solution to some problematic morphological verb forms and sound changes in the history of the Spanish verb.

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