Morphological autonomy and diachrony*

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1. MORPHOLOGY BY ITSELF

In his book *Morphology By Itself* (1994)[1] Mark Aronoff convincingly shows that morphological paradigms can have autonomous properties which are expressible neither in terms of component morphemic structure nor of coherent morphosyntactic functions. To take one of his clearest examples, Latin verb stems sometimes display a special allomorph (the so-called 'third stem'), which is inexpressible in phonological terms, in that the form of this stem can vary completely from one lexical verb to the next, and which is distributed over an array of paradigmatic 'cells' (the supine, the past participle, the future participle, not to mention various derivationally related forms) sharing no common morphosyntactic function. The third stem constitutes an allegedly[2] inviolable distributional regularity – what Aronoff terms a *morphome* – in that its presence in any one member of the specified, idiosyncratic, set of cells, always implies its presence in all of the other members of the set.

In what follows I shall seek to achieve two, connected, aims. First, there is always a risk that the existence of *synchronic* morphomic regularities is merely an inert residue of some earlier *état de langue* in which the relevant distributional pattern did still have some 'extramorphological' motivation. In principle, the observed patterning could be synchronically accidental – visible to the linguist but not to the ordinary speaker. In the case of the Latin 'third stem', native speakers might simply have learned each lexical verb, with its irregularities, separately, and never have actually made the kind of cross-paradigmatic generalizations inherent in the notion of morphome. An obvious way of guaranteeing the 'psychological reality' of morphomic structure is to seek out diachronic changes which *presuppose* morphomic structure, and it is a series of changes of exactly this kind in the history of the Romance languages which forms the core of the present study.[3] What emerges is that 'morphomic' structure plays a fundamental role in the morphological system of the Romance languages, a fact which leads us to ask whether autonomously morphological phenomena are not in fact more important, and pervasive, in language than has hitherto been assumed.

This brings us to my second aim. Aronoff is admirably vigorous in combating the sterile reductionism of approaches (especially associated with the generative tradition) which tend to deny any importance at all to morphology, and treat paradigms as a kind of epiphenomenon of the interaction of syntax and phonology. Yet even he seems to regard morphology in general as an aberrant, fundamentally 'unnecessary' (1994: 165) language-specific, domain, somehow

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divorced from universal principles of linguistic structure, and autonomous morphological structure as a kind of 'last resort', a residue left when some phenomenon cannot be wholly reduced to phonological or morphosyntactic principles (Aronoff 1994: 63; 166). For Aronoff, the importance of studying morphology lies in understanding individual systems on their own terms – as 'langues' (1994: 166; 1999), rather than as part of 'langage' in general. This view is strikingly enunciated as follows (1998: 413):

> … morphology is inherently unnatural. It's a disease, a pathology of language. This fact is demonstrated very simply by the fact that there are languages, though not very many, that manage without it – you don't need morphology – and by the perhaps more widely recognized fact that some languages like West Greenlandic or Navajo have morphology much worse than others do. I think it's clear that the notion of morphologization or grammaticalization is rooted in this disease view of morphology as being inherently unnatural, as is also Sapir's view of language, read *morphology*, as a collective art. Morphology, or grammar, is to a great extent not isomorphic, that's what makes it morphology, or as Saussure would have it, arbitrary.

There also appears to be a sharp divide between a 'perfectionist' approach to language, compatible with morpheme-based perspectives, and local and idiosyncratic 'imperfectionism', located especially in inflectional morphology (Aronoff 1999: 321f.):

> … the search for perfect systems may blind us to those aspects of individual *langues* that may be systematic but imperfectly so.
>
> Accepting the possibility that languages are imperfect systems amalgamated from natural and unnatural components may open our minds to new sorts of analyses and generalizations. Let us call this esthetic, with its willingness to accept and appreciate imperfect systems, IMPERFECTIONISM. The imperfectionist esthetic is more compatible with an inductivist than a deductivist sensibility. It allows for languages to differ from one another systematically in ways that are not predicted by properties of UG. Imperfectionism is likely to have greater payoff in those domains where languages are known to differ from one another quite radically. Inflectional morphology is likely to be a breeding ground for imperfection, because, although languages are highly divergent in their morphology, inflectional morphology is obligatory and hence systematic. And within inflection, the mapping between morphosyntax and morphological realization is an especially likely place for imperfections to arise, since it is the locus of Saussurean arbitrariness within the inflectional system.

All this deserves enthusiastic applause. A willingness to take systematic local idiosyncrasies on their own terms, neither ignoring them nor forcing them into the procrustean bed of morphemic structure, is surely desirable. Indeed in what follows we shall see that such an attitude is essential if we are to account for various aspects of the history of the Romance inflectional paradigm. But equally we shall see that it is very hard to account for the changes in question if we regard 'morphology' and 'morphomes' as mere local idiosyncrasies. I shall argue that there is in fact a seamless link between what seem to be erratically local morphomic phenomena and the fundamental and universal principles of iconicity. Moreover, I shall suggest that autonomous morphological structure may be far more pervasive than has hitherto been suggested, in that it may be present not only among the language-specific complexities of inflectional paradigms, but even at the level of the type of simple, linear, morphemes which occur in *every* language.

2. METHODS AND DATA

In sections 3–5 I explore the evolution of three 'morphomic' paradigmatic alternations in the Romance verb. Each is 'phonologically incoherent', in that both the form of the alternants and their distribution within the paradigm defy phonological generalization. And each is 'morphosyntactically incoherent', in that the set of paradigmatic 'cells' implicated in the alternation is irreducible to any natural morphosyntactic class.

The origins of these phenomena are unproblematic: in one case, an already phonologically heterogeneous set of allomorphs is inherited from Latin, but their original shared function (that they signalled aspect) is lost; in the other two, regular sound changes create novel, and phonologically disparate, allomorphy in verb roots, with an arbitrary paradigmatic distribution not aligned within any one morphosyntactic class. Nothing exceptional so far, but what the history of the Romance languages demonstrates is that these doubly (phonologically and morphosyntactically) 'incoherent' allomorphies must have been far more than just the 'inert' outcome of earlier changes. For there are numerous subsequent developments which not only presuppose the 'psychological reality' of these patterns, but show that they play a major, determining role, in paradigmatic change. The developments in question fall into three types: coherence, convergence and attraction.

In 'coherence', the outcomes mentioned above 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 of all the others in the same way. The relationship of mutual implication between 'cells' always survives intact. In 'convergence' the set of paradigmatic cells affected by the original change tends

over time to acquire certain common phonological characteristics across all verbs in which they occur – a development akin to classic analogical levelling of the 'one meaning – one form' type, except that here there is no 'meaning' outside the morphomic pattern itself. 'Attraction' is similar to classical analogical extension, except that here the basis of the extension is the abstract paradigmatic patterning alone, independently of phonological or morphosyntactic content: new sources of allomorphy (especially cases of rivalry between lexically distinct but virtually synonymous verbs) are integrated into the grammar by making them conform to the idiosyncratic paradigmatic patterning previously 'etched out' by sound change.

The data are gathered from my own extensive and ongoing survey of the history of the inflectional morphology of the Romance verb, based principally on the evidence of historical and synchronic studies of individual dialects/languages, and on linguistic atlases. I shall make in what follows a number of strong – and eminently falsifiable – generalizations about the data. The philological argumentation needed to support every detail would submerge this study in a sea of footnotes, so I have made liberal reference to a series of studies of my own in which more detailed philological support will be found. My main focus here will be on the theoretical implications of my findings.

Finally, I shall turn my attention to the syntagmatic dimension, in Romance and some other languages, again using 'coherence' and 'convergence' to demonstrate that autonomous morphological structure may be present even at the level of the simple, linear, formative in word structure, and therefore potentially present cross linguistically, given that all languages possess morphological structure of this kind.

3. THE REMNANTS OF THE LATIN PERFECTIVE IN ROMANCE

3.1. Phonological incoherence with functional coherence in Latin

Aspectual differences (imperfective vs. perfective) were fundamental to the Latin verb, but largely effaced from the Romance inflectional paradigm. Yet old perfective *forms* persist. These inherit from Latin a high degree of phonological incoherence, but add to it a new *functional* incoherence, in that they are no longer aligned with any coherent set of morphosyntactic properties.

In Latin present, past, future and infinitive, imperfective forms were distinguished from a perfective. In most 1st and 4th conjugation verbs, the perfective was characterized by a formative [w] immediately following the thematic vowel: e.g., AMAT 'loves', AUDIT 'hears' vs perfective AMAUIT, AUDIUIT. In some cases (notably 2nd conjugation verbs), [w] was adjacent to the root (e.g., TENET 'holds' – TENUIT). In 3rd (and some 2nd and 4th) conjugation verbs the perfective was

expressed by a motley array of root-allomorphs, whose irreducible phonological heterogeneity (including reduplication, vowel lengthening, modifications of the root final consonant) is striking. The (3sg.) imperfective and perfective present of a number of verbs are illustrated in (1), respectively on the left and right:

(1) DAT DEDIT 'give'; FACIT FECIT 'do'; UIDET UI:DIT 'see'; UENIT UE:NIT 'come'; MITTIT MI:SIT 'send'; SCRIBIT SCRIPSIT 'write'; DICIT DI:XIT 'say'; MANET MANSIT 'stay'; PO:NIT POSUIT 'put'; PREMIT PRESSIT 'press'; COQUET COXIT 'cook'; TRAHIT TRAXIT 'draw'; FUNDIT FU:SIT 'pour'; EST FUIT 'be'

3.2. Phonological incoherence with functional incoherence in Romance

Most types of Latin perfective root survive intact in Romance, and those lost were often replaced by other perfect-root patterns (original root-final [w] and [s] induced various novel types of allomorphy as a result of regular sound changes – cf. Maiden 1999; 2000; 2001a). Here are examples of the range of such survivals (and innovations) from Old Spanish, and Italian, contrasting third person singular present indicative with preterite forms (2):

(2) Old Spanish *ve* 'sees' – *vido; quiere* 'wants' – *quiso; viene* 'comes' – *vino; tiene* 'holds' – *tovo; haze* 'does' – *hizo/hezo; escribe* 'writes' – *escriso; conduce* 'leads' – *condujo; plaze* 'pleases' – *plogo; sabe* 'knows' – *sopo; pone* 'puts' – *puso; puede* 'can' – *podo; está* 'stands/is' – *estovo/estido; ha* 'has' – *ovo; remane* 'remains' – *remaso; nasce* 'is born' – *nasco; vive* 'lives' – *visco; yaze* 'lies' – *yogo; trae* 'brings' – *trajo; ciñe* 'girds' – *cinxo; conoce* 'knows' – *conuvo; dice* 'says' – *dijo*; *mete* 'puts' – *miso; es* 'is' – *fue;*

Italian *vede* 'sees' – *vide; prende* 'takes' – *prese; viene* 'comes' – *venne; mette* 'puts' – *mise; fa* 'does' – *fece; scrive* 'writes' – *scrisse; piove* 'rains' – *piovve; dice* 'says' – *disse; cinge* 'girds' – *cinse; morde* 'bites' – *morse; pone* 'puts' – *pose; fonde* 'melts' – *fuse; piace* 'pleases' – *piacque; ha* 'has' – *ebbe; sa* 'knows' – *seppe; vuole* 'wants' – *volle; nasce* 'is born' – *nacque; vive* 'lives' – *visse; cresce* 'grows' – *crebbe; cade* 'falls' – *cadde; trae* 'draws' – *trasse; rompe* 'breaks' – *ruppe; dà* 'gives' – *diede; sta* 'stands' – *stette, è* 'is' – *fu*

In Romance, not only does phonological incoherence persist and even increase, but the originally perfective forms become *functionally* incoherent too. The following schematically summarizes the functional changes of the originally perfective forms (a question mark indicates that the derivation is not universally accepted):

(3)

Latin (perfectives)	Romance (disparate functions)
present perfective indicative	past perfective indicative (preterite)
present perfective subjunctive	future subjunctive (Ibero-Romance) present conditional (Romanian dialects)
past perfective indicative	pluperfect indicative (Portuguese, O. Spanish) present conditional (many Italo- and Gallo-Romance varieties) imperfect subjunctive (Spanish)
past perfective subjunctive	imperfect subjunctive (most varieties) pluperfect indicative (Romanian)
future perfective	? future indicative (Dalmatian) ? conditional in Romanian dialects future subjunctive (Ibero-Romance)

Only the preterite retains a clear aspectual alignment (the other surviving forms generally becoming aspectually neutral). In fact, in no Romance variety does there survive any unique, common functional factor linking the (originally) perfective roots.[4]

Henceforth I label the originally perfective roots in Romance languages as 'PYTA roots', the acronym being suggested by the expression used in Spanish grammars to describe such roots and their paradigmatic distribution: *perfecto y tiempos afines* 'perfect and related tenses'.

3.3. 'Coherence' of PYTA roots

There is virtually no evidence of 'mixed systems' – either in modern Romance or at earlier historical stages – such that, for example, the PYTA root appears in some of the originally perfective cells of the paradigm, but disappears in the others.[5] This does not mean that originally perfective tense-forms are inseparably bound together in a relationship of mutual presupposition: most Romance varieties have lost the Latin future perfect and perfect subjunctive forms, and many northern Italian dialects have lost the old past perfect but not the old past perfect subjunctive. Moreover, even where the two or more originally perfective tense-forms survive, they may be *differentially* subject to certain analogical changes affecting the inflectional endings (cf. Bybee and Brewer 1980: 211f.; Ronjat 1937: 271; 284 for some Occitan examples). The point is, simply, that

wherever originally perfective subparadigms survive, the presence of the PYTA root in any one of them always implies the presence of that root in all the others.

Across the Romance languages, and throughout their history, it is a virtually[6] exceptionless generalization that any morphological change affecting a PYTA root in one cell of the paradigm affects all the other specified cells. For example, there has been widespread replacement of PYTA root by non-PYTA roots. In Ibero-Romance (Maiden 2001a) this always affects equally the preterite, imperfect subjunctives and future subjunctive. Similarly, in Occitan (Languedocien, Alibèrt 1976: 110) levelling of PYTA in favour of a non-PYTA root *never* differentiates between preterite and imperfect subjunctive: e.g., *cenhèri cenhèsse* (for older root *ceis-*) 'gird', *jonheri jonhèsse* (for older root *jois-*) 'join', *bevèri bevèsse* (for older root *bec-/beg-*) 'drink', *respondèri respondèsse* (for older root *respós-*) 'answer'. A feature of some Occitan varieties is that the present subjunctive root is extended to other parts of the paradigm. Speakers could have created a 'common subjunctive' root, by limiting the extension to the imperfect subjunctive, but this does not occur, as shown for example by Languedocien present subjunctive *aja* 'have', *veja* 'see', *sacha* 'know' > preterite *ajèri* impf. subjunctive *ajèsse*, *vejèri vejèsse*, *sachèri sachèsse*, etc., where the preterite is equally affected. In French (and Gallo-Romance generally) there has been notable recession of PYTA in favour of non-PYTA roots since the middle ages, but if the PYTA root is eliminated from one cell of the paradigm, then it is always eliminated from every cell in which it originally occurred: there are simply no 'mixed systems' (say,[7] preterite ***mors* 'I bit' vs. imperfect subjunctive *mordisse* or preterite ***mordis* vs. *morsisse*).

Analogical generalization of a high vowel [i] or [u], originally found (for reasons of regular sound change)[8] only in the 1sg. preterite of the PYTA root, is widespread in Romance. Since this vowel happened originally to be peculiar to the preterite of the relevant verbs, one might expect it to have remained a specific marker of just the preterite. But extension of the 1sg. preterite high vowels in Ibero-Romance (cf. Maiden 2000) *always* affects all PYTA roots in the paradigm of the relevant verb, in the subjunctive as much as the preterite. For example, Spanish and Portuguese reflexes of the Latin perfective root *fec-* originally retained the mid vowel [e] in all parts of the paradigm except the 1sg. preterite, where for reasons of regular sound change there was [i] (e.g., 1sg. preterite *hice* 'I did' vs. 3sg. *hezo*, imperfect subjunctive *heziese*, future subjunctive *heziere* etc., etc.). Subsequently, this vowel extends not only throughout the preterite, but equally, and indifferently, to all the specified tenses (e.g., modern *hice … hizo … hiciese … hiciere*), and the same is true of all verbs which originally had a high vowel restricted to 1sg. preterite. Similar developments are observable in the history of French (cf. Fouché 1967: 276; 336f.), affecting equally the imperfect subjunctive and the conditional derived from the old past perfective.

3.4. Formal convergence in PYTA roots

In various respects the Romance languages reduce the phonological heterogeneity of PYTA roots. The result is a characteristic phonological shape for these roots in general. The changes reviewed here affect the PYTA root exclusively, and are not part of wider convergence between the lexical verbs in question.

As the examples in 3.2 show, all five vowels of Castilian occurred in the PYTA roots in the medieval language. Today only the high vowels [i] and [u] occur; needless to say, this change is entirely 'coherent', and all PYTA forms are so affected. We can illustrate the change from the modern 3sg preterite and imperfect subjunctive forms:

(4) *quiso* 'wanted' – *quisiese; vino* 'came' – *viniese; dijo* 'said' – *dijese; tuvo* 'had' – *tuviese; hizo* 'did' – *hiciese; condujo* 'drove' – *condujese; supo* 'knew' – *supiese; puso* 'put' – *pusiese; pudo* 'could' – *pudiese; estuvo* 'was' – *estuviese; cupo* 'fitted' – *cupiese; hubo* 'had' – *hubiese;* [*trujo* 'brought' – *trujese*][9]

In part this is an effect of the extension of high vowels from the 1sg., preterite, described in 3.3. But even verbs such as *haber* 'have', *estar* 'stand', *tener* 'have', *saber* 'know', *caber* 'fit' whose preterites never contained a high vowel, are affected. In Maiden (2001a) I argue that the combined effect of certain verbs in which the vowel is etymological, plus those in which it was analogically extended from the 1sg. preterite, has been to induce a reanalysis of PYTA as characteristically containing a high vowel, to which all the remaining roots succumb.

In Old Castilian and Old Portuguese (cf. Fouché 1929: 71f.) root-final [ʃ] (or [ʒ]) substitutes expected [s] in all the PYTA forms of certain verbs. The palatal probably originates in a subset of verbs in which it was etymologically present (DIXI 'I said' > ˈdiʃe, etc.), and there is evidence from Portuguese that it originated *just in the 1sg. preterite.*

Malkiel (1960) argues that Old Castilian intervocalic [d] in PYTA forms of *ver* 'see' (*vido vidiese* etc.) is preserved from otherwise phonologically regular deletion because all other PYTA roots ended in a consonant. This implies that speakers postulated a root-final consonant as characteristic of PYTA, and resisted a change liable to violate that characteristic.

The earliest French texts attest to various convergences among PYTA roots. Several verbs acquire a counteretymological root-final *s* [z], apparently attributable to the model of verbs such as *mis* 'I put' *mesist*; *mesisse* … etc., where it is etymological. From Latin FECI 'I did', FECISTI, etc., one would regularly expect ***fiz* ***feisis*, ***feisisse* not the occurring *fis fesis*; *fesisse.* From DIXI, 'I said' etc.

one should expect an unstressed *deis*-, with voiceless [s] (Fouché 1967: 287), yet we have *dis*, *desis*; *desisse*, etc., with voiced [z]; likewise *escresis* 'I wrote' for expected ***escressis.*

In the late 12th century, many French PYTA roots assumed the PYTA root structure of *veoir* 'see' (cf. Fouché 1967: 277; Zink 1989: 195), which lacked a root-final consonant (e.g., 2sg. preterite *vëis*, imperfect subjunctive *veïsses*). So *mesis mesisses, fesis fesisses* etc. become *mëis mëisses, fëis fëisses*, and later *mis misses, fis fisses*, etc. Rather as Spanish showed signs of convergence on a (C)VC structure, French tended towards a (C)V structure, prompted by the fact that not only *veoir*, but also verbs like *avoir* 'have' (*oi, eus; eusse* etc.), *savoir* 'know' (*soi, seus; seusse* etc.) had such root structure.

Magni (2000) argues, in effect, that the frequent occurrence of unexpected root-final long consonants in Italo-Romance PYTA roots (e.g., *venni* 'I came', *mossi* 'I moved', *caddi* 'I fell') may be a type of convergence modelled on other PYTA roots where the lengthened consonant is phonological in origin (e.g., TENUI > *tenni* 'I held').

In every Romance language, PYTA roots are in a mutually implicational relationship with *unstressed inflections* in the formerly perfective verb-forms, such that where there is a PYTA root, there will always be at least one ex-perfective word-form with an unstressed inflection. In verbs lacking a PYTA root, the ex-perfective forms have no unstressed inflections. Typically, the unstressed inflection occurs in the 1sg. and 3sg preterite: Latin DĪXI 'I said' DIXÍSTI DÍXIT, FÉCI FECÍSTI FÉCIT, etc. > Sp. *díje dijíste díjo, híce hicíste hízo*; It. *díssi dicésti dísse, féci facésti féce*; (some Romance varieties reflect root-stress in the 3pl. pret. as well: DĪXERUNT, FĒCERUNT > It. *díssero, fécero*). Certain S. Italian and Romanian dialects retain Latin unstressed endings in the 1pl. preterite; an unstressed ending also occurs in medieval Italian (and Gallo-Romance) conditionals derived from the Latin pluperfect (cf. Rohlfs 1968: 346f.; Maiden 2000). Replacement of PYTA by a non-PYTA root implies replacement of the unstressed inflections by stressed inflections: there are no cases in which the PYTA root disappears but the unstressed inflection remains, such that Latin SCRÍPSI 'I wrote' SCRIPSÍSTI SCRÍPSIT > Spanish ***escríbe escribíste ***escríbo*, Italian ***scrivi scrivésti ***scrive* (rather than the actually occurring *escribí escribíste escribió, scríssi scrivésti scrísse*).

This impossibility of 'non-PYTA root + unstressed ending' may be a consequence of the so-called 'No Blur Principle' – as elaborated by Carstairs-McCarthy 1994; also Cameron-Faulkner and Carstairs-McCarthy 2000), disfavouring absolute synonymy among inflectional affixes. No Romance language seems to have non-optional and synonymous, verb inflections. A sequence non-PYTA root + unstressed suffix would fall foul of this principle, since it would mean that, unpredictably, some verbs have unstressed preterite endings, and others stressed endings, without any systematic difference, e.g., Italian ***scrívi scrivésti ***scríve scrivémmo scrivéste ***scrívero* but *ricevéi ricevésti ricevé*

ricevémmo ricevéste ricevérono with the complete set of stressed preterite endings. Carstairs-McCarthy argues that autonomously morphological entities may function as 'signata' of inflectional endings, and PYTA can be seen as a 'signatum' for the unstressed desinences. Italo-Romance has *hypercharacterized* the interdependency by making the unstressed desinence a unique defining characteristic of PYTA roots. If other Romance varieties tend to make PYTA converge paradigmatically, Italo-Romance also does so syntagmatically.

4. ROMANCE PALATALIZATION AND ITS MORPHOMIC CONSEQUENCES

4.1. Yod and palatalization

In its early history Romance underwent three phonological changes which yielded unprecedented patterns of allomorphy in verb roots:

i. Unstressed front vowels became yod before vowels. This environment was met, in Latin non-first conjugation verbs, wherever a 'thematic' front vowel E or I followed the root and preceded a vocalic inflection, namely in *1sg. present indicative, and throughout the present subjunctive* (a distribution I label[10] 'L-pattern'); in 3rd and 4th conjugation verbs, yod also appeared in the *3pl. indicative* ('U'-pattern). Most varieties subsequently replaced the U-pattern with the L-pattern, although most Italo-Romance dialects generalized the U-pattern in place of the L-pattern, and Romanian retains both.

ii. By the second century yod palatalized and/or affricated immediately preceding consonants (henceforth 'YE' = 'yod effect'). The subsequent history of the resulting consonants is complex (cf. Lausberg 1976: §§ 451–78). Suffice it to say that yod modifies preceding consonants (by palatalization, affrication, sometimes lengthening), and the result is major alternation of root-final consonants.

iii. By the fifth century, most Romance varieties underwent palatalization and/or affrication of velar consonants immediately preceding front vowels (henceforth 'PAV'). Phonological outcomes are again complex and locally divergent.

In most cases the distribution of front vowels happened to be in exact complementary paradigmatic distribution to that of yod. This means that YE and PAV produce phonologically disparate but paradigmatically identical L/U-pattern alternation. Consider the paradigmatic effects of YE, illustrated from Portuguese and Old Italian present indicatives and subjunctives:

(5) Portuguese (*nh* = [ɲ], *j* = [ʒ], *ç* = [s])

Indicative	*tens*	*tem*	*temos*	*tendes*	*têm*
tenho 'I have'					
Subjunctive					
tenha	*tenha*	*tenha*	*tenhamos*	*tenhais*	*tenham*

Likewise: *vejo* ves vê vemos vedes vêem; *veja vejas veja vejamos vejais vejam* 'see'; *meço* medes mede medimos medis medem*; meça meças meça meçamos meçais meçam* 'measure', etc.

Old Italian (*gli* = [ʎʎ], *gn* = [ɲɲ], *ggi* = [dʤ], *cci* = [tʧ])

vaglio 'I'm worth'	*vali*	*vale*	*valemo*	*valete*	*vagliono*
vaglia	*vaglia*	*vaglia*	*vagliamo*	*vagliate*	*vagliano*

Likewise *rimagno* rimani rimane rimanemo rimanete *rimagnono; rimagna rimagna rimagna rimagnamo rimagnate rimagnano* 'stay'; *veggio* vedi vede vedemo vedete *veggiono; veggia veggia veggia veggiamo veggiate veggiano* 'see'; *piaccio* piaci piace piacemo piacete *piacciono*; *piaccia piaccia piaccia piacciamo piacciate piacciano* 'please'; *muoio* muori muore morimo morite *muoiono; muoia muoia muoia moiamo moiate muoiano* 'die', etc.

Some examples of the paradigmatic effects of PAV are shown in (6):

(6) Portuguese

digo 'I say'	*dizes*	*diz*	*dizemos*	*dizeis*	*dizem*
diga	*digas*	*diga*	*digamos*	*digais*	*digam*

Likewise, from Spanish: *digo* dices dice decimos decís dicen; *diga digas diga digamos digáis digan* 'say'; *crezco* creces crece crecemos crecéis crecen; *crezca crezcas crezca crezcamos crezcáis crezcan* 'grow'; etc.

Modern Italian (before *i* and *e*, *c* = [ʧ], *g* = [ʤ], *gl* = [ʎʎ], *sc* = [ʃʃ])

dico 'I say'	*dici*	*dice*	*diciamo*	(*dite*)	*dicono*
dica	*dica*	*dica*	*diciamo*[11]	*diciate*	*dicano*

Likewise: *leggo* leggi legge leggiamo leggete *leggono*; *legga legga legga* [leggiamo leggiate] *leggano* 'read'; *cresco* cresci cresce cresciamo crescete *crescono*; *cresca cresca cresca* [cresciamo cresciate] *crescano* 'grow'; *colgo*

cogli coglie cogliamo cogliete *colgono*; *colga colga colga* [cogliamo cogliate] *colgano* 'pluck', etc.

From early date, none of these Romance alternations has been predictable on purely phonological grounds. In YE, the conditioning yod has largely disappeared. And throughout Romance non-palatalized velars can occur before front vowels, while the consonants created by PAV can occur (for independent reasons) before non-front vowels.[12] Although YE and PAV yield similar paradigmatic patterns, the phonological content of the resultant alternants is extremely heterogeneous (cf. Italian [g], [k], [j], [ʎʎ], [ɲɲ], [lg], [ŋg], [dʤ], [tʧ]). The paradigmatic distribution is also *functionally* heterogeneous.[13] 'Subjunctive' hardly forms a natural class with 'first person + singular' (in the L-pattern) or with '[+ first person, + singular] + [+ third person, + plural]' (in the U-pattern), and in any case the distinctive root does not characterize 'subjunctive', but only *present* subjunctive.

4.2. Analogical spread of the L/U-pattern

Despite its phonological and functional idiosyncrasy, the L/U-pattern shows remarkable diachronic resilience and robustness. It is strongly 'coherent' and there are very few examples of 'mixed systems', such that the alternants survive in some of the designated cells of the paradigm but not others (cf. Maiden 1992; 2001b). By and large L/U-alternations not only survive but play a major role in driving morphological change, often being analogically extended to verbs with previously *invariant* roots.

In early French (Fouché 1967: 93f.; 113) a partial resemblance between *poeir* 'be able' (1sg. ind. *puis* 1pl. ind. *poons*, subj. *puisse*) and *ro(v)er* 'ask' (e.g., 1pl. *roons*) yielded an unprecedented and nearly suppletive L-pattern alternation in *ro(v)er*, *trover* 'find' and *prover* 'prove', e.g. (7):

(7)

truis	*trueves*	*trueve*	*trovons*	*trovez*	*truevent*
truisse	*truisses*	*truisse*	*truissiens*	*truissiez*	*truissent*

In Portuguese nearly all non-first conjugation verbs having a mid vowel in the root show L-pattern alternation between on the one hand a high mid vowel (in 2nd conjugation) or a high, non-mid vowel (in 3rd conjugation) in the 1sg. present indicative and present subjunctive vs., on the other, a low mid vowel elsewhere, even where a high mid vowel would be etymologically expected, as in *b*[ɛ]*be* 'drinks' or *t*[ɔ]sse 'coughs' for expected ***b*[e]*be*, ***t*[o]*sse*). It is not wholly impossible that these forms have a phonological explanation (see further Maiden 1991), but there is undoubtedly analogical creation of L-pattern alternation in one verb with originally invariant root in [i] (*frigir* 'fry'), and in several originally with invariant [u] (8):

(8)

frijo	*fr*[ɛ]*ges*	*fr*[ɛ]*ge*	*frigimos*	*frigis*[14]	*fr*[ɛ]*gem*
frija	*frijas*	*frija*	*frijamos*	*frijais*	*frijam*

Likewise: *fujo* f[ɔ]ges f[ɔ]ge fugimos fugis f[ɔ]gem; *fuja fujas fuja fujamos fujais fujam* 'flee'.

4.3. The L/U-pattern as attractor/redistributor of allomorphy

The L/U pattern also provides a 'template' to which other verbal allomorphs, originally with a different distributions, come to conform. POSSE 'be able' was one of the few Latin verbs with root allomorphy (POSS- vs. POT-) correlated with person, number and tense. Thus the present (9):

(9)

ind.	POSSUM	POTES	POTEST	POSSUMUS	POTESTIS	POSSUNT
subj.	POSSIM	POSSIS	POSSIT	POSSIMUS	POSSITIS	POSSINT

Of Romance varieties that retain reflexes of these alternants, none directly preserves the original distribution. The allomorph is always redeployed replicating the locally prevalent L- or U- pattern; for example (10):

(10) Old Tuscan (and other central Italian varieties)

posso	*puoi*	*può*	*potemo*	*potete*	*possono*
possa	*possa*	*possa*	*possiamo*	*possiate*	*possano*

Portuguese

posso	*podes*	*pode*	*podemos*	*podeis*	*podem*
possa	*possas*	*possa*	*possamos*	*possais*	*possam*

In Old French *aler* 'go' (see below for general suppletive allomorphy in this verb) there emerged in some varieties a 1sg. present indicative *voi(s)*. Although this specific allomorph with *-i-* has no historical *raison d'être* in the present subjunctive (cf. Fouché 1967: 425–27), the present subjunctive was reformed as *voise voises*, etc., thereby creating L-pattern identity between 1sg. and present subjunctive.

Old Romanian forms of the verb *ucide* 'kill', with root-final [d], acquired novel 1sg. *ucig* (vs. 3pl. etc. *ucid*) and pres. subj. *ucigă (*vs. ind. *ucide*) (cf. Maiden 1996; Wilkinson 1981: 80f.; 1982: 115), in L-pattern distribution. The [g] – [d] alternation is unprecedented, and the [g] is probably an effect of a proportional analogy of the type

Pres. 1sg. *ating* 'I touch' 3sg. *atinge* etc. : preterite 1sg. *atinsei* 3sg. *atinse* etc.
Pres. 1sg.? : 3sg.? = preterite 1sg. *ucisei* : 3sg. *ucise* etc.

The remarkable point is that this analogy affects *only* the L-pattern 'cells' of the present, leaving etymological *d* in place elsewhere in the paradigm (in other words, the predicted 3sg. ***ucige* etc. fails to occur).[15]

Old Portuguese generally lost L-pattern allomorphy, so *paresco pareces …* ; *paresca* 'seem' and *jaço jazes …* 'lie'.; *jaça* > *pareço pareces …* ; *pareça* and *jazo jazes …* ; *jaza*. But L-shaped allomorphy was also sometimes reinforced: alongside *jaço jaça*, also *jasco jasca*, although this *-sc* vs. *-z* alternation (*jasco jazes* etc.) was unprecedented. There has apparently been convergence of the 1sg. pres. and subj. root-final consonant with that of verbs such as *parescer*, *nascer (paresco, nasco* etc.). The modern verb *perder* 'lose': *perco perdes* etc.; *perca* etc. coexisted with *perço perdes* etc.; *perça* etc. and *pergo perdes* etc.; *perga* etc. in the medieval language, but apparently underwent the influence of old verbs such as *conhosco conhoces* etc., 'know'; *fingo finges* etc.; *finga*, etc., 'feign', but only in the L-pattern forms.

Systematic creation of novel L/U-pattern allomorphy (cf. Menéndez Pidal 1941: 294; Maiden 1992), occurs both in Ibero- and Italo-Romance. What is involved, in each case, is 'convergence', such that an originally disparate set of consonantal alternants are replaced by a common velar form. From the earliest records of Spanish, expected *[ɲ] and *[ʎ] from *[nj] and *[lj] are replaced by [ŋg], [lg] (11):

(11) Old Spanish

valgo 'I'm worth'	*vales*	*vale*	*valemos*	*valéis*	*valen*
valga	*valgas*	*valga*	*valgamos*	*valgáis*	*valgan*

Likewise: *vengo* vienes viene venimos venís vienen; *venga vengas venga vengamos vengáis vengan* 'come'; *salgo* sales sale salimos salís salen; *salga salgas salga salgamos salgáis salgan* 'go out'; *fago* faces face facemos facéis facen; *faga fagas faga fagamos fagáis fagan* 'do'.

Originally *[gj] or *[dj] yielded [j], which was then deleted after a front vowel (e.g., *'vedjo > *veo*). From *'audjo, *'audes … :

(12)

oyo 'I hear'	*o(d)es*	*o(d)e*	*o(d)imos*	*o(d)ís*	*o(d)en*
oya	*oya*	*oyas*	*oyamos*	*oyáis*	*oyan*

The yod was analogically introduced into other verbs with root-final vowels, e.g.:

(13)

trayo 'I bring'	*traes*	*trae*	*traemos*	*traéis*	*traen*
traya	*trayas*	*traya*	*trayamos*	*trayáis*	*trayan*

A model for the innovatory [g]-alternant is verbs like *decir (digo, dices; digas)*, etc., where the velar occurs in 1sg. ind. and subj. pres. Menéndez Pidal (1941: 293f.) suggests that [ŋg] – [n] alternations originate in verbs like *plañer* 'cry' (14), where [ŋg] is etymological:

(14)

plango 'I weep'	*plañes*	*plañe*	*plañemos*	*plañedes*	*plañen*
planga	*planga*	*planga*	*plangamos*	*plangades*	*plangan*

There was early optional levelling in favour of the palatalized *-ñ-* alternant, so that *plango, planga* etc. coexisted with *plaño, plaña*, etc. Such equivalence of *ñ* with *ng* apparently favoured substitution of **veño -a* with *vengo -a*, giving rise to an entirely novel /ɲ/ – /n/ alternation. The velar apparently then spread to other sonorant-final roots, e.g., *duelgo – dueles … ; duelga* 'hurt' (and also in OSpanish *fiergo – fieres … ; fierga* 'strike'). In fact almost *all* Spanish L-pattern verbs, have ended up with root-final [g] in pres. 1sg. and subj. (see Penny 2002: 179). By the 16C, root-final [g] had been introduced into 1sg. pres. ind., and pres. subj. of most verbs with root-final yod. Thus, from earlier *oyo -a, trayo -a* (15):

(15)

oigo	*oyes*	*oye*	*oímos*	*oís*	*oyen*
oiga	*oigas*	*oiga*	*oigamos*	*oigáis*	*oigan*

There are parallels in Italy. The velar frequently replaces historically regular alternants (16), yielding new alternant pairs such as [ŋg] – [n], [lg] – [l] and [gg] – [d]:

(16) Old Tuscan

vegno 'I come'	*vieni*	*viene*	*venimo*	*venite*	*vegnono*
vegna	*vegni*	*vegna*	*vegnamo*	*vegnate*	*vegnano*

Likewise: *veggio* vedi vede vedemo vedete *veggiono; veggia veggi veggia veggiamo veggiate veggiano* 'see'; *vaglio* vali vale valemo valete *vagliono; vaglia vagli vaglia vagliamo vagliate vagliano* 'be worth'.

(17) (Early) modern Italian

vengo	*vieni*	*viene*	*veniamo*	*venite*	*vengono*
venga	*venga*	*venga*	*veniamo*	*veniate*	*vengano*

Likewise: *veggo* vedi vede vediamo vedete *veggono; vegga vegga vegga vediamo vediate veggano; valgo* vali vale valiamo valete *valgono; valga valga valga valiamo valiate valgano*, etc.

The [dʤ] – [d] pattern, and the [gg] – [d], both were sometimes extended into verbs with hitherto invariant root-final [d]: *chiuggio/chiuggo – chiudi …; chiugga …* ‘close’; *chieggio/chieggo - chiedi*, etc.; *chieggia/chiegga*, etc., ‘ask’.

According to Tekavčiç (1980: 273–79), substitution of [gg], [ŋg], [lg], for [dʤ], [ɲɲ], [ʎʎ], pivots on an earlier levelling, such that palatalized roots in -dʤ, -ɲɲ, -ʎʎ optionally extend into the 1sg. and present subjunctive (e.g., 1sg. *leggio* or *leggo* ‘I read’, *coglio* or *colgo* ‘I gather’, *pugno* or *pungo* ‘I prick’ – based on 3sg. *legge, coglie, pugne* etc.). The etymologically ‘correct’ forms with final velars ultimately prevailed, but the velar was then extended, ‘hypercorrectly’, to *vengo* for *vegno* ‘I come’, *salgo* for *saglio* ‘I go up’, etc.

5. ROMANCE STRESS-RELATED VOCALIC ALTERNATIONS AND ITS MORPHOMIC CONSEQUENCES

5.1. The vocalic effects of stress

Early Romance underwent differentiation of vowel quality correlated with stress. Since in Latin (for reasons internal to the prosodic system) stress fell on the root of the verb in 1st, 2nd, 3rd pers. singular, and the 3rd pers. plural of the present tense, and usually in no other part of the paradigm, vowel differentiation acquired the same paradigmatic distribution in the verb (hereafter, ‘N-pattern’ distribution). Vowel differentiation originally affected (low) mid vowels; but it has been a recurrent feature of some Romance varieties, affecting a wide range of vowels with a wide range of phonological outcomes. I illustrate this below with examples from modern Romance languages (18). The stress-placement rules soon lost their original phonological conditioning, as did most of the rules differentiating vowel quality.

(18) Romanian

Pres. indic.

mor ‘I die’	*mori*	*moare*	*murim*	*muriţi*	*mor*
vin ‘I come’	*vii*	*vine*	*venim*	*veniţi*	*vin*
plac ‘I please’	*placi*	*place*	*plăcem*	*plăceţi*	*plac*
mănânc ‘I eat’	*mănânci*	*mănâncă*	*mâncăm*	*mâncaţi*	*mănâncă*
usuc ‘I dry’	*usuci*	*usucă*	*uscăm*	*uscaţi*	*usucă*
iau ‘I take’	*iei*	*ia*	*luăm*	*luaţi*	*iau*

Imperf. indic. *muream, veneam, plăceam, mâncam, uscam, luam*

Italian
Pres. ind.

muoio 'I die'	*muori*	*muore*	*moriamo*	*morite*	*muoiono*
siedo 'I sit'	*siedi*	*siede*	*sediamo*	*sedete*	*siedono*
odo 'I hear'	*odi*	*ode*	*udiamo*	*udite*	*odono*
devo 'I must'	*devi*	*deve*	*dobbiamo*	*dovete*	*devono*

Impf. ind. *morivo, sedevo, udivo, dovevo*

Medieval French (cf. Fouché 1967: 8–61):
Pres. ind.

lef 'I wash'	*leves*	*leve*	*lavons*	*lavez*	*levent*
crief 'I burst'	*crieves*	*crieve*	*crevons*	*crevez*	*crievent*
truef 'I find'	*trueves*	*trueve*	*trovons*	*trovez*	*truevent*
peis 'I weigh'	*peises*	*peise*	*pesons*	*pesez*	*peisent*
mein 'I lead'	*meines*	*meine*	*menons*	*menez*	*meinent*
parol 'I speak'	*paroles*	*parole*	*parlons*	*parlez*	*parolent*
manju 'I eat'	*manjues*	*manjue*	*manjons*	*mangiez*	*manjuent*

Impf. *levoie, crevoie, pesoie, menoie, parloie, manjoie*

Portuguese
Pres. ind.

j[ɔ]*go* 'I play'	*j*[ɔ]*gas*	*j*[ɔ]*ga*	*j*[u]*gamos*	*j*[u]*gais*	*j*[ɔ]*gam*
ap[ɛ]*go* 'I stick'	*ap*[ɛ]*gas*	*ap*[ɛ]*ga*	*ap*[ɔ]*gamos*	*ap*[ɔ]*gais*	*ap*[ɛ]*gam*
f[a]*ło* 'I speak'	*f*[a]*łas*	*f*[a]*ła*	*f*[ɑ]*łamos*	*f*[ɑ]*łais*	*f*[a]*łam*

Impf. ind. *j*[u]*gava, ap*[ɔ]*gava, f*[ɑ]*ława*

5.2. Analogical changes that replicate the N-pattern

Romance languages have acquired a remarkable range of novel N-pattern alternations which are not the result of any sound change.[16] Here are just some:

Almost all Romance varieties suppletively conflate two, sometimes three, etymologically different lexemes for 'go', deriving from ire, uadere, ambulare (and also a form probably derived from *ambitare). Repeatedly, such conflation takes on an N-shaped distribution (Aski 1995 gives more detailed treatment). Commonly i: - roots survive outside the present, and in 1pl. and 2pl. present indicative:

(19) Old Tuscan

vado	*vai*	*va*	*gimo* Inf. *gire*	*gite*	*vanno*

This pattern remains widespread throughout central and southern Italy, and recurs in Iberia (although modern Spanish has extended *v-* throughout the present).

In northern Italy, Catalan, Gallo-Romance and western Romansch varieties, verbs derived from AMBULARE (>Fr. *aller*) or *AMBITARE (>It. *andare*) supplant earlier i- forms. In *both* substitutions, the N-distribution remains undisturbed:

(20)

French	*vais*	*vas*	*va*	*allons* Inf. *aller*	*allez*	*vont*
Catalan	*vaig*	*vas*	*va*	*anem* Inf. *anar*	*aneu*	*van*
Italian	*vado*	*vai*	*va*	*andiamo* Inf. *andare*	*andate*	*vanno*

Portuguese shows generalization of regular N-pattern vowel alternations into verbs historically containing high mid vowels, for which no stress-related alternation would be expected. Almost all Portuguese verbs display lowering of [e] and [o] in stressed syllables. From original *'bevo etc. 'drink', *'ploro etc. 'weep':

(21)

(b[e]bo)[17]	*b[ɛ]bes*	*b[ɛ]be*	*bebemos*	*bebeis*	*b[ɛ]bem*
ch[ɔ]ro	*ch[ɔ]ras*	*ch[ɔ]ra*	*choramos*	*chorais*	*ch[ɔ]ram*

Maiden (1991: 290f.) argues that a sporadic tendency, observable also outside the verb paradigm, for high mid vowels to be lowered finds systematic and regular expression in the verb. The result is a major extension of the N-pattern of alternation between open and close mid vowels, and the disruption of previously invariant verb-roots. Romanian, too, sometimes generalizes a regular N-pattern alternation (e.g., *port* 'I wear' vs. 1pl. *purtăm*), into normally invariant verbs where [u] was originally present throughout the paradigm (e.g., *măsor* 'I measure' *măsurăm*).

The N-pattern also impinges on the (consonantal) L/U-pattern root of the present subjunctive. In French *vouloir* 'want', *valoir* 'be worth', *aller* 'go', *tenir* 'hold' and *venir* 'come' there has been introduction of the N-pattern by eliminating the characteristic present subjunctive root from 1pl. and 2pl. (see Fouché 1967: 88; 173f.; 426f.; also Aski 1995: 421). Similar developments are widely observable in Rhaeto- and Italo-Romance.

Some Surselvan dialects of Romansch have integrated a preterite root (characterized throughout by root-final [t] – see Decurtins 1958: 197; 200f.) into the pres. subjunctive of dar 'give' and ʃtar 'stand', following the N-pattern. Thus the dialect of Sagogn:

(22) ʃtɛti ʃtɛties ʃtɛti 'ʃtæjan 'ʃtæjas ʃtɛtien

There has been a similar development in Sardinia at Escalaplano and in some localities on the Italian mainland (Schmid 1949: 33; 35).

Romansch varieties developed two alternants in the verb 'sit', se- (<*sɛd-) vs. sez-saz- (<*sɛdj-), the latter originating in the 1sg. pres. ind. and in the subjunctive (following the L-pattern). There has been analogical generalization of this alternant in the pres. indic., but in such a way that only 1pl. and 2pl. are affected. Thus Surselvan:

(23) Pres. ind.

'seza	ses	se	sa'zein	sa'zeis	sen

Pres. subj.

'sezi	'sezias	'sezi	sa'zejan	sa'zejas	'sezian

Catalan dialects have generalized a morph containing [g] into the subjunctive of verbs in which no [g] was originally present. Wheeler (1993: 197f.) notes that the [g] element does not always affect all persons of the verb: in some dialects it appears in 1sg., 2sg., 3sg. and 3pl., and in others it appears only in 1pl. and 2pl.: either way, the result is an N-pattern. Similarly, many Italo-Romance varieties have introduced root-final [g] into the subjunctive of certain verbs. But this [g] is frequently restricted to the N-pattern.

Castilian has a historically regular alternation in the verb *jugar* 'play' between [we] in stressed syllables (*juégo, juégas*, etc.) and [u] in unstressed (*jugámos, jugáis*). In some dialects there has been levelling (cf. Chacón Berruga 1981: 260) in favour of one or the other alternant. I hypothesize that two coexistent variants of this verb, one having generalized [we] and the other having generalized [u], must underlie their subsequent integration into a single paradigm in Leonese dialects of the Maragatería area (Alonso Garrote 1947: 89), in a way that actually *reverses* the expected distribution of the alternants,

despite the fact that Maragatería dialects have many other verbs in which [we] regularly appears in *stressed* syllables:

(24) *júgo júgas júga* *juegámos* *juegádes* *júgan*
Impf. ind. *juegába*, etc.

N-pattern distribution is also widely displayed by 'root-augments': these are 'empty' morphs appearing immediately after the root, and preceding the inflectional endings. The most widespread of these appears throughout Romance, and arises from protoforms *-isk- (or *-esk-) and characterizes fourth conjugation verbs (25). Some dialects with this augment (Lucanian (southern Italy), Corsican, northern Veneto, Ladinia, Istrian and Romanian), also display a second type, usually restricted to the first conjugation, and continuing protoforms of the type *-edj- (or *-edz-) (26):

(25) The *-isk-/*-esk- augment

Catalan	Gascon	Surselvan	Italian	Istrian	Romanian
aparéix	*orbéishi*	*finéschel*	*finísco*	fi'nisi	*iubesc*
'I appear'	'I open'	'I end'	'I end'	'I end'	'I love'
aparéixes	*orbéishes*	*finéschas*	*finísci*	fi'nisi	*iubeşti*
aparéix	*orbéish*	*finéscha*	*finísce*	fi'niso	*iubeşte*
aparím	*orbím*	*finín*	*finiámo*	fi'nimo	*iubim*
aparíu	*orbítz*	*finís*	*finíte*	fi'ni	*iubiţi*
aparéixen	*orbéishen*	*finéschan*	*finíscono*	fi'niso	*iubesc*
Imperfect indicative 1sg. (and other tenses)					
aparía	*orbívi*	*finével*	*finìvo*	fi'nivi	*iubeam*

(26) The *-edj-/*-edz- augment

Tursi (Lucania)	Istrian	Romanian
mattsəˈkiːj 'I chew'	mazeˈneji 'I grind'	*lucréz* 'I work'
mattsəˈkiːjəsə	mazeˈneji	*lucrézi*
mattsəˈkiːjətə	mazeˈneja	*lucreáză*
mattsəˈkæːmə	mazeˈnemo	*lucrăm*
mattsəˈkæːsə	mazeˈne	*lucráţi*
mattsəˈkiːjənə	mazeˈneja	*lucreáză*
Impf. ind.		
mattsəˈkæβə	mazeˈnavi	*lucrám*

There is an extensive literature[18] on the *-isk-/*-esk- augment. Briefly, some Latin verbs had a morph -sc-, following the thematic vowel, which generally

indicated 'ingressive' aspect. In most Romance varieties, the augment becomes characteristic of the 4th conjugation, although the form of the augment is either -esk- or -isk-, according to language, with an original second or fourth conjugation thematic vowel, as a consequence of certain structural mergers between the 2nd and 4th conjugation.

The augment has N-pattern distribution in Catalan, Gascon, Romansch, Italo-Romance and Balkan Romance, and is assumed[19] to have become semantically 'empty' at an early date. And at an early date its paradigmatic distribution must have become unintelligibly erratic. For reasons of semantic incompatibility, the ingressive augment was excluded from the perfective forms of the verb, and from the past participle. The virtual collapse of inflectional aspectual distinctions in Romance, and the increasing use of past participles in analytic constructions of the type 'auxiliary verb + past participle', must have meant that in early Romance the inherited paradigmatic distribution of the augment must have lost any obvious *raison d'être.* The N-pattern seems to have presented itself as a template for the integration of otherwise erratic allomorphy between augmented and unaugmented roots.

The *-edj-/*-edz- augment originates (cf. Lausberg 1976: § 801; Rohlfs 1968: 244f.) in the Greek verbal derivational affix -iz-, and entered Late Latin especially via Christian vocabulary (e.g., *baptizein* 'I baptize'). In most Romance varieties, reflexes of this element, especially prominent in forming denominal verbs and neologisms, occur throughout the paradigm. It is striking that wherever this augment has been redistributed according to the N-pattern, there has also been N-pattern remodelling of the *-isk-/-esk-* augment, so that it appears likely that the paradigmatic redistribution of the latter has served as the basis for the former.

The unique pair of alternants encountered in Tuscan *uscire* 'go out' follows the N-pattern. Maiden (1995) demonstrates that this alternation arises from suppletive conflation of Old Italian *escire* with the noun *uscio* 'doorway' (27):

(27) *ésco ésci ésce* *usciámo* *uscíte* *éscono*
Inf. *uscíre*

In Dalmatian (cf. Bartoli 1906: 203), the verb 'eat' has root manʧ- alternating with 1sg and 3sg. pres. maˈnaik- (2sg. and 3pl. are unattested. Their common etymon is *maniˈkare, but while manʧ- is almost certainly an Italo-Romance loan, maˈnaik- is an indigenous phonological development. So an 'etymological doublet' has merged into a suppletive paradigm, following the N-pattern.

Many northern Italian dialects show influence of the root-final [l] of *voˈlere 'want' on that of poˈtere 'be able': but this analogy usually does not operate on the 1pl. and 2pl. present, nor on other tenses. A typical example is Roncone (AIS point 340):

(28)

pos	*pœl*	*pœl*	*po'dom*	*po'de*	*pœl*
vœj	*vœl*	*vœl*	*vo'lom*	*vo'le*	*vœl*

The continuants of Latin STARE 'stand' and DARE 'give' have a (C)CV-shaped root. For example, old Tuscan:

(29)

do	*dai*	*dà*	*damo*	*date*	*danno*
sto	*stai*	*sta*	*stamo*	*state*	*stanno*

These verbs appear to have favoured analogical remodelling of certain other very frequent verbs. What is striking is that unlike 'stand' and 'give', the remodelled verbs acquire the CV structure only in the singular and third person plural of the present. The verb 'have' (<HABERE) loses the root-final labial across Romance in just those cases (30). In some places reflexes of SAPERE 'know' and FACERE 'do' are similarly affected (31).

(30)

Portuguese	*hei*	*has*	*ha*	*habemos* Inf. *haver*	*habeis*	*hão*
French	*ai*	*as*	*a*	*avons* Inf. *avoir*	*avez*	*ont*
Romanian	*am*	*ai*	*a(re)*	*avem* Inf. *avea*	*aveţi*	*au*

(31) Old Tuscan

so	*sai*	*sa*	*sapemo* Inf. *sapere*	*sapete*	*sanno*

Various dialects of Sicily (cf. Schmid 1949: 118f.) merge reflexes of *do'nare (>Sicilian ru'nari) with *'dare 'give' (>'rari) according to the N-pattern. Leone (1980: 36–39.; 91f.) documents an N-pattern integration of *af'flare (>[a]ʃ'ʃare) with *tro'vare (>tru'vari), both meaning 'find':

(32)

'ruŋŋu	'runi	'runa	'ramu Impf. ind. 'rava	'rati	'rununu
'trwovu	'trwovi	'trova	'ʃamu Impf. ind. 'ʃava	'ʃati	'trovunu

Schmid (1949: 120–24) finds evidence for a similarly suppletive distribution of the first two verbs in Old Occitan, and some varieties of Catalan.

5.3. The nature of the N-pattern

My belief is that the abstract paradigmatic pattern created by stress-related vowel differentiation, possibly abetted by development peculiar to the verb 'go', is the prime cause of the proliferation of N-pattern verbs. It is a matter of pure morphology, synchronically independent of phonological, semantic, or functional factors. But we need to eliminate first some other possible lines[21] of explanation.

Is the N-pattern motivated by 'markedness'?

'Present tense' is 'unmarked' with respect to other tenses, singular with respect to plural, and third person with respect to other persons, so the N-pattern 'diagrams' markedness relationships, given that singular, third person and present tense forms are 'unmarked' in relation to the rest of the paradigm.

Three parameters of markedness are involved, and the pattern is irreducibly arbitrary because of the way in which they intersect. If plural is 'marked' with respect to singular, why should the diagrammaticity of that relationship be disrupted by the fact that the 3rd person plural present usually shares a root with all three persons of the singular? If third person is marked in respect to other persons, why should 1st, 2nd and 3rd person share an alternant in the singular but not in the plural? If present is unmarked against other tenses, why should the diagrammaticity of that relationship be disrupted by the fact that 1pl and 2pl. present share a root with other tenses?[22] And why are other possible parameters of markedness, such as mood, not involved?

Might the N-pattern be 'phonologically' conditioned?

Of the three main phenomena illustrated in this study, the N-pattern is the only one for which a phonological motivation is potentially available. Indeed, Carstairs(-McCarthy) (1988; 1990) cites certain N-pattern phenomena in Italian in a list, drawn from various languages, of examples of 'phonologically conditioned suppletion' – where the conditioning of the alternation is statable in phonological terms, even though the alternants themselves are suppletive (and irreducibly 'unnatural' from a phonological perspective). Since the N-pattern is exactly coterminous with root stress (one alternant occurs where the root is stressed and the endings unstressed, the other where the root is unstressed and the endings stressed), why not claim that N-pattern alternation is *triggered* by stress? Carstairs(-McCarthy) suggests, in fact, that the conditioning factor in the case of the Italian augments, and the v- allomorphs in the verb 'go', is an unstressed inflectional ending.

How is one to choose between stress-based phonological conditioning of the N-pattern, and the purely 'morphomic' account specifying '[present

[singular + third person]]'? On the one hand (and regardless of how one analyses his Italian examples), Carstairs convincingly establishes the existence of phonologically conditioned suppletion in the world's languages, on the other hand Romance languages clearly do have morphomic patterning in the verb, as I have established elsewhere in this study. One might take the view that where a phonological and a morphological analysis are available, the phonological one should always be assumed, unless the morphological one can be specifically defended. But such an assumption seems to me questionable in a case such as the N-pattern, where most of the alternants are irremediably 'unnatural' as products of stress (or of any other natural phonological process), so that the stress-based account seems just as synchronically *arbitrary* as the morphomic one. Criteria of formal economy do not help much either: one has a choice between specifying tense, person and number features for paradigmatic cells, or stress values for inflectional endings, but the latter analysis would be slightly complicated by the fact that it is not quite true that 'unstressed inflections' trigger the allomorphy: in an Italian form such as fini'rɛbbero 'they would finish' (not **finiʃʃi'rɛbbero), the unstressed inflection immediately adjacent to the root does not trigger the augment. Rather, one needs to formulate the rule in such a way that the presence of a stressed inflection to the right of the root 'overrides' unstressed inflections – a trivial enough modification no doubt, but one that complicates yet further the 'phonological' analysis and makes comparison between that and the morphomic account even more difficult in terms of formal economy.

Yet formal economy could be invoked in another way. If it could be shown that the N-pattern is independently required – because there is at least one phenomenon which directly makes reference to it – then invocation of a second factor, such as stressless inflections, to account for the remaining N-pattern phenomena becomes superfluous (cf. also Pirrelli 2000: 12f.). In fact, stress, rather then triggering N-patterns alternations seems to be a phenomenon which is itself sensitive to the N-pattern. For it is overwhelmingly the case in Romance languages that the class of '[present [singular + third person]]' inflections is always unstressed. The alternative, obviating the N-pattern specification, would be to specify each phonologically distinct present tense singular and third person inflection (indicative and subjunctive) as being unstressed, thereby losing a major generalization – and making it seem quite accidental that this pattern has survived intact throughout the history of all Romance languages.

There is in fact a body of comparative evidence in support of the view that the N-pattern is independent of stress. Italian had a number of third conjugation verbs with N-pattern vocalic alternation originally caused by stress, except that the infinitive, being itself root-stressed in this conjugation, *also* showed the alternant (e.g., *cuòcere* 'bake', *chièdere* 'ask', *muòvere* 'move'). It is precisely in these verbs, which slightly deviate from the N-pattern, that speakers have tended to 'level' the alternation by introducing the diphthongal alternant

through all or most of the paradigm (thereby distributing the alternant quite independently of stress), whereas *solère* 'be wont', *volère* 'want', *sedère* 'sit', *tenère* 'hold', *morìre* 'die' which generally conform to the N-pattern (with some interference from the U-pattern), show no such levelling. So both the abolition of the allomorphy and the retention of the allomorphy seem to be sensitive not to stress but to morphologically-defined N-pattern distribution.

There is also evidence of the N-pattern being dissociated from stress, where stress shifts onto the root, but the vocalic N-pattern persists. It is a characteristic of some Occitan varieties that the (unstressed) root of the preterite and imperfect subjunctive is analogically extended into the (N-pattern root-stressed) present subjunctive; but the originally unstressed vocalic alternant now appears in the stressed root. Thus the verb 'want' in the Pays de Seyne (Quint 1998: 55):

(33)	pres. ind.	'vwɔlu	'vwɔs	vwɔ	vu'lẽ	vu'lɛs	vwɔn
	pres. subj.	'vuge	'vuges	'vuge	vu'gen	vu'ges	'vugen
	impf. subj.	vu'gɛse					

Occitan also occasionally shifts stress from the ending onto the root in infinitives, but the original 'unstressed' vowel alternant still persists in the newly stressed root: accordingly in the Basses Pyrénées we have:

(34)	pres. ind.	pœets	pots	pot	pu'ðem	pu'ðets	'poðen
		'I can'		inf. 'puðe			

Infinitive 'bule, 'want', arises in the same way. Ronjat (1937: 245) gives Occitan examples in which the introduction of rhizotonic stress in the imperfect had not led to loss of the 'unstressed' vocalism of the root: e.g., inf. *voulhí* 'want', 1sg. pres. *vóle*, 1sg. imperf. *vóulio*. Furthermore, in some Romance languages which fuse UADERE and IRE in the verb 'go', the N-pattern is not correlated with stress, because the root is stressed throughout the present tense. Thus Old Spanish:[23]

(35) *voy vas va imos ides van*

The fact that original N-pattern alternants can be redeployed to conform to the L/U -pattern also suggests that they have become dissociated from stress, but associated with arbitrary clusters of paradigm cells. A number of Romance varieties show 'hijacking' of N-pattern alternants, such that they are redistributed according to the purely morphomic L/U patterns. Thus in northern Spain (cf. Arnal Purroy 1998), we have for Laredo indic. 1sg. 'gwelo 'I smell', 2pl. o'lemos, but subj. 1sg. 'gwela 1pl. gwe'lamos), with the N-pattern alternant found in 1sg. pres. extended to all persons of the present subjunctive. At Sobrescobio (Arnal Purroy 1998: 355; 362), indicative 1pl. *dormín* 'we sleep' 2pl. *dormíz* but present subjunctive *duermán duermáz*, etc. What is, in effect,

the reverse distribution occurs in a number of western Ibero-Romance varieties where the first person singular pres. indicative, and the whole present subjunctive of the verb share an 'L-pattern' root in which, as a result of metaphonic raising caused by an original root-final yod. In some localities, this pattern impinges on the N-pattern, so that the diphthong appears only in 2sg., 3sg. and 3pl. indic. In some varieties of Tuscan (Rohlfs 1968: 243), and in various northern Italian varieties such as Piedmontese the augment appears in all persons of the present subjunctive, again independently of stress. In the verb 'go' in various Occitan varieties, the unstressed alternant an- appears throughout the pres. subjunctive (cf. Quint 1998: 61). An example of the reverse – (optional) redeployment of an L-pattern alternant into the N-pattern – appears in Galicia at Verín (Taboada 1979: 153). Such facts are not consistent with a view of the N-pattern as a different kind of phenomenon (a phonological one) from the indisputably morphomic L/U-pattern; rather they suggest that they are entities of the same kind.[24]

A type of evidence that would support the 'phonological' account over the morphological one would be provided by analogical extension of N-pattern alternants into other forms of the verb characterized by unstressed inflections outside the '[present [singular + third person]]' class (for example, some forms of the preterite (see above) and rhizotonic past participles of certain verbs). To the best of my knowledge, this never occurs, but in principle it provides a way of falsifying my 'morphological' position. There is however evidence of the opposite, with the N-pattern existing independently of stress. N-pattern forms often seem strikingly insouciant of associations with stress which they none the less have elsewhere in the grammar. Some Romance languages, such as Romanian, Occitan and Sicilian, have reduced atonic (clitic) forms of the verb 'have' when it is used as an auxiliary. However, this is not the form that appears in the unstressed root-forms of the *lexical* verb 'have'. In fact, it is the apparently 'stressed' alternant (characterized by lack of a final labial consonant) which appears in the auxiliary. Thus Romanian: *am/ai/áre/avém/ avéţi/au o carte* 'I/you, etc. have a book' vs. *am/ai/a/am/aţi/au citit o carte* 'I/you, etc., have read a book'. Similarly, in the paradigmatic integration of *esc-* and *usc-* in Italian, the inherently *stressed* root of the noun *uscio* assumes an *unstressed* distribution in the verb.

A problem with an account which invoked syntagmatic triggering of N-pattern alternants by unstressed inflections would arise when the inflections themselves are subject to N-pattern redistribution. This occurs in certain Romanian verbs such as *a sprijini* 'support', where '[present [singular + third person]]' belongs to the first conjugation (*sprijin sprijini* [imperative *sprijină*] *sprijină sprijină*), while all other parts of the verb have fourth conjugation inflections (e.g., 1pl. pres. *sprijinim* 2pl. pres. *sprijiniţi*; 1sg. imperfect *sprijineam*). One might still maintain that the relevant factor remains the distinction between stressed and unstressed affixes (although in this case the mechanism

would be paradigmatic and not syntagmatic), but the history of Romanian[25] verbs with the *esc-* augment suggests that even this version will not stand up. Recall that *-esc* is historically a third conjugation form and that in Latin, as to this day in Romanian, third conjugation verbs are root-stressed throughout the present: e.g., Latin CRÉDO 'I believe' CRÉDIS CRÉDIT CRÉDIMUS CRÉDITIS CRÉDUNT > Romanian *cred crézi créde crédem crédeţi cred*. This would lead us to expect that augmented verbs in Romanian should conjugate *iubésc* 'I love' *iubéşti iubéşte **iubéştem **iubéşteţi iubésc*. The fact that fourth conjugation endings actually intrude into 1pl. and 2pl. present (*iubím, iubíţi*), regardless of the fact that the historically regular inflections here should be *unstressed*, suggests that it is not stress, but the abstract morphomic pattern '[present [singular + third person]]', which modulates the conjugational fusion.

I conclude that there is no strong reason to analyse the N-pattern as conditioned by stress, and good evidence, both from economy of representation and from diachronic change, in favour of the morphomic analysis, with stress itself figuring as one of a number of factors which are sensitive to the morphomic pattern. Yet even if sound new evidence were found to tip the balance in favour of the 'phonological' account, it would be a mistake to regard a stress-triggered N-pattern as something fundamentally different from a purely morphomic account. The hallmark of morphomes is their *arbitrariness*, the impossibility of anchoring them in functional or phonological factors outside the inflectional paradigm. We have seen that the stress-based account is hardly less arbitrary than the morphomic one. They are in fact equally 'unnatural' from a phonological perspective, and equally embedded in idiosyncrasies of verbal morphology: the difference is that the morphomic version includes no phonological specification whereas the 'phonological' one happens to include just one, namely stress. I suggest that the growth and expansion of something as arbitrary as the N-pattern in Romance languages is equally remarkable, whether or not one includes a phonological feature in the specification of its distribution.

5.4. Is the N-pattern unique to Romance?

If the N-pattern recurred in non-Romance languages which have a similar system of person, number and tense distinctions in the verb, then my claim that the pattern is a morphologically abstract and idiosyncratic effect of an early Romance sound change would be undermined. So far as I have been able to ascertain, there is no parallel pattern in other Indo-European varieties (Albanian, Germanic, Slav, Greek, Indo-Aryan and, not least, Italic languages other than Romance). But the hypothesis could also be tested internally: if there were a Romance language in which stress-related vowel differentiation never happened, there should be no N-pattern verbs of any kind. Now in Logudorese dialects of Sardinian such differentiation was minimal, affecting

mid vowels only, and in a way which was distributionally allophonic (mid vowels were open in stressed syllables and closed in unstressed).[26] Precisely and uniquely in Logudorese there are *no* N-pattern verbs: the augments occur throughout the paradigm and even the verbs 'go' and 'have', common loci of allomorphy elsewhere, show no sign of N-patterning (cf. Wagner 1939: 156–60). It is striking, however, that in the Campidanese varieties of southern Sardinia, where stress-related mid vowel differentiation is not exclusively predictable on phonological grounds (because the unstressed forms undergo merger with independent high vowel phonemes /i/ and /u/), we *do* encounter N-pattern allomorphy in 'go' (e.g., Villacidro (*AIS* 973): 'bandu 'bandas 'bandaða an'daus an'dais 'bandanta.)[27]

6. INVARIANCE: A FOURTH PARADIGMATIC MORPHEME?

The three abstract paradigmatic structures discussed in sections 3 to 5 are idiosyncratically distinctive of Romance languages. Yet the Romance languages display other morphological changes which appear, at first sight, to be 'common or garden' analogical levellings of allomorphy, ostensibly extramorphologically motivated by iconic matching of form and lexical meaning. Each of the alternations discussed above, in fact, has occurred alongside changes tending to eliminate allomorphy and confer an invariant shape on verb roots. In all Romance languages the PYTA root has been subject to sporadic elimination in favour of a common, non-PYTA root (3.3). L/U-pattern morphomes have developed alongside levellings of original YE and PAV alternations. In some cases they seem to presuppose such levelling (4.4), so that for example modern Italian *tengo tieni tiene …* for earlier *tegno tieni tiene* is held to have emerged from the coexistence of verbs like *spengo* 'I extinguish' *spegni spegne …* with levelled variants like *spegno spegni spegne …* Many Italian dialects eliminate YE and PAV allomorphy, even at the same time as, in other verbs, they show 'convergence' of the alternants.[28] As for N-pattern allomorphy, all Romance languages – even those which also demonstrate convergence and attraction in N-pattern verbs – show sporadic cases of elimination of the original allomorphy in favour an invariant root (e.g., Italian *suona* 'it sounds' – *sonava* > *suona* – *suonava*; *miete* 'he reaps' – *meteva* > *miete* – *mieteva*). Castilian almost appears 'unable to make up its mind': there is both elimination of alternation and equally analogical extension of alternation into previously invariant roots (cf. Penny 2002: 183f.). The rather peculiar dialectal creation of N-pattern allomorphy in *jugar* in some Castilian dialects seems inexplicable without assuming prior levellings in favour of *both* alternants.

The conventional explanation of such levelling appeals to matching of form with extramorphological, lexical, meaning. But could we exclude an autonomously morphological, 'morphomic', alternative, namely that there is a 'fourth

morphome' which happens to specify *every* cell of the paradigm as its distribution? The implication would be profound, for it would open up the possibility that in general, across the world's languages, analogical levelling of allomorphy could have an autonomously morphological dimension, being a specification about the shape of paradigms, rather than a direct signalling of lexical meaning. Now such a 'morphomic' account of the Romance levellings is not obviously wrong, it is simply impossible to demonstrate, given the availability of the alternative, 'lexical', account. However, the Romance languages provide some evidence that perhaps analogical levelling of root allomorphy really could have an intramorphological motivation.

Maiden (1991) demonstrates that in French and northern and central Italo-Romance varieties all root vocalic allomorphy is systematically eliminated (either optionally or obligatorily), only in first conjugation verbs. The Italian examples of first conjugation *suona – suonava* and third conjugation *miete – mieteva* given above are not really representative, for while *some* non-first conjugation verbs show levelling, *all* first conjugation verbs have evicted allomorphy (although a few *optionally* retain it). Italian first conjugation levelling is also distinctive by virtue of being bi-directional (unstressed as well as stressed vocalic allomorphs may be generalized), and even shows signs of primitive resistance to stress-related vowel differentiation. In Galician a morphological analogy creating vocalic allomorphy in the root is blocked, just in the first conjugation. Ibero-Romance, Catalan, Occitan and Italo-Romance show resistance to an otherwise regular rule of palatalization before front vowels, which would cause allomorphy in root-final consonants, precisely before first conjugation inflectional endings containing front vowels, but nowhere else. I argued that one reason for this distinctive behaviour by first conjugation verbs was that it so happened that these verbs were originally inherited from Latin with very little root allomorphy, and did not undergo (for regular phonetic reasons) the effects of allomorphy produced by yod. In other words, root invariance was interpreted as an abstract characteristic of an abstract morphological entity, conjugational class.

My interpretation of the Romance first conjugation data suggests the possibility that even root-levelling – resulting in a one-to-one matching of form and lexical meaning – can have an intramorphological motivation as an abstract 'morphomic' characteristic of the verb paradigm. In this light, the possibility that root-levelling in general could be seen as a 'morphomic' phenomenon is, if not conclusively demonstrated, at least worthy of serious consideration.

7. THE SYNTAGMATIC DIMENSION

In sections 3–5 we saw evidence from three separate phenomena in the history of Romance verbs for paradigmatic autonomous morphological structure as

major driving forces in morphological change and therefore, *a fortiori*, as psychologically real. They are unquestionably idiosyncratic and unique features of Romance languages, but it is not the case that autonomous morphological structure is necessarily language specific, a fact which can be revealed by looking at a type of structure observable across probably all languages – 'agglutinative', syntagmatic, concatenations of morphemes. In simple terms, it emerges that among the signata of such formatives is the purely morphological fact of being a constituent morph. The basis of this claim is exactly the type of 'coherence' and 'convergence' which also revealed the importance of morphomic structure in inflectional paradigms.

The Romance verb 'augments' (illustrated, and discussed from a paradigmatic perspective, in 5.2) are elements intercalated in some verbs between the lexical root and inflectional ending. They are classic 'empty morphs', described as 'meaningless, functionless residues', 'semantically empty, functionless morphemes', 'singularly meaningless' by Rudes (1980). Indeed there are pairs, of effectively identical meaning, where the presence or absence of an augment comports no semantic difference, e.g., Romanian fourth conjugation 3sg. *pute* 'it stinks' (without augment) vs *duhneşte* (with augment) 'id.'.

These 'empty' elements are diachronically coherent in that they react as autonomous units to morphological and phonological phenomena. Romanian non-first conjugation 2sg. imperatives end in *-e*, or *-i*. Originally, it seems that *-e* was the 2nd and 3rd conjugation ending, while *-i* characterized the 4th. However, the tendency has been for *-e* to be used with transitive verbs, and *-i* with intransitives: e.g., *scoate* 'remove!', *simte* 'feel!' vs. *dormi* 'sleep!', *râzi* 'laugh!'. Some transitive verbs take *-e* only before an enclitic pronoun, and a few are lexically specified as taking *-i* (e.g., *vezi* 'see', *auzi* 'hear!', *ai* 'have!'). However, the augment *-esc-*, independently of the transitivity or intransitivity of the verb in which it appears, or of the presence or absence of clitics, always takes *-e*: e.g., *iubeşte* 'love!', *încălzeşte* 'heat!', *zâmbeşte* 'smile!', *munceşte* 'work!', *trăieşte* 'live!'). In short, rather like *vezi* or *auzi*, the augment is treated as a 'lexical' exception to the general rules, despite its semantic vacuity.

Sometimes the augment appears in a list of elements, otherwise comprising lexical items, exceptionally susceptible, or resistant, to sound change. In effect, the vacuous augment is treated as an autonomous entity on a par with independent lexical morphemes. In Ladin, Friulian, dialects of the Veneto and Istria, and in Vegliote, the augment *-edj- becomes *-e[j]-, contrary to the otherwise completely regular development of *-dj- to -[d]z-; e.g., *ˈmɛdju > Istrian mezo; Friulian mɛs; Vegliote *mis* 'half'; there are just two exceptions, reflexes of HODIE 'today' > *ˈɔje > (aŋk)uj etc., *and the augment itself*. In the Occitan of Vinzelles, where a lexically sporadic analogical change in verbs leads to counteretymological changes in the quality of mid front vowels (/e/ > /ɛ/), Dauzat (1900) lists a number of lexical verbs in which this change fails to occur, yet included in this otherwise *lexical* list is the augment (-eʒ-) for *all* verbs which have it.

Convergence manifests itself in various ways. We have seen that Romance inherited from Latin two forms of non-first conjugation augment, *-esk- (originally from the second conjugation) and *-isk- (originally from the fourth), yet virtually all Romance languages have eliminated such 'allomorphy' by universally generalizing one at the expense of the other, with Romanian, Ibero-Romance, Catalan and Occitan preferring *-esk-, and French and Italo-Romance *-isk-. Such levelling presupposes identification of the augments as manifestations of the 'same' element, an element independent of the lexical verbs in which it happens to occur, since in most Romance varieties there are no lexical exceptions to the change. There is also convergence between the etymologically distinct 1st and 4th conjugation augments. Whereas in most Rhaeto-Romance varieties the first conjugation augment -edj- is maintained, in Engadine and Surselvan Romansch dialects, it has been *systematically* substituted by the *fourth* conjugation augment -eʃ-.[29] Discrete and absolute 'levelling' of conjugation-specific augments recurs in the Vegliote variety of Dalmatian (see Maiden 2004). Finally, there are (this time lexically sporadic) cases in sixteenth century Romanian, and modern southern Romanian dialects, of -edj- substituting -esk- or vice versa.[30]

The diachronic behaviour of the augments indicates clearly that an 'empty morph' in the structure of verbal word-forms, recurrent across hundreds of lexical verbs, is clearly identified by speakers as independent of the lexical roots which precede it, and is attributed properties of 'formal integrity' (reduction of formal variation, compact behaviour in the face of morphological and phonological change) of a kind associated with conventionally 'meaningful' morphs. Yet the only 'meaning' binding all instances of the augment is an essentially intramorphological one, which one may bluntly paraphrase as 'the element that follows the lexical root and precedes the inflectional ending', and nothing more.

It is inherently difficult to demonstrate the existence of intramorphological signata when lexical signata are also present, for any diachronic 'convergence' or 'coherence' could simply reflect anchoring of form in the 'extramorphological' meaning. But one scenario that could demonstrate the presence of an intramorphological signatum would involve *homophony*. If a given morphological change operated exclusively on a particular formative, but operated on that formative 'coherently' in *all* of the disparate meanings associated with it, without differentiation, then we could legitimately argue that the change is operating on that formative *qua* morpheme, and not in function of its extramorphological meanings. The Romance reflexes of Latin HABERE 'have' may provide such an example. This verb is polysemous, but in particular undergoes a major functional split in that it also develops as an auxiliary verb. That this is a major split, certainly beyond the bounds of mere polysemous variation,[31] is reflected morphologically in some Romance languages, such as Romanian, Occitan or Sicilian, which have special reduced forms of the verb only when it is used as an auxiliary, but not in the lexical verb. Thus Romanian *are/avem/aveţi o carte*

'he/we/you has/have a book' vs. *a/am/aţi citit o carte* 'he/we/you has/have read a book'.

In many Italian dialects there has been a change specific to continuants of habere, such that an original locative clitic form has been incorporated into the root morpheme (e.g., Tuscan clitic *ci* + *ha* 'has' > *c'ha* [ʧa] 'he has', Venetian clitic [ge] + [a] 'has' > [ga] 'has'). The semantic link between possession and locativity is well known, and in general, the incorporation of the clitic is duly sensitive to the split between possessive 'have', which takes the clitic, and auxiliary 'have', which does not (cf. Camilli 1929: 230; Rohlfs 1968: 274; Pulgram 1978). What is most significant, however, is that there are dialects, notably in the Veneto region, where lexical and auxiliary verb are affected by this change *in the same way* (cf. Marcato and Ursini 1998: 326–29), so that we have for example Venetian *el ga un libro* 'he has a book' but also *el ga fato* 'he has done'. The fact that, in general, incorporation of the clitic differentiates the two functions confirms the importance of the distinction between those functions, but also supports the conclusion that, when the clitic appears in both forms of the verb we have an example of morphological 'coherence' at a more abstract level than that of lexical or grammatical meaning: in short the signatum must be the fact that the formative in question is a (verbal) morpheme.

A final possible source of evidence for autonomous morphology beyond inflectional paradigms is 'folk etymology'. We should note the implication of the frequent observation[32] that, typically, folk etymology confers on (usually unfamiliar) words a 'pseudo-transparency', with results that can even be semantically misleading. Take Romanian *chirpici* (Hristea 1958: 512) 'type of brick made of clay, straw and dung', a loanword of Turkish origin, and quite opaque in Romanian, but which in regional varieties acquires such 'nonsensical' folk-etymological manifestations as *cîrpici* (cf. *cîrpă* 'rag'), *cipici* (cf. *cipic* 'type of slipper'), *ciupici* (cf. *a ciupi* 'pinch'), *clipici* (cf. *a clipi* 'blink').[33] What is going on is not 'making sense' of the unfamiliar word in terms of referential meaning, but making it 'structurally intelligible' (cf. Bloomfield 1935: 450) in such a way that it receives an inner morphological structure made up of known morphemes, regardless of their meaning. This implies that existing morphemes can, in effect, be extirpated from their lexical meanings and redeployed simply as 'pieces of morphological structure', and provides intriguing circumstantial evidence for a pervasive, autonomously morphological facet, of morphemes generally.[34]

8. CONCLUSION

The primary aim of this study has been simply to show that autonomously morphological structure need not be an inert, defunct, residue of an earlier *état de langue*, nor a kind of diachronic 'dead end'.[35] It can be a dynamic, pervasive, self-reinforcing factor in morphological change. If morphology, and in particular

autonomous morphology, is a 'disease' of language, it must be an extremely benign one. Indeed, so innocuous is it that speakers can actually pass up golden opportunities to align allomorphs with morphosyntactic properties (cf. the generalization of the preterite 1sg. PYTA alternant, described in 3.3), in favour of the 'morphomic' distribution. I have also sought – albeit speculatively – to suggest that the autonomously morphological may permeate phenomena which, *prima facie*, seem to be motivated by universal principles of iconic alignment between form and meaning. I proposed that complete levelling out of allomorphy – a common cross-linguistic phenomenon – could just as easily be formulated in 'morphomic' as in extramorphological terms, and that there was some evidence from Romance to suggest that such a perspective could not be excluded a priori. I have further argued that an autonomously morphological signatum, namely the very fact of being a formative, may be present even in simple, linear, concatenations of formatives, and therefore potentially present not only in any language, but indeed even in formatives which might have a lexical meaning. But the least claim I want to make is that morphologists, and especially historical morphologists, should not regard the autonomously morphological as a stagnant backwater of linguistic structure.

NOTES

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[1] See also Booij (1997), Stump (2001) and, for Italo-Romance in particular, Pirrelli (2000). Of course interest in idiosyncratic local morphological systems has a distinguished precedent, within Natural Morphology, in Wurzel's notions (e.g., Wurzel 1987) of 'system-dependent naturalness' and 'system-defining structural properties'. In Maiden (1996) and (1997) I discuss some difficulties of Wurzel's approach when applied not only to various sorts of Romance data, but even to some of his own data from Germanic. In particular, Wurzel's concept of 'system-defining' seems crucially dependent on statistical predominance, but it is far from clear that the N-, L- and U-patterns are anything like 'predominant' in the system: the 'norm' is in fact overwhelmingly invariance. The growth of 'system-defining' abstract morphological patterns are arguably the endpoint, rather than the starting point, of the type of changes I consider in Romance.

[2] There is one clear exception in Latin, namely MORI 'die' (past participle MORTUUS, but future participle MORITURUS), but what is of interest here is the mode of argumentation, and the generalization Aronoff makes is of such power that it would be absurd to abandon it. It is in any case possible that the special status of MORTUUS as an adjective, meaning the opposite of UIUUS 'alive', a word by which it appears indeed to have been analogically influenced, may offer a partial explanation of this anomaly: the loss of 'i' in the past participle may then be a purely phonological reaction to the prosodic unnaturalness in Latin of a putative form *MÓRITUUS.

[3] For the notion that items that change together are psychologically linked in synchronic grammars, see also Kiparsky (1968).

[4] Tense is certainly not a candidate. It is true that only the preterite and imperfect subjunctive survive in many Romance varieties, such as Italian, but the latter is not inherently a past tense. Unlike the preterite, it can have present and future time-reference, in counterfactual and conditional constructions (cf. Maiden 2001a).

[5] See also footnote 6 for some prominent *apparent* counterexamples from Italian.

[6] A detailed review of apparent counterexamples to this claim would be extremely lengthy, and instead I refer readers to Maiden (2000; 2001a; in press (a)). A number of these involve what are in fact elaborate refinements of the principle of coherence, rather than exceptions. A case that may occur to some readers is Italian, where the PYTA root is lacking from the imperfect subjunctive, but not from the preterite. For a demonstration that what has actually occurred is a hypercharacterization of the PYTA root as being associated with unstressed inflections, which happen usually to be absent from the imperfect subjunctive, see Maiden (2000). More problematic, but possibly susceptible of a similar explanation, is Aromanian, where the expected PYTA root is present in the preterite, but not in the (originally perfective) conditional. I am, however, inclined to the view that Aromanian may constitute the only genuine systematic counterexample to the coherence of PYTA that I have discovered (see Maiden in preparation b).

[7] I follow here the useful convention, adopted by various Romanists, of employing ** to indicate a form whose existence is denied, and * to indicate a form assumed to have existed but unattested.

[8] These are roots containing mid vowels, subject to regular assimilatory raising before the original 1sg. preterite ending *-i*.

[9] *Traer* still has the root *traj-* in the standard language. But *truj-* is very widespread in dialects.

[10] These labels are (perhaps rather fancifully) suggested by the distribution of the relevant cells of the paradigm in conventional paradigmatic distributions. Cf. the examples in (5).

[11] For the status of the 1pl. and 2pl. roots in the subjunctive, see my discussion of 'N-pattern' alternations, below.

[12] For detailed rebuttals of Fanciullo's claim (1998) that 'U-pattern' distribution of root-final consonants in Italian can be derived by *phonological* rules, see Pirrelli (2000: 79f.; 178–84) and Maiden (2001a).

[13] This is recognized by Bybee and Pardo (1981: 958, also Bybee 1985: 71–74), but nothing is explained by their unsupported assumption that a relatively 'autonomous' 1sg. serves as a base from which the subjunctive is *derived*. Appeals to the relative 'autonomy' of the 1sg. and 'derivation' therefrom of the subjunctive root yield the observed distribution of allomorphy, but say nothing about *why* it exists.

[14] The presence of the high vowel in the 1pl. and 2pl. present indicative of these verbs has an independent phonetic explanation.

[15] There are other verbs in which *both* [g] and [ʤ] have been generalized (cf. Lombard 1955: 1016–19).

[16] Cf. also Matthews (1981); Dressler (1985: 335); Vincent (1988: 297f.).

[17] In non-first conjugation verbs, the N-pattern intersects with the vocalic alternants characteristic of the L-pattern discussed above: so [e] and [o] appear in the 1sg. and throughout the present subjunctive.

[18] E.g., Maurer (1951); Rohlfs (1968: 242–44); Lausberg (1956–62: § 921–23); Zamboni (1980/81; 1982/83); Iliescu (1990); Wolf (1998).

[19] Zamboni (1982/3) argues for a residue of semantic content. If there is such content, it seems to be wholly overridden by N-pattern distribution.

[20] The 1sg forms are unaffected, probably because in each of the respective verbs these forms have an L-pattern distribution.

[21] More detailed treatments of alternative accounts of the diffusion of the N-pattern will be found in Maiden (in press; in preparation (a)).

[22] Bybee and Brewer (1980: 224) find for Spanish that the frequency marking for persons of the present tense of the verb are, in order, 3sg., 1sg., 1pl., 3pl., 2sg., 2pl. In so far as frequency is correlated with markedness, this hierarchy is patently unlike the N-pattern, for 1pl. is considerably more frequent than 2pl. and the two categories are not adjacent.

[23] To say that this alternation pattern was motivated by stress would require us to analyse *imos* etc. as containing a zero-root + stressed inflectional ending (Ø + 'imos). This analysis is counterintuitive: there is no other case of a zero-allomorph of a lexical root in Ibero-Romance. However, if we accept that [i] is a stressed root, it might then be claimed that the extension of the root *va-* in the 1pl. and 2pl. of this verb in modern Spanish supports the view that *va-* was analysed as a stressed alternant. The problem with this claim is that [i] remains in the 2pl. imper. *id*, in the impf. *iba* etc. And Portuguese has extended *va-* into the the 1pl. pres., but not the 2pl. pres.

[24] Some very common Romance verbs show special allomorphy in the 2sg. imperative (e.g., Italian 2sg. ind. *hai* 'have', *sai* 'know', *sei* 'are', Romanian *duci* 'lead', *faci* 'do', *vii* 'come', *eşti* 'are' imperatives *abbi, sappi, sii*; *du, fă, vino, fii*). And virtually all Sicilian dialects which have an N-pattern distribution of reflexes of *do'nare and *'dare 'give' yet have an imperative da, rather than *'duna (cf. Schmid 1949: 118n3), a detail which again clearly shows the independence of the N-pattern from stress.

[25] And perhaps of early Romance in general, if the N-pattern distribution of the augment occurred at a time when third conjugation verbs were still rhizotonic throughout the present.

[26] The same aperture alternation can appear in stressed vowels as a function of the height of following unstressed vowels.

[27] The initial *b-* is thought to be an incorporated form of a clitic locative pronoun. Alternatively, it reflects 'blending' with a local derivative of *'vadere. Either way, the variants are incorporated according to the N-pattern!

[28] Alternation due to yod or palatalization of velars has been widely eliminated in many parts of Italy (cf. Azaretti 1982: 191; Maiden 2001b: 47n9). Similarly in Portuguese.

[29] See Haiman and Benincà (1992: 83).

[30] Cf. Ionică (1974: 244f.); Mărgărit and Neagoe (2000: 20).

[31] On the question of polysemy and homonymy in grammaticalized morphemes, see especially Hopper and Traugott (1993: 69–72).

[32] Saussure (1968: 238; 240; Bloomfield (1935: 450); Hockett (1958: 287); Hamp (1992: 427); Blank (1997: 306); Ronneberger-Sibold (2002: 106; 116)

[33] *-ici* is already a very common suffixal ending in Romanian.

[34] Packard (2000: 116; cf. also 130n25) mentions an interesting parallel in Chinese.

[35] For an example of a productive, but not extramorphologically motivated, pattern of allomorphy in a non-Romance volume, see the comments on the Cushitic language Dhaasanac, see the article by Matthew Baerman, in this volume.

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