

On Morphomic Defectiveness
Evidence from the Romance languages of the
Iberian Peninsula¹

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1. Major determinants of defectiveness

1.1 The classic example of defectiveness (determined neither by semantic nor phonological factors) in Spanish:

Table 1. Paradigm of defective *abolir* ‘abolish’

	Pres. Indic	Pres. Subj.	Future	Conditional
1sg.			aboliré	aboliría
2sg.			abolirás	abolirías
3sg.			abolirá	aboliría
1pl.	abolimos		aboliremos	aboliríamos
2pl.	abolís		aboliréis	aboliríais
3pl.			abolirán	abolirían
	Imp. Subj	Imp. Subj.	Preterite	Imp. Indic.
1sg.	aboliera	aboliese	abolí	abolía
2sg.	abolieras	aboliese	abolíste	abolías
3sg.	aboliera	aboliese	abolió	abolía
1pl.	aboliéramos	aboliésemos	abolimos	abolíamos
2pl.	aboliérais	aboliéseis	abolís	abolíais
3pl.	abolieran	aboliesen	abolieron	abolían
	Imperative	Infinitive	Gerund	Participle
	abolid	abolir	aboliendo	abolido

1.2 Albright (2003;2006)

- (2003:13) ‘The overall picture that emerges is that the gaps that are listed in grammars lie at just one extreme of a gradient range of uncertainty that speakers feel when deciding whether or not to apply morphophonological alternations. This uncertainty is strongest when two factors collide: first the word must be relatively infrequent or unfamiliar, so that the speaker is forced to synthesize a form. In addition, the lexicon must contain conflicting evidence about whether or not the alternation should apply.’
- (2006:2): ‘[G]aps occur when speakers know that an inflected form must stand in a certain relation to another inflected form, but the language does not provide enough data to be certain of what that relation should be.’
- (2006:19): ‘[A]rbitrary gaps occur in just those cases where there is too little data to be sure about any of the available generalizations. Concretely, there is no *o* -> *ó* rule that

¹ Derived from comparative work on our project in *Autonomous Morphology in Diachrony: comparative evidence from the Romance languages* based at Oxford University funded by AHRC research grant AH/D503396/1. <http://www.ling-phil.ox.ac.uk/romance-linguistics>.

would map *abolir* to 3sg *abóle* [...], while the *o* -> *ué* rule that would map *abolir* to *abuéle* is supported by really just two verbs (*dormir* ‘sleep’, *morir* ‘die’ [...]).’

•(2006:30f.): ‘[I]t is hypothesized that gaps occur only in those forms that are computed with reference to another base form in the paradigm, and only in cases where the mapping between the base and the derived form requires inference over small amounts of possibly conflicting data.’

1.3 But there is a further facet to defectiveness which is not so readily explicable in this way, and complements (rather than necessarily contradicts) Albright’s insights.

2. Our perspective on Ibero-Romance defectiveness

2.1 Our interests: how did defective verbs get defective, and why did they become defective in the way they did?

2.2 It is a characteristic of all defective verbs in Spanish and Portuguese that they are rare, low-frequency, verbs, and that they are (almost) all characterized by lack of allomorphy in the lexical root

2.3 Lack of allomorphy is manifested in two ways: (i) non-occurrence of expected allomorphy; (ii) leaving a gap (defectiveness)

2.4 The *predictability* of any possible allomorphy is secondary because even when the identity of the lexical root should be infallibly predictable, defectiveness, or a defiantly and unexpectedly regular root, may occur. Compare also Daland, Sims and Pierrehumbert (2007) for defectiveness without competition in Russian; Sims (to appear) on Greek.

2.5 Defectiveness can actually occur even when there is no possibility of allomorphy. The paradigmatic domain assigned to defectiveness is not necessarily directly related to unpredictable allomorphy, but analogical on an essentially ‘morphomic’ paradigmatic domain which is a typical locus of root allomorphy: *hic sunt leones!*

3. L-pattern and N-pattern

3.1 Sometimes defectiveness appears sensitive to the ‘L-pattern’ and/or the ‘N-pattern’. These are purely conventional labels given by Maiden (e.g., 2005) to two major types of autonomously morphological paradigmatic patterning found since the early Middle Ages in all Romance languages (L-pattern) or virtually all Romance languages (N-pattern).

3.2 The L-pattern is defined over the present subjunctive and the 1sg. present indicative (*pace* Albright 2003, it is misleading to call verbs with this pattern of defectiveness ‘anti-egotistic’: much more than 1sg is involved, and there is no evidence that 1sg is ‘basic’)

3.3 The N-pattern is defined over the singular and third person forms of the present indicative and present subjunctive.

3.4 In the typical case, a distinctive root allomorph occurs in all and only the L-pattern cells, or the L-pattern cells + the N-pattern cells.

3.5 Historically, L-pattern and N-pattern are the product of regular sound changes which caused unprecedented patterns of allomorphy in lexical roots. The phonological conditioning of these alternations has generally been extinct for well over a millennium.

•L-pattern: produced by two historically separate, and in their details quite distinct, sound changes, in early Romance which, in Ibero-Romance and most Romance languages, coincidentally produced exactly the same paradigmatic *pattern* of root allomorphy (but vastly different allomorphs). These principally involved palatalization of root-final consonants, but root vowels were also sometimes affected

•N-pattern: originally the product of the fact that Latin stress fell (for purely phonological reasons) on the lexical root in the singular and third person of the present indicative and present subjunctive, but generally fell on the endings in the rest of the paradigm. In early Romance, vowels undergo considerable differentiation according to whether they are unstressed or stressed, producing root allomorphy which is rapidly morphologized/lexicalized. The position of stress itself also becomes morphologized.

3.6 Across Romance languages these, originally phonologically caused, patterns provide recurrent ‘templates’ for the distribution of novel, occasionally bizarre, allomorphy (e.g., near or total suppletion, distribution of semantically empty postradical morphs)

Table 2. Some ‘regular’ examples of L-pattern allomorphy in Spanish and Portuguese

Spanish

<i>quepo</i>	<i>cabes</i>	<i>cabe</i>	<i>cabemos</i>	<i>cabéis</i>	<i>caben</i>
<i>quepa</i>	<i>quepas</i>	<i>quepa</i>	<i>quepamos</i>	<i>quepáis</i>	<i>quepan</i>

<i>digo</i>	<i>dices</i>	<i>dice</i>	<i>decimos</i>	<i>decís</i>	<i>dicen</i>
<i>crezco</i>	<i>creces</i>	<i>crece</i>	<i>crecemos</i>	<i>crecéis</i>	<i>crecen</i>
<i>digo</i>	<i>digas</i>	<i>diga</i>	<i>digamos</i>	<i>digáis</i>	<i>digan</i>
<i>crezca</i>	<i>crezcas</i>	<i>crezca</i>	<i>crezcamos</i>	<i>crezcáis</i>	<i>crezcan</i>

Portuguese

<i>tenho</i>	<i>tens</i>	<i>tem</i>	<i>temos</i>	<i>tendes</i>	<i>têm</i>
<i>firo</i>	<i>feres</i>	<i>fer</i>	<i>ferimos</i>	<i>feris</i>	<i>ferem</i>
<i>faço</i>	<i>fazes</i>	<i>faz</i>	<i>fazemos</i>	<i>fazeis</i>	<i>fazem</i>
<i>meço</i>	<i>medes</i>	<i>mede</i>	<i>medimos</i>	<i>medis</i>	<i>medem</i>
<i>caibo</i>	<i>cabes</i>	<i>cabe</i>	<i>cabemos</i>	<i>cabeis</i>	<i>cabem</i>
<i>tenha</i>	<i>tenhas</i>	<i>tenha</i>	<i>tenhamos</i>	<i>tenhais</i>	<i>tenham</i>
<i>fira</i>	<i>firas</i>	<i>fira</i>	<i>firamos</i>	<i>firais</i>	<i>firam</i>
<i>faça</i>	<i>faças</i>	<i>faça</i>	<i> façamos</i>	<i>façais</i>	<i>façam</i>
<i>meça</i>	<i>meças</i>	<i>meça</i>	<i>meçamos</i>	<i>meçais</i>	<i>meçam</i>
<i>caiba</i>	<i>caibas</i>	<i>caiba</i>	<i>caibamos</i>	<i>caibais</i>	<i>caibam</i>

<i>digo</i>	<i>dizes</i>	<i>diz</i>	<i>dizemos</i>	<i>dizeis</i>	<i>dizem</i>
<i>diga</i>	<i>digas</i>	<i>diga</i>	<i>digamos</i>	<i>digais</i>	<i>digam</i>

Table 3 Some ‘regular’ examples of N-pattern allomorphy in Spanish and Portuguese (caused by sound change)

Spanish

<i>muerdo</i>	<i>muerdes</i>	<i>muerde</i>	<i>mordemos</i>	<i>mordéis</i>	<i>muerden</i>
<i>pierdo</i>	<i>pierdes</i>	<i>pierde</i>	<i>perdemos</i>	<i>perdéis</i>	<i>pierden</i>
Impf. ind. <i>mordía, perdía</i>					

Portuguese

<i>j[O]go</i>	<i>j[O]gas</i>	<i>j[O]ga</i>	<i>j[u]gamos</i>	<i>j[u]gais</i>	<i>j[O]gam</i>
<i>ap[E]go</i>	<i>ap[E]gas</i>	<i>ap[E]ga</i>	<i>ap[']gamos</i>	<i>ap[']gais</i>	<i>ap[E]gam</i>
Impf. ind. <i>j[u]gava, ap[']gava, f[â]lava</i>					

3.6 The L-pattern in particular (but to some extent also the N-pattern) has provided a template for innovatory allomorphy in Ibero-Romance. For example, the alternations in Table 4 are wholly inexplicable in terms of sound change, and involve completely novel alternant pairs, or redistribution of old alternants according to new patterns. See Maiden (1992; 2005; forthcoming) for more detailed treatment:

Table 4

Portuguese (some overlap of patterns)

<i>frijo</i>	<i>fr[E]ges</i>	<i>fr[E]ge</i>	<i>[frigimos</i>	<i>frigis]</i>	<i>fr[E]gem</i>
<i>frija</i>	<i>frijas</i>	<i>frija</i>	<i>frijamos</i>	<i>frijais</i>	<i>frijam</i>

<i>fujo</i>	<i>f[O]ges</i>	<i>f[O]ge</i>	<i>[fugimos</i>	<i>fugis]</i>	<i>f[O]gem</i>
<i>fuja</i>	<i>fujas</i>	<i>fuja</i>	<i>fujamos</i>	<i>fujais</i>	<i>fujam</i>

<i>posso</i>	<i>podes</i>	<i>pode</i>	<i>podemos</i>	<i>podeis</i>	<i>podem</i>
<i>possa</i>	<i>possas</i>	<i>possa</i>	<i>possamos</i>	<i>possais</i>	<i>possam</i>

<i>perco</i>	<i>perdes</i>	<i>perde</i>	<i>perdemos</i>	<i>perdeis</i>	<i>perdem</i>
<i>perca</i>	<i>percas</i>	<i>perca</i>	<i>percamos</i>	<i>percais</i>	<i>percam</i>

Spanish

<i>vengo</i>	<i>vienes</i>	<i>viene</i>	<i>venimos</i>	<i>veníis</i>	<i>vienen</i>
<i>venga</i>	<i>vengas</i>	<i>venga</i>	<i>vengamos</i>	<i>vengáais</i>	<i>vengan</i>

<i>hago</i>	<i>haces</i>	<i>hace</i>	<i>hacemos</i>	<i>hacéis</i>	<i>hacen</i>
<i>haga</i>	<i>hagas</i>	<i>haga</i>	<i>hagamos</i>	<i>hagáais</i>	<i>hagan</i>

Spanish dialectal total elimination of alternation in L-pattern

Chicano (New Mexico)

<i>siénto</i>	<i>siéntes</i>	<i>siénte</i>	<i>sintémos</i>	<i>[siénten]</i>	<i>siénten</i>
<i>siénta</i>	<i>siéntas</i>	<i>siénta</i>	<i>siéntanos</i>	<i>[siéntan]</i>	<i>siéntan</i>

Somiedo (Asturias)

<i>puédo</i>	<i>puédes</i>	<i>puéde</i>	<i>puédemus</i>	<i>puédéis</i>	<i>puéden</i>
<i>puéda</i>	<i>puédas</i>	<i>puéda</i>	<i>puédamus</i>	<i>puédais</i>	<i>puédan</i>

4. Are our data real?

A large part of our work to date has been based on prescriptive grammars. *Some* of the examples cited seem so remote from everyday linguistic usage as to look like grammarians' pipe-dreams, and in *some* cases, this is just what they are. We shall argue later that this is far from diminishing the theoretical significance of the data, and that there are corpus-based data supporting the notion of psychological reality in many cases.

5. Defectiveness in Spanish

5.1 Leaving aside cases where defectiveness is or may be semantically motivated, the verbs given by descriptive and normative grammars of Spanish (see bibliography) as being defective have in common that they display no allomorphy. Their lexical root, in so far as it occurs, is always the same. Thus Spanish *abolir* :

Table 5

abolir				
	Pres. Indic	Pres. Subj.	Preterite	Imp. Subj
1sg.			abolí	aboliera
2sg.			aboliste	abolieras
3sg.			abolió	aboliera
1pl.	abolimos		abolimos	aboliéramos
2pl.	abolís		abolís	aboliérais
3pl.			abolieron	abolieran

5.2 Unpredictability and speaker uncertainty (*abuelo/abolo?*; *abuela/abola?*) undoubtedly play a role in determining defectiveness in the present.

5.3 But note the preterite 3rd person and the imperfect subjunctive. These are outright *violations* of an otherwise exceptionless generalization about Spanish verbs in *-ir*, namely that all² such verbs, if they contain a back vowel in the root, will display /u/ in the 3rd person preterite and imperfect subjunctives. In general, if an *-ir* verb has a back vowel in the root, that vowel will be /u/ throughout the paradigm (e.g., *cubrir*, *conducir*, *aludir*). But even the verbs *morir* and *dormir* (rare types but frequent tokens), duly display /u/ in the relevant parts of the preterite and in the imperfect subjunctives.

Table 6

dormir				
	Pres. Indic	Pres. Subj.	Preterite	Imp. Subj
1sg.	duermo	duerma	dormí	durmiera
2sg.	duermes	duermas	dormiste	durmieras
3sg.	duerme	duerma	durmió	durmiera
1pl.	dormimos	durmamos	dormimos	durmiéramos
2pl.	dormís	durmáis	dormisteis	durmiérais
3pl.	duermen	duerman	durmieron	durmieran

² Except *oír* 'hear', which is additionally exceptional in a number of respects, including displaying a diphthongal root /oi8/ in the relevant parts fo the paradigm.,

5.4 We appear to be dealing with complementary strategies for avoiding allomorphy. One is to ride roughshod over a systematically predictable pattern of allomorphy; the other, where invariance is possible but not absolutely predictable, is defectiveness.

5.5 Notice a second general characteristic of *-ir* verbs containing back vowels: their 1/2pl. present subjunctive always contains /u/ (and their root is always identical to that of the 3rd person preterite and imperfect subjunctives). If the preterite, etc., is *abolió*, there should be no obstacle to ***abolamos*, ***aboláis* in 1/2pl. subjunctive. That these cells remain defective is, we suggest, a product of sensitivity to the L-pattern in the distribution of defectiveness. Characteristically in Ibero-Romance the whole of the present subjunctive, together with the first person singular present indicative, shares the same root; this is always true in respect of consonantal content, the only exceptions concerning certain types of vocalic alternation (see above) and the position of stress, and even these differences tend to be eliminated (see Table 4 above).

5.6 The position described for defective *-ir* verbs containing /o/ in the root is broadly true also for such verbs containing /e/ in the root. These show unexpected /e/ in the preterite 3rd person and in the imperfect subjunctives, and are defective in the whole of the present subjunctive and in the singular and third person forms of the present indicative. Yet *-ir* verbs containing front vowels in the root overwhelmingly show /i/ in the 3rd person preterite, imperfect subjunctives, and 1/2pl. present subjunctive:

Table 7

agredir				
	Pres. Indic	Pres. Subj.	Preterite	Imp. Subj
1sg.			agredí	agrediera
2sg.			agrediste	agredieras
3sg.			agredió	agrediera
1pl.	agredimos		agredimos	agrediéramos
2pl.	agredís		agredisteis	agrediérais
3pl.			agredieron	agredieran
sentir				
	Pres. Indic	Pres. Subj.	Preterite	Imp. Subj
1sg.	siento	sienta	sentí	sintiera
2sg.	sientas	sientas	sentiste	sintieras
3sg.	sienta	sienta	sintió	sintiera
1pl.	sentimos	sintamos	sentimos	sintiéramos
2pl.	sentís	sintáis	sentisteis	sintiérais
3pl.	sienten	sientan	sintieron	sintieran

To the extent that there are exceptions (*cernir/concernir/discernir* with full paradigms and N-pattern diphthongization, but /e/ in preterite, and imperfect subjunctives; and *divergir/convergir/sumergir* with invariant /e/ throughout) it is to be noted that they, like *abolir* and *agredir*, are all recent, and rare, neologisms.

5.7 A number of the verbs traditionally described as defective in Spanish actually present no possibility of allomorphy. Such are *garantir* ‘guarantee’ (more commonly expressed by regular *garantizar*), *blandir* ‘brandish’, *desmarrirse* ‘become abject, listless’. There is nothing in Spanish morphology to suggest that *blandir*, etc., could have any root other than *bland-* throughout its paradigm, yet grammars³ give:

Table 8

pres.ind.	pres.subj.	imp.ind.	fut.	preterite.	imp.subj.
		<i>blandía</i>	<i>blandiré</i>	<i>blandí</i>	<i>blandiese</i>
		<i>blandías</i>	<i>blandirás</i>	<i>blandiste</i>	<i>blandieses</i>
		<i>blandía</i>	<i>blandirá</i>	<i>blandió</i>	<i>blandiese</i>
<i>blandimos</i>		<i>blandíamos</i>	<i>blandiremos</i>	<i>blandimos</i>	<i>blandiésemos</i>
<i>blandís</i>		<i>blandíais</i>	<i>blandiréis</i>	<i>blandisteis</i>	<i>blandieseis</i>
		<i>blandían</i>	<i>blandirán</i>	<i>blandieron</i>	<i>blandiesen</i>

5.8 The paradigmatic gaps in *blandir*, etc., are not a response to unpredictable patterns of allomorphy, or to any kind of potential allomorphy for such verbs. Rather, they are gaps apparently dictated by the fact that these are parts of the paradigm (corresponding to the L-pattern + the N-pattern) which are *characteristically* a domain of allomorphy.

5.9 We suggest that in fact such morphomic patterns provide templates for the *systematization of rarity*: such verbs are rare and marginal in the lexicon. Grammarians (and speakers?) tend to ‘tidy up’ the facts according to abstract, but recurrent, paradigmatic patterns associated with allomorphy.

6. Defectiveness in Portuguese

6.1 Virtually all (alleged) defectiveness in Portuguese involves either (a) cases where an allomorph is infallibly predictable or (b) cases where no allomorphy is even possible.

6.2 All defectiveness follows the L-pattern, and much of it also follows the N-pattern. All grammarians describing defectiveness concur that 1sg. pres.ind. and the pres. subjunctive (i.e., the L-pattern) is involved; they tend to differ as to whether 2sg. and 3sg. pres. ind. is also involved (i.e., in our terms as to whether the distribution of defectiveness is an amalgam of the L-pattern and the N-pattern)

6.3 The following verbs are claimed by many Portuguese grammarians to be defective: *abolir* ‘abolish’, *agir* ‘act’, *banir* ‘banish’, *brandir* ‘brandish’, *brunir* ‘polish’, *carpir* ‘carp’, *coagir* ‘coerce’, *colorir* ‘colour’, *combalir* ‘weaken’, *delir* ‘erase’, *demolir* ‘demolish’, *embair* ‘impose upon’, *emergir* ‘emerge’, *escapular* ‘slip from’, *exaurir* ‘drain’, *falir* ‘go bankrupt’, *fremir* ‘tremble’, ‘roar’, *fulgir* ‘shine’, *imersir* ‘immerse’, *latir* ‘bark’, *munir* ‘provide’, *polir* ‘polish’, *punir* ‘punish’, *reagir* ‘react’, *renhir* ‘scold’, *ungir* ‘anoint’, also *precaver*⁴ ‘guard against’.

³ Some use of 3rd pers. pres. ind. *blande*, *blanden* is observed by more modern grammars.

⁴ This verb is claimed to be defective only in 1sg. pres. and pres, subj.

6.4 However, grammarians disagree among themselves as to which verbs are defective, and what the pattern of defectiveness is:

Table 9

Bar chart of number of alleged defective verbs in Portuguese according to different grammars (X-axis)

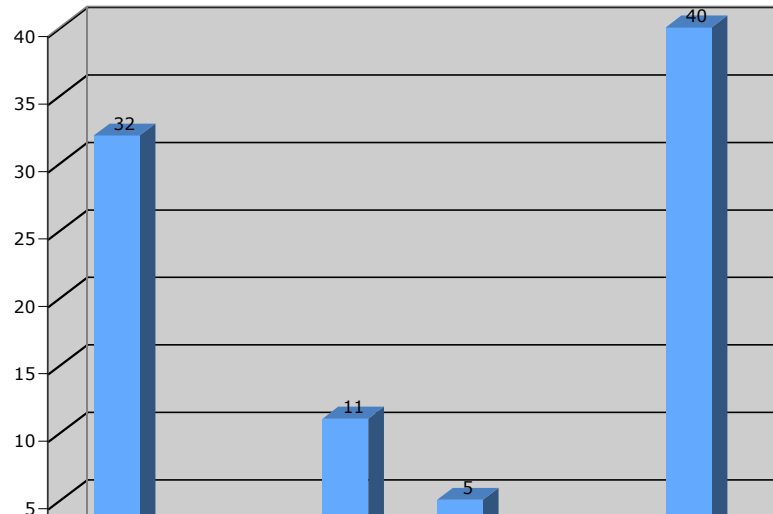


Table 10

	Cunha & Cintra (1984)	Perini (2002)	Dunn (1928)	Vázquez & Múndes (1971)	
abolir					1sg.
demolir	aboles	aboles			2sg.
colorir	abole	abole			3sg.
	abolimos	abolimos	abolimos	abolimos	1pl.
	abolis	abolis	abolis	abolis	2pl.
	abolem	abolem			3pl.
emergir					1sg.
	emerges	emerges		emerges	2sg.
	emerge	emerge		emerge	3sg.
	emergimos	emergimos	emergimos	emergimos	1pl.
	emergis	emergis	emergis	emergis	2pl.
	emergem	emergem		emergem	3pl.

6.5

But Sá Nogueira (1945) insists that most of these are *not* defective, precisely because the ‘missing’ forms are in fact systematically predictable. The justification for Sá Nogueira’s confident defiance of his fellow grammarians is that he realizes that the allegedly missing forms are infallibly predictable, at least where 1sg. present and pres. subjunctive, and verbs in /a/, are concerned:

- all Portuguese *-ir* verbs whose root does not contain *a*, show a high vowel /u/ or /i/ at least in 1sg. pres. and throughout the pres.subjunctive. The sole exceptions are *medir* ‘measure’ and *pedir* ‘ask’, which have the root allomorphs *meç-* and *peç-* in these forms
- all *-ir* verbs with *a* in the root have a morphologically invariant root in the present.

6.6 The only area of unpredictability in these verbs concerns the 2sg. and 3rd pres.ind. forms of verbs with root *o* and *e*: orthographic *o* is generally pronounced /u/, and verbs with root /u/ sometimes and unpredictably show /O/ in those parts of the paradigm (cf. *subir* ‘go up’, 3sg. pres.ind. *sobe*; *dormir* ‘sleep’, 3sg. pres. ind. *dorme*; *instruir* ‘instruct’, 3sg. pres.ind. *instrui*). Some verbs with *e* in the infinitive show *i* in the singular and third person forms of the present indicative (e.g., *agredir*; *agrido agrides agride agredimos agredis agridem*)

7. What kind of reality do our data reflect? Is this distribution of defectiveness only an invention of grammarians, or is it a psychological reality for speakers?

7.1 There is evidence (e.g., Albright 2003) that the paradigmatic domain of defectiveness is often ‘fuzzier’ in actual usage than grammars suggest. Normative grammarians and lexicographers tend to idealize and ‘tidy up’ linguistic reality. That there is something artificial in their prescriptions is shown by the fact that they frequently disagree with each other. But grammarians are normally native speakers. If their prescriptions are sometimes driven by ‘tidiness’ rather than descriptive realism, the patterns they attempt to impose on linguistic reality are no less psychologically revealing for being artificial. It is striking that autonomously morphological abstract patterns are repeatedly *preferred* over potential ‘clean’ alignments with properties such as ‘present tense’ or ‘present subjunctive’.

7.2 A statistical study in progress, by O’Neill, of Portuguese defective verbs, using the *CETEMPúblico* corpus (180m words), suggests that a majority of the 55 verbs alleged in grammars to be defective actually show, if not actual ‘defectiveness’, at least a significantly low frequency in the L-pattern (and N-pattern) parts of the paradigm.

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