Stress and stem allomorphy in the Romance perfectum: emergence, typology, and motivations of a symbiotic relation

Borja Herce
University of Zurich

The (syntagmatic or paradigmatic) predictability of some morphological properties from others has become a very active domain of study in morphology in recent years (see Ackerman & Malouf 2013, Blevins et al. 2016, etc.). In general, more predictability is equated with greater simplicity and, as such, it could be expected to constitute a shaping force in diachrony. Changes where two traits become aligned in the paradigm, or in the lexicon would thus seem to demand an explanation along these lines (see e.g. Herce 2020). In Romance verb inflection, this is notably the case of perfective stem allomorphy and stress:

	Latin			Italian		
	IPF	PERF	PLUP.SBJV	IPF	PERF	PLUP.SBJV
1SG	koˈ**kwe**ːbam	ˈ**ko**ksiː	kokˈ**si**ssem	kwoˈ**ʧe**vo	ˈ**kɔ**ssi	kwoˈ**ʧe**ssi
2SG	koˈ**kwe**ːbaːs	kokˈ**si**stiː	kokˈ**si**sseːs	kwoˈ**ʧe**vi	kwoˈ**ʧe**sti	kwoˈ**ʧe**ssi
3SG	koˈ**kwe**ːbat	ˈ**ko**ksit	kokˈ**si**sset	kwoˈ**ʧe**va	ˈ**kɔ**sse	kwoˈ**ʧe**sse

Table 1: Partial paradigm of ‘cook’ at two stages in Romance

Unlike in Latin (see Table 1), rhizotony (i.e. root-stress) and the former perfectum stem constitute in contemporary Romance purely morphological traits (see Maiden 2018), as they no longer correlate to any well-defined semantic or phonological environment. Whereas in Latin the two traits were completely independent of each other and orthogonal, we no longer find this perfect cross-classification anywhere in Romance (see Table 2), where the perfectum root and rhizotony can now predict each other to some extent in all varieties:

		Latin		Romanian		Italian		Friulian	
Perfectum stem		+	-	+	-	+	-	+	-
Rhizotony	+	✓	✓	✓	✗	✓	✗	✗	✗
	-	✓	✓	✓	✓	✗	✓	✗	✓

Table 2: The relation between perfective rhizotony and perfectum stem in Romance

Although all trait combinations were attested in Latin, a big asymmetry did exist nonetheless according to the number of verbs that displayed each of them:

	+ Stem allomorphy	- Stem allomorphy
+ rhizotony	57.6% e.g. *dīcō*	11.5% e.g. *vertō*
- rhizotony	0.7% e.g. *quaerō*	30.1% e.g. *petō*

Table 3: The relation between perfective rhizotony and allomorphy in Latin

In the light of the frequency of the traits (Table 3) in the 300 most frequent Latin verbs (LatInFlex1.1, Pellegrini & Passarotti 2018), one may feel tempted to interpret the Romance developments in Table 2 as driven by language-users' necessity to predict these unmotivated morphological traits in the absence of extramorphological cues. In a context where +rhizotony +allomorphy, and -rhizotony -allomorphy were the most frequent combinations, the emergence of a perfect predictability relation may not be unexpected.

Although this might have been an important factor, it can only be part of the story. The class -allomorphy +rhizotony (e.g. *vertō*) was not infrequent in Latin but has been completely eliminated from every single contemporary Romance variety. The opposite is found in the class of verbs +allomorphy -rhizotony, which was extremely infrequent in Latin but is still encountered occasionally in Romance. A strong bias is observed, thus, only against +rhizotony -allomorphy but not against other combinations. My proposal will be that the reason for this might be found in homophony avoidance pressures within the paradigm. Arhizotony and/or a dedicated stem alternant unmistakably identify a form as 'past', however, the absence of both properties would not, and would give rise to very "uncomfortable" past-present diagonal syncretisms:

	caber 'fit'		*decir* 'say'		pseudo-*caber* 'fit'		pseudo-*decir* 'say'	
	PRS	PRET	PRS	PRET	PRS	PRET	PRS	PRET
1SG	ˈkepo	ˈkupe	ˈdiɣo	ˈdixe	ˈkepo	ˈkabe	ˈdiɣo	ˈdiθe
2SG	ˈkabes	kuˈpiste	ˈdiθes	diˈxiste	ˈkabes	kaˈbiste	ˈdiθes	diˈθiste
3SG	ˈkabe	ˈkupo	ˈdiθe	ˈdixo	ˈkabe	ˈkabo	ˈdiθe	ˈdiθo

Table 4: Actual (left) and hypothetical (right) partial paradigms of two Spanish verbs

No-shared-value homophony like the one illustrated in Table 4 is costly in language processing (MacGregor et al. 2015) and is sometimes even actively avoided by defectiveness (see Baerman 2011). This Romance data seem to show that morphological properties that give rise to suboptimal configurations might also be diachronically dispreferred, which would be understandable (only?) under the discriminative role attributed to morphology in abstractive models (Blevins et al. 2016).

References

Ackerman, Farrell, & Robert Malouf. 2013. Morphological organization: The low conditional entropy conjecture. *Language*, 89, 3: 429–464.

Baerman, Matthew. 2011. Defectiveness and homophony avoidance. Journal of Linguistics 47, 1: 1-29.

Blevins, James P., Farrell Ackerman, Robert Malouf & Michael Ramscar. 2016. Morphology as an adaptive discriminative system. Morphological metatheory: 271-302.

Herce, Borja. 2020. Alignment of forms in Spanish verbal inflection: the gang poner, tener, venir, salir, valer as a window into the nature of paradigmatic analogy and predictability. Morphology.

MacGregor, Lucy J., Jennifer Bouwsema & Ekaterini Klepousniotou. 2015. Sustained meaning activation for polysemous but not homonymous words: Evidence from EEG. Neuropsychologia 68: 126-138.

Pellegrini, Matteo & Marco Passarotti. 2018. LatInfLexi: an Inflected Lexicon of Latin Verbs. In Proceedings of the Fifth Italian Conference on Computational Linguistics (CLiC-it 2018).

Maiden, Martin. 2018a. *The Romance Verb: Morphomic Structure and Diachrony*. Oxford: Oxford University Press.