

Rampant analogy: The untold scope of analogical change from Latin to Romance

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Abstract. Analogical change has played a greater role in historical Romance verb morphology than is commonly recognized. Latin *possum* ‘be able’ (< *pot-* + *sum* ‘be’) has only one Spanish reflex derived via regular sound change, *puedes* ‘you can’. All other forms result from grammaticalization or analogy. This extent of analogical creation undermines claims that homophony avoidance drives analogy. The lower level of analogy elsewhere in Romance challenges the notion of necessity for the Spanish changes. Despite this verb’s high frequency, speakers replaced nearly every form on the basis of a single reflex without eliminating irregularity.

Keywords. analogy; sound change; homophony avoidance; syncretism; historical morphology

1. Introduction. The perceived conundrum that pits regular (Neogrammarian) sound change against analogy—sometimes called Sturtevant’s paradox (1947: 109)—rests on the assumption that regular sound change creates morphological irregularities that are sometimes rendered regular via analogy. Figure 1 schematizes how such changes can proceed.

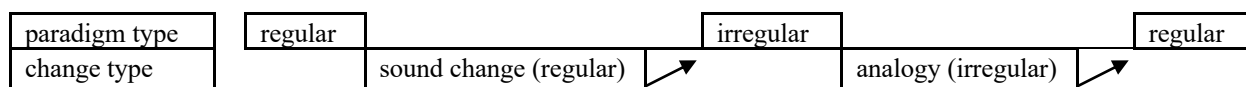


Figure 1. Regularity and irregularity caused by sound change and analogy

I argue that such changes are not teleological but rather that they reflect Joseph’s (1992) notion of locality, whereby speakers implement changes according to the parts of their language that are close to each other and not in terms of systematic considerations that occupy linguists’ thoughts.

2. Complications from Latin to Romance. Analysis of developments from Latin to Romance reveals certain complications in the interaction of sound change and analogy. First, analogy does not apply in all the situations in which it might seem ‘appropriate’, as it were. For example, the Spanish result of palatalization of velars before front vowels is evident in the 2s Present Indicative of *decir* ‘say’, where *dices* has /s/ or /θ/, according to the dialect, while analogy has leveled the paradigm of *pagar* ‘pay’, with stem-final /g/ in all forms, despite the /s/ ~ /θ/ in the related noun *paz* ‘peace’.

	‘say’		‘pacify’		> ‘pay’	
	Latin	Spanish	Latin	Spanish		
	Present Indicative					
1	<i>dīcō</i>	<i>digo</i>	<i>pācō</i>	<i>pago</i>		
2	<i>dīcis</i>	<i>dices</i>	<i>pācās</i>	<i>pagas</i>		
	Present Subjunctive					
1	<i>dīcam</i>	<i>diga</i>	<i>pācem</i>	<i>pague</i>	<i>cf. pācem</i> > <i>paz</i> ‘peace’	

Table 1. Regularity and irregularity caused by sound change and analogy

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Sound change also causes other types of irregularity, such as syncretism. In some tense-aspect-mood combinations in the Latin Active voice, the First Person Singular and the Third Person Singular differed only in their final consonants, *-m*, *-s* and *-t*, respectively, and a predictable alternation in vowel length (Table 2). As we shall see below, */-m/* was usually not lost in monosyllables but, in many Romance varieties, was instead changed to */-n/* (as in *cum* > *con* ‘with’). The regular loss of those consonants in polysyllabic forms rendered 1S and 3S identical. This type of syncretism persists in many verbal categories in most Romance languages. In Italian, however, the final vowel of the First Person Singular ending of the Imperfect Indicative has been changed from *-a* to *-o* on the model of the corresponding form of the Present Indicative, where nearly all verbs have final *-o* (e.g., 1S.PRES.IND *canto* ‘sing’, *scrivo* ‘write’). (This kind of cross-paradigmatic influence calls to mind the spread of *-s* in the Second Person Singular Informal of the Subjunctive, Conditional, and nearly all forms of the Indicative to the Preterit in non-standard Spanish, e.g., *dijistes* ‘you said’ rather than *dijiste*.)

‘be’	Latin	Italian	
Present Infinitive	esse	essere	
Imperfect Indicative 1S	eram	era	>> ero
Imperfect Indicative 3S	erat	era	> era
		syncretism	

Table 2. Sound change-induced syncretism and analogical ‘repair’ in Italian

These examples can be couched as more specific realizations of the schema presented in §1. Figure 2 shows these developments in terms of sound changes like split and merger or loss that undermine the isomorphic nature of paradigms by introducing irregularities like stem alternations and syncretism. It is essential to recall that the analogical changes, like leveling and cross-paradigmatic influence, occur sporadically and do not necessarily take place in all the cases where they could.

paradigm	regular	non-isomorphic		regular
		stem alternations	syncretism	
change	sound change (regular)		analogy (irregular)	
subtype	split	merger / loss	leveling	cross-paradigm

Figure 2. Interactions between sound change and analogy

While it might be tempting to view such analogical changes in a teleological light based on a desire to create—or rather, restore—uniformity to the stem by eliminating stem alternations in Spanish or by ridding the paradigm of syncretism in Italian, the widespread nature of these and other changes suggests that speakers respond not to such relationships but instead to more local links.

Indeed, the Imperfect Indicative of the Italian copula presents other changes that seem much less straightforward if viewed teleologically (Table 3). The key sound changes are the lowering of short */u/* to */o/* and aforementioned loss of final consonants (*-m*, *-s*, and *-t* in these forms) (Maiden 1995: 29). A paradigm shaped by these changes would have had four distinct forms with no stem variation and syncretism in the singular. In contrast, the modern paradigm has six distinct forms and no syncretism. This situation is the result of several analogical changes.

	Latin		expected Italian		modern Italian	
1	eram	erāmus	*era	*eramo	ero	eravamo
2	erās	erātis	*era	*erate	eri	eravate
3	erat	erant	*era	*eran	era	erano
	S	P	S	P	S	P

Table 3. Italian Imperfect Indicative forms derived by sound change and analogy from Latin

In the First Person, final /a/ was replaced by /o/, which created a parallel with the Present Indicative of 1st-conjugation verbs like *amare* ‘to love’ (Figure 3).

ama	:	amo	::	era	:	X	X = ero
3s		1s		3s		1s	

Figure 3. Cross-paradigmatic (Present/Imperfect) analogy in the Italian copula

The Imperfect Indicative of other verbs has also influenced the Imperfect Indicative of *essere*, where the sequence /-va-/ is found in all forms other than 1S and 2S, which have the final vowels /o/ and /i/, respectively, rather than /a/ (Table 4). The importation of /-va-/ into the 1P and 2P forms of *essere* does not serve any obvious goal, such as the reduction of syncretism. Instead it can be seen as increasing stem allomorphy. In regular verbs, the structure of the Imperfect Indicative is root-TV-{v/va}-person/number, where TV stands for thematic vowel, which matches the vowel found in the Infinitive. This structure does not apply to the copula not only because only two forms have the /v~va/ component but also because there is reason to view the /a/ preceding the /va/ to be a thematic vowel. To the extent that a thematic vowel can be posited for *essere*, the best candidate is /ε/, as this is the vowel found in such analogical Present Indicative forms as 2S *sei*, 2P *siete*, and dialectal 1P *semo* (see Maiden 1995: 128, 139 for more information)

1 st conjugation		2 nd conjugation		3 rd conjugation	
amare ‘to love’		credere ‘to believe’		dormire ‘to sleep’	
1	amavo amavamo	credevo credevamo		dormivo dormivamo	
2	amavi amavate	credevi credevate		dormivi dormivate	
3	amava amavano	credeva credevano		dormiva dormivano	
	S P	S P		S P	

Table 4. The Imperfect Indicative in three regular Italian verbs

The addition of final /o/ to the third person plural reflects a change whereby all 3P forms eventually came to feature this vowel. As Maiden explains, some instances of final /o/ reflect the loss of final /n/ and lowering of /u/ in Latin Perfect Indicative/Italian Preterit (*passato remoto*) forms previously ending in *-runt*, as in *habuērunt* > *ebbero* (1995: 131-132). To account for other factors leading to final /o/ in 3P forms, Maiden (1995: 130-131) mostly follows Rohlf (1968: 255). The nearly pan-Romance loss of final /t/¹ and the lowering of short /u/ to /o/ rendered the First Person Singular and Third Person Singular of the Present Indicative of *sum* ‘be’ (which, as a monosyllabic form, had undergone the change of /-m/ > /-n/) identical: *son.

¹ The principal exceptions to this change appear in some Romanian monosyllables (e.g., *sunt* > *sunt* ‘be.PRES.IND.3P’ and 3S forms in Sardinian (e.g., *est* > Nuorese /est/ ‘be.PRES.IND.3S’, *nārrat* > /narat/ ‘say.PRES.IND.3S’, but *nārrant* > /naran/ ‘say.PRES.IND.3P’).

Under the influence of First Person Singular forms in the Present Indicative of regular verbs, the First Person Singular Present Indicative of the copula acquired final /o/, yielding the modern form, *sono*. Then the link between the First Person Singular and the Third Person Singular in the Present Indicative supposedly led the latter form to acquire final /o/ as well. (Though Maiden's book came out after Aronoff's (1994) pioneering work on autonomous morphology, Maiden does not treat this syncretism in morphomic terms.) This step requires further scrutiny, since analogical changes that affect one member of a formally related set of forms need not affect them all. For example, *dived* as a simple past has been largely replaced in American English by *dove*, but *dived* remains much more frequent than *dove* as a participle. Maiden mentions evidence that the sequence /-no/ "appears to have been reanalysed as a semi-autonomous clitic marker of third person" that has spread beyond the verb system into the pronominal system (1995: 131). For the purposes of this discussion, the key is the analogical nature of final /o/ in most Italian Third Person Plural verb forms.

These changes have several effects, starting with the 'resolution' of the syncretism in the singular. The spread of /-i/ also provides a link to other verbs and (some) other tense-aspect-mood categories. The incorporation of the /-va-/ element also strengthens similarities to other verbs.

The person syncretism of the Imperfect Indicative is found in the 1s/2s of the Past Subjunctive and throughout the Singular in the Present Subjunctive. Pérez Saldanya argues, in an attempt to justify the replacement of the Catalan synthetic Preterit by the so-called GO Preterit, that such syncretism is normal in 'relative' tenses (Imperfect, Conditional, Pluperfect) paradigms but especially problematic in an 'absolute' tense like the Preterit (1996: 96). Pérez Saldanya offers no clear criteria for evaluating whether a given case of syncretism is problematic (Juge 2006: 329).

Ramat comments on these changes, "Italian, being a 'pro-drop' language, introduced a new functional differentiation based on analogical forms" (2012: 62). Other Romance languages vary in their treatment of such syncretism. Most, like Ibero-Romance or Catalan, have not applied such analogical changes to the Imperfect Indicative. In the case of Sardinian, some varieties have also developed First Person Singular forms with final /o/, such as Nuorese (e.g., *fippo* 'be.IMPF.IND.1S'; Pittau 1972). This variability illustrates the 'irregularity' of analogical processes. The Present Indicative also shows heavy analogical influence for seemingly 'pointless' reasons (Table 5).

	Latin		expected Italian		analogical changes	modern Italian	
1	sum	sumus	*son	*somo	PRES SUBJ X PRES INDIC 1P, 2P -ia-	sono	siamo
2	es	estis	*e	*este	-o 3P	sei	siate
3	est	sunt	e/*es	*son		è	sono
	S	P	S	P		S	P

Table 5. Italian Present Indicative forms derived from Latin by sound change and analogy

Accounting for such analogical changes resembles the examination of sound change or any other historical development. While it is often relatively straightforward to identify a kind of motivation, as with assimilatory developments, true explanation requires much more insight, and prediction is essentially impossible.

3. Analogy creates syncretism. Even more troublesome from the traditional perspective is the creation of syncretism by analogy. In Romanian, for example, the First Person Singular Present Indicative of the copula *a fi*, *sunt*, is identical to the Third Person Plural Present Indicative (Table

6). This identity of form is not, however, due to sound changes that created syncretism. Rather, the final *-t* of the 1s form is non-etymological. Maiden implies that 1s *sunt* is not actually a modified form of *sum* or a derivative thereof but rather a wholesale replacement by the 3P form (2022: 332). The spread of the element *sunt-* to the 1P and 2P suggests an analogical character for the 1S as well. In those cases, the result is a consistent plural stem, but with the 1s the outcome is syncretism, a situation that is commonly cited as the impetus for analogical changes that increase paradigmatic differentiation. This case strongly challenges the notion that high-frequency lexemes are resistant to analogical change.

1	sunt	suntem
2	ești	sunteți
3	este ~ e	sunt
	S	P

Table 6. Romanian Present Indicative forms of the copula *a fi*

4. Analogy creates suppletion. I have addressed elsewhere (1999, 2013, 2019, 2022) the creation of suppletion by two types of analogy—contamination and proportional analogy. Contamination is usually associated with ‘opposite’ pairs like English *femelle* >> *female* influenced by *male* (Fertig 2013: 63) or elements in a list, like the spread of initial *d-* to Balto-Slavic words for ‘nine’ under the influence of the word for ‘ten’ (e.g., Lithuanian *devyni* ‘nine’, *dešimt* ‘ten’). Catalan and non-standard Galician, however, also exhibit suppletion created by contamination. In Catalan, stem-/word-final /g/ <c> has spread from a small number of verbs with regular development to different parts of the paradigms of dozens of verbs (Table 7, Juge 2022; Esher 2022). For example, the copula (*és*)*ser* would be expected to have **són* or **só* as its 1s Present Indicative form. Instead, the form is *soc*, which reflects the influence of verbs like *dir* ~ *dic* ‘say.PRES.INF ~ say.1S.PRES.IND’ or *dur* ~ *duc* ‘carry.PRES.INF ~ carry.1S.PRES.IND’, which inherit a final velar from their Latin etyma, *dīcō* and *dūcō*, respectively.

In non-standard Galician, contamination has increased the degree of suppletion of verbs meaning ‘be’ and ‘do’ while making these verbs more similar to the verb *ter* ‘have’ (Table 7).

		1S PRES	1S/3S PRES SUBJ	
<u>gloss</u>	<u>INF</u>	<u>IND</u>	<u>standard</u>	<u>non-standard</u>
‘have’	ter	teño	teña	
‘be’	ser	son	sexa	seña
‘be’	estar	estou	estea	esteña
‘do’	facer	fago	faga	feña

Table 7. Suppletion resulting from contamination in non-standard Galician

In addition to the well-known English example of *dove* mentioned above, the Galician verb *ir* ‘go’ shows suppletion created through proportional analogy in the Fisterran variety (Figure 4, Juge 2013).

<u>Infinitive</u>	:	<u>Imperfect Indicative 1SG</u>	::	<u>Infinitive</u>	:	<u>Imperfect Indicative 1SG</u>
<u>vir</u>	:	<u>vina</u>	::	<u>ir</u>	:	<u>X, X = iɲa</u>
‘to come’	:	‘I used to come’	::	‘to go’	:	‘I used to go’

Figure 4. Suppletion in the Imperfect Indicative of *ir* ‘go’ in Fisterran Galician

These ‘violations’ of traditional perspectives on analogical change raise the question of what constraints, if any, limit analogy. I address this in the next section.

5. Analogy on the loose. Rudes proposes a constraint on suppletion that relates to analogy. He claims that incursion affects all forms derived from the same stem equally (1980: 670). Aski correctly points out that this claim fails empirically and that Rudes does not properly recognize the complexities involved in identifying stems.

The development of the Latin compound verb *possum* ‘be able’ strongly exemplifies the wide-ranging effects of analogy that spreads far beyond any sound change-induced ‘complications’. The forms of this verb combine the base *pot-* ‘able, capable’ and forms of the copula, *sum*. Assimilation is evident in copular forms with initial *s-* and deletion in those with *f-*, with the corresponding forms of *possum* lacking that consonant (Table 8). The difference in number of syllables between *sum* and *possum* is reflected in the difference in the position of the stress in accordance with the standard rule of stress placement in Latin (penultimate in forms with heavy penults, antepenultimate otherwise).

Indicative						
	Present	Imperfect	Future	Perfect	Pluperfect	Future Perfect
1s	possum	poteram	poterō	potuī	potueram	potuerō
2s	potes	poterās	poteris	potuistī	potuerās	potueris
3s	potest	poterat	poterit	potuit	potuerat	potuerit
1p	possumus	poterāmus	poterimus	potuimus	potuerāmus	potuerimus
2p	potestis	poterātis	poteritis	potuistis	potuerātis	potueritis
3p	possunt	poterant	poterunt	potuērunt	potuerant	potuerint
Subjunctive						
	Present	Imperfect		Perfect	Pluperfect	
1s	possim	possem		potuerim	potuissem	
2s	possīs	possēs		potuerīs	potuissēs	
3s	possit	posset		potuerit	potuisset	
1p	possīmus	possēmus		potuerīmus	potuissēmus	
2p	possītis	possētis		potuerītis	potuissētis	
3p	possint	possent		potuerint	potuissent	
	infinitives	Present Perfect	posse potuisse	Present Active Participle		potēns

Table 8. Latin *possum* ‘can, be able’

The Spanish form *puedes* neatly illustrates the development of the corresponding Latin form via sound change. The Latin short [o] in the first syllable develops regularly into the low-mid [ɔ], intervocalic [t] lenites first to [d] then to [ð], and the low-mid stressed vowel diphthongizes to /we/. The change of *es* to *eres* renders the former compound structure of *puedes* opaque. This form is of special importance in that it is the only one that develops without any analogical influence. Table 9 contrasts the expected and attested form of the Present and Imperfect Indicative. The extension of the *pued-* stem to the First Person Singular at the expense of **pueso* might seem to be a simple case of leveling, but leveling can never be thought of as a required process. Indeed, Portuguese and Italian retain reflexes of *possum* (see below).

PRES IND	expected	*pueso	puedes	*puedes	*puesmos	*podestes	*pueson
	attested	puedo	puedes	puede	podemos	podéis	pueden
IMPF IND	expected	*puedra	*puedras	*puedra	*podramos	*podráis	*puedran
	attested	podía	podías	podía	podíamos	podíais	podían
		1s	2s	3s	1p	2p	3p

Table 9. Select expected and attested reflexes of Latin *possum* in Spanish

The part of the paradigm that most closely follows regular developmental patterns is the so-called Perfect system, that is the set of forms comprised of the Perfect, Pluperfect, and Future Perfect. The corresponding Romance forms mostly reflect interactions between sound change and analogy found in other relatively frequent verbs like *poner* ‘put’, *andar* ‘go’, and *saber* ‘know’ (see Penny 2002: 223-226 for additional discussion).

Penny sees the development of this verb in terms of the second conjugation (characterized by long /e/ in the penult of the Present Active Infinitive, as in *habeō*, *habēre*, *habuī*, *habitus* ‘have’). Specifically, he concludes that the *-uī* of the 1s Perfect Indicative led speakers to remodel the verb as a second conjugation verb. This claim does nothing to explain the irregularity of the Gerund, *pudiendo*, which we would expect to have *-o-* in the stem. The *-u-* also lacks an obvious analogical motivation.

In Portuguese, *posse* was not fully restructured as a 2nd conjugation verb. The greatest deviation from this paradigm is the retention of the 1s Present Indicative, which, with regular sound change yields *posso* /'pɒsu/ (Table 10). Like most verbs with an irregular 1s Present Indicative, *poder* has the same stem in the Present Subjunctive (exceptions include *ser~sou~seja* ‘be’, *haver~hei~haja* ‘have’, *estar~estou~esteja* ‘be’, *ir~vou~vá* ‘go’, *dar~dou~dê* ‘give’). As in all other verbs, the Personal Infinitive (a category lacking in most other Romance varieties) shows complete regularization.

1	posso	podemos
2	podes	podeis
3	pode	podem
	S	P

Table 10. Present Indicative of *poder* ‘be able’ in Portuguese (regular reflexes in bold)

Italian *potere* has one reflex derived by sound change, but the other forms reflect even greater analogical interference than Spanish or Portuguese, with at least three distinct stems, depending on the analysis (Table 11).

1	posso	possiamo
2	puoi	potete
3	può	possono
	S	P

Table 11. Present Indicative of Italian *potere* ‘be able’ (regular reflexes in bold)

Catalan also shows an analogical change in the Present Indicative in this verb (Table 12). The First Person Singular Present Indicative *puc* is one of various verb forms with a non-etymological final velar that reflects the analogical spread of /k/ from verbs with an etymological /k/, such as *dic* /dik/ (< Latin *dīcō* /'di:ko:/ ‘I say’). See Esher (2022) and Juge (2022) for additional discussion of the development of these velars. The spread of final /k/ (or /g/ since

Catalan has final obstruent devoicing; cf. Hualde & Zhang 2022: 3, among others) is a poor candidate for leveling, as it increases the number of stems in the verb, unless the /k/ of the First Person Singular is viewed as unconnected to the /g/ in the stem of other forms, such as the Present Subjunctive (e.g., 1s *pugui* /'pug-i/) and is instead taken to be the marker of First Person Singular. This approach seems more suitable with some verbs with stem-final velars than others; for instance, it fits *dir* ‘say’ better than *poder* ‘be able’, since the person/number endings of *dir* can be analyzed as shown below (cf. Juge 2022: 4). This approach highlights similarities between *dir* and some other verbs, like *deure* ‘must’.

	<i>poder</i> ‘be able’		<i>dir</i> ‘say’		<i>deure</i> ‘must’	
1	puc	podem	di-c	di-em	de-c	devem
2	pots	podeu	di-us	di-eu	de-us	deveu
3	pot	poden	di-u	di-uen	de-u	de-uen
	S	P	S	P	S	P

Table 12. Present Indicative of stem-final-velar verbs in Catalan (regular reflexes in bold)

Returning to copulas, we find a heavily disputed form in Spanish sometimes attributed to analogy. *Eres*, the Second Person Singular Informal Present Indicative of *ser* ‘be’ has attracted a great deal of attention because it perfectly matches the expected phonological development of Latin *eris*, the Second Person Singular Future Indicative Active of *sum* ‘be’ (the lack of diphthongization in the first syllable is usually attributed to the same factors—like a mix of lexical and auxiliary use—that yielded monophthongs in Imperfect Indicative forms like *eras* ‘you were’; cf. Penny 2002: 191). The tense difference between the two forms has split most scholars into two camps: those who mostly grudgingly weight the phonological match over the anomalous semantics of a future-turned-present and those who conclude that the tense disparity requires the identification of another origin for the Spanish form. Rini (1999: 162) provides an extensive discussion of the history of this form and proposed etymologies for it. He notes that the backers of *eris* include Menéndez Pidal (1941: 302) and Bourciez (1956: 438), among others.

The second group has produced a variety of a proposals to account for the form of *eres* while avoiding the problematic tense relationship, including reduplication with dissimilatory rhotacism (Montgomery 1983) and analogy based on the Imperfect Indicative (Diez 1844, Lloyd 1987). Rini objects to this analogy on the grounds that it involves forms with the same Infinitive, although his treatment of leveling does not seem to apply this criterion. Indeed, he suggests an analogical change of his own to account for *eres*. Like the one he rejected, this one involves only forms of the copula, including the Imperfect Indicative. He proposes that *eres* is the result of a kind of backformation linking the Pluperfect Indicative and the Future Subjunctive (Figure 5; Rini 1999: 171).

PLUPF.IND.2S		IMPF.IND.2S		FUT.PERF.2S		PRES.IND.2S
fueras	:	eras	::	fueres	:	X, X = eres
‘you had been’		‘you were’		‘you are’		‘you are’

Figure 5. Possible backformation in Spanish *ser* ‘be’

While the formal relations in this analogy seem clear, the semantic relationships require some explanation. Recall the creation of weak suppletion in the Fiesterran Galician verb *ir* ‘go’ by analogy with *vir* ‘come’. In this instance, the ‘opposite’ semantics of the verbs recalls the connection seen in the example of contamination of English *femelle* >> *female* by *male*. The semantics of the forms that Rini links to *eres* is not quite so simple. Perhaps the easiest issue to

address is *fuera*s, labeled here as a Pluperfect Indicative form, a reflex of Latin *fuera*s, the Second Person Singular form of the Pluperfect Indicative Active (Vincent 1988: 47). The relationship between these forms, however, is potentially misleading. In most Romance varieties, the categories in the so-called Perfect system—Perfect, Pluperfect, and Future Perfect—have not yielded semantically and functionally equivalent forms. Juge provides a catalog of ways in which tense-aspect-mood categories have changed—or have been eliminated—in Romance (2002: 34–36). While Portuguese and Galician retain these forms with essentially the same value, the category has disappeared from most varieties. In others, like Spanish and Catalan, the forms now have modal functions with subjunctive and/or conditional values.

The forms of the Spanish Future Subjunctive represent a blend of the Latin Future Perfect Indicative and the Perfect Subjunctive. The category also shifted in its function substantially before being eliminated from daily use in the modern language (see Juge 2023a for discussion of how the loss of the Future Subjunctive contributed to morphological mismatch). In Latin, the Future Perfect Indicative expressed an anterior relationship with a future temporal point of reference and the Perfect Subjunctive was a fairly straightforward counterpart to the Perfect Indicative (aside from the fact that the Subjunctive lacked both a Future and a Future Perfect, much as Spanish does today). The Spanish Future Subjunctive, however, took on a different role, appearing almost exclusively in subordinate clauses, especially conditional clauses.

Rini’s proposal rests on a semantic relationship between the Pluperfect Indicative and Imperfect Indicative on the one hand and between the Future Subjunctive and the Present Indicative on the other. While there is no objective metric by which to evaluate these relationships, the connection between the Future Subjunctive and the Present Indicative seems, perhaps surprisingly, to be the stronger of the two. Rini adduces a number of examples that presage the later use of the Present Indicative in many of the contexts that the Future Subjunctive appeared in earlier (almost all other contexts now take the Present Subjunctive). Despite the traditional name of the category, Rini makes a good case for a link between the Future Subjunctive and the Present Indicative.

The potential for a modern Spanish speaker to react to Rini’s argument with skepticism recalls the development of overlapping suppletion in the Ibero-Romance verbs meaning ‘be’ and ‘go’. As described in Juge (1999), Portuguese, Galician, and Spanish, *ser* ‘be’ and *ir* ‘go’ have the same forms in the Preterit, Pluperfect Indicative, Imperfect Subjunctive, and Future Subjunctive (Table 13). From a synchronic perspective, the links among these forms seem weak. However, several aspects of verb use in older varieties highlight the semantic connections. First, when the forms of *ser* were incorporated into the paradigm of *ir*, the contemporary distinction between the copulas *ser* and *estar*—which assigns most expressions of place to *estar*—had not been established. Furthermore, the present anterior value of the derivative of the Latin Perfect Indicative, now usually called Preterit, was presumably still part of the category’s meaning (as it still is in Modern Portuguese). These key facts make it much easier to see this suppletive development in terms of a (near) equivalence between the expression of having been to a place and the expression of having gone there.

<i>ir</i> ‘go’		<i>ser</i> ‘be’		<i>ir</i> ‘go’/ <i>ser</i> ‘be’				
Indicative		Indicative		Indicative		Subjunctive		
Present	Imperfect	Present	Imperfect	Preterit	Pluperfect	Imperfect	Future	
1S	vou	ía	son	era	fun	fora	fose	for
2S	vas	ías	es	eras	fuches	foras	foses	fores
3S	vai	ía	é	era	foi	fora	fose	for
1P	imos	íamos	somos	eramos	fomos	foramos	fósemos	formos
2P	ides	iades	sodes	erades	fostes	forades	fósedes	fordes
3P	van	ían	son	eran	foron	foran	fosen	foren

Table 13. Overlapping (bold) and non-overlapping suppletion in Galician

These Ibero-Romance examples illustrate the indispensability of semantic, syntactic, and pragmatic analysis for the clear identification of the parameters of analogical change.

6. Category loss. The Romance data also suggest a greater potential for analogical reshaping than commonly believed, which supports Juge’s proposal (2009) that the loss of the Latin Future and Passive cannot be attributed to ‘excessive’ sound change and resulting catastrophic syncretism (cf. Vincent 1988). Juge points out that analogical change could have ‘repaired’ many of the supposed ‘problems’ caused by sound change. For example, verbs inherited from the third conjugation in Latin would have developed syncretism between Future and Present in the Indicative Active, but the overlap between these categories could have been reduced with analogical changes based on forms found in the first conjugation (Table 14, adapted from Juge 2009: 72).

‘love’ (1 st conjugation)			‘run’ (3 rd conjugation)		
Latin		Spanish	Latin		Spanish
		expected		expected	w/analogy
INF	amare	amar	currere	*córrer	correr
1S	amābō	*amabo	curram	corra	*correbo
2S	amābis	*amabes	currēs	corres	*correbes
3S	amābit	*amabe	curret	corre	*correbe
1P	amābimus	*amaumos	currēmus	corremos	*correumos
2P	amābitis	*amabeis	currētis	corréis	*correbeis
3P	amābunt	*amabon	current	corren	*correbon

Note. Bolded forms would have shown syncretism.

Table 14. Possible Spanish reflexes of the Latin Future Active

The widespread analogical changes found in Romance reflexes of *sum* ‘be’ and *possum* ‘can’ show that the hypothetical analogical developments discussed in Juge (2009) are plausible, which lends further credence to the claim presented there that the traditional attribution of the loss of the Future and other grammatical categories to ‘irreparable’ syncretism caused by sound change should face greater scrutiny than it usually has.

7. Frequency and resistance to change. It is commonly assumed that forms with high token frequency are especially resistant to analogical effects, although Fertig asserts that this claim “is seldom subjected to any empirical scrutiny” (1998: 1080). The development of Romance verbs meaning ‘can’ and ‘be’ clearly shows that such resistance is not absolute. Further research is needed to determine what kind of difference, if any, there might be between low-frequency and

high-frequency forms and what additional factors may influence such developments. Perhaps the question has largely been ill-posed. Consider Bybee's claim that irregular forms with high token frequency "are resistant to regularization" (2007: 173). The forms of Romance verbs meaning 'be' and 'can' clearly provide evidence that such resistance is not absolute.

Bybee's characterization of forms with high token frequency fails to address whether they are resistant to non-regularizing changes. It would be hard to argue that the modification of the reflex of Latin *sum* that yielded syncretism with the 3P form constitutes regularization, but it certainly is a change and thus contradicts her restatement mentioning their "resistance to change" (2007: 173). Indeed, Fertig suggests that the key resistance that frequent forms show to analogical change concerns regularizing change (2013: 132). He points to Nübling's emphasis (2000) on supposed "communicative advantages of formal shortness and paradigmatic differentiation for the most commonly used lexical items" (2013: 132). Romanian 1s *sunt* 'I am', however, violates both of these principles. The developments examined here support Joseph's presentation of speaker processing as a local, rather than systematic, phenomenon. On his view, speakers "often act as if they were in a fog, by which is meant not that they are befuddled but that they see clearly only immediately around them, so to speak, and only in a clouded manner farther afield" (1992: 140).

8. Teleology. As Fertig points out (2013: 118), analogical change is often seen through a teleological lens. The data presented here, however, suggest no coherent sense in which speakers could aim at particular outcomes. This is especially true for changes that take place over long periods of time, such as many instances of grammaticalization (see Juge 2007 for more on this issue). The analysis presented in Joseph (1992) also supports the view that such changes are not teleological.

9. Further research. Additional clarification of the roles of and interactions between analogy and sound change requires taking advantage of the detailed data available for a relatively small set of languages. The rich attestation of verb morphology in Latin and its descendants makes the Romance languages an excellent place to start further examination of these questions. In addition to the many older publications detailing the forms and histories of individual languages, the Oxford Online Database of Romance Verb Morphology (Maiden et al. 2010), which provides inflectional data for approximately 80 Romance varieties, is an outstanding resource for this work. Like any tool, of course, the OODRVM has its shortcomings. For instance, while it provides information on five Sardinian varieties, the so-called 'basic' verb of motion, *bandai ~ andai* (Lepori 2001: 101), is missing from all five entries. Even traditional print materials, however, often present only data without adequate analysis for a given project. Instances of overlapping suppletion, for example, are not identified as such in the reference works that report the forms, as in the cases of the Preterit and related forms in Ibero-Romance verbs meaning 'be' and 'go' and some Rhaeto-Romance verbs meaning 'come' and 'go' (see Juge 1999, 2013, 2019, 2023b, forthcoming for more on overlapping suppletion).

10. Conclusions. Analogy has replaced forms derived by regular sound change in Romance verbs more than usually believed, even accounting for the interrelated effects of leveling, homophony avoidance, and syncretism. Analogy requires accurate description and application to attempts to explain other data, like the loss of grammatical categories. Like accounts of suppletion and grammaticalization, the analysis of analogy also requires close attention to semantic, syntactic, and pragmatic factors.

Abbreviations

1	First Person
2	Second Person
3	Third Person
FUT	Future
IMPF	Imperfect
IND	Indicative
INF	Infinitive
P	Plural
PERF	Perfect
PLUPF	Pluperfect
PRES	Present
S	Singular
TAM	tense-aspect-mood

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