

Phonological Factors of Conjugation Class Shift in the Romance Languages

Stuart Davis & Donna Jo Napoli

Indiana University & Swarthmore College

1. Introduction

The second conjugation infinitive in Latin is marked with the theme vowel long /e:/ which receives primary stress (e.g. *timé:re* "to fear") while the third conjugation infinitive is marked with short /e/ and exhibits root stress (e.g. *vívere* "to live"). Latin also has two other conjugations, the first conjugation and the fourth conjugation. Infinitives of these conjugations are marked with the theme vowels /a/ and /i/, respectively. Now if we consider the second and third conjugation infinitives, it is worth noting that the modern Romance languages do not preserve the (historical) vowel length distinction. The difference in modern Romance, then, between descendants of the Latin second and third conjugation infinitives should be manifest in the location of primary stress. Primary stress in the descendants of second conjugation infinitives should fall on the theme vowel, and primary stress in the descendants of third conjugation infinitives should fall on the root vowel. However, this is often not the case because in all of the modern Romance languages that we have studied some of the original second conjugation infinitive descendants have switched conjugation classes so that they look like they descend from Latin third conjugation infinitives rather than from the second. This paper considers the phonological factors that are involved in the conjugation class shifts between the second and third conjugation classes in the development from Latin into modern Romance. (Consequently, Spanish and Portuguese are not relevant since they no longer distinguish the historical second and third conjugations. Descendants of these conjugations have stress on the theme vowel and not on the root vowel. According to Wright (1982) this has been the case for over one thousand years.)

Much has been written on the question of why some of the second conjugation verbs have switched conjugation classes in the development from Latin into modern Romance. This work has typically concentrated on examining individual verbs in a single Romance language or two closely related sisters. Factors cited as helping to cause the shift of verbs out of the second conjugation class

include analogical attraction, ambiguity, the need to differentiate near identical verbs as well as a range of other historical, sociological, and psychological factors discussed in works like that of Malkiel (1985, 1986). Rarely, though, have phonological factors been considered in determining why many of the second conjugation infinitives have switched conjugation classes. Our contention is that phonological factors show a clear pattern when we examine which verbs of the Latin second conjugation do not switch conjugation classes and which ones do. Essentially, we contend that second conjugation verbs that do not match the template for root structure shown in (1) are strong candidates for conjugation class shift.

- (1) $C_1 V C_2$
 a. where C_1 does not contain a sonorant
 b. where C_2 is a single consonant

That is, we show that Latin second conjugation verbs whose roots match this template were unlikely to change conjugation classes in the development of the daughter languages while second conjugation roots that did not match the template (ie. those ending in two consonants or those containing a prevocalic sonorant consonant) were likely to switch classes. The template identifies which verbs are candidates for staying together in the second conjugation class and which are candidates for switching. But once candidates for change have been identified, other factors (such as analogy and ambiguity) come into play to determine when and how a particular verb actually undergoes change. Thus we have identified an important factor -- a phonologically based one -- that played a role in second conjugation class shifts from Latin into modern Romance. In the remainder of this paper we support our contention by offering evidence from two Eastern Romance languages: Italian and Romanian. (We won't consider other Romance languages here because of space limitations, but we refer the interested reader to Davis and Napoli 1990 for discussion of the evidence from other Romance languages.) We first consider data from Italian in detail then we consider the related data from Romanian.

2. Italian

Modern Italian has the following ere-infinitives with theme vowel stress given in (2). (We refer to these as theme vowel infinitives.) All the infinitives in (2) are descended from Latin second conjugation infinitives (which have theme vowel stress), except *sapere* "to know" and *cadere* "to fall".

(2)	avére	"have"	cadére	"fall"
	calére	"be warm"	dolére	"hurt"
	dovére	"must"	giacére	"lie down"
	godére	"enjoy"	rimanére	"remain"
	parére	"seem"	piacére	"please"
	potére	"be able"	sapére	"know"
	sedére	"sit"	solére	"be used to"
	persuadére	"to persuade"	tacére	"be quiet"
	temére	"to fear"	tenére	"hold"
	valére	"be worth"	vedére	"see"
	volére	"want"		

The list in (2) is a complete list of Italian second conjugation infinitives with theme vowel stress. We have not included in the list some archaic verbs nor examples of the above verbs with prefixes added. (Note that *rimanére* and *persuadére* are on the above list even though they contain prefixes because their roots do not occur in modern Italian without prefixes.) In (3) is a sample list of Italian ere-infinitives with root vowel stress. (We refer to these as root vowel infinitives.) Most of the verbs of this type descend from Latin third conjugation infinitives which have root vowel stress.

(3)	báttere	"hit"	cógliere	"gather"
	fíngere	"pretend"	fóndere	"melt"
	gémere	"groan"	léggere	"read"
	méttere	"put"	náscere	"be born"
	pérdere	"lose"	rádere	"shave"
	scrívere	"write"	téndere	"stretch"
	úngere	"oil"	víncere	"win"
	vívere	"live"		

In examining the root structure of the infinitives in (2) and (3) certain differences between them emerge. We note the two generalizations given in (4) that are essentially restrictions on the form of the root structure of the theme vowel infinitives in (2).

- (4) Generalizations about theme vowel infinitives
- a. Theme vowel infinitives cannot have a root ending in two consonants.
 - b. Theme vowel infinitives cannot have a root containing a prevocalic sonorant consonant.

The generalization in (4a) is exceptionless, although *rimanére* is an exception to (4b).¹ What is interesting about the observations noted in (4a) and (4b) is that, in Latin, roots of second conjugation verbs are not so restricted. There are many Latin second conjugation verbs whose roots end in two consonants (more than thirty in our

dictionary counts) and there are also quite a few Latin second conjugation roots that have prevocalic sonorants (more than twenty in our dictionary counts). Yet these have switched out of the (historical) second conjugation or have died out during the course of the development of Italian from Latin. That is, such Latin verbs do not become theme vowel infinitives in Italian. Let us consider the historical data. The data in (5) constitute examples of Latin second conjugation infinitives whose roots end in two consonants. Such verbs have become root vowel infinitives in Italian rather than the expected theme vowel infinitives. The data in (6) show Latin second conjugation infinitives with prevocalic sonorants. These, too, have become root vowel infinitives rather than the expected theme vowel infinitives. (Latin forms are indicated with capital letters.)

- | | | |
|-----|----------------------|---------------------------------------|
| (5) | árdere < ARDÉ:RE | fúlgere < FULGÉ:RE |
| | férvere < FERVÉ:RE | astérgere < (AB)STERGÉ:RE |
| | mólcere < MULCÉ:RE | mórdere < MORDÉ:RE |
| | múngere < MULGÉ:RE | prándere < PRANDÉ:RE |
| | péndere < PENDÉ:RE | spléndere < SPLENDÉ:RE |
| | térgere < TERGÉ:RE | rispóndere < (RE)SPONDÉ:RE |
| | tóndere < TONDÉ:RE | tórcere < TORQUÉ:RE |
| | úrgere < URGÉ:RE | assorbíre < (AB)SORBÉ:RE ² |
| (6) | frémere < FREMÉ:RE | lúcere < LUCÉ:RE |
| | méscere < MISCÉ:RE | mólcere < MULCÉ:RE |
| | mórdere < MORDÉ:RE | múngere < MULGÉ:RE |
| | muóvere < MOVÉ:RE | nuócere < NOCÉ:RE |
| | rídere < RIDÉ:RE | prándere < PRANDÉ:RE |
| | strídere < STRIDÉ:RE | spléndere < SPLENDÉ:RE |

What the data in (5) and (6) show is that every Latin second conjugation infinitive that has a descendant in Italian and that has a root structure which does not match the template in (1) are root vowel infinitives in Italian rather than theme vowel infinitives (with the exception of *rimanére* noted above). That is, in the development from Latin into Italian, verbs like those in (5) and (6) have undergone stress shift from the theme vowel to the root vowel. Moreover, it is worth emphasizing that Latin second conjugation infinitives whose root structures match the template in (1) and that have survived in Italian remain theme vowel infinitives. Representative data are given in (7). (An asterisk before a Latin form means that the Latin form is reconstructed.)

- | | | |
|-----|------------------|---------------------------------|
| (7) | avére < AVÉ:RE | calére < CALÉ:RE |
| | dolére < DOLÉ:RE | godére < GAUDÉ:RE |
| | parére < PARÉ:RE | piacére < PLACÉ:RE ³ |

potére < *POTÉ:RE	sedére < SEDÉ:RE
solére < SOLÉ:RE	persuadére < (PER)SUADÉ:RE
tacére < TACÉ:RE	temére < TEMÉ:RE
tenére < TENÉ:RE	valére < VALÉ:RE
vedére < VIDÉ:RE	volére < *VOLÉ:RE

The data in (7) show that Latin second conjugation infinitives whose roots match the template in (1) do not shift and become root vowel infinitives in modern Italian.⁴

While as far as we are aware there are no exceptions to this (although some Latin second conjugation verbs have died out and do not survive in modern Italian), it is worth pointing out that there are a couple of theme vowel infinitives in modern Italian that descend from Latin third conjugation (i.e. root vowel) infinitives. These two are given in (8).

(8) cadére < C'ADERE sapére < S'APERE

What the data in (8) show is that while it is rare for a root vowel infinitive to become a theme vowel infinitive, when such a shift does occur the verb must have a root structure that matches the template in (1).

Another example that supports our contention is the development of Latin *prurire* "to itch" into modern Italian *prúdere*. Here an original Latin fourth conjugation infinitive switched conjugation classes to become a root vowel infinitive in Italian. It is noteworthy that *prurire* becomes a root vowel infinitive and not a theme vowel infinitive. Because the location of stress on fourth conjugation infinitives is identical to that on theme vowel infinitives one would have expected *prurire* to have become a theme vowel infinitive (the hypothetical modern Italian *prudére*). The only explanation for *prurire* becoming a root vowel infinitive instead of a theme vowel infinitive when it switched conjugations appears to be the incompatibility of prevocalic sonorant consonants with theme vowel infinitives.

In summary, the data presented here strongly suggest that phonological factors are crucial in identifying which Latin second conjugation verbs undergo conjugation class shift (ie, from theme vowel stress to root vowel stress in Italian) and which do not. Essentially, Latin second conjugation infinitives whose roots ended in two consonants or whose roots contained a prevocalic sonorant consonant have undergone shift in the development into Italian. This observation has gone unnoticed by other researchers. Although we have shown that phonological factors are crucial in identifying which second conjuga-

tion verbs are candidates for undergoing shift, we do not have an account as to when such shifting actually occurred in the development of Italian from Latin. We suspect though that other factors (e.g. sociological, psychological, etc.) would be relevant in determining precisely when an individual verb undergoes shift. To reiterate, what we have shown is that phonological factors alone are sufficient in identifying which second conjugation (ie, theme vowel) infinitives are candidates for shift. We now turn to another Eastern Romance language, Romanian, in which similar (though not identical) phonological factors are involved in conjugation class shift.

3. Romanian

Romanian, like Latin, maintains four verbal conjugations. The relevant conjugations for us are the second and third. Romanian second conjugation infinitives, which for the most part descend from the Latin second conjugation, end in the stressed theme vowel *ea* (which is phonetically the diphthong [ja]). The Romanian third conjugation infinitives, all of which end in the vowel *e*, mainly descend from the Latin third conjugation and display root vowel stress. Examples of Romanian second and third conjugation infinitives include the second conjugation *a vedeá* "to see" and the third conjugation *a vînde* "to sell". The Romanian first and fourth conjugations end in the vowels /a/ and /i/, respectively.

In the development of Romanian from Latin, some of the Latin second conjugation verbs have switched conjugation classes. They have switched mainly to the third conjugation, though a few verbs have switched to the fourth conjugation. Our contention for Romanian is similar to what we showed for Italian. Latin second conjugation verbs whose roots do not match the template in (1), which is repeated in (9) below, are candidates for conjugation class shift. Second conjugation verbs whose roots do match the template do not shift conjugation classes in the development of Romanian from Latin (although some of them have died out and do not survive in modern Romanian).

- (9) $C_i V C_j$
 a. where C_i does not contain a sonorant
 b. where C_j is a single consonant

Evidence supporting our contention is given in (10) and (11), below. In (10), we present the list of Latin second conjugation infinitives whose roots ended in two consonants and that have survived into modern Romanian. As can be seen, these verbs have all switched conjugation

classes, mainly going from the second conjugation to the third conjugation (though there are also examples of changes to the fourth conjugation class, as well). In (11) are Latin second conjugation infinitives whose roots contained a prevocalic sonorant consonant and that have survived into modern Romanian. These verbs, too, have all switched conjugation classes, mainly going into the third conjugation with a couple going into the fourth.

- | | | |
|------|----------------------|-----------------------------|
| (10) | a árde < ARDÉ:RE | a șterge < (AB) STERGÉ:RE |
| | a múlge < MULGÉ:RE | a depínde < (DE) PENDÉ:RE |
| | a fiérbe < FERVÉ:RE | a răspúnde < (RE) SPONDÉ:RE |
| | a prinzí < PRANDÉ:RE | a stoárce < (EX) TORQUÉ:RE |
| | a túnđe < TONDÉ:RE | a absórbi < (AB) SORBÉ:RE |
| | a úmple < IMPLÉ:RE | |
-
- | | | |
|------|----------------------|-------------------------|
| (11) | a méște < MISCÉ:RE | a rămíne < (RE) MANÉ:RE |
| | a múlge < MULGÉ:RE | a ríde < RIDÉ:RE |
| | a plăceá < PLACÉ:RE | a lucí < LUCÉ:RE |
| | a prinzí < PRANDÉ:RE | |

On the other hand, Latin second conjugation verbs whose roots match the template in (9) (and whose descendants survive in modern Romanian) have for the most part remained in the second conjugation. These are shown in (12).

- | | | |
|------|-------------------|--------------------|
| (12) | a aveá < HABÉ:RE | a dureá < DOLÉ:RE |
| | a păreá < PARÉ:RE | a puteá < *POTÉ:RE |
| | a ședeá < SEDÉ:RE | a tăceá < TACÉ:RE |
| | a vedeá < VIDÉ:RE | a vrea < *VOLÉ:RE |
| | a zăceá < IACÉ:RE | |

The verbs in (12), unlike those in (10) and (11) all have root structure that match the template in (9). Thus they do not shift conjugation classes. However, there are a couple of verbs in Romanian that are historically second conjugation and that have the root structure in (9), yet are nonetheless realized in modern Romanian as third conjugation verbs. These are given in (13).⁵

- | | | |
|------|------------------|------------------|
| (13) | a téme < TIMÉ:RE | a țíne < TENÉ:RE |
|------|------------------|------------------|

Given our contention that verbs whose roots match the template in (9) do not switch conjugation classes, the shift shown by the two verbs in (13) is unexpected. The cognate forms of these verbs do not shift in Italian. The Italian cognates, shown in (7), are *temére* and *tenére* with the expected theme vowel stress. The Romanian verbs in (13) provide evidence that the relevant template for second conjugation verbs in Romanian is somewhat different

than Italian. Romanian has an additional restriction besides what is shown in (9). Specifically, in Romanian, second conjugation verbs cannot have a root that ends in a nasal consonant. Thus we restate the relevant templatic structure for Romanian second conjugation verbs as in (14).

- (14) $C_i V C_j$
 a. where C_i does not contain a sonorant
 b. where C_j is a single consonant
 c. where C_j is a non-nasal consonant

Consequently, the Romanian descendants of Latin *timé:re* and *tené:re* switch conjugation classes since their root structure violates (14c) whereas the Italian cognates of these verbs do not undergo shift since (14c) does not play a role in Italian.⁶ The relevant template for Italian is that in (9).

The list of Romanian second conjugation roots in (12), however, is not a complete list. Not on the list in (12) are two additional Romanian second conjugation verbs that descend from Latin third conjugation verbs. These are given in (15).

- (15) a *cadeá* < C'ADERE a *incapeá* < (IN)C'APERE

While it is not obvious to us why these two verbs switched from third to second conjugation in going from Latin into Romanian, it is noteworthy that both these verbs have root structure that match the template in (14). These verbs thus provide additional evidence for the existence of the template. Any verb that switches into the second conjugation in the development of Romanian from Latin must have a root structure that matches the template in (14).

4. Summary

In this paper we have shown that phonological factors are crucial in understanding which Latin second conjugation verbs are likely to switch conjugation classes in the development of the daughter languages. Specifically, Latin second conjugation verbs whose roots either contain a prevocalic sonorant or end in two consonants have undergone shift in the development of Italian, as evidenced by the data in (5) and (6). Latin second conjugation verbs whose roots either contain a prevocalic sonorant, or end in two consonants, or contain a root-final nasal have switched conjugation classes in the development of Romanian, as evidenced by the data in (11), (12), and (13). The role of these phonological factors seem crucial in determining

which Latin second conjugation verbs are candidates for conjugation class shift in the development of the daughter languages. (See Davis & Napoli 1990 for discussion of these factors beyond Eastern Romance.)

Notes

*We would like to thank Clancy Clements, Nancy Elliott, Richard Janda, Brian Joseph, and Donca Steriade for discussion and/or comments on this paper. An earlier version of this paper was presented at the Milwaukee Symposium on Explanation in Historical Linguistics, April 20, 1990. This paper along with Davis and Napoli (1990) is part of a larger work in progress.

¹While *rimanére* is an exception to the generalization made in (4b) it is worth noting that the form *manére*, without the prefix, is no longer found in modern Italian. Thus the exception to (4b) only occurs when a prefix is added to the now obsolete root. Perhaps this makes *rimanére* less transparently an exception.

²This verb in Italian becomes an *ire*-infinitive instead of becoming an *ere*-infinitive with root vowel stress. This Latin verb though can take an inchoative infix. In general, it appears to be the case that Latin second conjugation verbs that take an inchoative infix develop into *ire*-verbs in Italian.

³The change of Latin /l/ to Italian /i/ (specifically an on-glide to a diphthong) exemplified by the development of Latin *placé:re* into Italian *piacére* reflects a regular phonological correspondence. Had this change not occurred one would have expected *placé:re* to have become a root vowel infinitive in modern Italian (the hypothetical *plácere*) because of the presence of a prevocalic sonorant consonant in the root.

⁴Notice that words whose roots end in the affricate [çc] (eg, *tacére*) are theme vowel infinitives. This means that [çc] is treated as a single segment. The situation regarding roots ending in the affricate [Δ] is somewhat more complex. It seems that [Δ] is treated as being two segments. The only relevant example involves the shift of Latin *vigé:re* to Italian *vígere* (where the root of this verb ends in phonetic [Δ]), although the Italian form apparently is somewhat archaic.

⁵There are two Romanian verbs of the first conjugation that at first glance seem to have descended from the Latin second conjugation even though they have the root structure that characterizes the second conjugation. These verbs are *a valora* and *a datora*. However, these Romanian verbs do not descend directly from the Latin *valé:re* and *debé:re*, respectively. These verbs are derived. The verb *a*

valora comes from the French borrowing *valeur* while the verb *a datora* is derived from the Latin noun *debitorius*. Thus these two Romanian verbs do not reflect a conjugation class shift.

⁶Some Romanian dictionaries give a *umpleá*, a *plăceá*, and a *țineá* (all second conjugation) for forms we presented in (10), (11), and (13) as the third conjugation *a umple*, *a plăce*, and *a ține*, respectively. The second conjugation forms of these verbs are archaic in modern Romanian.

References

- Davis, Stuart & Donna Jo Napoli. 1990. "The destiny of Latin second conjugation infinitives in Romance". *Probus* 2.2.
- Malkiel, Yakov. 1985. "Excessive self-assertion in glotto-diachrony: Portuguese sofrer and its Latin and Spanish counterparts". *Lingua* 65.29-50.
- _____. 1986. "From Old Portuguese caer 'to fall' to Modern cair: Three explanations". *Romance Quarterly* 33.5-10.
- Wright, Roger. 1982. *Late Latin and early Romance in Spain and Carolingian France*. Liverpool: F. Cairns.