



Latin Accents in the Roman Republic: Direct Evidence and SLM-r Reconstruction
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Introduction

The average Latin student today is taught from their first day that the Romans spoke Latin. They are then taught a set of phonological rules with the implicit assumption that these rules are the single and only correct way that the ancient Romans spoke. A brief ponderance of this easy and common idea quickly reveals its unfortunate reductiveness.

At its peak, the Roman Republic spanned over 2 million square kilometers¹ of land, populated with speakers of countless languages that coexisted with Latin (Taagepera 1979). Latin started merely as another Italic language, living in a relatively small crevice of the Italian peninsula and rubbing shoulders constantly with the now extinct Sabellic languages. In other words, Latin, the language of Latium, got very lucky. And even as Latin grew into the standard language of the Roman Republic, other languages remained. This fact, in addition to the large geographical spread of the language, adds to the curiosity of whether Latin phonology had a regional diversity.

This paper brings to light some previously obscure regional phonologies of Republican Latin and attempts to reconstruct bilingual phonologies of substrate speakers. It is in no means a comprehensive account of all regional dialectisms.

¹ Taagepera, Rein (1979). "Size and duration of empires: growth-decline curves, 600 BC to 600 AD". *Social Science History*. 3 (3/4): 115–138. doi:10.2307/1170959. JSTOR 1170959.

On Direct Evidence

This section covers the local phonological dialects of republican Latin in the areas of Falerii and Praeneste, both areas fairly close to urban Rome, through the analysis of explicit evidence. Urban Roman authors most likely considered elements of these dialects (and dialects from other near-Rome regions) to be “rusticus,” in contrast to urban Latin. On “rustic” Latin, Roman authors were ambivalently disdainful of its “degenus” nature and simultaneously envious of its antiquated nature, leading some Roman authors to take up certain non-urban phonologies to sound more sophisticated. They left these attitudes in their works, which form the firmest explicit evidence pointing towards regional phonological diversification.

The second, more relied upon by previous scholars, but also somewhat evidentially weaker, are republican inscriptions. The people of the Italian peninsula did not have “auto-correct.” Thus, especially in extra-urban regions, any so-called “spelling errors” in inscriptions may be written reflections of regional phonological differences.

Of course, it is not that simple, as James Noel Adams, a leading researcher in this field, points out. Many times, such inscriptions are archaisms, not necessarily reflections of contemporary pronunciation. Nevertheless, they can still be helpful (Adams 2014).

Faliscan Latin

Tucked away in the southern province of Roma and bordered on the east by the Tiber, the *Ager Faliscus* held most of its inhabitants at a town called *Falerii*, 50 kilometers north of Rome. Before 241 B.C., the so-called *Falerii Veteres* contained the *Falisci*, who, though perceived as being a part of Etruria, were also a “distinct people,” as Strabo described. However, after 241 BCE, when war forced half of Faliscan territory to cede to the Romans, Faliscan speakers were spread into the generic “rus” around Rome. Once a people with a strong linguistic identity, the Faliscans faded into the broad category of non-urban rustics. With that, their once-unique language became a variant within rustic Latin (Bakkum 2006). This section is concerned only with this later form of Faliscan, which will be interchangeably referred to as “Neo-Faliscan” or “Faliscan,” unless otherwise specified.

From various inscriptions and explicit *commentarii*, we can conceive a comparison between correct “urban” Latin and dialectical “Neo-Faliscan” phonology. The following is a summary of dialectisms, each of which is individually discussed after.

“Standard” Latin phoneme	Faliscan-Latin Dialectism
Word final <i>r</i> , (e.g. <i>praetor</i>), trilled /r/	Weak alveolar/dental tap (e.g., <i>pretod</i>)
Word final /t/, /d/	Weak alveolar/dental tap, frequent omissions
<i>ae</i> diphthong pronounced /ai/	Consistent monophthongization, a reduction to /e/ (<i>pretod</i> , <i>cuestor</i>)
PIE voiced aspirates /bh dh guh/ > /b d u/	/bh dh guh/ > /f/

/f/	Middle Faliscan development /#fV/ > /#hV/
/h/, lightly aspirated, frequent omissions	<i>h</i> is pronounced with stronger aspiration, lack of omissions
/s/ in word-final position after a short vowel	Omitted virtually everywhere, weak glottal sound: /ʔ/ or /h/

Word-Final r

CIL 365 is a bronze sheet written in Faliscan script, dated to around the second century BC. It is the source of many discussions on Faliscan dialectisms. The full text is printed as:

Menerva sacru / la cotena la f pretod de / zenatuo sententiad vootum / dedet cuando datu
rected / cuncaptum

Authors have interpreted this inscription in various ways. Some, like Giacomelli, consider it “essentially Latin,” though it was written in Faliscan script and from right to left, in the Faliscan manner (Giacomelli 1963). Adams, however, identifies a certain “local identity” being conveyed in the inscription (Adams 2004).

Of particular interest in this inscription to the question of word-final -r is *pretod*, representing Latin *praetor*. The change to -d was first interpreted by Giacomelli as a product of sandhi assimilation with *de* (Giacomelli 1963). But this does not hold up upon closer examination. As Wachter puts it, “the phonetic result that would have led the writer to write two d’s is also not easy to imagine.” He explains the change as overcompensating for a pre-existing tendency to lose the final -r, but adding the wrong consonant (Wachter 1987). This would suggest that the final -r in Faliscan was similar to the phonetic pronunciation of -d, perhaps a weak, easily omissible, alveolar or dental tap, as opposed to a trill in standard Latin.

This conclusion, that word-final Faliscan -r was lost or misinterpreted as /d/ because it was a weak alveolar or dental tap, is supported by another inscription from late Faliscan:

/]a.pr/otacio/m.f.m.a/cistr[a]tu//
/keset.c[u]/estod.pi/.pretod[.]/[p]is//
/cau/ia.ux/o.a.f.//

This inscription, again written in Faliscan script and from right to left, includes three words of interest: *uxo*, *pretod*, and *cuestod*, representing Latin *uxor*, *praetor*, and *quaestor*, respectively. That the *pretod* in this inscription is followed by *pis* practically dismisses assimilation as an explanation for -r > -d. Both *pretod* and *cuestod* corroborate the idea that the final -r in Faliscan phonology was weakly tapped, therefore easily miswritten as -d. This is the explanation that Peruzzi offers and seems most reasonable (though his claim of Umbrian influence is too speculative).

One may wonder why the writer of this inscription did not also choose to include *-d* for “uxor,” writing “uxod” instead of “uxo.” Indeed, *uxo* already existed in early Faliscan, as part of a general tendency to lose the final *-r*. Importantly, *uxo* was not a loan word. Mancini, who disagrees with the alveolar tap explanation, notes that *praetor* and *quaestor* are official Latin terms, likely loans and not “native” Faliscan words. He suggests that since the standard Latin pronunciation of *r* was “stronger” than that of Faliscan *r*, the author attempted to “strengthen” the local weak dialectism for official formality through compensation (Mancini 2002).

Though Mancini’s explanation helps one understand the seemingly special treatment of *pretod* and *cuestod*, it does not prove that the Faliscans did not pronounce *-r* with an alveolar tap. Instead, it proves that the Faliscans likely perceived the Latin trilled-*r* *-r* as substantially stronger, so much so that it approached their perception of the voiceless apical *-d*, not *-r*. Thus, the loss of *-d* in *uxo* and the incorrect compensation of *pretod* and *cuestod* illustrate a regional dialectism.

Weak word-final /t/ and /d/

On the other hand, that *-r/* was replaced with *-d* may also demonstrate *-d* closeness to a very weak alveolar tap. This is especially supported by the disappearance of *-d* in inscriptions, which occurred likewise in Latin. Therefore, because Neo-Faliscan *-d* only occurred in hypercorrect or archaizing forms, its regional character is not particularly evident.

For word-final *-t/* the third singular *-t#* and plural *-nt#* often saw */t/* omission (e.g. *cupa* for *cupat*). This development for the same form *cupat* is attested in both Middle and Late Faliscan, perhaps reflecting a regular regional dialectism for this word specifically. But this also occurs in Latin, such as the forms *dede* and *kapia*. Overall, the evidence for weak word-final */t/* and */d/*’s dialectical nature is not incredibly strong (Adams 2004).

Monophthongization of /ai/ and /au/

The same words from above, *pretod* and *cuestod*, show evidence of a regional monophthongization of *ae*. What first started in inscriptions as *ai* was drowned out by *ei* and *e* in Middle Faliscan, and essentially eliminated in Late Faliscan.

The same seems to have also occurred for the diphthong */au/*, which was confused with */ou/* in the varying forms *Aufilus* and *Oufilus*. These development reflects innovations in Middle Faliscan that became productive later in Latin and ultimately the Romance languages (Adams 2004).

The literature on Latin monophthongization is quite immense, however, and it is clear that the effect was not restricted merely to Faliscan. Though Faliscan monophthongization anticipated the Latin development by around a century, by Republican times, the effect seems to have existed in rural Latium. Varro observes, “quod illic ‘fedus’ in Latio rure ‘hedus,’ qui in urbe, ut in multis, ‘a’ addito ‘haedus.’” The Roman authors spurned this development as rural and maintained the “proper” diphthong pronunciation into the 1st century C.E:

Thus, the monophthongization of /ai/ cannot be judged as a uniquely Neo-Faliscan feature. But it certainly was an obvious dialectism that set the Neo-Faliscan dialect, like other rural dialects, apart from high-class Roman Latin.

Word-Internal Reflexes of PIE Voiced Aspirates

While in Latin, the PIE aspirates /bh dh gh/, when word-internal, developed into /b d u/, in Faliscan, the word-internal reflex is *f* (except for /guh/, see below). The following examples are taken from Bakkum.

For aspirate */-bh-/ , a clear example is the word *carefo*, directly analogous to Latin *carebo* (“I will lack”), where PIE */-bh-/ develops into Latin /-b-/ , while in Faliscan, it develops into /-f-/ . Analogously, the Faliscan verb *pipafo* exhibits the same reflex.

The same development is seen in the PIE prefix */tib^herjo-/ , which developed into Faliscan *tif*, reflecting a name analogous to Latin *Tiberius*, perhaps Faliscan */Tiferios.

The dental aspirate */-dh-/ also has its Faliscan reflex as /-f-/ , while in Latin, it developed into /d/. For instance, */h₂eid^h-/ developed into Latin *aediles*, while the Middle Faliscan form *efiles* (seen in three inscriptions) is the Faliscan reflex.² Additionally, PIE */h₁leudhero-/ developed into Middle Faliscan *loifirtato*, *loferito*, among other forms. The cognate in Old Latin is *loebertas*, and in Classical Latin, *libertas*.

Additionally, the same development is seen in Early Faliscan *rufia*, expressing the /f/ reflex from PIE */h₁reud^ho-/ > Proto-Latin */rouđo-/ . However, *rufia* presupposes an unexpected monophthongization development in Early Faliscan, and can only be explained as a misspelling. If it truly followed the development above, it would result in */roufia. Alternatively, it may instead be from PIE */h₁rud^hro/, which developed in Latin *ruber*, though this would mean a misspelling *ruf<r>ia*. Either way, the PIE reflex is seen as /f/ in Faliscan.

Finally, from Faliscan *ifra*, we see the same reflex from PIE */h₂erō-/ . Its analog in Latin is, unexpectedly, *infra*, but Bakkum suggests that the Proto-Latin predecessor */h₂erōd/ may have been reinterpreted as if it were a compound */en+đ(e)rā(d)/ . Since the word-initial reflexes for Latin and Faliscan both end up as /f/, /đ/ would have developed into /f/ in Latin as well.

When it comes to the reflex of /gh/, however, the evidence is not clear. While in Latin, the reflex is *h*, in Faliscan, it seems that it developed into an occlusive /g/. However, this conclusion, supported by Giacomelli and Stuart-Smith, rests upon only three forms, two of which (*fifiked*, *fifiqod*) align with the same Latin development from the same PIE root */d^heiǵ^h-/ (i.e. *figulus*, *figura*, *effigies*) (Giacomelli 1963, Stuart-Smith 2004). The final form, Middle Faliscan *lecet*, is the only evidence of /gh/ > Proto-Latin /ɣ/ > /g/ in Faliscan. Bakkum notes that this development “has no parallel in any of the Italic languages either,” and is, relatively, too distant a development, especially when compared to the developments into /f/ mentioned above.

² Mancini notes that *efiles* could be a loan from Latin (*aediles*), modified to match a hypothetical local morphology of *ef*.

In conclusion, while the reflex of /gh/ cannot be totally ascertained, the other voiced aspirates /bh dh/ converged into Faliscan reflex /f/, while in Latin, they became /b d/. These developments occurred before any epigraphic evidence, signifying a divergence from Latin at the Proto-Latin stage.

Note that as a consequence of this development, the Faliscan alphabet does not have a *b* character. Where /b/ is rarely expressed, it must have originated from PIE /b/, not /bh/.

Middle Faliscan /#fV/ > /#hV/

The word-initial reflex of the PIE voiced aspirates developed into /f/ and /h/, similarly in Faliscan and Latin. In Faliscan, however, there occur some forms of the reflex that alternate unexpectedly between *f* and *h*. For instance, *hileo* instead of *fileo* (Latin *filius*), *fe* instead of *hec* (Latin *hic*), *foied* instead of expected **hoied*. Other examples, where the etymologically proper form is unknown, are variations of *firmia* vs *hirmia* and *folcozeo* vs *holc[osij]*. Velius Longus speaks of the “antiqui” who pronounced *fabam* as *habam* and are revealed to be the Faliscans by Terentius (Bakkum 2006).

What to make of this variation? Many solutions have been suggested, ranging from Etruscan influence to phonetic confusion. The solution accepted by Bakkum is that of Wallace & Joseph, who suggest a Middle Faliscan development /#fV/ > /#hV/, similar to in Spanish *filius* > *hijo*. This is supported by the fact that the etymologically correct forms are more common than the variants. *f* replacing etymological *h* would be hypercorrection, and *h* replacing etymological *f* is a phonetic spelling of the development (Wallace & Joseph 1991).

Wallace & Joseph also note that this variation was not lexically diffuse, suggesting that this effect did not develop uniformly. They suggest that perhaps the development existed in more “prestigious” variations of Faliscan, and thus, development-less subdialects of Faliscan incorporated the development to imitate these supposed “prestigious” dialects (Wallace & Joseph 1991). But this is speculation, and an idea that Bakkum rightly rejects (Bakkum 2006).

However, this divide of “prestige” is present in Neo-Faliscan’s connection with urban Latin. As seen from the hypercorrect forms of *pretod* and *questod* above, urban Latinity may have been perceived as more desirable, especially in legalese. The hypercorrective nature of *f* replacing etymological *h* may thus be from urban pressure, as Wallace & Joseph note, where there was a greater distinction between *f* and *h* (Wallace & Joseph 1991).

Strongly aspirated /h/

In connection to the /#fV/ > /#hV/ development, like the previously discussed closeness of Faliscan *d* and *r*, /h/ was pronounced with stronger aspiration than in Latin. While in Latin, *h* is often omitted from inscriptions, there are no Faliscan instances of *h* omission.

Though an exact pronunciation cannot be ascertained, it is fair to assume that this difference in omission frequency shows a regional dialectism which rendered Faliscan *h* stronger than standard Latin *h*.

Universal omission of /-ṽs#/

In Latin, the general weakness and omission of word-final /s/ after a short vowel is attested frequently (Allen 2004). Allen notes its omission in inscriptions until the third century B.C., and its weakness in early Latin poetry (though not so weak as to permit elision). But geographically, this effect is nowhere as high as in Faliscan. In Faliscan, the omission of -s after a short vowel is nearly universal. Bakkum notes a ratio of 29:1 of omission in all 107 Faliscan inscriptions where this effect occurs, a total of 175 times (Bakkum 2006).

Phonetically, this offers the possibility of /-ṽs#/ not being pronounced at all in Faliscan. But written omission must not necessarily mean phonological omission. Bakkum analogizes this development to Andalusian Spanish *estamos*, where -s is pronounced with a glottal fricative /ʔ/ (Bakkum 2006). The pronunciation in Faliscan may have been similar.

However, Bakkum proposes a caveat—that perhaps this omission of /-ṽs#/ was merely a Faliscan orthographic practice, and that indeed, both Latin and Faliscan had developed the same extremely weak final /-ṽs#/. He notes that Latin inscriptions in the Ager Faliscus did not include an omission of /-ṽs#/, but Faliscan inscriptions did, which would suggest a sort of orthographic code-switching (Bakkum 2006). But this is too speculative a counterargument for what seems to be overwhelming evidence of Faliscan omission of /-ṽs#/.

If, indeed, there was some sort of orthographic custom to omit final /-ṽs#/, this final -s must have been so much weaker than that in Latin to generate such a certain orthographic custom which eliminated 97% of final /-ṽs#/. Indeed, the treatment of final /-ṽs#/ in Latin was known to be quite weak. But it was not strong enough to create an orthographic custom as universally frequent as in Faliscan.

Conclusion

The developments discussed above only cover the apparent dialectical differences between Neo-Faliscan and Latin in the Republican period. Faliscan as a whole exhibited many more diverging changes throughout its history. But, as Bakkum notes, it eventually faded into a local dialect of rural Latin, ultimately converging, except for a few retained dialectisms (Bakkum 2006). The most obvious dialectism is the morphological preservation of Faliscan's PIE voiced aspirate reflexes. The other dialectisms do not originate as early. Taken together, these dialectisms, especially the f/h variation commented on by the Roman grammarians, form a hypothetical Faliscan "accent."

Praenestine Latin

In other areas of Latium, like Praeneste, inscriptions and explicit testimony point to the existence of a “Praenestine” dialect. The Praenestine dialect of Latin most likely diverged from Latin, unlike Faliscan, which, for most of its history, developed like a separate language, only converging in its later history.

There has been the strain of thought that the so-called “Praenestine” dialect of Latin has the strongest evidence for its dialectisms among other dialects. They are compiled with great length in Coleman. However, Adam’s review of the inscription evidence casts significant doubt on a great number of these dialectisms. There are really only two likely known dialectisms for the Praenestine dialect:

“Standard” Latin phoneme	Praeneste Dialectism
/i/ before hiatus to /a/	Variation and closeness of pronunciation with /e/, possible opening towards /e/.
ai diphthongs	Uncommon, though earlier monophthongization into /e/

/i/ and /e/

The most confident evidence for a regional dialectism comes from one of Plautus’s plays. In his *Truculentus*, the following exchange occurs between Stratophanes, a soldier, and Astaphium, a maid.

Strat.

*Tene hoc tibi:
rabonem habeto, ut mecum hanc noctem sis.*

Ast.

*Perii, rabonem? quam esse dicam hanc
beluam?
quin tu arrabonem dicis?*

Strat.

*‘A’ facio lucri,
ut Praenestinis conea est ciconia.*

Stratophanes

Take this for you:
Have a deposit, so that you might be with me
for this night.

Astaphium

I’ve been ruined, “rabonem?” What beast am
I to say this? Why don’t you say
“arrabonem?”

Strat.

On the “A” I make a profit,
as Praenestines have “conea” for “ciconia.”

From this, one can draw, at the very least, a regional word, that is, “conea” in place of standard Latin “ciconia.” This regional word also seems to exhibit an opening of /i/ before hiatus /a/, though that assumes that this effect was preserved through manuscripts (some modern versions have *conia*). It would also seem to be corroborated by three other Praenestine inscriptions *filea* (of around Plautus’ age), *precaream*, and *oueus* (Adams 2004).

Some other inscriptions where this effect is exhibited appear in Falerii and in Rome. But they stretch across many centuries, as Adams points out, and are not corroborated by literary evidence. Thus, dialectism is not so clear for Neo-Faliscan or Roman Latin. The explanation Adams proposes for those inscriptions is a broader phonetic confusion between /i/ and /e/ (Adams 2004). Phonetic confusion between /i/ and /e/ was incredibly common within Latin, not simply before a hiatus.

The apparent development $i > e$ in Praenestine could also be a part of broader phonetic confusion between /e/ and /i/. That's not to say, however, that the hiatus to the open central vowel /a/ did not contribute to this confusion. If one must draw some dialectical conclusion about Praenestine Latin, it cannot be *i* before all hiatus, but perhaps before near-open central vowel /a/, since the three instances of this dialectism appear in such a situation. It is possible that the hiatus into open /a/ had an opening effect on the preceding /i/, as hinted at in Plautus. The generalization for any vowel found in Coleman (1990), though, is not tenable.

Monophthongization of ai

As mentioned in the previous neo-Faliscan section, the monophthongization of /ai/ is seen in non-Roman dialects of Latin. In Praenestine Latin, the same effect is seen, certainly, evidenced only by the forms *Ceisia* for *Caisia* and *Grecia*. Additionally, there is the disparaging comment by Lucilius, *Cecilius pretor ne rusticus fiat*, which may refer to the Praenestine praetor Caecilius Metellus, though a Praenestine joke is not as explicit here as in Plautus.

Adams points out that there are, in fact, more diphthongal spellings at Praeneste than monophthong spellings. However, many of these forms are religious inscriptions, which are more likely to preserve archaic spellings and not “phonetic” spellings. Though Adams dismisses monophthongization at Praeneste altogether, the evidence is strong enough to suggest that at least some rural monophthongization occurred earlier than in Rome, but that the diphthong /ai/ prevailed, to a greater degree than other rural dialects like neo-Faliscan (Adams 2004).



On Accent Reconstruction

Hitherto, we have discussed dialectical variations of Latin within native speakers of the language itself. This section now discusses hypothetical non-native Latin accents, particularly with respect to Greek and Oscan—that is, what an “Oscan” or “Greek” accent would have sounded like in Latin.

This task naturally requires a model of “accent reconstruction,” a task that requires understanding how L1 and L2 phonologies work. The Revised Speech Learning Model (SLM-r) of Flege and Bohn offers such a model .

In short, the SLM-r suggests that when someone perceives a phoneme (call this p) from an L2 and attempts to recreate it, they can either substitute its pronunciation with a proximate and familiar L1 phoneme, or, if there are no native L1 substitutions, they will create a new phonological category altogether. The SLM-r posits that a speaker will attempt approximation with an L1 phoneme first, because it is a much easier process than the mentally difficult process of actually learning the exact pronunciation of the L2 phoneme. Any L1-L2 accent emerges from this process of engrafting a more familiar, L1 phonological system onto the perceived L2 phonology (Flege & Bohn 2021).

What does this mean for the task of reconstructing hypothetical accents? It means that if, say, an Oscan speaker perceives a certain L2 Latin phoneme that has a close approximate in the L1 phonemic bank, then the Oscan speaker will use that approximation. If there is no such close approximation, then the Oscan speaker will learn the phoneme.

Greek Accent

We come now to the question of how native Greek speakers spoke Latin. Greek’s immense influence on the Latin lexicon is undeniable. But this section seeks to explore what a “Greek accent” during the Republican era would have sounded like. A multitude of testimony from the Republic and Empire era authors gives us some clues, many of which are explained by the SLM-r framework mentioned above.

The attitude of the Romans toward the “Greek” accent can be seen in Quintilian’s remark on which languages students should learn first.

non tamen hoc adeo superstitiose fieri uelim, ut diu tantum Graece loquatur aut discat, sicut plerisque moris est. hoc enim accidunt et oris plurima uitia in peregrinum sonum corrupti et sermonis, cui cum Graecae figurae adsidua consuetudine haeserunt, in diuersa quoque loquendi ratione pertinacissime durant.

I would not, however, like for this to be made a fetish, so that he will speak or learn only Greek for long, as it is commonly done. This, in fact, causes the most vices of both a rotten pronunciation into a foreign sound, and of language, to which, with the constant custom of Greek figure, they have stuck, and they also endure in a separate method most obstinately.

Quintilian’s remark is essential for the question of bilingual Latin accent, because it shows the existence of a so-called “Greek accent.”

Phoneme	Dialectism
/f/	Replaced with /p ^h /
Double consonants (“ille”)	Pronounced thinly and without distinction from a single consonant
Long vowels	Truncating of long vowels, not pronounced as long as native Romans
Stop consonants (<i>t,c,p</i>)	Occasional aspiration

Replacement of word-initial *f* with /p^h/

In Quintilian's *Institutio Oratoria* (I.4.14), he relates a story about Cicero mocking the accent of a Greek witness:

nam contra Graeci aspirare F ut φ solent, ut pro Fundanio Cicero testem, qui primam eius litteram dicere non possit, irridet.

On the other hand, the Greeks are used to aspirating *f* like their own *phi*, as Cicero bears witness in the *pro Fundanio*, where he laughs at a witness who is unable to pronounce the first letter of that name.

The witness in question here is reportedly Greek, and replaces the word-initial *f* of *Fundanio* with some kind of aspirate, apparently the Greek *phi*. This swap is especially credible under the SLM-r framework, which suggests that an L2 phoneme close enough to a specific L1 phoneme is grouped together and pronounced with the L1 phoneme, not the slightly different L2 phoneme.

Interestingly, this *f*/p^h swap occurs in the backward direction for the modern pronunciation of the grapheme p^h in Modern Greek. Additionally, the modern pronunciation of “ph” in Romance languages as /f/ was a replacement of /p^h/ with the closest L1 phoneme /f/. A similar effect is clear in a modern Filipino or Korean accent. Languages from the Philippines, like Tagalog, and modern Korean, lack an L1 /f/ phoneme. They are instead replaced, in Filipino, with the closest native phoneme /p/, and in Korean, with /p^h/. A Greek accent may have sounded similar, with the native /p^h/.

Thin Double Consonants

The pronunciation of a geminated pair of the same consonant in Latin during classical times was distinctly longer than the pronunciation of a single consonant. That distinction, however, may not have been so clear for L1 Greek speakers. Evidence for a “thinning” of Latin geminates is seen twice in the Empire-era writer Consentius.

labdacismum uitium in eo esse dicunt, quod eadem littera uel subtilius a quibusdam uel pinguius ecfertur, et re uera alterutrum uitium quibusdam gentibus est. nam ecce Graeci subtiliter hunc sonum efferunt. ubi enim dicunt ‘ille mihi dixit’, sic sonant duae ll primae syllabae, quasi per unum l sermo ipse consistat.

Labdacism is a vice which they say is as follows: certain speakers pronounce the same letter [l] either more “thinly” or more “fatly”. In fact, one vice or the other is characteristic of particular people. The Greeks pronounce the sound thinly, for when they say “ille mihi dixit,” the two *ls* of the first syllable sound as if the word has a single *l*.

item s litteram Graeci exiliter ecferrunt adeo, ut, cum dicunt ‘iussit’, per unum s dicere existimes.

Likewise, the Greeks carry out the letter *s* feebly to such a degree that, when they say “iussit,” you would suppose they said it with one *s*.

Though the explicit evidence is not exactly from the Republican era, it fits with an SLM-r prediction. From the 3rd century B.C. onward, Koine Greek lost the distinctly geminated consonants of Attic Greek (Horrocks 2014, Gignac 1976). Thus, as obvious as gemination-induced lengthening may have been to native Roman speakers, because Koine Greek was losing such categorizations, they may not have been able to perceive the difference as well.

By Consentius's time, Koine Greek gemination was probably far more lost than in the Republican era. It is fair that a Republican era L1 Greek may have still been very partially, though not wholly, conscious of Latin phonetic geminate categories. The extent of that "partially" is probably unknown, because the later Consentius is the only explicit evidence of this effect.

Shorter Vowels

Republican Koine Greek apparently had shorter vowel lengths than Latin (Dubuisson 1985). The loss of length-based categories led to some observations, like one by Cicero comparing Catulus and Cotta:

Catulus erat ille quidem minime indoctus, ut a te paulo est ante dictum, sed tamen suavitas vocis et lenis appellatio litterarum bene loquendi famam confecerat.

Catulus, indeed, was that man least unlearned, as you've talked a bit about previously. But, nevertheless, his sweetness of voice and light pronunciation of letters had supported his repute of speaking well.

Cotta, qui se ualde dilatandis litteris a similitudine Graecae locutionis abstraxerat sonabatque contrarium Catulo, subagreste quiddam planeque subrusticum

Cotta had dragged himself greatly away from likeness with Greek speech and sounded opposite to Catulus, somewhat rustic and plainly clownish.

This passage may thus be referring to the shortening of long vowels by Koine Greeks. The phrase *lenis appellatio* most closely relates to this prediction. By immediately mentioning the Greeks in the next sentence about Cotta, Cicero implies that Catulus' *lenitas* was, prestigiously, similar to *Graeca locutio*. This is as opposed to Cotta, who had "abstraxerat" himself from these light tendencies. Admittedly, this is not explicit evidence for long vowels specifically. On the surface, Cicero's remarks observe a general "widening" of vowels. And the *similitudine Graecae locutionis* can also be interpreted as the pronunciation of the Greek language, not an L1 Greek accent for L2 Latin.

The fairest conclusion is to acknowledge the noticeable presence of Greek vowel shortening, and its possible existence within a Greek-Latin accent. However, one must not hasten to exaggerate the shortening of a Greek-Latin accent. The lack of a long-short distinction in Koine Greek probably exhibited a similar corruption as modern English students who learn Latin, who don't perceive or enunciate a difference between long and short vowels.

Aspirated Stop Consonants

Among Catullus' more famous poems is one mocking his friend Arrius, who studied Greek overseas and developed a tendency for inappropriate aspiration.

*"Chommoda" dīcēbat, sī quandō "commoda"
vellet*

*dīcere, et "īnsidiās" Arrius "hīnsidiās".
et tum mīrificē spērābat sē esse locūtum,
cum quantum poterat dīxerat "hīnsidiās".
Crēdō, sīc māter, sīc liber avunculus eius,
sīc māternus avus dīxerat atque avia.*

...

*cum subitō affertur nūntius horribilis,
"Īoniōs" flūctūs, postquam illūc Arrius isset,
iam nōn Īoniōs esse sed "Hīoniōs".*

"Hadvantages," was Arrius saying, whenever he wanted to say "advantages."
And for "ambushes," he said "hambush."
And then he hoped that he had spoken wonderfully when he said "hambush" as much as possible.

...

when suddenly a horrible message is brought:
The "Ionian" waves, after Arrius had gone there,
were no longer "Ionian" but "Hionian."

In short, Catullus mocks Arrius for inappropriately incorporating rough breathing into his Latin, like "hionios" and "hinsidias." However, because rough breathing and smooth breathing were distinct enough categories in Koine Greek, this wouldn't suggest that Koine Greek L1 speakers would systematically accidentally add rough breathing to what they perceived as smooth. The aspirated stop in "chommoda," however, could offer some clues to a potential Greek accent.

In a hypothetical Greek-Latin accent, aspiration of stops was probably an arbitrary and entropic corruption, not a systematic replacement of unaspirated stops with aspirated ones. After all, unaspirated stops were also a Greek linguistic category. The question of how frequently this accidental replacement happened cannot be answered simply by comparing phonetic categories.

Oscan Latin

Now, we reach the question of other Italic language accents for Latin. This work will focus on Oscan, though a similar method can be used for other languages.

The question of what an "Oscan" accent for Latin would have sounded like reaches deeply into hypothesis. After all, because Oscan was not an esteemed language like Greek in the Roman Republic, there were no attempts by Latin speakers to imitate it. Neither, as it seems, was it important enough to deserve explicit commentary as the Greek accent did. Only one accent feature can be confidently supported.

Nevertheless, this paper, for the purpose of illustrating the SLM-r framework, reconstructs a few hypothetical phonological features of an Oscan accent. This accent would have been for a native Oscan speaker who learned Latin as an L2, but preserved a native Oscan phonology. The reader should consider this proto-accent as proof of how the SLM-r may be used to reconstruct substrate influence.

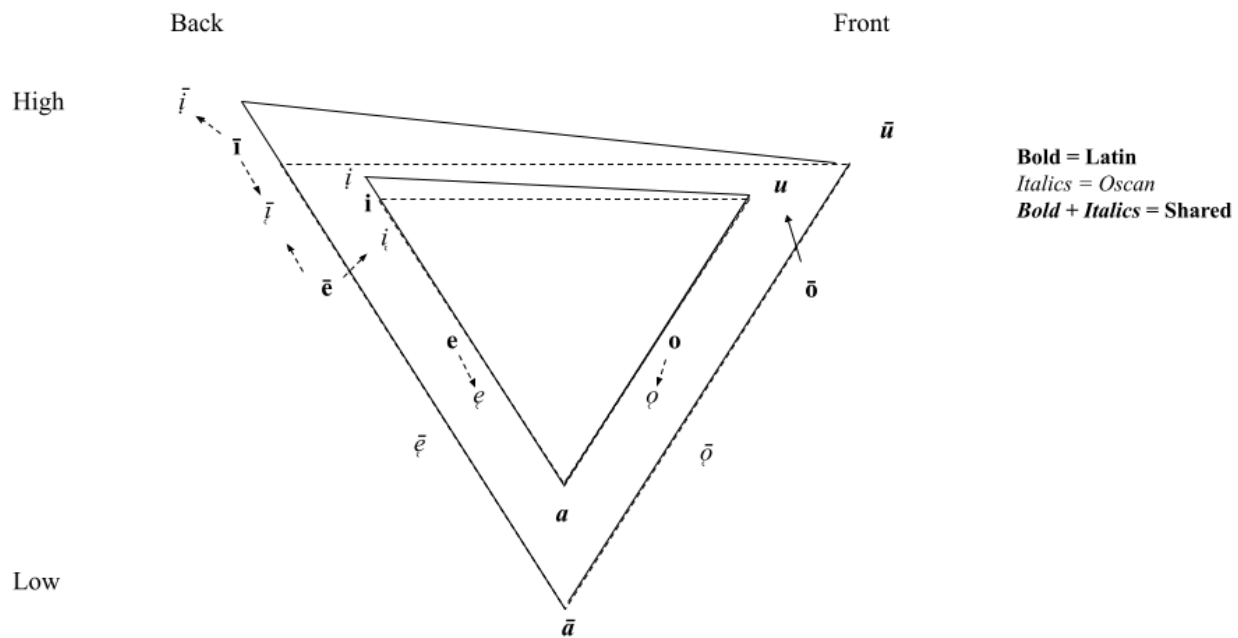


The question of how Latin phonology can be engrafted onto a L1 Oscan phonology requires an overview of both languages' phonological universes. Oscan phonology is taken from Buck, and Latin, from Allen.

Phoneme	Dialectism/Accent
/ō/	Closing toward /u/
/p ^h /, /t ^h /, /k ^h /	Replacement with */p/,/t/,/k/

Vowel Accents

To readily predict how Oscan phonology sounded in L2 Latin, we can visualize both vowel systems simultaneously and see which L1 Oscan vowel phonemes are closest to perceived L2 Latin vowel phonemes (Buck 1904, Allen 2004).



Upon reproducing heard L2 Latin phonemes, an Oscan speaker may have either substituted the perceived phoneme with a proximate one in the Oscan phonology or created a new group entirely. Here, the arrows designate possible vowel substitutions, pointing from L2 Latin vowels (bolded) to native Oscan ones (italicized).

For a phoneme substitution, SLM-r requires the perceived L2 phoneme to be close enough to the L1 phoneme that the speaker automatically assumes the L1 phoneme out of ease. For a new phonemic category to be created, the L2 phoneme has to be very isolated in the vowel map—that is, there are no vowels proximate in the native L1 vowel bank. Of course, it is not altogether clear how “isolated” vowels need to be to create new phonemic categories. That would be a subject for future research. However, it is still possible to predict where an Oscan would have confused their vowel phonology from the visualization above.

A few notable possibilities stand out. First, the more open short *e* in Oscan may have substituted the short *e* in Latin. The same applies for *o*. In the high back region, there is a cluster of native Oscan vowels that may have randomly substituted the more closed native Latin /*ē*/ and *i* phonemes.

But the most likely substitution is in the front high region. There is evidence of one of the listed Oscan vowel dialectisms—namely, the closing of Latin /*ō*/ to the /*u*/ region. Two instances demonstrate this: *dunum* for *donum* and *victurei* for *victoriae* (Adams 2004).



This shift aligns with the SLM-r prediction well. Since /ō/ is a non-native Oscan vowel (as Oscan's long o was open /ō/), the speaker goes searching for a similar Oscan vowel. The closest to the unfamiliarly closed /ō/ is upwards, in the closed /u/ region, where Oscan does have native L1 phonemes. To an Oscan ear, the Latin /ō/ might have been too closed and distant from native Oscan /ō/, so the only alternative is the native phoneme category surrounding /u/.

The rest of the hypothetical shifts are not evidentially confirmed, like the /ō/ > /u/ dialectism is. Though they could have existed, they cannot even be hypothesized with great confidence. Note that the /ō/ > /u/ shift occurs in an area of the Oscan vowel map where there are few alternatives. The distance between the perceived L2 phoneme and the L1 is also quite large.

On the other hand, the (very) subtle variations in the high back regions were certainly too subtle to be seen in writing. The same applies for the hypothetical opening of mid vowels /e/ > /e̞/ and /o/ > /o̞/. These are slightly noticeable dialectisms that do not involve a total phonological category change, like /ō/ > /u/ does, and it makes sense that the written evidence is not present.

In the final analysis, a hypothetical Oscan vowel accent may have sounded slightly more open in the short mid-vowel area, slightly more closed in high back vowels, and noticeably closed for the long mid-vowel.

Consonant Accents

Underlined = Oscan

Bolded = Latin

Bold + Underline = Shared

		Labial	Denta l	Palatal	Velar		Glottal
					plain	labialized	
Plosives	vd.	<u>/b/</u>	<u>/d/</u>		<u>/g/</u>	<u>/kʷ/</u>	
	vlss.	<u>/p/</u>	<u>/t/</u>		<u>/k/</u>	<u>/gʷ/</u>	
	asp.	<u>/pʰ/</u>	<u>/tʰ/</u>		<u>/kʰ/</u>		
Fricative s	vd.		<u>/z/</u>				
	vlss.	<u>/f/</u>	<u>/s/</u>				<u>/h/</u>
Nasals		<u>/m/</u>	<u>/n/</u>				
Liquid			<u>/l/</u>				
Rhotic			<u>/r/</u>				
Semivowels				<u>/i/</u>		<u>/u/</u>	

Oscan and Latin have relatively similar consonant systems. They share many of the same plosives and fricatives, and Oscan does not have any consonants that Latin does not. As it appears, the opposite is untrue. There are a multitude of Latin consonants that an Oscan speaker would not have natively. They are the aspirated plosives and labialized velars.

The labialized velars in Latin, especially /kʷ/ in words like *quid*, developed into /p/ in Oscan (cf. Oscan *pid* to Latin *quid*). According to an SLM-r analysis, an Oscan who hears such a labialized velar in Latin and attempts to imitate must either completely create a new consonantal category or adapt with a nearby L1 consonant.

In the case of labialized velars, one might predict that a new category would be created—that is, an Oscan speaker would be more likely to pick up the labialized velar plosive from Latin, especially if there already exists the semivowel /u/ in native L1 phonology. Recreation can be heard in English accents for native Korean or Finnish speakers, where the L1 phonology is without /kʷ/, but has its component /k/ and /u/. Because the Oscan speaker can perceive the native /k/ and /u/, they can reproduce the consonants without difficulty.

As for the aspirated plosives, the L2 plosives would not be recreated, but substituted by associated L1 plosives. This is evident in many Romance languages without aspiration that substitute native voiceless plosives for English's frequent voiceless aspirated plosives.



As Allen noted, however, the voiceless aspirated plosives in Latin “occupy a peculiar place,” because they were originally used for Greek names and loan-words (Allen 2004). Aspiration, for its coveted Greekness, then spread to non-loan Latin words in a reverse Greek-Latin accent. Thus, if an Oscan speaker really encountered the rare Greek loanword or native Latin word with an aspirated plosive, they might commit a strange reversal to the “original” Latin phonology without aspirated plosives, originating from their common ancestor of Proto-Italic. Such a situation is bound to be rare.

Oscan and Latin had very similar phonological systems. In the hypothesis, the only truly noticeable accent might be detected in the voiceless aspirated plosives. Here, Oscan, without having assimilated them from another language like Greek (to the extent of our knowledge), may have substituted them with the unaspirated version.

Conclusion

This paper has examined a set of subtle regionalisms of Latin during the classical republican period. In particular, it has attempted to show how a comparison between L1 and L2 phonologies can be used to reconstruct a hypothetical accent. Though regionalisms became much more obvious during the Roman Empire, there were undeniable regionalisms in Latin, even during the classical period.

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