Cover Page

Title of manuscript:

The Pronunciation of Syllable Coda m in Classical Latin: A Reassessment of Some Evidence from Latin Grammarians

Author's name:

Javier Uría

Address:

Facultad de Ciencias Sociales y Humanas

Universidad de Zaragoza

Ciudad Escolar s/n

44003 TERUEL

SPAIN

Phone number and e-mail address:

(+34)978618132

juria@unizar.es

THE PRONUNCIATION OF SYLLABLE CODA *M* IN CLASSICAL LATIN: A REASSESSMENT OF SOME EVIDENCE FROM LATIN GRAMMARIANS

Abstract

This article reviews the text and interpretation of some ancient evidence on the pronunciation of syllable coda m in Latin. Crucial textual emendations are suggested for passages by Annaeus Cornutus and Velius Longus, and the resulting evidence is reinterpreted in the light of current phonological theories. Some of the accepted views on the pronunciation of -m are challenged by highlighting the likely sound variation in neutralization contexts. The evidence from both grammarians and inscriptions reveal that the possibility of m sounding [n] in the internal preconsonantal position could have been more widespread than previously thought.

THE PRONUNCIATION OF SYLLABLE CODA M IN CLASSICAL LATIN: A REASSESSMENT OF SOME EVIDENCE FROM LATIN GRAMMARIANS

Introduction

Scholars have traditionally resorted to several kinds of evidence to reconstruct the actual pronunciation of Classical Latin. The classical work by Traina 2002, 39, lists: observations made by ancient grammarians and writers; "phonetic" writing in inscriptions; the transcription of Latin words in Greek and vice versa; ancient lexical borrowings from Latin to other languages (particularly Germanic languages); and data from both Indo-European and Romance comparative philology. The fact that remarks made by grammarians appear first in that list might not be due to chance, since they had also been mentioned first in the influential study by Seelmann 1885, 3, and ranked "an erster Stelle" in the *Ausfürliche Grammatik* by Kühner and Holzweissig 1912, 11, who provide a similar inventory of the "Quellen unserer Kenntnis der Aussprache des Lateinischen."

However, the problematic nature of evidence in the ancients had already been noticed by Seelmann 1885, 5–7. He observes that phonetic problems were hardly dealt with in isolation in Antiquity and instead they were subordinated to orthography; also, grammarians used to accept their predecessors' remarks, and they often borrowed terms and concepts from Greek grammar. These caveats have been repeated and enlarged in subsequent works on Latin pronunciation. Therefore, it may not be a coincidence that more recent accounts on this topic give the grammarians' data a less prominent place. Moreover, it is acknowledged that grammatical observations often prove highly difficult in terms of both text definition and interpretation (Adams 2003, 433–5; Cser 2016, 7). This pessimistic view should not prevent scholars from using this kind of evidence, but rather must encourage them to pay close attention to the text and to the tradition of the reported doctrine.

Nowadays, the study of any aspect of the Latin language cannot ignore the achievements of structural and generative linguistics, which have been fruitfully applied to Latin sounds since the 1940s and 1970s, respectively. Indeed, some of the most intriguing problems arising from ancient writers' remarks on orthography and

pronunciation can be explained by phonological rules or concepts: see, e.g., Zirin 1970; Devine and Stephens 1977; Moralejo 1991; Ballester 1996; Touratier, ed. 2005, and Cser 2016.

In this paper we will first consider two controversial pieces of evidence that have been either misused or un(der)used to elucidate the pronunciation of m in coda position in Classical Latin. Then, we will assess whether the restored evidence is consistent with what phonology has been able to conclude on this matter.

1. Word-final and word-internal coda m: One or two problems?

It is worth noting that some of the evidence discussed in this paper refers exclusively to word-final m, whereas other remarks affect any coda m and a few pertain to both positions. As it is well-known, word-final m has received much more attention by both ancient and modern scholars because of the relevant role it plays in verse scansion, where any vowel plus m at the end of a word followed by a word beginning with a vowel ($-Vm\ V-$) is treated as a simple final vowel, so that both typically experience elision/synalepha. The common explanation for this fact is that the final m is reduced "to a mere nasalization of the preceding vowel" (Allen 1978, 30), a process that seems to be confirmed by epigraphic spelling (e.g., duonoro for bonorum in Scipio's epitaph), by the complete loss of m in fossilized phrases such as animaduerto from animum aduerto, ueneo from $uenum\ eo$ (Leumann 1977, 224; Sihler 1995, 227), and by Quintilian's explicit statement at $Inst.\ 9.4.40$:

(1) eadem illa littera (*scil*. "m")... etiam si scribitur, tamen parum exprimitur, ut "multum ille" et "quantum erat", adeo ut paene cuiusdam nouae litterae sonum reddat. neque enim eximitur, sed obscuratur et tantum in hoc aliqua inter duas uocales uelut nota est, ne ipsae coeant.

The same letter (the m)... even if it is written, is hardly expressed, as in *multum ille* and *quantum erat*, to the extent that it almost provides the sound of a certain⁶ new letter. And neither does it disappear, as it is darkened and, in this case, it is only a sort of sign between two vowels, to prevent them from coalescence.⁷

As for word-internal coda *m*, Latin internal coda nasals are prone to undergoing sound changes, most of them aiming to accommodate heterosyllabic clusters into the so-called "syllable contact law," which is based on a scale of consonantal strength⁸ (Vennemann

1988, 40), and interacts, in Latin, with the place of articulation (Cser 2016, 64–8). The syllable contact law explains that heterosyllabic consonant clusters are better the greater the strength difference between the second and the first sound of the cluster (Vennemann 1988, 40): this means the second (onset) element should have less sonority (more consonantal strength) than the first (coda). That is why internal coda nasals⁹ are typically followed by plosives in Latin (can·tus, cam·pus, can·cer, in·de, im·ber, con·ger) and, less often, by voiceless fricatives, since nasals tend to disappear in this context, giving rise to a nasal vowel: consul [cosul]. In contrast, sequences of coda nasals plus liquids often result in assimilation (*coron-la [from corona] > corolla, *scan-la [cf. scandere] > scāla) or epenthesis (*exem-lom > exemplum; prob. *am-los > amplus); words such as Manlius are an exception. The other clusters with coda nasal, namely mn (somnus), nn (annus), and ηn (agnus), do not fulfill the syllable contact law, but are explained by the place condition: "Heterosyllabic [obs][obs] and [nas][nas] clusters are well-formed irrespective of sonority relations if C1 is non-coronal and C2 is coronal (i.e. [pt kt ps ks mn nn] are well-formed)." (Cser 2016, 65). In effect, the clusters [mn], [nn], and [nn] all show the coronal [n] as a second element (C2); if the second nasal is not the coronal [n], we find either dissimilation (*can-men > carmen, *gen-men > germen) or assimilation resulting in a geminate consonant (*flag-ma [cf. flagrare > flamma.

In the cases that concern us here, namely internal coda m, it is commonly accepted that the nasal becomes "assimilated to the following consonant." (Allen 1978, 31; De Martino 2004, 280). Again, epigraphic evidence is invoked ($tan\ durum$ instead of $tam\ durum$ in $CIL\ IV\ 1895$), as well as a statement by Velius Longus Gramm. VII 78.19–20 (77.19–20 Di Napoli; see further on passage 11 below) saying that in $etiam\ nunc$ the m is pronounced as [n] rather than as [m], and also the well-known "double entendres" $cum\ nobis\ (cunno)$, $illam\ dicam\ (landicam)$ put forward by Cicero in Orat. 154 and Fam. 9.22.2.

2. The misinterpreted piece of evidence: Velius Longus

Writing in the early second century C.E., the grammarian Velius Longus is known for a handbook on orthography—his only extant work—that seems to draw on several sources, at least Verrius Flaccus, Varro and Nisus (Schmidt 2000, 260–1). The passage that concerns us here is Velius *Gramm*. VII 54.13–5 (23.21–25.2 Di Napoli):

(2) Nam quibusdam literis deficimus, quas tamen sonus enuntiationis arcessit, ut cum dicimus "uirtutem" et "uirum fortem consulem Scipionem" [isse] per "i" isse fere ad aures peregrinam litteram inuenies.

isse secl. Keil: ïsse M || per i isse Di Napoli: perisse M: peruenisse Keil ex Brambachii coniectura

For we lack some letters, even if they are demanded by the sound of their pronunciation, for example, when we say *uirtutem* and *uirum fortem consulem Scipio*, you will find that [under acceptance of Di Napoli's conjecture] through an "i" an almost foreign letter comes to the ear [or, under acceptance of Keil's *peruenisse*, "that an almost foreign letter reaches the ear"].

This passage has recently been used to illustrate the special pronunciation of final m, which is accordingly said to have been "reduced not only before vowels but also before consonants. A feature of pronunciation that first emerged before vowels must have spread to preconsonantal position" (Adams 2013, 129). This interpretation is already in Allen 1978, 30 and 96, to whom Adams refers, and is obviously based on Keil's text: *Scipionem [isse]*, *peruenisse fere ad aures* (see crit. app. and alternative translation above). Regardless of the text one accepts, several arguments point to the fact that Velius is *not* dealing with final m here, but rather with the sound of the i in uirtus and uir, which seems to be compared/equated with Greek Y, as seen long ago by Bücheler 1856, 33. Firstly, an internal reference in Velius Gramm. VII 75.12–8 (71.16–24 Di Napoli) clarifies the topic he has in mind:

(3) "Aurifex" melius per "i" sonat, quam per "u". At "aucupare" et "aucupium" mihi rursus melius uidetur sonare per "u" quam per "i"; et idem tamen "aucipis" malo quam "aucupis", quia scio sermonem et decori seruire et aurium uoluptati. Vnde fit ut saepe aliud scribamus, aliud enuntiemus, sicut supra locutus sum de "uiro" et "uirtute", ubi "i" scribitur et paene "u" enuntiatur. Vnde Tiberius Claudius nouam quadam litteram excogitauit similem ei notae quam pro adspiratione Graeci ponunt Aurifex sounds better with *i* than with *u*. In contrast, aucupare and aucupium seem to me to sound better with *u* than with *i*, and I even prefer aucipis to aucupis, for I know spoken language is subject to both style and the pleasure of the ear. Consequently, we often write one thing and pronounce another, as I have said above about uir and uirtus,

where i is written and almost u is pronounced. Because of this, Tiberius Claudius invented a certain new letter, similar to the sign the Greeks use for aspiration.

Secondly, there are parallel passages from other grammarians highlighting the special pronunciation of the *i* in *uirtus* and *uir*, e.g., Donatus *Gramm*. IV 367.14–6 (604.2–3 Holtz) *hae* (scil. the letters *i* and *u*) *etiam mediae dicuntur, quia in quibusdam dictionibus expressum sonum non habent, i ut uir, u ut optumus* ("These are also called *mediae*, because in some words they do not have a distinct sound, as the *i* in *uir* and the *u* in *optumus*"). ¹³ Also, it is worth emphasizing that Velius deals with final *m* before vowels a few lines earlier but, in between, he refers to the problem of the final *c* in *hoc*, and it would be quite strange to return to final *m* after that. Lastly, the phonetics of *m* before a consonant is usually observed word-internally by Latin grammarians (see below on passage 11).

Admittedly, the sequence *fortem consulem Scipionem* poses some difficulty, since these words are not needed at all to remark on the *i* in *uirum*, whereas they become significant if final *m* before a consonant is accepted as the passage topic. ¹⁴ A kind of textual gloss (whether scribal or authorial) could be put forward as a likely explanation: *fortis uir* and *consol* are both on the epitaph of Lucius Cornelius Scipio Barbatus in *CIL* I² 7, and *Scipio* is a common example in Latin grammar handbooks. ¹⁵ This unexpected gloss, together with an apparently obvious (but incorrect) comparison of Quintilian's *noua littera* (see above) with Velius Longus' *peregrina littera*, caused the whole confusion.

However, as indicated above, the misunderstanding is not general, and both earlier and later than Bücheler 1856, Velius's remark has been correctly interpreted as referring to some special sound of the *i* in *uir–uirtus*. This notwithstanding, some controversy remains concerning the relationship of the sound in *uir* with either (or both) one of the Claudian letters and the *sonus medius*. As for the former, Oliver 1949, on the grounds of epigraphic evidence, removed all possibility for the Claudian half H (H) to have ever represented the *i* in either the type *uir–uirtus* or the type *optimus*, since H is used in the inscriptions only in Greek words (see also Leumann 1977, 12). In relation to the *sonus medius*, in spite of the equation of *uir* and *optumus* in some of the *late* Latin grammarians (see n. 13 above), Velius Longus actually deals with both types separately: the doublet *optimus/optumus* is considered in the first part of the handbook, in the section on *i* within the chapter about vowels, whereas the phonetic peculiarity of *uir–*

uirtus is mentioned in the second part of his work, devoted to specific problems (*quaestiones*), and there it is consistently used to refer to a sound lacking a proper letter. ¹⁷

Returning to final m, our review of the passage by Velius removes any evidence of preconsonantal final m being pronounced in the same way as prevocalic final m, an interpretation that has been held by Adams, in line with Allen and Sturtevant (see notes 11 and 12 above).

3. The understated piece of evidence: Cornutus in Cassiodorus

In the last years of his long life at the monastery of Vivarium, Cassiodorus completed a treatise on orthography to be used by Vivarian copyists. The work is confessedly an anthology of several authors and was drafted in two stages. In the second stage, three authorities were added to the previous compilation: Annaeus Cornutus, Caesellius Vindex and Priscian (see further Bertini 1986, and Stoppacci 2010).

Annaeus Cornutus was a grammarian and Stoic philosopher who lived under Nero and taught Lucan and Persius (see now Pérez Alonso 2017). His treatise on spelling is only known to us through the excerpts in Cassiodorus. It is likely that Cassiodorus drew specifically on the part of Cornutus's work in which particular problems (*quaestiones*) were addressed; this is suggested by the fact that the first issue in the compilation is final *m*, which also opens Velius Longus's section on *quaestiones*. What Cornutus had to say about final *m* is in Cassiodorus *Gramm*. VII 147.27–148.4 (1.3–6 Stoppacci):¹⁸

(4) 3 Igitur si duo uerba coniungantur, quorum prius "m" consonantem nouissimam habeat posterius<que> a uocale incipiat, "m" consonans perscribitur quidem: 4 ceterum in enuntiando durum et barbarum sonat. 5 At si posterius uerbum quam libet consonantem habuerit uel uocalem loco positam consonantis, seruat "m" litterae sonum. 6 Par enim atque idem uitium ita cum uocale sicut cum consonante "m" litteram exprimere.

3 prius : primum A : primus $C \parallel$ posterius que a uocale *coniecit Stoppacci* : posterius a uocali que (quae E P) a uocalibus δ (B om. et add. s. l.) P : posterius a uocalibus Garet : posterius a uocali Garet : Garet Garet

Therefore, if two words are put together, so that the first has a final consonant *m* and the second begins with a vowel, the consonant *m* is certainly written; however, it sounds hard and barbarous. But if the second word has any consonant (or a vowel used as a consonant), it preserves the sound of the letter *m*. For it is one and the same defect to pronounce the letter *m* both with a vowel and with a consonant.

This passage has an obvious problem, because the last sentence contradicts the previous one: the reason why it is incorrect (*uitium*) to pronounce the *m* is not understood, since we have just been told that the sound of this letter is preserved before a consonant. One possible suggestion of the meaning of *ita cum uocale sicut cum consonante "m" litteram exprimere* could be: "pronounce the *m* with a vowel in the same way as with a consonant." This option, however, although possible, ¹⁹ leaves *par atque idem*, "one and the same," unexplained, since only one mistake is implied, namely using the typical pronunciation in prevocalic position before a consonant, whereas the phrasing of the text (*par atque idem*) implies *two* mistakes. Keil's critical apparatus provides Schneider's conjecture, which admittedly makes sense, but at the expense of an important alteration of the text in the manuscripts: *Par enim atque idem uitium ita cum uocali exprimere*, *sicut cum consonante m litteram supprimere* ("It is one and the same defect to express the *m* before a vowel and to remove it before a consonant").

The text seems to allow a very simple emendation (possibly the simplest) that makes the passage entirely clear "at one stroke" (quite literally). This paper's proposal consists in reading *N* instead of *M* after *seruat*, so that the text would come to read like this:

(4a) At si posterius uerbum quam libet consonantem habuerit uel uocalem loco positam consonantis, seruat "n" litterae sonum.

But if the following word has any consonant (or a vowel used as a consonant), it (scil. the previous word) preserves the sound of a letter n.

What Cornutus tried to say²⁰ is that final m was never pronounced as such in connected speech, since it remained unpronounced when a vowel followed, and it was pronounced as [n] when a consonant followed. In other words, in Cornutus's view, pronouncing a final [m] was as faulty in prevocalic as in preconsonantal position; the difficult sentence

now makes complete sense. The corruption is easy to understand both paleographically (N > M) and in terms of content: the m is the topic of the whole paragraph, and this makes the corruption quite likely. Additional support for our proposal comes from a passage in Cassiodorus *Gramm*. VII 152.3–5 (1.74–6 Stoppacci) in which Cornutus makes a remark on the writing of *tantus* and *quantus*:²¹

(5) "Tamtus" et "quamtus" in medio "m" habere debent: "quam" enim et "tam" est, unde "quamtitas", "quamtus", "tamtus". nec quosdam moueat si "n" sonat: iam enim supra docui "n" sonare debere, tametsi in scriptura "m" positum sit.

Tamtus and quamtus must have an m in the middle, for it is quam and tam, and, therefore, quamtitas, quamtus, tamtus. No one should be persuaded by the fact that an n sounds, for I have already shown above that an n must sound, no matter that an m is used in writing.

Of course, it is the internal reference *iam enim supra docui* that is eye-catching here. Keil perceived that this passage was related to the one on his page 147 (our passage 4), but tried to explain the problem by proposing that something was missed out, as he writes in his critical apparatus: "*iam enim supra*] p. 147, 24, ubi Cassiodorius omisisse videtur quae Cornutus de *m* littera ante consonantes vel digamma sonum *n* litterae praebente scripserat" (*iam enim supra*] refers to p. 147, 24, where Cassiodorus seems to have omitted what Cornutus wrote about the letter *m* producing the sound of the letter *n* when preceding consonants and digamma).

Needless to say, this "omission-hypothesis" is no longer needed if our proposal of reading N instead of M is accepted. The two passages now become completely coherent and they mutually explain each other. Moreover, our reading helps to locate the likely source of a further passage in section 11 of Cassiodorus's anthology, taken from the early second-century grammarian Caesellius Vindex; again, it is placed in the first paragraphs of the section in *Gramm*. VII 206.17–20 (11.1–2 Stoppacci):

(6) "M" litteram, ad uocales primo loco in uerbis positas si accesserit, non enuntiabimus; cum autem ad consonantes aut digammon aeolicum, pro quo nos "u" loco consonantis posita utimur, tunc pro "m" littera "n" litterae sonum decentius efferemus. We shall not pronounce the letter *m* if it immediately precedes an initial vowel of a word; but when it precedes a consonant or an Aeolic digamma (for which we use a

consonantal u), then we shall more properly utter the sound of the letter n instead of the letter m. ²²

This doctrine used to be rather isolated within grammatical tradition, since we mostly have evidence of assimilation processes (*etiam nunc* > *etian nunc*). Now we receive a rather different piece of evidence (the one in Cornutus), which, more importantly, can be traced back to a generation before Quintilian, usually given as the earliest grammatical evidence on the sound of coda m. A further text that may indicate a pronunciation [n] of final m is found in Terentius Scaurus *Gramm*. VII 13.15–14.1 (13.7–11 Biddau) within a list of examples of *litterae cognatae* "related letters": 23

(7) "M" deinde et "n" consentiunt et paene idem sonant, ut distinguendorum sonorum utriusque litterae causa †dicere antiqui praepositae "l" quam "n" maluerunt†; hoc probant etiam Graeci qui ubi nos "m" litteram ponimus "n" ponunt, ut "graphium", "γραφεῖον", ut "salum" "σάλον" et similia.

There is also agreement between m and n, and they almost sound the same, so, to distinguish the sounds of the two letters, †the ancients preferred to say it with a preceding l instead of n†; the Greeks also show this, for where we use the letter m, they use n, as in $graphium-\gamma\rho\alpha\phi\epsilon$ iov, $salum-\sigma$ άλον and similar words.

Even if the relationship Scaurus detects between the letters is not always founded on their sound, but also on their historical relation (etymology)—and often in connection with the Greek language (for instance, for the acquaintanceship of p and b, Burriam— $\Pi \nu \rho \rho (\alpha v)$ —in the particular case of m and n, sound is explicitly alluded to ($paene\ idem\ sonant$). Although there is no reference to context, the examples make it sufficiently clear that coda m/n is meant. Admittedly, Scaurus does not say that m is pronounced as n; he only highlights the similarity of the two sounds.

4. No final m at all?

Before discussing the phonetic and phonological nature of Latin syllable coda m, it is worth recalling a further piece of evidence that is hardly ever considered when discussing the topic of final m. This is found in the part of Quintilian's book 12 (*Inst.* 12.10.31) where he compares Greek and Latin letters, by emphasizing the letters/sounds present in one language and lacking in the other:

(8) Quid quod pleraque nos illa quasi mugiente littera cludimus, in quam nullum Graece uerbum cadit? At illi ny iucundam et in fine praecipue quasi tinnientem illius loco ponunt, quae est apud nos rarissima in clausulis

Again, we often end words with the "mooing" letter, with which no Greek word ends. In its place they put the pleasing letter nu, which makes a ringing sound, especially at the end of the word, and which is very rare in this position in our language. (Trans. Russell 2001, 299.).

Quintilian speaks overtly about a letter m pronounced at the end of a word, apparently contradicting his own observation in *Inst.* 9.4.40 (passage 1 above). We can try to solve the contradiction by supposing that *mugiens littera* is a generic label not implying a pronunciation²⁴ in all environments (and, therefore, not including final m). However, as we will see, a real [m] pronunciation of final m is altogether possible, as it is possible to pronounce an internal coda m.

5. Excess and defect: correct and incorrect pronunciations of coda m

As suggested by their names, the disciplines of *orthographia* and *orthoepia* often imply a judgement of what is correctly written (and pronounced) and what is not. Part of the grammatical evidence on coda *m* is merely descriptive, but prescriptive observations are found even more often. ²⁶ The above-mentioned passage by Cornutus is an outstanding example of the latter. Accordingly, it may be sensible to check whether 1) there is further prescriptive evidence confirming Cornutus's view, and 2) additional information about the sound of coda *m* is provided by this kind of evidence.

First, it is advisable to recall the purely descriptive evidence on coda *m* to be added to the above-mentioned passage by Quintilian (1). Passages 9 and 10 show, respectively, that in Velius Longus *Gramm*. VII 54.2–6 (23.9–13 Di Napoli), the final *m* of such sequences as *illum ego* and *omnium optimum* is said not to be perceived, whereas Priscian *Gramm*. II 29.15–6, refers to final *m* as a "dark" sound:

(9) nam ita se habe[n]t non numquam forma enuntiandi, ut litterae in ipsa scriptione positae <non> audiantur enuntiatae. sic enim cum dicitur "illum ego" et "omnium optimum", "illum" et "omnium" aeque "m" terminat nec tamen <in> enuntiatione apparet.

For the sound pattern behaves sometimes in a way that results in letters being written but not heard in pronunciation. For example, when one says *illum ego* and *omnium optimum*, *illum* and *optimum* both finish with an *m*, but this does not appear in pronunciation.

(10) "M" obscurum in extremitate dictionum sonat, ut "templum", apertum in principio, ut "magnus", mediocre in mediis, ut "umbra".

At the end of the word the *m* sounds dark, as in *templum*; at the beginning (it sounds) open, as in *magnus*; in the middle (it sounds) ambiguous, as in *umbra*.

However, both Velius *Gramm*. VII 78.16–21 (77.16–21 Di Napoli), and Priscian *Gramm*. II 29.16–9, seem to admit that syllable coda m tends to sound as n in word-internal, preconsonantal position:²⁷

(11) nec non et ipsa "n" littera in locum "m" itterae> succedit, ut cum dicimus "clandestinum", cum ab eo trahatur quo est "clam", item "sinciput", quod est "semicaput". sed non ubique obtinendum. nam et non numquam plenius per "n" quam per "m" enuntiatur, ut cum dico "etiam nunc", quamvis per "m" scribam, nescio quo modo tamen exprimere non possum.

obtinendum Rom. 1587, Keil: obtinendam M

Also, the letter n itself comes to replace the letter m, as when we say *clandestinum*, although it is derived from *clam*, and *sinciput*, which means *semicaput*. But this does not happen everywhere, for sometimes an n is pronounced more clearly than an m, as when I say *etiam nunc*: even if I write the m, I don't know why I cannot pronounce it.

(12) transit (*scil.* "m") in "n", et maxime "d" uel "c" uel "t" uel "q" sequentibus", ut "tantum tantundem", "idem identidem", "eorum eorundem", "num nuncubi" et, ut Plinio placet, "nunquis", "nunquam", "anceps" pro "amceps".

(*M*) is changed to *n*, and especially when *d*, *c*, *t* or *q* follow, as in *tantum–tantundem*, *idem–identidem*, *eorum–eorundem*, *num–nuncubi*, and, as preferred by Pliny, *nunquis*, *nunquam*, *anceps* instead of *amceps*.

These passages need some clarification. Velius's account (11) implies a contradiction: after stating that the replacement of m with n is not accomplished everywhere (non ubique obtinendum), we would expect the explanation to include an example of the pronunciation [m] being kept. In contrast, the example is of a clearer pronunciation of [n]. Again, a simple textual emendation solves this inconsistency and provides a much better understanding of the text: we suggest correcting non in n, n by assuming that at some stage in the tradition n was changed to n. According to this emendation, the possibility arises of either 1) restoring the reading obtinendam of the Neapolitanus Latinus IV.A.11, with seclusion of -m: obtinenda[m], or 2) accepting obtinendum, the reading of the editio princeps (also in Keil and Di Napoli), which is also possible, since n may be a littera as well as an elementum. Finally, a further change seems advisable: to write n an et "non numquam" plenius instead of n an et non numquam plenius, since n numquam is a relevant example for the topic discussed, and, in view of Priscian's passage, could have been traditional; n moreover, it provides a subject for enuntiatur, which should otherwise be seen as an unparalleled (as far as we know) impersonal use.

Now the different arguments in the passage become consistent: the but-sentence sed... obtinenda/um refers not to "the letter n itself comes to replace a letter m," but rather to "although it (clandestinum) is derived from clam": Velius insists on stating that the pronunciation must be n, no matter that etymology bears witness to an m; to support his thesis, he resorts to two examples of a clear sound n for a written m. With the suggested emendations, the text would read as follows:

(11a) nec non et ipsa "n" littera in locum "m" litterae> succedit, ut cum dicimus "clandestinum", cum ab eo trahatur quod est "clam", item "sinciput", quod est "semicaput". sed "n" ubique obtinendum. nam et "non numquam" plenius per "n" quam per "m" enuntiatur, ut cum dico "etiam nunc", quamuis per "m" scribam, nescio quo modo tamen exprimere non possum.

Also, the letter n itself comes to replace a letter m, as when we say *clandestinum*, although it is derived from *clam*, and *sinciput*, which is (the same as) *semicaput*. But one must get a (letter) n (pronounced) in all cases [i.e., even when etymology allows the reconstruction of m, as in *clandestinus* and *sinciput*]. In fact, *non numquam* is pronounced with an n more clearly than with an m, as when I say *etiam nunc*: even if I write the m, I don't know why I am not able to pronounce it.³¹

This is exactly the idea we had read in Cornutus (text 5 above): one must write *quamtus* (spelling rule), based on *quam* (etymological argument), but *n* must sound anyway (pronunciation rule). Therefore, there are three types of argument interwoven in both Cornutus and Velius: one is based on phonetics, another on etymology, and a third on orthography (see table 1 below). Both grammarians maintain the same view on pronunciation, but they diverge in the weight given to the etymological claim in proposing the correct writing (admittedly, they are using different examples): for Cornutus, who recommends the spelling with *m*, the etymological argument stands as a reason (*enim*), whereas for Velius, who comments on cases of *n* replacing *m*, etymology is put forward as a contrasting argument (*quamuis*).

	Orthography	Etymology	Phonetics	
Cornutus	[1] "Tamtus" et	[2] "quam" enim et	[3] iam enim supra docui "n"	
	"quamtus" in medio "m"	"tam" est, unde	sonare debere, tametsi in	
	habere debent	"quamtitas", "quamtus",	scriptura "m" positum sit	
		"tamtus"		
Velius	[1] nec non et ipsa "n"	[2] "cum ab eo trahatur	[3] sed "n" ubique obtinenda.	
	littera in locum "m"	quo est "clam", item	nam et "non numquam"	
	succedit, ut cum	"sinciput", quod est	plenius per "n" quam per "m"	
	dicimus "clandestinum"	"semicaput"	enuntiatur, ut cum dico "etiam	
			nunc", quamuis per "m"	
			scribam, nescio quo modo	
			tamen exprimere non possum	

Table 1

Priscian's passage (12) provides some additional information: it states that the replacement of m with n occurs especially (maxime) before dental and velar stops (t–d, c–g). Pliny is cited as an authority, but it is not easy to determine how much actually comes from him: the phrasing suggests he was concerned only with nunquis, nunquam, anceps, but the editors of his fragments think he could have commented more extensively on coda m. Regardless of how far back we can take Priscian's view, the crucial point of this piece of evidence is the conclusion we must draw on coda m before labial stops: does maxime imply that in other contexts m was preserved or does it rather mean that it did not sound clearly [n]?

In a parallel passage (13), interestingly starting with *nonnumquam*, *nunquam*, etc., the fourth-century rhetorician Marius Victorinus, *Gramm*. VI 16.4–13 (4.52–4 Mariotti), reports that some famous writers (*clari uiri*) on orthography (*qui aliquid de orthographia scripserunt*) had noted that both Greeks and Romans lacked a "middle" sound (*mediam uocem*) between *m* and *n*.

(13) Has uoces, "nonnumquam, nunquam, nunquid, quanquam, unquam", saepe recte scriptas relinquitis; aliquando "n" in "m" commutatis, "numquam": pro "n" facitis "m". Quid igitur in posterum debeatis observare, attendite. Clari in studiis uiri, qui aliquid de orthographia scripserunt, omnes fere aiunt inter "m" et "n" litteras mediam uocem, quae non abhorreat ab utraque littera, sed neutram proprie exprimat, tam nobis deesse quam Graecis: cum illi "Sambyx" scribant, nec "m" exprimere nec "n". Sed haec ambiguitas in his fortasse uocabulis sit, ut in "Ampelo, Lycambe"; nam in nostris supra dictis non est, quia non inter "m" et "n" medium sonat "unquam" et "nonnunquam" et similia, sed inter "n" et "g".

You often find the words *nonnumquam*, *nunquam*, *nunquid*, *quanquam*, *unquam*, written correctly; sometimes you change the *n* to *m*, as in *numquam*, where you put *m* for *n*. So pay attention to what you must observe in the future. Almost all learned men in letters who have written something on orthography state that both we and the Greeks lack an ambiguous sound between *m* and *n*—which is not inconsistent with either of them, but does not express any of them properly—and that, even if they (the Greeks) write *Sambyx*, they do not pronounce either *m* or *n*. However, this ambiguity may be in words such as *Ampelo* and *Lycambe*, for it is not in our words referred to above, since in *unquam*, *nonnumquam* and similar words there is no ambiguous sound between *m* and *n*, but rather between *n* and *g*.

Mariotti 1967, 201, clarifies that Victorinus obviously means it is the letter representing such a sound that is missed out. Mariotti also points out that "Soprattutto davanti a labiale, infatti, il confine tra nasale labiale e dentale è assai insicuro," and invokes Priscian *Gramm*. II 29.15–6 (passage 10), where *mediocre* might well correspond to *media uox*, even if the possibility remains that Priscian is simply meaning a middle point between *obscurum* (final *m*) and *apertum* (initial *m*). ³³ De Martino 2004, 281, suggests that the sound implied with *mediam uocem* is "una nasale fricativa labiodentale [m] o qualcosa di simile," which he considers to exist only in the loanwords of the

passage (*Sambyx*, *Ampelo*, *Lycambe*). In the final and subsequent lines of that passage, Victorinus turns to defend that the ambiguous sound in *nunquam* is not, as some had proposed, between m and n, but rather between n and g; his advice for this dilemma is to reject the Greek orthography (ἄγγελος, ἄγκυρα) and to follow a Roman *ratio* by writing n instead. However, Victorinus's rejection of a sound between [m] and [n] is not general, but rather restricted to examples such as *numquam*, for he acknowledges that the m-n ambiguity "exists in other words": *in aliis quidem uerbis est*, *Gramm*. VI 17.1 (4.56 Mariotti).

To sum up, the descriptive evidence on coda m provided by ancient grammarians suggests:

- i) That final *m* (either in isolation or before a vowel) was either "darkened" (Quintilian [1] and Priscian [10]) or deleted (Velius [9]).
- ii) That word-internal coda m is pronounced (even written) as [n] either everywhere (Velius [11a]), or especially before dental and velar stops (Plinius–Priscian [12]), with the possibility of a velar variant [n] before the latter (Victorinus [13]).

As can be seen, in spite of their descriptive nature, these passages offer a variety of descriptions that must be accounted for. The corresponding prescriptive evidence provides substantial evidence to go forward with this matter.

Interestingly, two of the textual proposals in this article (see 4a and 11a) point to the actual pronunciation [n] of coda *m* before a consonant, apparently with no restriction (*quam libet consonantem* in Cornutus; *ubique* in Velius). The first of those passages (see texts 4 and 4a) additionally reports that the pronunciation of coda *m* was faulty in any case, since *m* must be deleted when a vowel follows, and must be changed to *n* when preceding a consonant. The *uitium* behind Cornutus's words might well be *mytacism*, a controversial defect in pronunciation that has to do with pronouncing [m] where this sound should not be: in case of *m* plus initial vowel, the result of an unexpected pronunciation [m] is expressly described as *durum et barbarum*. If Cornutus's passage is really dealing with a *mytacismus* avant la lettre, our conjecture (4a) could help to resolve the controversy about that mistake in pronunciation, which we will try to summarize below. ³⁵

The problem with the correct spelling of the word for the *uitium* (*moetacimus*, *myotacismus*, *mytacismus*) does not concern us much (see further the bibliography in

the preceding note), so it is enough to say that the fact that the original Greek word is unattested makes it difficult to obtain a firm conclusion. As for the first attestations, several problems are posed. First, in a passage by Quintilian *Inst.* 1.5.32:

(14) et illa per sonos accidunt, quae demonstrari scripto non possunt, uitia oris et linguae: iotacismus et labadacismus et ischnotetas et plateasmus feliciores fingendis nominibus Graeci uocant, sicut coelostomian, cum uox quasi in recessu oris auditur. There are accidental features of pronunciation, which cannot be shown in writing, being faults of the mouth and the tongue. The Greeks, who are more fertile than we are in inventing names, call them iotacisms, lambdacisms, *ischnotētes* and plateiasmoi, and also *koilostomia*, when the voice seems to come from the back of the mouth. (Trans. Russell 2001, 141).

The two most reliable manuscripts differ in offering either *iotacismus* (Bernensis) or miotacismus (Ambrosianus)—evidence Claussen (1873, 327) used to propose to read ἰωτακισμούς et μυτακισμούς; this conjecture was accepted, among others, by Niedermann 1948, 8, judged likely to be correct by Winterbottom 1970, 34 (in app.: "fort. recte"), but rejected by Colson 1924, 61, and Nyman 1977b. However, Nyman's main counterargument, namely that the sentence quae demonstrari scripto non possunt "renders mytacism entirely unthinkable" in Quintilian's passage, must be rejected. Passage 1 above shows that Quintilian refers to final m before a vowel as having the sound of a new letter, that is to say, a letter lacking in Latin and consequently rendering the sound of final m impossible to represent. Quintilian points to this circumstance with demonstrari scripto non possunt, and Cato (allegedly, see further below) and Verrius Flaccus's unfruitful attempts to represent final m with either "an M on its side" or a half M (Nyman 1977b, 85, from Moore 1898; see further below and De Martino 2004) cannot be used: these spellings, if they existed at all, were not accepted spellings in Quintilian's age. Therefore, the "mytacistic" pronunciation was consistently described by Quintilian as impossible to explain in writing. As for Claussen's proposal, its main support comes from the frequent grouping of mytacismus, iotacismus and labdacismus in later grammarians. ³⁶ The question remains open: see now the more detailed discussion in Zago 2018, 44-5.

The other ancient attestation (passage 15) belongs to a certain Melissus cited by Pompeius *Gramm.* V 287.7–16 (15.9–16.11 Zago), but that scholar seems to be a

contemporary of Gellius who reportedly (cf. Gellius 18. 6) wrote *de loquendi proprietate*, rather than the freedman of Maecenas (Funaioli 1907, 540; Encuentra Ortega 2004, 5 n. 13):

(15) Moetacismus est, quotiens inter duas uocales "m" positum exprimitur, ut si dicas "hominem amicum", "oratorem optimum". non enim uideris dicere "hominem amicum", sed "homine mamicum", quod est incongruum et inconsonans. similiter "oratorem optimum", uideris dicere "oratore moptimum". bonam rationem dixit Melissus, quo modo uitandum est hoc uitium, ne incurramus in aliud uitium. Plerumque enim aut suspensione pronuntiatur aut exclusione: suspensione pronuntiatur, si dicas "hominem amicum", interponas aliquid, puta "oratorem optimum", aut certe, si uelis excludere, "homine amicum", "oratore optimum". Nos quid sequi debemus? Quid? Per suspensionem tantum modo. Qua ratione? Quia si dixeris per suspensionem "hominem amicum", et hoc uitium uitabis moetacismi, et non cades in aliud uitium, id est in hiatum. Nam si uolueris dicere "homine amicum", uitas quidem moetacismum, non tamen uitas hiatum.

Mytacism takes place when an *m* between two vowels is pronounced, as if you say *hominem amicum, oratorem optimum*. For you seem to be saying not *hominem amicum*, but *homine mamicum*, and this is inconsistent and cacophonous. Similarly, for *oratorem optimum* you seem to be saying *oratore moptimum*. Melissus stated a good rule to prevent this mistake without falling into another mistake: usually it can be pronounced with either a pause or an elision. It is pronounced with a pause if you say *hominem amicum* and you place a pause; right? If you use an elision, *homine amicum, oratore optimum*. Which one should we follow? Which one? Only by way of a pause. Why? Because if you say *hominem amicum* with a pause, you both avoid the mistake of mytacism and do not fall into another mistake, namely into hiatus. For if you prefer to say *homine amicum*, you avoid mytacism, but you do not avoid hiatus. (Trans. after Zago 2017, 91).

The words *interponas aliquid*, *puta* are missing in two manuscripts and were secluded by Keil. Zago 2017, 168, restores them into the text with sensible arguments. However, the sense of *interponas aliquid* is not immediately clear in the context, since the "interposition of something" renders the pause unnecessary. There is no doubt that *suspensio* points to some sort of break, ³⁷ and that this was the recommended way of

avoiding mytacism. Admittedly, evidence exists of grammarians recommending the interposition of a word to avoid mytacism; in this respect, Zago 2017, 169, cites a passage from Consentius *Gramm*. V 394.8–11 (15.9–13 Niedermann):

(16) huius uitii (*scil.* mytacismi) remedium est primum ut, quoties sic sonat pars orationis, alia interponatur non a uocali incipiens, ut si haec ipsa emendare uelimus: "dixeram tunc illis", "speciem boni aceti", "faciem furentis Aiacis".

The principal remedy against this vice is that, whenever a word sounds like this, another one, which does not begin with a vowel, should be inserted between this and the following word, as, for instance, if we wanted to amend these into *dixeram tunc illis*, *speciem boni aceti*, *faciem furentis Aiacis*. (Trans. after Mari 2016, 93).

However, the insertion of a word with initial consonant is not consistent with the recommendation of *suspensio* in Melissus–Pompeius, so we need to assume either that the text is not sound or that Pompeius did not fully understand Melissus's advice, and so distorted the original doctrine by adding a "third way" of avoiding mytacism: the insertion of a word with initial consonant.³⁸

According to Velius Longus *Gramm*. VII 80.17–81. 2 (81.23–83.5 Di Napoli), Verrius Flaccus recommended writing only half of the letter *m* to show that this letter should not be pronounced:

(17) non nulli circa synaliphas quoque obseruandam talem scriptionem existimauerunt, sicut Verrius Flaccus, ut, ubicumque prima uox "m" littera finiretur, sequens a uocali inciperet, "m" non tota[m], sed pars illius prior tantum scriberetur, ut appare<re>t exprimi non debere. Est etiam ubi uocales subducebantur, si id aut decor compositionis aut metri necessitas exig<eb>at, ut "adeo in teneris consuescere multum est".

Concerning synalepha, some authors, like Verrius Flaccus, have thought a spelling should be observed of such a kind that when the first word ends with a letter *m* and the second starts with a vowel, only a part of the former letter should be written, so that it is made clear that it must not be pronounced. There are even cases in which vowels are removed, if this is demanded by either elegance of word combination or metrical needs, as in *adeo in teneris consuescere multum est*.

From this passage one cannot infer that mytacism was specifically dealt with by Verrius, even if it is obvious that he thought a full pronunciation of final *m* before a vowel was incorrect.

Therefore, our best early evidence on mytacism—admittedly avant la lettre—is really Cornutus (passages 4, 4a and 5 above), as already pointed out by Hoppenbrouwers 1960, 26, and Encuentra Ortega 2004, 4 (see most recently Zago 2018, 31). Unlike later remarks on mytacism (see below), Cornutus considered it equally faulty to pronounce final m before a vowel and before a consonant, since, according to passages 4a and 5, m before a consonant should be pronounced as [n]; in short, for Cornutus the mytacism—whether he knew the term or not—consisted of pronouncing any [m] that was not syllable-initial. This might have resulted in some exaggeration that was probably perceived as a sort of hypercorrection. The preconsonantal pronunciation of m as [n] is consistently recommended by Caesellius Vindex (passage 6 above) and Velius Longus (under acceptance of our textual correction in 11a).

Later evidence on mytacism is restricted to the pronunciation of final *m*. Late Latin grammarians either (or both) i) report an unpleasant pronunciation, or ii) put the emphasis on an incorrect syllabification of the juncture of the two words involved. An unpleasant sound is highlighted in Sacerdos *Gramm*. VI 454.22–4 (18) and Martianus Capella 3.279 (19):

(18) myotacismus fit, cum finita pars orationis in "m" et excepta a uocali foedam faciat dictionem, ut "poeta cum primum animum ad scribendum appulit".

Mytacism takes place when a word ending in *m* and followed by a vowel results in unpleasant diction, for example, *poeta cum primum animum ad scribendum appulit*.

(19) "M" terminatus (*scil.* nominatiuus) breuis est, ut "tectum", licet huius raro occurrat exemplum, quia inter uocales "m" deprehensum uelut mytacismi asperitate subtrahitur. (Nominative) ending in *m* is short, as in *tectum*, although examples for this hardly occur, since the *m* found between two vowels is removed because of the—so to say—harshness of mytacism.

Prominence on syllabification is witnessed by Consentius *Gramm.* V 394.5–8 (15.6–9 Niedermann):

(20) Mytacismum dicunt, cum in dictione aliqua sic incuriose ponitur uocali sequente "m" littera, ut an ad priorem pertineat incertum sit, sicut plerumque passim loquuntur: "dixeram illis", "speciem aceti", "faciem Aiacis".

They call it mytacism when in some word the letter *m* is so carelessly employed before a vowel that it is not clear whether it goes with the preceding one, just as one commonly says *dixeram illis*, *speciem aceti*, *faciem Aiacis*. (Trans. Mari 2016, 93).

Both an unpleasant sound and a faulty syllabification are implied in Pompeius *Gramm*. V 287.7–11 (15.9–12 Zago):

(21) Moetacismus (...) ut si dicas "hominem amicum" (...): non enim uideris dicere "hominem amicum", sed "homine mamicum", quod est incongruum et inconsonans (see full quotation and translation in passage 15 above).

6. Modern linguistics on coda nasals

After the text review and the reassessment of the ancient grammatical evidence, it is time to consider what modern phonology can contribute to this much-debated topic.

Nyman's (1977a, 117) achievement is to have shown that mytacism "cannot be interpreted as involving a faulty articulatory 'attachment' of the final m to the following word." By representing the allophonic distribution of final m as

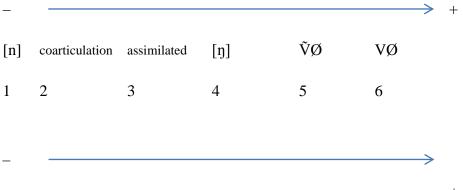
$$/m/ \ \longrightarrow \left\{ \begin{array}{c} [m] \, / \, \# \, - \\ \\ [\tilde{w}] \, / \, _ \, \# \, V \end{array} \right\}$$

where $[\tilde{w}]$ is a "bilabial nasal glide," ³⁹ # is a word boundary, and V represents any vowel, Nyman proposes that "the phonetic quality of /m/ served as a perceptual cue of how e.g., *hominemamicum* had to be segmented into words." The same conclusion is more clearly put forward by Zago 2017, 67, by stating that mytacism is not a mistake consisting of linking a final m to the initial vowel of the following word, but rather on "attribuire all -m finale una pronuncia che la fa percepire come legata a la parola successiva". The pronunciation grammarians had in mind was obviously [m], as it could otherwise not be given the label *mytacism*. This interpretation makes it clear that we must reject the view expressed by Hofmann 1960 in the TLL article, in which

moetacimus was explained as said "de obscuratione m litterae terminantis inter vocales" (TLL VIII 1332.45). All this is in keeping with earlier evidence on mytacism, which does not emphasize the effect on word boundaries, but rather the cacophony resulting from the unnatural pronunciation of -m as [m], when preceding a vowel.

However, Nyman had only considered the allophones of final m, and he did not include the evidence pointing to a pronunciation of coda m as [n], a sound that the evidence reviewed so far insistently highlights as a common realization of /m/ before a consonant. If we now take into account the data of inscriptions and papyri, we will be able to confirm that an [n] realization of an archiphoneme 40 /N/ is very likely even where [m] should most naturally be expected, namely before the labial stops /p/, /b/. This was defended by Álvarez Huerta 1992, restoring a previous observation made by Löfstedt 1961, 205, who, drawing on Prinz 1950, 113, had noted that since con— was very frequently written before b, p, but hardly ever before m, a non-etymological 41 and non-assimilated form con— was really pronounced. 42

This is not at all surprising if one considers how coda m behaves in languages that are phonologically close to Latin. In Spanish, for example, it is accepted that the opposition of the three nasal sounds (labial, alveolar and palatal) is only relevant in the syllable onset (timo, tiño), whereas it is lost in syllable coda, where it is allegedly pronounced: a) if word-internally, with assimilation to the following consonant's place of articulation (labial in cambio [kámbjo], palatal in pancho [pántso], alveolar in diente [djénte], velar in banco [bánko]), 43 and b) if in final position before a pause or a vowel, as either [n] or [n], depending on the dialectal area. However, it is acknowledged that a certain degree of variation is normal: D'Introno et al. 1995, 308-13, 44 observe that a weakening range can be proposed for both coda n and coda m (number 6 is the weakest realization):



-

[m]	coarticulation	assimilated	[n]	ŨØ	VØ
1	2	3	4	5	6

(Figures adapted from D'Introno et al. 1995, 309 and 312)⁴⁵

This view can account for Devine and Stephens's (1977, 140) proposal that the neutralization of coda nasals in Latin has the exception of the cluster [mn], where the point of articulation of the nasal [m] is said to be distinctive; however, the variety of evidence put forward by Adams 2007, 453–6, namely epigraphical *danno*, *alunnus* as well as *solemmo* and romance language evolution (*damnum* > *danno* > Sp. *daño* vs *domina* > *domna* > Fr. *dame*) rather suggest neutralization, or very poor potential contrast. The assumed variation can obviously be seen in sociolinguistic terms: unlike Vulgar Latin, cultivated Latin might have preserved [mn], as nowadays cultivated Spanish does preserve *columna* [kolúmna], *alumno* [alúmno] against informal uses such as [alúŋno], [alúno], [alúno].

Contrasting the figure for [m] (adapted to the Latin language) with the grammatical evidence discussed so far is very enlightening.

_					\rightarrow	+
[m]	coarticulation	assimilated	[n]	ν̃:Ø	V:Ø	
1	2	3	4	5	6	
Quint. (8) ⁱ	Victorin. (13) Prisc. (10) ⁱⁱ	Prisc. (12) ⁱⁱⁱ	Cornut. (4a) Vel. (4a) Vel. (11a) Caesell. (6) iv	Quint. (1) Prisc. (10) ^v	Vel. (9) Caesell. (6) Verr. (17) ^{vi}	

i) The evidence from Quintilian (passage 8 above) accounts for the possibility of a final m being pronounced as [m]. The conditions for this pronunciation are twofold: 1) the m must be before a pause, since otherwise mytacism would arise, and 2) the realization is intentionally accurate and artificially imitating the pronunciation of onset m.

ii) Marius Victorinus reports (passage 13 above) the view of a sound that is neither [m] nor [n]; this may correspond to the description of some sort of coarticulation, which is not far from De Martino's suggestion (2004, 281, see above on 13) of a sound [m].

Even if all the Latin examples (numquam, etc.) refer to etymological m before a velar consonant, the comparison with Greek Sambyx makes it more likely that a coarticulation $[m^n]$ is being described rather than [n], no matter that Victorinus (later evidence) proposes that the middle sound is, for numquam, etc., between n and g ([n]). It is also possible that Priscian (passage 10 above) is referring to $[m^n]$ when he describes the sound of the m in umbra as mediocre.

- iii) When Priscian (passage 12 above) writes about m sounding [n], especially (maxime) before t, d, c, q, he may well be describing an assimilation; it is difficult to say whether before c, q, [n] rather than [n] was pronounced, but, given that Priscian obviously knew about Greek -ng->-ng-, it is sensible to think that he really perceived [n] here. Anyway, this seems to have been controversial, as pointed out by Victorinus's discussion (see ii.).
- iv) Cornutus, Caesellius and Velius, if the textual corrections suggested above are accepted (see passages 4a and 11a above), seem to have proposed a pronunciation [n] for coda m before any consonant. Admittedly, from a phonological point of view, n might stand here as a compromise designation of a placeless nasal, the coronal nasal being unmarked, hence the most natural representation of the placeless nasal (see the end of section 6).
- v) The adjective *obscurum* and the verb *obscurare* are referred to final *m* by Priscian and Quintilian, respectively. Even if the two words are expressly applied to the letter *m*, it seems sensible to think that this description is triggered by the nasalization of the preceding vowel, ⁴⁶ a solution supported by De Martino 2004, 279, who suggests that "la 'non chiarezza' sarebbe da intenderse come la mancanza di occlusività e ostruenza, quindi come un fenomeno di nasalizzatione." However, we could also accept the theoretical possibility of a "darkening" of the *-m* itself resulting in a sound such as the bilabial nasal glide proposed by Nyman and others (see above; *contra* De Martino 2004, 278–9); nor is it impossible that *obscurus/obscurare* is instead describing the velar quality of a sound close to [ŋ].⁴⁷
- vi) Velius and Caesellius expressly speak about final m as a written letter that is not pronounced. Velius reports Verrius's proposal of writing only a half of the final m to show that it should not be pronounced. However, it is difficult to say whether these three pieces of evidence are witnessing $V\emptyset$ (grade 6 in the weakening scale) or rather $\tilde{V}\emptyset$ (grade 5 in the weakening scale).

If we leave aside the (somewhat) artificial solution under number 1 in the figures above, we can conclude that coda m before a consonant was solved in one of three ways (coarticulation, assimilation, and [n]), whereas final prevocalic m resulted either in loss with nasalization and lengthening or in loss with lengthening but without nasalization. Some exceptions show that the process was gradual: 1) some monosyllables witness the retention of a nasal consonant segment in final position: 48 both quem (> Spanish quien) and rem (> French rien) account for solution number 4 for final m; 2) before f and f are f and f are f and f and f and f and f and f are f and f and f and f and f are f and f and f and f and f are f and f and f and f and f are f and f and f are f and f and f are f and f and f and f are f and f and f and f are f and f and f are f and f are f and f and f are f and f and f and f are f and f are f and f and f are f are f and f are f and f are f are f are f are f are f and f are f and f are f are f are f are f and f are f are f and f are f

There is also an important exception contradicting what Cornutus and Velius concluded about coda m before a consonant, and that is the reinforcement of the coda m by epenthesis of p (the type sumpsi, sumptus). Whether this p is a purely orthographical convention or it represents a real [p] is controversial, and it partly depends on the interpretation of a passage in Marius Victorinus Gramm. VI 21.12–7 (4.81–2 Mariotti) and of some parallel passages:

(22) Nam "hiems", et "sumsit" et "insumsit", "demsit" sine dubio per M S scribetis. Et quoniam <incidimus> in harum uocum mentionem, nec "consumtum" nec "emtum" nec "redemtum" nec "temtat, attemtat" et similia istis per P T scribetis uitiose, sed, ut ego scripsi, iuxta M T ponetis et lucrifacietis litteram, quae detracta nihil de significatu uocis deminuit, et scribitur expeditius.

For you must indeed write *hiems, sumsit, insumsit* and *demsit* with Ms. And since we have come to mention these forms, you must not write such forms as *comsumtum*, *emtum*, *redemtum*, *temtat*, *attemtat* incorrectly with PT; you must rather—as I have written—place a T close to the M and so you will spare a letter which, if removed, does not take anything from the meaning of the word, and it is written more quickly.

Cser 2016, 80 n. 128, rejects Álvarez Huerta's (2005, 152) view that the p is only orthographical by arguing that: "Although he [Marius Victorinus] does say that spelling such words with $\langle p \rangle$ is a mistake (*vitiose scribetis*), he does not imply that the $\langle p \rangle$ is silent, only that it is not supported by analogy." However, there is evidence from grammarians ⁴⁹ recommending the writing of the p of *sumpsi* by analogy with the p in *sumptus*, and that seems to indicate that p was not really pronounced (as the not recommended p in *hiemps* ⁵⁰); therefore, analogy had to be resorted to as a basis for orthography. Similarly, with respect to *sumptus*, *demptus*, Scaurus *Gramm*. VII 20.1–4

(31.15–9 Biddau; see also 27.3 on *hiemps*) overtly speaks about a p that is added superfluously (*superuacuo*). Moreover, the treatment of Greek loanwords (*lanterna* from $\lambda\alpha\mu\pi\tau\eta\rho$)⁵¹ and the evidence from inscriptions (*sumtu, temtauerit*) suggest that p before mt and ms tended to disappear in Vulgar Latin (see Leumann 1977, 216), so that mt evolved further in nt (*Amente* from $\lambda\mu\mu\pi\tau\eta$; see Leumann). It is also worth noting that some forms with -mn– are attested in some manuscripts as -mpn–: sompnus, dampnare, contempno (Leumann 1977, 214: "vermutlich hyperkorrekte Schreibung durch Einfluß der Schule"). On the other hand, the p is etymological in such words as siremps, eampse, eumpse, and consonant clusters of "sonorant + 2 obstruents" are quite common in Latin (Cser 2016, 52).

Devine and Stephens 1977, 150–3, partly drawing on Brandenstein 1951, 491 and 493, seem to admit a group *mps* with "a transitional consonant *p*" in forms of the type *sumpsi*, *dempsi*, which is allegedly different from a real *mps* in *sampsa*, *campsare* and the name *Compsa* (they see the same difference in *sumptus* vs. *temptare*). However, they acknowledge that the status of that "transitional" *p* was already disputed by the Roman grammarians, and that some of the forms recommended by the grammarians "appear in inscriptions with some frequency."

Also, an intermediate approach that considers [súmptus] an accurate pronunciation and [súmtus] simply an allegro pronunciation could also be adopted. This view would explain quae detracta nihil de significatu uocis deminuit, since it implies that the word with a p is a variant of the word without a p. Indeed, the existence of variants is frequent in words with complex consonantal groups that become simplified in informal talk (e.g., Spanish *inspección* could be either [inspekθjón] or [ĩspekθjón] or even [ispek θ jón]). Therefore, we can imagine a phase in which the pressure of analogy (the onset m in emere, sumere) had a role in maintaining a (reinforced?) coda m in *emptus, sumptus.* To put it another way, the m (whether or not reinforced with a p) was preserved to block (in an anticipatory way, i.e., in virtue of preventive analogy⁵²) the phonetic change to [n], which would have blurred the morphological link sumosumpsi-sumptus, especially in the perfect, since *sum-si would have naturally evolved to [sũ:si] (via [sunsi], with loss of the nasal and compensatory lengthening and nasalization of the preceding vowel). Irrespective of a p sounding or not, we can admit, with Álvarez Huerta 2004, 153, that "quoiqu' exceptionnellement, en latin, une nasale labiale post-nucléaire peut conserver son point d'articulation labial."53

The likely reinforcement of internal coda nasals graphically represented as -mp-contrasts with their well-known weakening (or loss) before the fricatives /s/ and /f/, with compensatory lengthening of the previous vowel (see further Leumann 1977, 145–6; Allen 1978, 28–30), as described by ancient authors from Varro Ling. 5.118 (on me(n)sa) and Quintilian Inst. 1.7.29 (on $co(n)sules^{54}$) to Velius Longus Gramm. VII 78.21–79.4 (77.21–79.5 Di Napoli).

In phonological terms, the behavior of coda nasals has been described as either an example of archiphoneme (resulting from neutralization: Álvarez Huerta 2005, 151–2; De Martino 2000, 229–31; Devine and Stephens 1977, 153–4) or as the so-called "placeless nasal" (Cser 2016, 28–9; cf. Touratier 2005, 113 "nasale non spécifiée"; D'Introno et al. 1995, 313 "segmento neutro, es decir sin punto de articulación"). This view makes it easier to explain the variety of realizations (allophones) that can be inferred from both orthography and the grammarians' approaches. Included in the latter, the restated evidence in Cornutus and Velius seems to consistently describe a system in which the coronal realization [n] of the nasal archiphoneme /N/ emerged as the unmarked member of the class. ⁵⁵

7. Mytacism and junctures

If word-internal coda m was scarce in Latin (and probably restricted to an accurate pronunciation of certain consonantal groups), word-final m seems to be limited to accurate (somewhat artificial) pronunciations before a pause. As for connected speech, the evidence from grammarians tells us that pronouncing word-final m before an initial vowel was perceived as overtly incorrect, and, according to Cornutus, our earliest witness on the topic (see 4a and 5 above), when an initial consonant followed, the resulting sound was an [n], [m] being equally faulty in that context. Later evidence seems to restrict the mistake only to the first situation, namely the cases where final m is followed by word-initial vowel, 56 and accordingly explains the mistake in terms of inappropriate syllabification (see passages 20 and 21 above). However, it has been correctly observed (Zago 2017, 167) that inappropriate syllabification is only a likely consequence of mytacism, and not the nature of the mistake itself. In effect, since [m] is hardly pronounced in syllable coda position in Latin, the artificial restoration of that sound would lead us to reinterpret it as an onset m (really the only one existing in Latin connected speech). Therefore, we can say that mytacism actually arises from artificially placing a sound in the coda position of a juncture that is never pronounced in such a

context. As De Martino 2004, 286, correctly remarks "il difetto di pronunzia consisteva proprio nell'esprimere /-M#/ mediante un suono occlusivo bilabiale nasale [m], quando invece la corretta dizione latina prescriveva una nasalizzazione della vocale precedente all'arcifonema medesimo."

In other words, in Latin connected speech, final Vm could be pronounced as either $\tilde{V}\emptyset$ (also $V\emptyset$), or -Vn (where [n] represents the placeless nasal or nasal archiphoneme, most often realized as [n] or [n]), and presumably these two allophones allowed for a word boundary to be perceived.⁵⁷ If those allophonic constraints are violated by pronouncing [Vm], then the word boundary perception is blurred and two possibilities arise: 1) if a vowel follows, [m] is interpreted as the onset of the following syllable, and 2) if a consonant follows, [m] is either felt as an artificially exaggerated sound (maybe like the one in the type *sumptus*) or (alternatively) demands to be followed by a pause. Therefore [ominealo] might be understood as hominem alo "I feed a person," whereas [ominemalo] would reflect homine malo "bad person [abl.]." Similarly, in English the allophonic aspirated realization of initial voiceless plosives permits the distinction of *ice cream* [aɪsk^hri:m] and *I scream* [aɪskri:m], and of *that's* tough [ðætst^h Af] and that stuff [ðætst Af]. ⁵⁸ As for preconsonantal position, [ominenwi:deo] was interpreted as hominem uideo "I see a person," whereas [ominemwi:deo] might trigger the representation of an odd string such as *hominemp *uideo* or might demand a pause: *hominem*. *Video* "to the person. I see..."

8. Conclusion

After the review (and crucial text correction) of the most important grammatical evidence on coda m, the conclusion that can be put forward is that Latin grammarians were able to quite accurately describe the sound of the different (allophonic) realizations of the phoneme /m/, and that their description strikingly matches what modern linguistics has established on this debated topic. Due to their emphasis on (in)correctness of linguistic utterances, the grammarians' reporting of mistaken pronunciations provides the most useful information. It is interesting to note that the earliest evidence gives a whole picture of the sound of final m both before a vowel and before a consonant, whereas later evidence focuses on the process that was particularly relevant for verse scansion.

This study has also tried to show that the *communis doctrina* on internal coda *m* (as expressed in current Latin grammar handbooks), namely the mechanical assimilation

to the point of articulation of the following consonant, is not completely consistent with epigraphical evidence, as already observed by some scholars, nor with some of the grammarians' observations, as emphasized through this paper. It must be acknowledged that the position of some grammarians was quite "modern," in the sense that they observed that graphical coda m was hardly in correspondence with a sound [m].

Also, the debated issue of *mytacism* cannot be seen but as a faulty pronunciation of an *m* where the sound [m] could not occur: the allophonic realization of final *m* was perceived as a cue for a word boundary, and distortion of the pronunciation could result in distortion of the boundary perception.

All in all, the remarks made by ancient grammarians are undoubtedly extremely useful to continue reconstructing Classical Latin pronunciation with the achievements of linguistics; however, the old "very learned maiden Philology" (Mart. Cap. 1, 22; 2, 106) must first come to our aid to ensure the reliability of the texts and their competent interpretation.⁶⁰

BIBLIOGRAPHY

- Adams, James N. 2003. Bilingualism and the Latin Language. Cambridge: Cambridge University Press. —. 2007. The Regional Diversification of Latin 200 BC – AD 600. Cambridge: Cambridge University Press. —. 2013. Social Variation and the Latin Language. Cambridge: Cambridge University Press. Allen, W. Sidney. 1978. Vox Latina: A Guide to the Pronunciation of Classical Latin. Cambridge: Cambridge University Press. Álvarez Huerta, Olga. 1992. "La grafía con— ante labial en latín." Faventia 14: 35–42. —. 2005. "Neutralisation consonantique en latin." In Touratier, 135–55. Ax, Wolfram. 2011. Quintilians Grammatik ('Inst. orat'. 1,4–8). Text, Übersetzung und Kommentar. Boston: De Gruyter. Ballester, Xaverio. 1994. "De un uso gráfico de Catón (Quint. I 7, 23 y IX 4, 39)." Emerita 62: 57-60. —. 1995. "Fonemática del *medius sonus* en latín." Studium. Revista de *Humanidades* 1: 25–37. —. 1996. Fonemática del latín clásico. Consonantismo. Zaragoza: Universidad de Zaragoza–Universitat de Barcelona.
- Beddor, Patrice Speeter. 2009. "A Coarticulatory Path to Sound Change." *Language* 85: 785–821.
- Bertini, Ferruccio. 1986. "Il *De orthographia* di Cassiodoro." In *Atti della settimana di studi su Flavio Magno Aurelio Cassiodoro (Consenza–Squillace 19-24 settembre 1983*, ed. S. Leanza, 92–104. Soveria Mannelli: Rubbettino.
- Bertocchi, Alessandra, and Maraldi, Mirka. 2006 "Menaechmus quidam. Indefinites and Proper Nouns in Classical and Late Latin." In Latin vulgaire Latin tardif VII. Actes du VIIème Colloque international sur le latin vulgaire et tardif (Séville, 2–6 septembre 2003), ed. C. Arias Abellán, 89–108. Sevilla: Universidad de Sevilla.
- Biville, Frédérique. 1990. Les emprunts du latin au grec. Approche phonétique. Tome I: Introduction et consonantisme. Leuven: Peeters.

- ——. 1995. Les emprunts du latin au grec. Approche phonétique. Tome II: Vocalisme et conclusions. Leuven: Peeters.
- Biddau, Federico, ed. 2008. *Q. Terentii Scauri De orthographia: Introduzione, testo critico, traduzione e commento*. Hildesheim: Weidmann.
- Brambach, Wilhelm. 1868. Die Neugestaltung der lateinischen Orthographie in ihrem Verhältniss zur Schule. Leipzig: Teubner.
- Brandenstein, Wilhem. 1951. "Kurze Phonologie des Lateinischen." In Franz Altheim, Geschichte der lateinischen Sprache, 481–498. Frankfurt: Klostermann.
- Bücheler, Franz. 1856. De Ti. Claudio Caesare grammatico. Elberfeld: R. L. Friedrich.
- Burghini, Julia. 2012. "Sinalefa y ectlipsis en Consencio: problemas de interpretación." *Myrtia* 12: 177–96.
- Churchill, J. Bradford. 2000. "Dice and Facie: Quintilian, Institutio Oratoria 1.7.23 and 9.4.39." AJP 121: 279–89.
- Claussen, Joannes D. D. 1873. "Quaestiones Quintilianeae.", *Jahrb. f. cl. Phil.* Suppl. 6: 317–94.
- Colson, Francis Henry, ed. 1924. *Marcus Fabius Quintilianus*. *Institutionis oratoriae liber I*. Cambridge: Cambridge University Press.
- Conley, Brandon. 2017. "*Minore(m) Pretium*: Morphosyntactic Considerations for the Omission of Wordfinal –m in Non-elite Latin Texts." Master's Thesis: Kent State University. https://etd.ohiolink.edu/pg_10?0::NO:10:P10_ETD_SUBID:149795
- Crystal, David. 1997. *A Dictionary of Linguistics and Phonetics* (4th ed.). London: Blackwell.
- Cser, András. 2011. "The floating C-Place node in Latin." *Journal of Linguistics* 47: 65–85.
- ——. 2016. "Aspects of the Phonology and Morphology of Classical Latin." Dissertation: Budapest. http://real-d.mtak.hu/896/7/dc_1106_15_doktori_mu.pdf
- Della Casa, Adriana, ed. 1969. *Il 'Dubius Sermo' di Plinio*. Genova: Istituto di Filologia Classica.
- De Martino, Marcello. 1994. "La questione del *sonus medius* in latino tra filologia, storia ed ermeneutica." *Atti del'Istituto Veneto di Scienze, Lettere ed Arti* 102: 737–88.
- ——. 2000. "I suoni di L ed LL latine secondo i grammatici d'età imperial: un tentativo di «revisione»." *IF* 105: 213–54.

- ——. 2004. "La connotazione grafica di Catone per /-M#/ secondo Quintiliano, Institutio Oratoria, I, 7, 23 e IX, 4, 39: un 'falso malinteso'?" IF 109: 269–310.
- De Vaan, Michiel. 2008. Etymological Dictionary of Latin and the other Italic Languages. Leiden: Brill.
- Devine, A. M., and Stephens, Laurence D. 1977. *Two Studies in Latin Phonology*. Saratoga: Anma Libri.
- Di Napoli, Marta, ed. 2011. *Velii Longi De orthographia: Introduzione, testo critico, traduzione e commento*. Hildesheim: Weidmann.
- D'Introno, Francesco, Del Teso, Enrique, and Weston, Rosemary. 1995. *Fonética y fonología actual del español*. Madrid: Cátedra.
- Encuentra Ortega, Alfredo. 2004. "Mitacismo, eclipsis, aféresis. Sobre la pronunciación de <m> final latina en la Antigüedad Tardía y su reflejo en la literatura." *MLatJb* 39: 1–20.
- Fink, Robert O. 1969. "A Long Vowel before Final M in Latin?" AJP 90: 444–52.
- Funaioli, Hyginus, ed. 1907. *Grammaticae Romanae Fragmenta. Volumen Prius*. Leipzig: Teubner.
- Hock, Hans Heinrich. 1991. *Principles of Historical Linguistics*. Berlin–New York: De Gruyter (2nd edn).
- Hofmann, J. B. 1960. "moetacismus". TLL VIII 1332.
- Holtz, Louis, ed. 1981. Donat et la tradition de l'enseignement grammatical. Étude sur l'Ars de Donat et sa diffusion (IVe-IXe siècle) et édition critique. Paris: CNRS.
- Hoppenbrouwers, Henricus W. 1960. "Fonction euphonique du M final chez quelques auteurs paléochrétiens." *VChr* 14: 15–46.
- Keil, Heinrich, ed. 1857–1890. *Grammatici Latini*, 7 vols. Leipzig: Teubner.
- Kühnert, Raphael, and Holzweissig, Friedrich. 1912. *Ausführliche Grammatik der lateinischen Sprache. Erster Teil: Elementar-, Formen und Wortlehre.* Darmstadt: Wissenschaftlicher Buchgesellschaft.
- Lindsay, Wallace M. 1894. *The Latin Language: An historical account of Latin sounds, stems, and flexions*. Oxford: Clarendon Press.
- Leumann, Manu. 1977. Lateinische Laut- und Formenlehre. Munich: C. H. Beck.
- Löfstedt, Bengt. 1961. *Studien über die Sprache der langobardischen Gesetze*. Uppsala: Almquist.
- Maniet, Albert. 1975. La phonétique historique du latin dans la cadre des langues indoeuropéennes. Paris: Klincksieck.

- ——. 1997. *Répercussions phonologiques et morphologiques de l'évolution phonétique: le latin préclassique*. Louvain-la-Neuve: Peeters.
- Mari, Tomasso, ed. 2016. "Consentius' *De barbarismis et metaplasmis:* critical edition, translation, and commentary." Dissertation: University of Oxford. https://ora.ox.ac.uk/objects/uuid:11f4efb5-6de2-44f6-9a73-add47a3680be
- Mariotti, Italo, ed. 1967. *Marii Victorini Ars grammatica: Introduzione, testo critico e commento*. Florence: Le Monnier.
- Mazzarino, Antonio, ed. 1955. *Grammaticae Romanae fragmenta aetatis Caesareae.*Volumen primum. Turin: Loescher.
- Meiser, Gerhard. 1998. *Historische Laut– und Formenlehre der lateinischen Sprache*. Darmstadt: Wissenschaftliche Buschgesellschaft.
- Mignot, Xavier. 1975 "Phonologie pragoise et phonologie générative dans la description du latin." *BSL* 70: 203–31.
- Moore, Clifford Herschel. 1898. "Cato's Final *m*: A Note to Quint. Inst. or. 17, 23; IX 4, 39." *AJP* 19: 312–3.
- Moralejo, José Luis. 1991. "Vocalis ante uocalem: corripitur an distrahitur?" In *New Studies in Latin Linguistics. Selected Papers from the 4th International Colloquium on Latin Linguistics (Cambridge, April 1997)*, ed. R. Coleman, 35–45. Amsterdam: J. Benjamins.
- . 2001. "Emilio Alarcos y la Fonología Latina." In *Homenaje a Emilio Alarcos Llorach*, ed. Josefina Martínez de Alarcos, 119–37. Madrid: Gredos.
- Nettleship, Henry. 1889. *Contributions to Latin Lexicography*. Oxford: Clarendon Press.
- Niedermann, Max, ed. 1937. Consentii Ars de barbarismis et metaplasmis. Victorini fragmentum de soloecismo et barbarismo. Neuchâtel: Paul Attinger.
- ——. 1948. "Iotacismus, labadacismus, mytacismus." *RPh* 22: 5–15.
- Nyman, Martti. 1977a. "Mytacism in Latin Phonology." Glotta 55: 111–20.
- ——. 1977b. "Did Quintilian Mention Mytacism?" *Arctos* 11: 83–6.
- Oliver, Revilo P. 1949. "The Claudian Letter F." AJA 53: 249–57.
- Pérez Alonso, Marcos A. 2017. "L. Annaeus Cornutus." In *Grammatici disiecti:*Sources fragmentaires pour l'histoire de la grammaire latine, ed. A. Garcea.
- Prinz, Otto. 1950/1953. "Zur Präfixassimilation im antiken und frühmittelalterlicher Latein." *ALMA* 21: 87–115; 23: 25–60.

- Quilis, Antonio. 1997. *Principios de fonología y fonética españolas*. Madrid: Arco Libros.
- Rice, Keren. 2007. "Markedness in Phonology." In *The Cambridge Handbook of Phonology*. Paul de Lacy, ed. 79–97. Cambridge: Cambridge University Press.
- Rosén, Haiim B. 1992. Die Komposita mit co(n)~ in funktioneller und vergleichender Sicht. In *Latein und Indogermanisch. Akten des Kolloquiums der Indogermanischen Gesellschaft, Salzburg, 23.-26. September 1986*, O. Panagl and Th. Krisch, eds. 357–67. Innsbruck: Institut für Sprachwissenschaft.
- Russell, Donald A., ed. 2001. *Quintilian: The Orator's Education*. Cambridge Mass.: Harvard University Press.
- Sampson, Rodney. 1999. *Nasal Vowel Evolution in Romance*. Oxford: Oxford University Press.
- Schad, Samantha. 2007. A Lexicon of Latin Grammatical Terminology. Rome: Fabrizio Serra.
- Scheer, Tobias. 2010. A Guide to Morphosyntax-Phonology Interface Theories: How Extra-Phonological Information is Treated in Phonology since Trubetzkoy's Grenzsignale. Berlin: De Gruyter.
- Schmidt, Peter Lebrecht. 2000. "Grammaire." In *Nouvelle histoire de la littérature latine. 4: L'âge de transition 117-284*, ed. Klaus Sallmann (French ed. François Heim et al.), 249–98. Turnhout: Brépols.
- Seelmann, Emil. 1885. Die Aussprache des Lateins nach physiologisch-historischen Grundsätzen. Heilbronn: Henninger.
- Sihler, Andrew L. 1995. *New Comparative Grammar of Greek and Latin*. Oxford: Oxford University Press.
- Skandera, Paul, and Burleigh, Peter. 2005. A Manual of English Phonetics and

 Phonology: Twelve Lessons with an Integrated Course in Phonetic Transcription.

 Tübingen: Gunter Narr.
- Soubiran, Jean. 1966. L'élision dans la poésie latine. Paris: Klincksieck.
- Stoppacci, Patrizia, ed. 2010. *Cassiodoro. De orthographia: Tradizione manoscritta, fortuna, edizione critica*. Florence: del Galluzo.
- Sturtevant, Edgar H. 1940. The Pronunciation of Greek and Latin. Chicago: Ares.
- Suárez-Martínez, Pedro Manuel. 2016. "Le medius sonus latin." Glotta 92: 227-36.
- Touratier, Christian, ed. 2005. *Essais de phonologie latine*. Aix-en-Provence: Université de Provence.

- Traina, Alfonso. 2002. L'alfabeto e la pronunzia del latino. Bologna: Pàtron (5th ed.).
- Trubetzkoy, Nicolái S. 1969. *Principles of Phonology*. Translated by Christiane A. M. Baltaxe. Berkeley and Los Angeles: University of California Press.
- Vennemann, Theo. 1988. Preference Laws for Syllable Structure and the Explanation of Sound Change: With Special Reference to German, Germanic, Italian, and Latin. Berlin: De Gruyter.
- Winterbottom, Michael, ed. 1970. *Institutionis oratoriae libri duodecim*. Oxford: Clarendon Press.
- Zago, Anna, ed. 2017. Pompeii Commentum in Artis Donati partem tertiam. Tomo I: Introduzione, testo critico e traduzione. Tomo II: Note di commento, appendice e indici. Hildesheim: Olms Weidmann.
- ——. 2018. "Mytacism in Latin grammarians." *Journal of Latin Linguistics* 17: 23–50.
- Zirin, Ronald A. 1970. The Phonological Basis of Latin Prosody. The Hague: Mouton.

1

¹ The "specific statements made by Latin grammarians and other authors regarding the pronunciation of the language" are also given in the first place by Allen 1978, viii.

² For instance, the handbook by Sturtevant 1940, 5, stresses the fact that there were "no trained phoneticians in antiquity," and that "the professional grammarians were soon fond of constructing systems that the requirements of a theory were likely to blind them to the date of observation"; also they "were prone to repeat the statements of their predecessors without sufficient criticism," so that "a description of sound was reproduced in the grammars and taught in the schools long after it had ceased to correspond with actual usage."

³ Meiser 1998, 50, includes "Grammatikernachrichten" as (b) within the fifth of the five types of evidence considered.

⁴ As for the beginning of structural phonology being applied to the Latin Language, see Moralejo 2001; for generative phonology, Mignot 1975.

⁵ Exceptions of -um, -em preserved in hexameter are reported by Leumann 1977, 224, from Ennius ann. 332 ($militum\ octo$) and 494 ($quidem\ unus$). Later poets occasionally show preservation of -m only in monosyllables ($num\ adest$ in Hor. sat. 1, 9, 38, with abbreviation of \bar{u}). On the whole issue of metrical elision see Soubiran 1966, and on synalepha/ecthlipsis and the different appreciation by grammarians of two vowel clashes and vowel + m + vowel clashes, see Burghini 2012, 185, who reports Arruntius Celsus's gradation of the effect of synalepha: depending on the sound string becoming lost, synalepha could be done commode (for vowels of the same quality), incommode (for vowels of different quality) and pessime (when a vowel plus m is affected).

⁶ The exact sense of *cuiusdam* is not easy to grasp, since it may have either a nuance of approximation ("so to say," if referred to *noua*) or even recall that "the referent is presupposed as existing, uniquely identifiable and known to the speaker" (Bertocchi and Maraldi 2006, 99).

⁷ Unless otherwise stated, translations are my own.

⁸ This is the reverse version of the sonority scale or sonority hierarchy. In Vennemann's account (1988, 9), the voiceless plosives are the strongest consonants (so they show the weakest sonority) and are followed by voiced plosives, voiceless fricatives, voiced fricatives, nasals, lateral liquids (/l/), central liquids (/r/). The sonority scale starts with

vowels and glides as the most "sonorant." Nasals and liquids are in the middle of both scales.

- ⁹ Examples are restricted to internal nasals not preceding a morphological boundary, so that prefixes such as con– and in– are excluded, since these are not affected by the law in the same way. Devine and Stephens 1977, 181–2, provide significant frequency tables, in which they also distinguish "non-compound" from "compound" clusters. Except for nc (108) / ng (169), all nasal plus plosive clusters are more frequent with the voiceless plosive: mp (380) / mb (29); nt (2040) / nd (912); ngu (40) / nqu (53).
- Let us note that in some cases the sense of morphological boundary prevails, so we get ag—men (from agere) instead of **ammen, **armen or * $\bar{a}men$: in this respect Devine and Stephens 1977, 145, say that "all the examples of gm we can find involve the suffix —men(tum)."
- ¹¹ Even more recently, Conley 2017, 11, draws a similar conclusion from the passage: "By Velius Longus' age, the altered pronunciation of final m in elite speech was not limited to pre-vocalic environments."
- ¹² Before Allen, it can be read in Sturtevant 1940, 153 ("Positive evidence for nasalization of a vowel before final *m* and an initial consonant of the next word is presented by the omission of final *m* in this position in early and late inscriptions and by Velius Longus' treatment of the phrase *virum fortem consulem Scipionem*"), and in Hoppenbrouwers 1960, 34.
- ¹³ Cf. Diomedes *Gramm*. I 422.17–9; Priscian *Gramm*. II 7.15–23; Cledonius *Gramm*. V 27.9–12; Explanation in Donatum. *Gramm*. IV 521.9–12.
- ¹⁴ It is remarkable that punctuation such as *uirum fortem*, *consulem Scipionem* would result in final m preceding a fricative consonant (f, s), a context in which nasals are weakened in Latin.
- ¹⁵ That the phrases *uirum fortem* and *consulem Scipionem* might have been transposed here from an earlier section, now lost, on preconsonantal final *m* is hard to believe.
- However, we cannot be sure that the actual use of lapicides was completely in keeping with Claudius's aims. Biville 1995, 263, infers from Velius that the nature of the sound to be noted with F was "celui que prend [i] lorsqu'il suit un *u* 'consonne' comme dans *uiro*, ou lorsqu'il se trouve dans *huic*, c'est-à-dire [wi]". More recently, Suárez-Martínez 2016, 234, states that Claudius's *demieta* was probably intended not to represent a peculiar Latin sound, but rather to "Latinize" a Greek letter, the *Y*.

¹⁷ Interestingly, Velius's contemporary Terentius Scaurus *Gramm*. VII 24.13–5 (41.9–11 Biddau) does not mention the type *uir–uirtus* when dealing with *optimus/optumus*, and *uir–uirtus* is also absent from the earlier account in Cornutus, as transmitted by Cassiodorus. Therefore, Ballester 1995, 28–9, is right when he expressly rejects that the type *uir–uirtus* includes the so-called *medius sonus* (see also De Martino 1994, 782–8). By and large, the issue of the *sonus medius* remains unclear (Suárez-Martínez, 2016). ¹⁸ The text printed is the one in Stoppacci 2010, 11; the apparatus criticus is a melted, reduced version of those in Stoppacci and Keil.

¹⁹ That is the interpretation in De Martino 2004, 277: "Infatti uguale e medesimo difetto è esprimere la lettera M con una vocale nell'identico modo come con una consonante."

 $^{^{20}}$ Note that the doctrine we are aiming to reconstruct is the one in Cornutus; consequently, it is even possible that the mistaken M (for N) was already in Cassiodorus's excerpting of Cornutus.

²¹ The text is repeated in one of the sections drawn from Caesellius (see passage 6 below), who, in turn, seems to have drawn from Cornutus.

²² An anonymous reader for AJP makes the point that this passage may specifically refer to *con*—/*com*— and not to coda nasals in general. The first paragraph in the previous section of the Cassiodorus compilation favors this view, and *accedo* is often used to indicate verbal prefixation (see Schad 2007, 7). However, it is Caesellius's usual practice to start every paragraph with the main theme of it (*Con praepositio..., Qui..., Re praepositio..., Tamtus et quamtus...*), and there is no mention of *con*— in our passage, and, instead, it begins with *M littera*.

This is a familiar topic (see further n. 42), known to Quintilian as either *affinitas litterarum* (*Inst.* 1.6.24, dealing with *robur–roboris*, *miles–milites*) or *cognatio* (*Inst.* 1.4.12–17, *scamno–scabilum*, which is also one of the examples in Scaurus for the *cognatio* of b and m).

The possibility that Quintilian is hinting at an m which simply adds nasality to the preceding vowels has been suggested to me by an anonymous reader. However, the explicit comparison with a Greek ny (obviously [n]) makes it more likely that Quintilian is actually thinking of m as a real [m].

²⁵ The word *mugitus* is used to describe the sound of *m* in Marius Victorinus's articulatory description in *Gramm*. VI 34.12–3 *at m impressis inuicem labiis mugitum*

quendam intra oris specum attractis naribus dabit. See also the use of mugire in Terentianus Maurus Gramm. VI 332.235 at tertia (scil. m) clauso quasi mugit intus ore. ²⁶ Let us note that sometimes the prescriptive nature of a passage is not immediately evident. The use of the indicative does not necessarily mean that the aim of the passage is descriptive. Pragmatically, the use in the handbook is sufficient for a text to be understood in prescriptive terms. In our Cornutus's text, the use of the indicative is followed by the mention of *uitia*, and this is enough to underline the prescriptive nature of the passage.

²⁷ For Velius's passage a succinct critical apparatus (following Di Napoli's) is added, since it will be necessary to comment on the text.

²⁸ On similar grounds, Stoppacci accepts Garet's conjecture (*m* for *non*) in Cassiodorus *Gramm*. VII 161.18 (see below n. 50). Also, some manuscripts read *non* for *n* in Cassiodorus *Gramm*. VII 152.4 (our passage 5).

²⁹ Let us note, e.g., *duo i, unum i, i productum* in contrast with *i longam* in Velius himself.

³⁰ I mean that Priscian's phrasing suggests that Pliny might have used *nunquam* as an example (on this see further below). Admittedly, what we have here is *non numquam*, and the presence of *non* must be explained as 1) either a way of comparing the two *n* coda sounds in the phrase (*noNnuNquam*), or 2) a spurious element in the text, added by a copyist that could not understand the sentence with the apparent negation implied in *numquam*. In support of option 1), we can mention the use of both *nonnumquam* and *nunquam* as examples in Marius Victorinus *Gramm*. VI 16.4 (4.52 Mariotti) (*nonnunquam* again in VI 16.19 [4.55 Mariotti]). Actually, *nonnunquam* had already been read as an example in Brambach 1868, 264.

The different meaning of the whole can be seen when comparing this translation with Di Napoli's 2011, 76: "Inolre la stessa letttera 'n' subentra al posto della 'm', como quando diciamo 'clandestinus', sebbene tragga origine da 'clam', così 'sinciput' che corrisponde a 'semicaput'. Ma *questo* non deve essere osservato ovunque. Infatti talvolta si pronuncia in modo più pieno con la 'n' piuttosto che con la 'm', come quando dico 'etiam nunc', sebbene io lo scriva con la 'm', tuttavia non so come non mi riesce di pronunciarla."

³² In the lines following passage 12 above, Priscian comments that the prefix am-changed to an- before f, c, q, and to amb- before a vowel; then he briefly mentions the

metrical removal of final m before a vowel. Even this is ascribed to Pliny by Mazzarino 1955, 234, whereas Della Casa 1969, 205, does not see evidence for that ascription, although she deduces from Pliny's remarks on m that he could have dealt with "mytacism.".Also, Pliny is said to have commented on the assimilation n > m before b, m, p (Priscian Gramm. II 31.1–3).

- ³³ Álvarez Huerta 2005, 150–2, strongly argues that both Priscian and Marius Victorinus are really describing an intermediate sound, which is due to the effects of neutralization.
- The topic of the so-called *agma* is also mentioned by Victorinus (citing Accius) in *Gramm*. VI 8.11 (4.4 Mariotti) and his recommendation of writing *n* (*familiarior auribus nostris*) is repeated and reinforced in VI 19.17–20, where the spelling *ag* is labelled a *mos Graecorum*. On the *agma* there is a historical notice by Varro (Priscian *Gramm*. II 30.15–21), whereas Nigidius Figulus (in Gellius 19.14.7) seems to deal with the *agma* as a contemporary sound whose articulation the grammarian is able to describe: *non uerum "n" sed adulterinum ponitur. Nam "n" non esse lingua indicio est; nam si ea littera esset, lingua palatum tangeret* ("it is not a real *n* that is used, but a false one. Indeed, the tongue proves that it is not an *n*, for if it were, the tongue would touch the palate"). Full discussion (with bibliography) on this issue can be found in Ballester 1996, 25–37.
- I have consulted the article *moetacimus* in *TLL* VIII 1332.30–75, drafted by Hofmann 1960, and the papers by Niedermann 1948, Hoppenbrouwers 1960, Nyman 1977a and 1977b, Encuentra Ortega 2004, and De Martino 2004. A useful summary of the different uses of the word can be read in Nettleship 1889, 531–2, and excellent up-to-date accounts of the problem with a complete bibliography (missing only De Martino 2004) have been most recently issued by Zago 2017, 164–70, and Zago 2018 (an important contribution I was aware of only during the reviewing process of this paper). Most significantly, Consentius *Gramm*. V 395.1–2 (16.22–17.1 Niedermann) reports that *m*, *l* and *i* were the three principal letters commented upon by the *praeceptores*. Encuentra Ortega 2004, 5, with n. 15, provides two passages from Quintilian where the corresponding verb *suspendere* refers to either school reading (*Inst.* 1.8.1) or to verse *caesurae* (*Inst.* 11.3.35), and he rightly concludes that, in the context of reading aloud, this verb points to stopping the voice at a certain point; in other words, to the end of a prosodic phrase ("al final de un grupo fónico"). It can be added that the technical

word *distinctio* – *distinguere* is not used here because it usually refers to a more marked pause; however, when dealing with mytacism, Diomedes *Gramm*. I 453.15 does use *distinctio* in reference to the pause at the end of a verse.

³⁸ It is highly relevant to point out, in this respect, that Melissus's doctrine is also anonymously reported by Servius *Gramm*. IV 445.14–9, a passage that does not mention word insertion as a means of avoiding mytacism.

 $^{^{39}}$ A nasal [w] is also proposed by Sihler 1995, 227, and Conley 2017, 12–3, as the most likely realization of final m before a vowel. We will come back to this matter below.

⁴⁰ This term is used here in the traditional "Trubetzkoian" sense of "the sum of distinctive properties that two phonemes have in common" (Trubetzkoy 1969, 79).

⁴¹ Rosén's (1992) proposal of a "perfective" prefix *co*– different from the comitative-sociative *com*– is not generally accepted (see De Vaan 2008, 128).

⁴² Prinz 1953, 36 n. 6, observes that when Cicero (*Orat.* 159) compares the forms composuit consueuit concrepuit confecit, he might have had in mind a pronunciation [conposuit] (actually, some editors have printed *conposuit*). Admittedly, as an anonymous reader points out, Prinz's assumption is not without problems, since Cicero's focus in Orat. 159 is on vowel length, not on the quality of the nasal consonant. Instead, it is difficult to accept the reader's suggestion (after Cser 2011, 81) that Marius Victorinus' comuocat in Gramm. VI 18.18-23 (4.65 Mariotti) favors the view that "in- ended in a coronal nasal, whereas con- ended in a placeless nasal." I think it is much easier to simply assume that Victorinus is here perceiving comuocat as either [komβokat] or [komvokat], a pronunciation accounting for Vulgar Latin "betacism"; Victorinus is probably trying to develop Cicero's (fr. 2 Funaioli) remark on the articulatory resemblance of b, f, m, p, u, since, in spite of Lindsay's view (1894, 50), it is very unlikely that Cicero has expanded his remark on cognatae litterae to deal with prefix assimilation, an issue absent from Quintilian's and Scaurus's accounts on cognatio litterarum: Quintilian Inst. 1.4.12–17; Terentius Scaurus Gramm. VII 14.12 (11.8–15.10 Biddau). Moreover, contrary to what Cser states ("he does not claim the same for in—"), Victorinus Gramm. VI 18.23–25 (4, 66 Mariotti) does claim that in also changes to im— before the same letters as con— (namely b, f, m, p, u), and the lack of example of im before consonantal u could be only an accident of transmission (u is at the end of the alphabetical series b-f-m-p-u). Accordingly, if the difference between the

prefixes *in*– and *con*– is really more than a graphic one, it must be based on (pseudo)-etymological restoration.

⁴³ All in all, seven possible articulations are listed by Quilis 1997, 54–5.

⁴⁴ As for Latin, Cser 2016, 31, acknowledges that "the realisation of the nasal vowels may well have been subject to a great deal of variation. It is possible that for many speakers they were not nasal at all by Classical Latin times (for these speakers, *dens* and *dēs* would be homophonous). It is also possible that in educated circles a spelling pronunciation (or some analogy-based norm in the case of the alternating instances) gained some currency in which [n] was pronounced before [s], perhaps with the retention of the long vowel. The details will, in all likelihood, remain in the dark, and the evidence is far from unequivocal."

⁴⁵ Coarticulation involves "in a simultaneous or overlapping way more than one point in the vocal tract" (Crystal 1997, 66). The term is often used to describe assimilation of coda nasals in a number of languages (Beddor 2009).

⁴⁶ Any Spanish literate speaker who is asked to describe the sounds in the word *inscripción* would say that an [n] is pronounced after the i, no matter that phoneticians correctly show that, at least in "allegro talk" the i becomes nasalized and there is no consonantal trace of the n.

⁴⁷ A consonantal variety of final *m* had also been suggested by Fink 1969, to account for Quintilian's observation regarding Cato's way of writing *dicam faciam* as *dicae faciae*: *Inst.* 9.4.39 *et illa censori Catonis dicae faciaeque* (*dieae haceque* var. lect.) *m littera in e mollita*; 1.7.23 *non Cato Censorius dicam et faciam dicae et faciae* (*dice facieque* var. lect.) *scripsit eundemque in ceteris, quae similiter cadunt, modum tenuit?* Fink 1969, 451, had proposed to read *dicaf faciafque, m littera in f mollita*. However, this view has been rejected, first by Ballester 1994, then by Churchill 2000 (followed by Conley 2017, 8 n. 20), and by Ax 2011, 332–3, by relating Quintilian's remark with forms such as *recipie*, reported by Festus to have been used by Cato instead of *recipiam*: Festus 364, 9–10 *Recipie apud Catonem* (*inc.* 56) *pro recipiam, ut alia eiusmodi complura*. More recently, De Martino 2004, after reviewing all the previous proposals, puts forward the very attractive hypothesis that Quintilian's remark on Cato's use must be understood in palaeographical terms; in short, in capital cursive the E was written with two vertical strokes (||), and that it is exactly a half of the four vertical strokes of the M. Therefore, the phrase "*m*" *littera in "e" mollita* is seen as a reflection of

"l'amomorbidimento della forma <||||> della 'm', mediante la sotrazione di una sua parte, in modo tale da farla diventare una <||>, ovvero una 'e' di forma falisca" (De Martino 2004, 297); this view agrees with Verrius's proposal of writing only half M for final m before a vowel (see passage 17), but mollire is expected to refer to pronunciation rather than to writing.

- ⁴⁹ Cassiodorus *Gramm.* VII 161.19–21 (4.50–1 Stoppacci) *sumpsi autem quaeritur an possit sine p littera sonare, ut hiems; sed quod et in alia declinatione p respondet, cum dicimus sumptus sumpturus, necessario per p scribi debet.* The remark may come from Caesellius, which is named in the preceding lines (see next note).
- ⁵⁰ Cassiodorus *Gramm*. VII 161.17–9 (4.49 Stoppacci) *Hiemps (ut Caesellio uidetur)* "p" habere post "m" litteram non debet, quod satis sine ea littera "m" sonet, uel quod per omnes casus ne uestigium quidem illius appareat.
- ⁵¹ See further Biville 1990, 308–13, who reports that in Greek there is also evidence of the coda nasal weakness (e.g., vvφε = vύμφη).
- This is also suggested by Maniet 1997, 63, who speaks of "différenciation preventive," and by Devine and Stephens 1977, 150, when they explain the development of a transitional p "as an alternative to assimilation to n, having the advantage of preserving the root final labial." Similarly, Álvarez Huerta 2005, 153, mentions "raisons de regularité morphologique" for the types *sumpsi*, *emptum*, and De Martino 2004, 283 n. 15, observes "una rideterminazione dell'articolazione bilabiale della nasale affinché non si compromettesse sul piano fonetico l'analogiae formale." Admittedly, the intervention of preventive analogy in regular sound change has been much debated from the times of the Neogrammarians; see further Hock 1991, 633 and 644.
- ⁵³ It can be suggested that the p in sumptus and similar words is there precisely to mark the exceptionality of a coda m unexpectedly not losing its labial place of articulation. Still, we are forced to admit that in certain cases the grammarians' remarks cannot be explained at all; for example, we cannot see why Priscian, according to Cassiodorus Gramm. VII 208.13–4 (12.14 Stoppacci), recommended writing samguis (with an m) in the nominative, and changing the m to n in the rest of the cases.

⁴⁸ The few examples correspond to items "which often carried sentential stress" (Sampson 1999, 49).

- ⁵⁶ As suggested in section 1 above, it is sensible to think that its relationship with metrical elision/synalepha played a role in giving more prominence to the description of final *m* before a vowel.
- ⁵⁷ It is fair to highlight that this boundary-evidencing function of the prevocalic allophone of final *m* had already been pointed out by Maniet 1975, 152: "Cette nasale finale n'était pas un 'phonème' en latin, mais une variante combinatoire à fonction démarcative."
- ⁵⁸ See these and further examples in Skandera and Burleigh 2005, 61–2. The linguistic nature of junctures is subject to controversy (see Scheer 2010).
- ⁵⁹ A similar claim is made in the conclusion of the recent paper on mytacism by Zago 2018, 47.
- ⁶⁰ Acknowledgement note. This paper has arisen from fruitful discussions with my friend and colleague Marcos A. Pérez on the passage of Cassiodorus dealt with in section 3. He brought my attention to the difficulty in understanding Cassiodorus 1.6 Stoppacci in relation to the preceding paragraphs; without his insistence on making sense of the whole passage, this paper would never have been written. The article has been written as part of a project (Ref. FFI2017-83315-C2-2-P) funded by the Spanish "Ministerio de Economía y Competitividad" and it aims to produce a commented edition of the Empire's fragmentary Latin grammarians. I would also like to thank anonymous readers for their close reading and useful suggestions.

There is no *consensus* in interpreting Quintilian's passage: Colson 1924, 101, followed by Adams 2013, 179, thinks that it implies that *consul* was written without n, even if this was pronounced, whereas Ax 2011, 341, and De Martino 2000, 229 and 2004, 280, interpret that both examples in the passage (*columnam* and *consules*) were written with an n that was not pronounced.

⁵⁵ In a cross-linguistic perspective, systems with contrasting labial, velar and coronal place of articulation are said to have coronal and velar as the possible unmarked units (Rice 2007, 92), and this is consistent with the reluctance of coda [m] described by Cornutus and Velius.