



## ON THE PHONETIC NATURE OF THE LATIN R

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### **Abstract**

The article aims to answer the question of what evidence we have for the assertion repeated in modern textbooks concerned with Latin phonetics, namely that the Latin *r* was the so called alveolar trill or vibrant [r], such as e.g. the Italian *r*. The testimony of Latin authors is ambiguous: there is the evidence in support of this explanation, but also that testifying rather to the contrary. The sound changes related to the sound *r* in Latin afford evidence of the Latin *r* having indeed been alveolar, but more likely alveolar tap/flap than trill.

### **Résumé**

*L'article cherche à réunir les preuves que nous possédons pour la détermination du r latin en tant qu'une vibrante alvéolaire, ainsi que le r italien par exemple, une affirmation répétée dans des outils modernes traitant la phonétique latine. Les témoignages des auteurs antiques ne sont pas univoques : il y a des preuves qui soutiennent cette théorie, néanmoins d'autres tendent à la réfuter. Des changements phonétiques liés au phonème r démontrent que le r latin fut réellement alvéolaire, mais qu'il s'agissait plutôt d'une consonne battue que d'une vibrante.*

The letter R of Latin alphabet denotes various phonetic entities generally called “rhotic consonants”. Some types of rhotic consonants are quite distant and it is not easy to define the one characteristic feature common to all rhotic consonants. They can be classified as follows:

According to the place of articulation:

- alveolar: [r], [r̥], [r̄], [ɹ], [ɻ]
- retroflex: [ɻ], [ɻ̄]
- uvular: [R], [ʀ]

According to the way of articulation:

- approximant: [ɹ], [ɻ]
- trill: [r], [r̄], [R]
- tap / flap: [ɾ], [ɽ]
- fricative: [ʀ]
- lateral flap: [ɻ]<sup>1</sup>

It is rather an exception than a rule within Indo-European languages that more than one rhotic consonants would function as phonemes in an individual language, e.g. in Czech, there is the alveolar trill [r] and the raised alveolar trill [r̄] (= Czech *ř*), or in Spanish, the alveolar trill [r] and the alveolar tap or flap [ɾ]. Mostly, however, there is just one “rhotic” phoneme in a language with a certain basic articulation, with other articulations existing alongside that are felt to be articulation mistakes (e.g. in Czech the relatively common uvular pronunciation of *r*, which was characteristic of for example Václav Havel), or dialectal variants.

Contemporary Romance languages have different basic articulation of the rhotic consonant, e.g. French has the uvular *r*; Italian the alveolar trill; Spanish was already mentioned. Therefore, it is more than relevant to ask what the situation was in Classical Latin in this respect (although we have to have in mind that the pronunciation might have changed in time and place – actually, it must have, cf. the different pronunciation in individual Romance languages). The Latin phonetics books generally claim beyond the shadow of a doubt that the Classical Latin *r* was the alveolar trill.<sup>2</sup> But the question remains of how this certainty was gained by the authors of the textbooks: general language typology does not give any clue in this case since even genetically closely related languages have different rhotic consonants, as we have seen earlier. We are then left with two

<sup>1</sup> The symbols used according to IPA (2005).

<sup>2</sup> JURET 1929, p. 7; SAFAREWICZ 1932, p. 1; NIEDERMANN 1945, p. 13; MANIET 1955, p. 19; MONTEIL 1973, p. 72.

options: a philological one, that is, to check whether any relevant information on this matter is given in the testimony of ancient authors, or a linguistic one, that is, to evaluate phonological changes related to the Latin *r*.

### 1. Testimony of ancient authors<sup>3</sup>

As mentioned previously, modern authors of Latin textbooks presume that the Latin *r* was the so called alveolar trill. Do we have any contemporary evidence testifying to this claim?

A. Maniet (1955, p. 19) gives a quotation from the verse text *De litteris* by the early third century BC author **Terentianus Maurus** (as his surname reveals, not a Roman-born): *vibrat (sc. littera R) tremulis ictibus aridum sonorem* (TER. MAUR. 238 = *gramm.* VI 332, 238), that is, “the R vibrates with a dry sound from trembling blows”. The verb *vibrare* itself does not necessarily testify to the alveolar trill of the Italian type – even the uvular *r* and e.g. the Czech *ř* are trills. Unfortunately, Terentianus Maurus does not say which parts of the oral cavity participate in the vibration, even though for other sounds described in the same paragraph he clearly specifies: F is produced by *dentes* and *labellum*, L by *lingua* and *palatum*, M is produced *clauso ore*, N ... *figitur usque sub palato, quo spiritus anceps coeat naris et oris*, S is produced *dentibus repressis*. It almost seems as if by explicitly NOT mentioning the tongue as the part of the cavity that vibrates, Terentianus Maurus rather meant the uvular (i.e. not alveolar) trill. On the other hand, we should not forget that this is a verse text, i.e. one bound by a strict meter.

More explicit, though still not absolutely unambiguous, is the text by the author named **Ap[h]thonius** or **Asmonius**, brought to us as a part of *Ars grammatica* by Marius Victorinus; it clearly elaborates on the above mentioned verse by Terentianus Maurus and, unfortunately, involves a corruption at a least convenient place for our purpose: ... *r, quae vibrato + vocis palatum linguae fastigio fragorem tremulis ictibus reddit* (PS. MAR. VICTORIN. *gramm.* VI 34, 15). Unequivocal interpretation of the quote is precluded by the mentioned corruption as well as by uncertain translation of the word *fastigium*, generally meaning

<sup>3</sup> The records were excerpted from the database of *Bibliotheca Teubneriana Latina III* and thanks to the search system in this database (= unless specifically stated otherwise, the whole words are searched for) the excerption was actually quite uncomplicated: simply to write the letter ‘R’ into the search engine. All the (in my opinion) relevant examples were chosen for this text. Other records discussing *littera R*, are generally of the following kinds: 1) texts commenting on the R standing in the place of the original S; 2) lists of the so called *semivocales*, which is to say, here, the sounds that are pronounced in the alphabet with the preceding vowel: *eF, eL, eM, eN, eR, eS, eX*; 3) texts from the field of morphology, where the R is presented as a characteristic final sound of certain substantives or verb forms (= passive); 4) texts from the field of metrics commenting on the behaviour of the group *muta cum liquida* – on this see the following note.

“spike, apex” of something, but also “the upper side, the ridge”; regarding the tongue and the articulation of sounds, these are fundamentally different notions. The participle *vibrato* could belong to *fastigio linguae*, i.e. “having vibrated the apex of the tongue” (should *fastigium* mean “apex”), but in that case firstly, the word order would be rather too “poetic” for a technical text (a wide hyperbaton) and, secondly, the reconstruction of the place with the corruption is very complicated, both semantically and syntactically. Keil with his a priori assumption of the tongue vibrating against the palate suggests that the text should be corrected either as *quae vibrato intra palatum linguae fastigio fragorem tremulis ictibus reddit*, or *quae vibratum vocis fragorem tremulis in palati fastigio linguae ictibus reddit*.

Probably the clearest quotation in support of the alveolar trill comes from the fifth-century author from Carthage, **Martianus Capella** (3, 261): *R spiritum lingua crispante corraditur*, i.e. “R is pronounced with difficulty (?), with the tongue vibrating the air”. Unfortunately, it is the same Martianus Capella who left us another quote (see below), testifying rather against the *r* as an alveolar trill.

Worth mentioning are also some less explicit statements that support the interpretation of the Latin *r* as the trill. In *DON. Ter. Ad. 2, 282* **Lucilius** is quoted to have said on the sound *r*: *irritata canis quam homo quam planius dictat*, i.e. “which (i.e. the sound *r*) an irritated bitch pronounces more clearly than a man”. The image of an irritated, growling bitch quite unambiguously implies vibration – yet unclear again, whether alveolar or uvular (in the author’s mother tongue, the imitation of dog’s growling would be possible both alveolarly and uvularly – while the uvular variant would be seen as more expressive and “closer to the original”).

The second-century AD author **Velius Longus** (*VEL. gramm. VII 79, 4-5*) says: *sic et dossum per duo s quam per r dorsum quidam ut lenius enuntiauerunt*, “so some people would rather pronounce *dossum* with double *s* than *dorsum* with an *r*, to sound more pleasantly”. Judging from this, the sound denoted by the letter R was perceived (by the author or his predecessors, whose texts he compiled) as unpleasant. Here again, such perception might apply to both alveolar and uvular trill. Similarly, **Charisius** in his *Ars grammatica* written in the fourth century in Constantinople notes, that *r* “*strepit*” (*CHAR. gramm. p. 176, 10*).

However, there are also records that slightly disrupt the image of a harshly sounding trill: First, there is a statement by **Varro** (*ling. 5, 133*), although one not having exactly unambiguous interpretation. It is the explanation of the etymology of the word *pallium*: *hinc quod facta duo simplicia paria, parilia primo dicta, R exclusum propter levitatem* = “and because it was created from two simple identical (*paria*) pieces of cloth, it was first called *parilia* and later the *R* dropped *propter levitatem*”. The expression *propter levitatem* is translated by Kent as “for smoothness of sound”. *Propter* in Varro, however, is always of cause, not of

purpose. Thus, in my view, Kent's translation is incorrect; but there are two other options: "because (i.e. the dropped R) is light/unstable", or "because *pallium* is light (and so it better corresponds with the word with no harshly sounding R)". These, from our point of view, are two contradictory interpretations and to decide which is the right one would be possible only if we were absolutely sure what Varro had in mind when writing about a *pallium* – a light coat or a heavy wool blanket? Unfortunately, not even this leads to an unambiguous interpretation: according to *RE* (XVIII.3, col. 259) *pallium*, whose main characteristic is that it is a four-sided piece of cloth (unlike the semi-circular toga), can be made either of wool, or silk.

The aforementioned **Charisius** puts *r* in the group of liquids (*l m n r*), which to him are characteristic by the fact that *minus aridi habeant* (CHAR. gramm. p. 5, 12-13). This is a statement in a way colliding with his earlier mentioned quote (one with the verb *strepere*), but perhaps we could assume that in this case the *r* simply "landed up" with the other mentioned sounds, which, like the *r*, do not make length by position when combined with the so called *muta* (which is the topic of the passage in question).

**Marius Victorinus** writes also about the liquids *l m n r*: ... *quando hae solae inter consonantem et vocalem immissae non asperum sonum faciunt, ut clamor Tmolus + consul Africa* (MAR. VICTORIN. gramm. VI 20-22). So it is similar to the text by Charisius, with the difference only in that there is explicitly given also an example with the *r*.<sup>4</sup>

The aforesaid **Martianus Capella** says: ... *natura litterarum l et r, quae mollis est, nunc longam, nunc brevem syllabam efficiat* (MART. CAP. 3, 271). As a native speaker of language with the alveolar trill I can responsibly say that *mollis* is about the least probable attribute I would pick to describe the sound *r* as a lay person. This could be a weighty argument against the pronunciation of *r* as alveolar trill, at least in the time and place of Martianus Capella, if the same author had not written elsewhere in his encyclopaedia (3, 261): *R spiritum lingua crispante corraditur* (see above).<sup>5</sup>

<sup>4</sup> Similar texts, where the authors explain the fact that the so called group *muta cum liquida* does not make length by position by describing the liquids as feeble, dull, etc., are numerous, e.g. the fourth-century AD author **Atilius Fortunatianus** in his treatise on the meter in Horace comments on the expression of *regina gravi: g littera consonantis vim tenet, r pro nulla habetur* (FORTUN. gramm. VI 279, 16-17). These texts cannot be regarded as genuine testimonies of the phonetic nature of the *r* and we must be aware of the purposiveness of such interpretation. What, on the other hand, may be seen as quite peculiar is that this principle, translated from Greek, actually remained in Latin metrical prosody if the Latin *r* had indeed been the alveolar trill, that is, the sound characteristic by relatively long duration.

<sup>5</sup> While the quotation by MART. CAP. 3, 271 also comes from the extract concerned with the phenomenon of "muta cum liquida" (see the previous note), I believe it is of greater relevance than the other quotes, which merely describe the given fact (= state that *r* and *l* are pronounced weakly in the given position). Martianus Capella, on the other hand, attempts to explain the fact: the reason why this occurs is that *r* and *l* are *molles* by their nature.

The given testimonies of ancient authors attempting a direct characteristic of the sound R are totally inconclusive: often ambiguous, sometimes even contradictory in the same author. Apart from that, it is obviously needless to repeat the typical complications one encounters when interpreting the texts by ancient grammarians related to their originality. On the top of that, in this particular question more than in other cases what can play a role is the place of origin of the author of the text, or his source. What is, however, evident is that we do not find in the texts by ancient authors an unambiguous testimony to claim that Latin *r* was alveolar trill, perhaps with the exception of MART. CAP. 3, 261: *R spiritum lingua crispante corraditur*, who, however, immediately (3, 271) contradicts himself by saying that *natura ... r ... mollis est*.

Having said that, I must add there is one quote written by the ancient author that I consider quite convincing, even though it does not contain a direct characteristic of the sound *r*. The second-century AD author of *De orthographia*, **Scaurus**, actually writes: *item l et d et r et s (sc. inter se mutuis vicibus ... funguntur* – “substitute each other in various ways”), *cuius rei maximum argumentum est, quod balbi, qui r exprimere non possunt, aut l dicunt aut s...* (SCAUR. gramm. VII 13, 10-12). This statement, in my view, decidedly rules out the possibility that the R in Latin could denote a uvular sound – the uvular [R] or [ʀ] could hardly be substituted by a lateral or a sibilant.

## 2. Linguistic arguments

In the article on the development of the intervocalic laryngeal in Latin that is currently being prepared for print in the journal of *Graecolatina Pragensia* I gave several examples of where in Latin it actually was the *r* that developed in the place of the original interconsonantal laryngeal, for example the nom. *vīs*, gen. *\*vīris* < *\*uēiH-s*, *\*uēiH-es* or *\*uiH-és* (see LIV 668); the nom. *spēs*, gen. *\*spēris* (cf. the recorded form of the accus. *spērem*) < *\*sp<sup>h</sup>éh<sub>1</sub>-s*, *\*sp<sup>h</sup>éh<sub>1</sub>-es* (see LIV 584) etc. I note there that looking at those examples<sup>6</sup> it would be extremely tempting to bring forth a hypothesis that the Latin *r* was uvular – because a uvular sound would be very close to the presumed phonetic nature of the so called laryngeals. As could be seen in the preceding point, if we acted on purpose, such hypothesis could even be supported by some quotes by ancient authors. However, regardless of what has been said in conclusion of the previous point concerning the quote by Quintus Terentius Scaurus, even based only on the purely linguistic arguments a

<sup>6</sup> The examples in the mentioned text are several in number, including also some substantives traditionally classed with *s*-stems whose classification with the *s*-stems is, however, not semantically justified, e.g. *mās* or *mōs*.

similar hypothesis must be rejected. The reason why is the unquestionable existence of the so called Latin rhotacism, i.e. the change of the *s* into the *r* in certain sound contexts, and also the proximity of the Latin *r* with the consonant *d*, testified to both by actual changes and ancient authors.<sup>7</sup>

Admittedly, we do not know exactly what the phonetic nature of the Latin *s* was. Nevertheless we can state that the change of whatever sibilant into uvular sound is very difficult to conceive of. The change of the *s* into the *r* cannot probably be explained in any other way than as a transition between two alveolar sounds. Consequently, at the time of rhotacism,<sup>8</sup> at least, the Latin *r* was alveolar.<sup>9</sup>

The mutual proximity of the *r* and the *d*, documented e.g. by the mentioned (see note 7) change *\*medi-diēs* > *meridiēs*, also indicates relatively clearly the alveolar character of the *r*; we are even able, on its basis, to get an even better idea about the place of articulation of the pre-classical *r*. The partial assimilation *df*, *dv* > *rf*, *rv*<sup>10</sup> attests that the place of contact between the tongue and the gum when

<sup>7</sup> For example DON. *Ter. Ad.* 5, 848: [Et] *meridiem veteres dixerunt quasi medidiem, R pro D posita propter cognationem inter se harum litterarum*. Similarly e.g. also DON. *Ter. Hec.* 3, 441.

<sup>8</sup> Generally placed in the fifth century BC with reference to the records of yet unrhotacised forms in older Latin inscriptions. But SAFAREWICZ (1932, p. 15ff.) aptly points out that there are not many definite proofs: *NVMASIOI* on *Fibula Praenestina* need not necessarily correspond to the classical *Numerioi*; *ESET* on the Forum Romanum Cippus need not be the classical *erit* and *IOVESAT* of the so called Duenos Inscription need not necessarily correspond to the classical *iūrat* (particularly with regard to the vertical line between *IOVE* and *SAT*, and the syntactically rather problematic attachment of the ensuing *DEIVOS* – adds L. P.), as is generally assumed. There were no other records of unrhotacized forms at the time of publishing of the cited Safarewicz's work. (In the meantime, however, came quite unequivocal *Lapis Satricanus*.) I write about this here for a reason, namely to demonstrate, same as Safarewicz did in his time, that concerning the evidence of phonological phenomena in archaic Latin inscriptions numerous myths exist still today, having been automatically taken for granted by scholars (for example, and here I have a personal axe to grind, the incessantly repeated myth about the existing evidence of word forms where the so called vowel weakening had not yet taken place, recently e.g. DE MELO 2013, p. 229 “as is well known, the most archaic Latin texts show no signs of the weakening yet, ...” in a review of my monograph PULTROVÁ 2011).

<sup>9</sup> Or, alternatively: “the *r* as a result of rhotacism was alveolar”. Thus if we wanted to concede the possibility of two or more various “rhotic” phonetic entities having temporarily existed in Latin. Nevertheless, it would be a sheer speculation, there is no support for such hypothesis, and even in the mentioned article (in print) I attempt to show that those *rs* in the place of the original intervocalic laryngeal actually cannot (not only for phonetic reasons) be direct reflexes of a laryngeal (if they were, they would apparently have to be the uvular *rs*), but that they are secondary, epenthetic sounds that developed only following the total elimination of a laryngeal.

<sup>10</sup> Srv. PRISC. *gramm.* II 35, 1ff.: *D transit ... in r: “arrideo”, “meridies”; antiquissimi vero pro “ad” frequentissime “ar” ponebant: “arvenas”, “arventores”, “arvocatos”, “arfinas”, “arvolare”, “arfari” dicentes pro “advenas”, “adventores”, “advocatos”, “adfinas”, “advolare”, “adfari”...; MAR. VICTORIN. gramm. VI 9, 16: sed nos nunc et adventum et apud per d potius quam per r scribamus, arventum et apur...*

articulating the *r* was on the trajectory between the place of articulation of the *d* and the lips, that is, more to the front. (The fact that in Classical Latin the original *d* was restored in these cases could nevertheless indicate that the nature of the *r* changed in the time between pre-classical and classical period.)

Concerning the way of articulation, the fact that the Latin *r* functioned probably as epenthetic consonant between the morpheme ending in a vowel and the ensuing one beginning in a vowel, so that they do not merge, which would be semantically undesirable (e.g. above given *\*sp<sup>h</sup>éh<sub>1</sub>-es > \*spē-X-is > \*spēris*, but also e.g. *ma-X-is > maris*),<sup>11</sup> suggests that at least in pre-classical period the Latin *r* had more likely the nature of a tap/flap than trill. This hypothesis could be supported also by the metrical phenomenon “muta cum liquida” (when it, naturally, cannot stand alone as an argument, having been taken from Greek).

### 3. Conclusion

In the beginning of this article the question was deliberately asked as to “what evidence we have for what the modern textbooks univocally claim, i.e. that the Latin *r* was the alveolar trill”, instead of perhaps a more direct one as to “what the nature of the Latin *r* was”. The reason for that is the scepticism towards the possibility of answering a question so formulated relevantly – in particular with regard to the fact that it is probable that the phonetic nature of the Latin *r* changed in time and place.

However, the former question can be answered: There are two pieces of evidence by the ancient authors that bear witness to the *r* as the trill – one quote by Terentianus Maurus<sup>12</sup> and one by Martianus Capella contested, however, by another quote by the same author). In addition, both the authors come from Africa, by saying which I do not intend to suggest that this might be a local pronunciation variant: after all the authors are divided by almost two centuries, and, which is most important, in neither case do we definitely know their sources. The quote by Lucilius on *irritata canis* is just indirect evidence. We cannot therefore take these for reliable evidence, and the less so as to the pronunciation in Rome in the classical or pre-classical period. In other words, based on the testimony of ancient authors we cannot acknowledge what modern textbooks tend to assert, that the classical Latin *r* was the alveolar trill. Linguistic data afford more evidence for the alveolar tap.

<sup>11</sup> After all, the phoneme *d* plays a very similar role of an epenthetic consonant, namely in the verbs such as *redimō* or *redeō* (*re-* + *V-*); given the *r* in the preceding syllable it is only natural that the pronunciation should move to the [d] here. For more on this see the already mentioned article (in print).

<sup>12</sup> In addition, if I were to choose, in this case I would more likely vote that he was talking about the uvular – see above.



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