

## THE DEVELOPMENT OF THE INTERVOCALIC LARYNGEAL IN LATIN

LUCIE PULTROVÁ (Praha)

### ABSTRACT

The development of laryngeals in the traditional interpretation depends purely on their sound environment and at least in the development into Latin no role is ascribed to in what morpheme or morphemes and on what position within the morpheme the relevant sound sequence occurs. However, in the process of elimination of laryngeals the extra-phonetic factors evidently also come into play that complicate the well-arranged rules and that have not yet been systematically explained. The article is concerned with a partial problem of this complex issue, namely the question of development of intervocalic laryngeal on the morphemic boundary between the root and the suffix. In Latin there are examples where for semantic reasons the deletion of the laryngeal is not followed by the contraction of vowels, but where an epenthetic consonant occurs in its place.

**Key words:** Latin; historical linguistics; laryngeals; morpheme; intervocalic laryngeal; epenthetic consonant; epenthesis

Anyone making acquaintance with the laryngeal theory from the viewpoint of Latin or any other Indo-European language meets with the rules of the type of “a laryngeal in the position between two consonants (CHC) yields a (CaC)”, “in Latin, a laryngeal at the absolute beginning of the word before a consonant (HC-) drops”, and similar. The development of a sound, in this particular case the so called laryngeal,<sup>1</sup> is presented as being dependent on its sound environment, while no role is ascribed to in what morpheme or morphemes and on what position within the morpheme the relevant sound sequence occurs. But in fact, at least in Latin, in elimination of laryngeals there are evidently also other than phonetic factors stepping into play that complicate the rules. While working with Latin material we actually find instances of when as if the purely phonetic rules did not apply. Generally said, even after the elimination of the laryngeal took place, the structure of the word must remain clear – for semantic reasons, the root must remain at least partially intelligible; so does the suffix, if it is, from the synchronic point of view, a carrier of a distinct semantic information; while the endings must be retained so that the word does not deviate from the system of inflection. These rules, and the last one in particular, must be kept, and they prevail over the otherwise very strict phonological

---

<sup>1</sup> The term “laryngeal” is used throughout the text as a traditional term, regardless of the real phonetic nature of these sounds.

rules (even though, let us stress, in general it is naturally the syllable, not the morpheme that is phonetically relevant). Let us give as an example the root compounds in *-stes*, *-stītis*, the representatives of the same word-formative type as e.g. *artifex*, *obses*, etc. The root compound formed in a standard way from the root *\*sth<sub>2</sub>*, “to stand”, should yield the gen. *\*-sth<sub>2</sub>-(e)s* > *\*\*-stas*,<sup>2</sup> the dat. *\*-sth<sub>2</sub>-ei* > *\*\*-stai* > *\*\*-stae* etc.; such compound would, however, completely deviate from the declension of its word-formative type (*ob-sid-is*, *ob-sid-ī*, and similar). To solve this situation, a non-etymological consonant is inserted, in this case the *-t-*, which prevents the – from the functional point of view – undesirable merging of the two morphemes.

The examples of where in Latin the development of laryngeal does not simply follow the rules based purely on the sound environment are numerous: there are instances of the laryngeal dropping in the position where it should vocalize;<sup>3</sup> or, on the contrary, it vocalizes even though it should totally disappear;<sup>4</sup> or examples of various consonants having developed in the place of the original laryngeals that textbooks with no particular aim of interpreting describe *ad hoc* as various “stem enlargements”. The common denominator of all these “exceptions” is a specific position of the laryngeal within the morpheme and hence coming necessity, or, contrarily, nonnecessity to retain the phoneme within the frame of the higher unit – morpheme – with regard to the meaning that it carries. Systematic description of these various strategies used in the elimination of laryngeals is a very complex task, demanding the solution of many partial problems. I attempt to approach one of them in this article: the question of the development of intervocalic laryngeal in Latin.

In textbooks, Latin is classed with the languages with the most common development of the intervocalic laryngeal, i.e. the assumed elimination of the laryngeal and contraction of the vowels, while the timbre of the resulting long vowel is not quite predictable: it is generally assumed that the laryngeal prior to the deletion had coloured the preceding vowel; however, the resulting timbre of the vowel yielded by contraction of two vowels of different timbre does not follow quite clear rules in Latin. The reason for this unclearness is simple: there are only a few accounts in Latin where the intervocalic laryngeal may definitely be reconstructed. Schrijver (1991: 154) only lists the following possible instances: *flōs*, *lēnis*, *mās* + the forms of the inflection of the *-eh<sub>2</sub>-* and *-eh<sub>1</sub>-* stems.

**flōs:** Schrijver (1991: 131) cites Flobert (1973: 568), who says it is the *s*-stem, which means the same word-formative type as e.g. *calor*, that is *\*b<sup>h</sup>leh<sub>3</sub>-ōs* > *flōs*. Disregarding the substantial problems with interpretation of the whole word-formative type,<sup>5</sup> it is true that, functionally, the subst. *flōs* indeed fits in there: it belongs with the verbs *flōrēre/*

<sup>2</sup> Two asterisks *\*\** are used to denote the forms that should have developed from the reconstructions according to the generally accepted rules, but that do not in fact exist.

<sup>3</sup> Such case can be found even in Schrijver’s synthetic monograph on the laryngeal reflexes in Latin (1991: 330–333): in the place of the interconsonantal laryngeal in the position on morphemic boundary between the root and the suffix the vowel *a* does not develop, contrary to the common assumption of the development of interconsonantal laryngeal in Latin (CHC > CaC), but the laryngeal disappears without any substitution (e.g. *passim* < *\*pVth<sub>2</sub>-ti-*).

<sup>4</sup> For example *\*h<sub>2</sub>g<sup>h</sup>-tōs* > *\*ag-tos* > *āctus*, *\*h<sub>1</sub>d<sup>h</sup>-tōs* > *\*ed-tos* > *ēsus* etc. (× general rule: HC- > C-, see e.g. Schrijver 1991: 15–25).

<sup>5</sup> See Pultrová (2011: 108–110): this word-formative type has no apparent equivalents in other Indo-European languages and is semantically and formally inconsistent. It more often denotes the qualitative than action abstracts.

*flōrēscere* and the adj. *flōridus*, same as for example the mentioned *calor* – *calēre/calēscere* – *calidus* etc. The question might obviously be asked as to why in this noun in particular the nominative *-s* was retained and did not change through analogy into the *-r*, as was the case in the other nouns. This, however, is not the biggest problem: what is more problematic is that the forms of Latin weak cases do not correspond to this reconstruction (and they are, at least in Latin, more important for the reconstruction than the nominative): according to Schrijver *\*b<sup>h</sup>lh<sub>3</sub>-és*<sup>6</sup> should yield *\*\*falos-*,<sup>7</sup> i.e. the genitive should have the form of *\*\*falosis* > *\*\*falogis*, but in reality we have *flōris*. The Flobert's interpretation thus is not perfectly satisfactory.<sup>8</sup>

The adj. *lēnis*, for which Schrijver (1991: 154, 122) suggests as one of the possible reconstructions *\*leh<sub>1</sub>-en-*, I leave aside since I consider this interpretation of the suffix absolutely improbable.<sup>9</sup>

**mās:** Schrijver (1991: 167) cites Adams (1985), who interprets this word as an original *s*-stem adjective from the base word *\*mas*, “penis”, i.e. *\*ma-es*, “having a penis” (similarly to *pūbēs*, *-eris* “having pubic hair [*pūbēs*, *-is*]”). Thus: nom. *\*mh<sub>2</sub>-ēs*, gen. *\*mh<sub>2</sub>-s-és*. Schrijver (1991: 168) himself disagrees with this being an original adjective, but he takes for granted that it is the *s*-stem. According to Schrijver, the nominative can be reconstructed either as *\*mēh<sub>2</sub>-s* or *\*mēh<sub>2</sub>-os* or perhaps also *\*mēh<sub>2</sub>-ōs*. In this case, unlike in the previous *flōs*, the reconstruction is formally unproblematic, but we encounter a semantic problem: the similar agent *s*-stems are not reconstructed for the proto-language. Also with regard to a certain “basic character” of this noun we must consider another alternative, that is, that it is a root noun, i.e. of the same type as *dux*. Then the reconstruction could be as follows: nom. *\*mēh<sub>2</sub>-s*, gen. *\*mh<sub>2</sub>-és*. The nom. *mās* corresponds with this reconstruction absolutely, but the genitive, according to the rules, should yield *\*\*mas*. This, however, is completely out of the system (let us remember *-stes*, *\*\*-stas* × *-stitis*). In such case we would have to admit of the idea that what developed here – through analogy – is the form *ma-X-is* (as *ducis*: the root/stem ending in a consonant + identifiable ending *-is*), i.e. that an epenthetic consonant was inserted behind the root ending in a vowel in order to ensure that the ending was added to the consonant and the hiatus was prevented, and that in this case the epenthetic consonant is the *r*, or the *s* that subsequently rhotacized.

If we go back to *flōs* now, we could obviously apply the same approach here, considering a non-agent root noun with the following presumed form (acrostatic paradigm with

<sup>6</sup> If this word-formative type (i.e. masculines in *-or*, *-ōris*) is inherited, then we must with regard to the form of the root of the absolute majority of its representatives reconstruct the weak cases with the zero-grade of the root (levelling in Latin goes from the weak cases to the strong ones). The question is, however, whether these really are primary derivatives, as commonly interpreted (see the previous note); if they are not, then the similar considerations would have no sense and classing the subst. *flōs* with this word-formative type would be definitely out of question.

<sup>7</sup> Schrijver (1991: 205–215): *ČlHV* > *CalV*.

<sup>8</sup> Flobert supports this interpretation by citing the personal name *Flōra*, recorded in Oscan (Flobert himself nevertheless says it was in Umbrian) in the form *FLVVSAĪ*, which, in his opinion, is formed through the same word-formative process as *Aurōra* is from *\*aurōs*. This obviously would be a very important argument, if this derivational process could be deemed indisputable (which in my opinion it could not).

<sup>9</sup> Schrijver's suggestion of the reconstruction with the complex suffix *-en-i-* is hard to understand for me. To my knowledge such suffix was not reconstructed for the PIE. The equivalents of this adjective in other languages have the suffix *-no-* (cf. Czech *líný*).

the *o*-grade in the root in the strong cases):<sup>10</sup> nom. \**b<sup>h</sup>lólh<sub>3</sub>-s*, gen. \**b<sup>h</sup>lélh<sub>3</sub>-es*, which in both cases yields indeed the real form of the root *flō-*, i.e. nom. *flōs*, gen. *flō-X-is*.<sup>11</sup>

There are some other formally similar substantives that are traditionally classed with the *s*-stems. In some, this interpretation has sense (neuters *fās*, *pūs*), in others less so. Unclear etymology is that of the masculine *mōs*, with no equivalents in other IE languages.<sup>12</sup> It is usually classed with the same word-formative type as *flōs*, but it does not fit in at all functionally, while formally it would again be difficult to explain long vowel *ō* in the indirect cases (\**mH-és*-).

Concerning the subst. *vīs*, de Vaan (2008: s. v. *vīs*) directly counts with that it is the root noun from the root \**ueiH-* (LIV<sup>2</sup>: 668 \**ueih<sub>1</sub>-*), considering the forms of the plural *vīrēs* etc. to be secondary. Schrijver (1991: 232) gives only the nominative sg.: \**uiH-s*. The consonant *r* on the boundary between the root and the ending in the indirect cases (some of them unrecorded) stands again in the place of the laryngeal: nom. \**uēiH-s* > *vīs*, gen. \**uēiH-es* or \**uiH-és* > \**vī-X-is* > \**vīris*.

The subst. *spēs* has, as is well known, a recorded form of the extra-paradigmatic accusative *spērem*. It is usually understood as secondary,<sup>13</sup> but in fact it is the whole basic *ē*-stem paradigm that is secondary, since *spēs* is originally a root noun (cf. de Vaan 2008: s. v. *spēs*): nom. \**sp<sup>h</sup>eh<sub>1</sub>-s* (LIV<sup>2</sup>: 584) > *spēs*, gen. \**sp<sup>h</sup>éh<sub>1</sub>-es* > \*\**spēs*, or more likely again \**spē-X-is* > \**spēris*. Thus, the paradigm, which gives the recorded accusative *spērem*, is older, and it was only subsequently that the younger paradigm *spēs*, *spēi* etc. developed according to the subst. *rēs*.<sup>14</sup>

Supposing that our explanation of the above mentioned substantives is correct, we meet in the case of the subst. *flōs*, *mōs*, *spēs* and perhaps also *vīs* (if it had a mobile accent, i.e. \**uiH-* in the weak cases) with a non-standard development of intervocalic laryngeal: what occurs in its place in the given nouns is the *r*. Naturally, the question arises of the probability of such development from the phonetic point of view, which cannot be answered unless we make clear what phonetic entity the letter *r* in fact represents in Latin. The so called rhotic consonants, i.e. the group of consonants described by the letter *r*, are of very diverse nature and even in the closely related languages, even in the dialects of one language, we can meet with a very different articulation – cf. e.g. the alveolar trill in Italian × the so called alveolar tap or flap in Spanish × the uvular *r* in French. The

<sup>10</sup> Cf. e.g. Schindler (1972: 32–36).

<sup>11</sup> The existence of the diminutives *flōsculus* and *masculus* cannot serve as an argument for these words being the original *s*-stems. Diminutives in *-culus* are apparently relatively young, secondary, derived at least partially mechanically from the form of the nominative (e.g. *opusculum* etc.; cf. e.g. also apparently analogical *ieusculum*, *lacusculus* and others). What might be, however, seen as a distinctively more important argument is the already earlier, in the note 8, mentioned Oscan form *FLVVSAL*. I am not able to assess whether its interpretation (= Lat. *Flōra*) is indisputable. What, on the other hand, can hardly be regarded indisputable is that the substantive \**Flōsa* is a secondary derivation from *flōs* (primary derivatives in *-so/ā-* do exist in IE languages, and with the corresponding, abstract meaning – see Brugmann 1906: 545). Untermann (2000: 291) says that the enlargement of the root \**b<sup>h</sup>leh<sub>3</sub>-* by the *s*-suffix is not testified to outside the Italic languages.

<sup>12</sup> Cf. de Vaan (2008: s. v. *mōs*): either from the root \**meh<sub>1</sub>-*, “to measure” or possibly \**meh<sub>3</sub>-*, “to cause strain” (but in neither case the derivation is semantically straightforward, which it definitely should be, both in the *s*-stems and in the root derivatives).

<sup>13</sup> Schrijver (1991: 380), de Vaan (2008: s. v. *spēs*).

<sup>14</sup> The subst. *rēs* itself also belongs to the root with the structure *CeH* (\**reh<sub>1</sub>-* “to give”), but it is not a root substantive, it is derived by the suffix \**-ei-* (i.e. nom. \**rēh<sub>1</sub>-i-s*, gen. \**rēh<sub>1</sub>-ēi-s*, dat. \**rēh<sub>1</sub>-ēi-ei* ...).

last mentioned type, the so called uvular *r*, is actually phonetically relatively very close to the presumed phonetic characteristic of the so called laryngeals, and it would thus be extremely tempting to bring forth a hypothesis that even the (pre-)classical Latin *r* could have been uvular. Unfortunately, this hypothesis is extremely improbable with regard to the unquestionable existence of the so called rhotacism, i.e. the change *s* > *r* in certain sound environments, which probably cannot be explained otherwise than as a transition between two alveolars<sup>15</sup> (though, let us admit, we do not have a clear idea about the nature of the Latin sibilant, either). Nevertheless, the direct transition between a “laryngeal” and an alveolar is out of question. The possible development is then that the laryngeal had not disappeared completely, but it yielded a feeble phonetic element, which prevented the vowels from merging. Eventually, a non-etymological epenthetic *r*, or *s* that subsequently rhotacized, developed in its place.<sup>16</sup> Of the remaining phonetic variants – *r* as the alveolar trill × *r* as the alveolar tap × *s* – the most probable is the second: the so called alveolar tap [ɾ] is the sound very close to alveolar occlusives [t] and, in particular, [d]. The proximity of the *r* and the *d* in Latin is well recorded (e.g. *meridiēs* < \**medi-diēs*), and what is important, the phoneme *d* plays a very similar role of an epenthetic consonant, in the verbs such as *redimō* or *redeō* (*re-* + *V-*); with regard to the *r* in the preceding syllable it is only natural that the pronunciation here shifted towards [d].

Schrijver mentions as the last two examples of intervocalic laryngeal the inflection of *eh<sub>2</sub>-* and *eh<sub>1</sub>-*stems,<sup>17</sup> where apparently the process described above did not take place.<sup>18</sup> But here, it is a different case: the intervocalic laryngeal is on the boundary between the suffix and the ending. Their merging actually means no loss of semantic information,

<sup>15</sup> Theoretically, we may consider also a temporary parallel existence of the potential uvular *r* and the alveolar *r* that would have eventually merged – this, however, would be a sheer speculation, absolutely unfounded.

<sup>16</sup> As a counterexample of such development, we could cite the subst. *sūs* with the gen. *suis*. Schrijver (1991: 234) gives only the reconstruction of the nominative, and even that apparently invalid, since it does not contain the full grade: \**suH-s*. It is generally assumed that this noun is derived from the root with the meaning “to give birth” (even though we may ask why the sow, of all animals, should be characterised by the fact that she gives birth), which has an uncertain reconstruction, but the full grade is apparently more likely \**sueH-* than \**seuH-* (see LIV<sup>2</sup>: 538, note 1 to \**seuH-*). The agent root noun from this root should have the form of the nom. \**suēH-s* > \*\**suēs*, gen. \**suH-és* > \**sües* > *suis* (i.e. the genitive would correspond to the reality, but the nominative would not). Alternatively, if we regarded animal as non-agent, the nominative should have the form \**suóH-s* > \**suós* (which could, with a shred of imagination, possibly yield *sūs*) and the gen. \**suēH-(e)s* > \*\**suēs* or again more likely \**suē-X-is*, which does not correspond to the real gen. *suis*, but could, on the other hand, explain the otherwise, regarding its word-formation, unclear form *suēris* as a denotation of a meal of pork meat recorded in Varro *ling.* V, 110. Nevertheless, uncertainty must be acknowledged here – and I personally would relate this uncertainty to the whole reconstruction, i.e. it is the very relation to the root with the meaning “to give birth” that I deem uncertain.

<sup>17</sup> Let us leave aside the long-discussed question (the history of whose development is clearly outlined by Schrijver 1991: 366–372) whether any *eh<sub>1</sub>-*stems actually existed, since we do not have a clear evidence of their existence in other branches of IE languages. Let us theoretically presume that they did.

<sup>18</sup> The only instance where we actually could think about the similar development, i.e. the development of the *r* in the place of the original intervocalic laryngeal to prevent hiatus and merging of vowels, is the ending of the gen. pl. *-ārum*, *-ērum*, i.e. \**eh<sub>2</sub>-om*, \**eh<sub>1</sub>-om* > \**ā-X-om*, \**ē-X-om* > *-ārum*, *-ērum*. Nevertheless, such alternative interpretation of this case ending is pointless, since the transfer of \**-som* from the pronoun declension, which is the usual explanation of this form, is well recorded in Greek. Embracing the hypothesis of the epenthetic *r*, however, may yield some other interesting consequences in morphology – see the following note.

nor it brings the same situation as the one we saw above in the case of *\*\*-stas* × *-sidis*, i.e. that the representatives of a single word-formative type would join different declension types: here simply one derivation type established an individual declension type (nom. *\*-éh<sub>2</sub>-θ* > *\*-ā* > *-a*, gen. *\*-éh<sub>2</sub>-es* > *-ās*, dat. *\*-éh<sub>2</sub>-ei* > *-āi* > *-ae*, etc.). This development is thus standard: the contraction of vowels. After all, this also is the evidence of the elimination of laryngeal and only subsequent insertion of the consonant *r* (and not of the direct development of *r* from H) in the examples given above.<sup>19</sup>

However, the consonant *r* is not the only consonant that appears in Latin in the place of the original intervocalic laryngeals. Well known is the Martinet's (1953) theory concerning the origin of Latin *v*-perfect, which should allegedly have spread from the verbs *gnōvī* (< *\*gnāvī* < *\*g'neh<sub>3</sub>-*) and *strāvī* (< *\*streh<sub>3</sub>-*). This theory presumes that the consonant *-v-* is a reflex of a labialized laryngeal *\*h<sub>3</sub>*, Martinet's suggestion, i.e. *\*-eh<sub>3</sub>V-* > Lat. *-āvV-*, which he used also when giving the explanation of the suffix *-āvus* (e.g. *octāvus*) < *\*-eh<sub>3</sub>-o-*, was not accepted as a sound law, and for a good reason. In spite of that we can admit of certain rational element, but only if we will understand *-v-* not as a direct reflex of a laryngeal, but as a non-etymological epenthetic consonant, whose function is to separate two morphemes ending and beginning in a vowel respectively, the merging of which is not desirable for semantic reasons. The bilabial *-v-* is, from the phonetic point of view, a perfectly suitable candidate for such function, i.e. as a "transitory" sound between the first and the second vowel, on the presumption that the first vowel is the rounded *o* or *u* (cf. e.g. subst. *fluvius*, *pluvius* etc.). Besides, that would also allow a more direct reconstruction of the earlier mentioned form *gnōvī* < *\*gnō-X-ī* < *\*g'neh<sub>3</sub>-* (i.e. not through *\*gnāvī*) and, on the other hand, would mean a one-step more complicated reconstruction of the adjectives in *-āvus*: *\*-eh<sub>3</sub>-os* > *\*-ō-X-os* > *\*-ōvus* > *-āvus*. In addition, it would be also one more piece of evidence, beside the existence of the Oscan form *FLVVSĀĪ* (see above the notes 8 and 11), to support the legitimacy of classing the subst. *flōs* indeed among the *s*-stems, and not among the root nouns, since it is actually *-v-* that would be a more probable epenthetic consonant (supposing this hypothesis is correct) than *-r-*.

Martinet (1955) is also the author of another interesting (and likewise generally rejected) theory of the hardening of laryngeal to a velar in Latin in the position before *-s*, which he based on the interpretation of the subst. *senex* (< *\*-aks* < *\*-eh<sub>2</sub>s*, gen. *senis* <

<sup>19</sup> By adopting the hypothesis of the existence of the epenthetic *r*, we could offer a simpler explanation of some forms whose interpretation is still unsatisfactory:

1. The ending of **passive infinitives** of the 1st, 2nd and 4th conjugation *laudārī*, *monērī*, *audīrī* is usually explained suggesting that the *-ī* of the passive infinitive of the type *legī* was (let us add that absolutely non-systemically) transferred to the *-r-* of the active infinitive. Would it not be easier to assume a systemic adding of the *-ī* to the verb stem and the subsequent development of the *r* on the morphemic boundary (i.e. *\*laudā-X-ī*, *\*monē-X-ī*, *\*audī-X-ī* > *laudārī*, *monērī*, *audīrī*)?

2. In accord with the generally accepted view the form *serō* is the original reduplicated present *\*si-sō*. Nevertheless, the other IE languages do not form from the given root (*\*seh<sub>1</sub>-*) a reduplicated present, but a simple *ie*-present (see LIV<sup>2</sup>: 517; reduplicated present is typically the form created secondarily in aorist verb, which definitely is not the case here). Our hypothesis would afford a solution for the Latin form: *\*se-X-i-s* > *seris*.

3. It may be said in general that many suffixes in *r* do not have a satisfactory explanation. For example the **deverbative adjectives in *-rus*** represent a semantically inconsistent group in Latin, many of them do not have any evident equivalents in other IE languages; it would be then worth verifying if at least some of them, derived from the roots ending in a laryngeal, do not semantically belong more likely among the adjectives in *-us*, and if the *r* here is not once again only non-etymological, epenthetic.

\*- $h_2$ -es), the Latin feminines in  $-īx$  (corresponding to the PIE \*- $ih_2$ -s), and the suffix  $-āx$  (type *capāx*), which could thus be reconstructed as \*- $eh_2$ -s, avoiding the need to give an explanation of an otherwise enigmatic velar element;<sup>20</sup> Martinet regards the adjectives of the given type as common masculine personal nouns in  $-a$  (type *scriba*) with the  $-s$  added to differentiate them from the feminines. Despite the objections raised against Martinet's theory by most scholars (the historical debate summed up by Schrijver 1991: 148–154), I believe it still deserves attention. Using the  $k$ -suffixes, the IE languages actually predominantly create denominatives, namely adjectives of appurtenance, diminutives, the  $k$ -suffixes are commonly used in denominating colours, animals and plants (cf. Brugmann 1906: 505); but as primary formants they are absolutely exceptional and difficult to interpret. The Latin feminines in  $-īx$  indeed so evidently correspond to the PIE feminines in \*- $ih_2$ -s, that it is necessary to afford a plausible explanation of their development from this PIE form. The adjectives in  $-āx$  likewise perfectly correspond semantically to the Martinet's reconstruction \*- $eh_2$ -s. Nevertheless, Martinet's theory has, in my opinion, one flaw in its very basis: the laryngeal and the  $s$  actually meet only in the nominative, not in other cases, and in fact it is not very likely that the whole noun paradigm assimilates formally to the singular nominative. On the contrary, analogical levelling usually works the other way: the form of the direct cases assimilates to the form of the indirect ones. We can thus offer the following modification of the Martinet's theory (see already Pultrová 2011: 52–54): both the word-formative types really belong with the PIE types in \*- $ih_2$ -s, resp. \*- $eh_2$ -s, but the hardening of the laryngeal occurs in the position between two vowels, i.e. \* $Vh_2V > VkV$ , and the form of the singular nominative is then the consequence of analogical levelling within the paradigm.

In my monograph (Pultrová 2011), which systematically covers the formation of the Latin deverbative nouns and adjectives, more such cases were identified where in Latin a semantically unmotivated velar stands on the boundary between the root ending in the first or the second laryngeal. It is, for example, the adjective *vacuus* (< \* $h_1uh_2-uós$ ; or it could be a secondary adjective to the verb *vacāre*, but with the similarly unmotivated velar: present \* $h_1uéh_2-ie-$ , see LIV<sup>2</sup>: 254), *cōnflugēs* < \* $b^hluH-$ , *cloāca* from the root \* $k'leuH-$ ; then a whole word-formative type – the adjectives in  $-cundus$  (*fācundus* < \* $b^héh_2-$ , *iūcundus* < \* $h_1éuH-$ , *fēcundus* < \* $d^héh_1-$ ), which are traditionally, though quite unconvincingly interpreted as compounds whose final element is the participle from the root \* $k'ū-$  (LIV<sup>2</sup>: 339 \* $k'ueh_1-$ ) = “bulge, swell” (thus Leumann 1977: 332 or Benveniste 1935: 141); then perhaps also the verbs *faciō*, *iaciō*, or, more probably, their aorist forms *fēc-*, *iēc-* (to which the presents are formed secondarily) from the roots \* $d^héh_1-$  and \* $Hieh_1-$ , whose velars have no equivalents in other IE languages. We can also consider the suffix  $-gō$ ,  $-ginis$ , which Olsen (2004: 240) interprets as a complex suffix consisting of, again, an unclear velar element and the so called Hoffmann's suffix (i.e. \*- $k-h_3onh_2-$ ),<sup>21</sup> which, if we accepted the possibility of the hardening of intervocalic laryngeal in Latin,

<sup>20</sup> This velar element has not been treated in more detail in any relevant work excluding Martinet himself and the works citing him, apart from Pokrowskij (1899: 228) and Rix (1981: 110) noting that it is a relatively young enlargement. Pinault (2001: 99–104) considers this velar element to be an enlargement of (unrecorded) abstracts and collectives that subsequently yielded corresponding adjectives and other word-formative types (e.g. subst. in  $-gō$ ); however, he does not explain the origin of this  $k$ -enlargement.

<sup>21</sup> See also Pinault (2001).

could do without that velar element at all. It is obviously all very uncertain and it would require that we admit of the double development of intervocalic laryngeal, the older hardening to a velar, and the younger deletion of laryngeal that would be in semantically motivated cases substituted by another, epenthetic consonant.

To sum up the contents of this article: In general it must be said that the elimination of laryngeals is not, at least not in Latin, to be reduced only to the rules of development of certain sound sequences, but that also some other, semantically motivated rules can be involved beside the purely phonetic ones. Concerning the intervocalic laryngeals it must be said that they do not always disappear and the vowels do not contract, as is traditionally claimed, but that on the morphemic boundary some consonants can occur in their place in Latin. While still regarding the process as standard when the intervocalic laryngeal colours the preceding vowel (or both vowels?) and subsequently drops, we suggest that on the boundary between the root and the suffix (more precisely, the ending, or a very productive derivational suffix) it leaves a certain phonetic entity due to which both the morphemes remain separated, and which thus prevents the vowels from merging. In the place of this weak phonetic element an epenthetic consonant is subsequently formed, in the instances treated here it is specifically the *r* (which is, in most probability, the so called alveolar tap or flap, since the phonetically very close *d* functions also as an epenthetic consonant between two vowels in Latin; purely theoretically it can also be a sibilant subsequently rhotacized, but this is only little probable phonetically) and, possibly, the *v* (in position following a rounded vowel). There are also some hints as to that in the older times the intervocalic laryngeal might have “hardened” to a velar.

---

## REFERENCES

- ADAMS, D. Q., 1985. Latin *mas* and *masturbari*. *Glotta* 63, 241–247.
- BENVENISTE, E., 1935. *Origines de la formation des noms en indo-européen*. Paris: Adrien-Maisonneuve.
- BRUGMANN, K., <sup>2</sup>1906. *Grundriss der vergleichenden Grammatik der indogermanischen Sprachen* II. *Lehre von den Wortformen und ihrem Gebrauch* 1. Strassburg: K. J. Trübner.
- DE VAAN, M., 2008. *Etymological Dictionary of Latin and the other Italic Languages*. Leiden/Boston: Brill.
- FLOBERT, P., 1973. *Môs*. *Latomus* 32, 567–569.
- LEUMANN, M., 1977. *Lateinische Grammatik I. Lateinische Laut- und Formenlehre*. München: C. H. Beck.
- LIV<sup>2</sup> = Rix, H. (ed.), <sup>2</sup>2001. *Lexikon der indogermanischen Verben*. Wiesbaden: Ludwig Reichert.
- MARTINET, A., 1953. Non-apophonic *o*-vocalism in Indo-European. *Word* 9, 253–267.
- MARTINET, A., 1955. Le couple *senex* – *senātus* et le „suffixe“ *-k-*. *Bulletin de la Société de linguistique de Paris* 51, 42–56.
- PINAULT, G.-J., 2001. Le type latin *uorāgō*: un reflet d'un suffixe indo-européen. *Glotta* 77, 85–109.
- POKROWSKI, M., 1899. Beiträge zur lateinischen etymologie und stammbildungslehre. *Zeitschrift für vergleichende Sprachforschung* 35, 226–253.
- PULTROVÁ, L., 2011. *The Latin Deverbative Nouns and Adjectives*. Praha: Karolinum.
- RIX, H., 1981. Rapporti onomastici fra il panteon etrusco e quello romano. In: *Gli Etruschi e Roma. Atti dell'incontro di studi in onore di Massimo Pallottino*. Roma: G. Bretschneider, 104–126.
- SCHINDLER, J., 1972. L'apophonie des noms-racines indo-européens. *Bulletin de la Société de linguistique de Paris* 67, 31–38.
- SCHRIJVER, P., 1991. *The Reflexes of the Proto-Indo-European Laryngeals in Latin*. Amsterdam/Atlanta, GA: Rodopi.
- UNTERMANN, J., 2000. *Wörterbuch des Oskisch-Umbrischen*. Heidelberg: Carl Winter.



---

## VÝVOJ INTERVOKALICKÉ LARYNGÁLY V LATINĚ

### Shrnutí

Vývoj laryngál závisí podle běžného výkladu čistě na jejich hláskovém prostředí a minimálně v případě vývoje do latiny nebývá připisována žádná role tomu, v jakém morfému či v jakých morfémech a na jakém místě v rámci morfému se příslušná hlásková sekvence nachází. Ve skutečnosti však vstupují při eliminaci laryngál do hry evidentně i faktory mimofonetické, které přehledná pravidla komplikují a které nebyly dosud systematicky vyloženy. Článek se věnuje řešení jedné z dílčích otázek této komplexní problematiky, otázky vývoje intervokální laryngály na morfematickém švu mezi kořenem a sufixem. V latině existují případy, kde ze sémantických důvodů nedochází ke kontrakci vokálů po vypadnutí laryngály, ale kde se na jejím místě vyvíjí epentetický konsonant.