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A diachronic phonological solution to the syntax of Vedic negative particles*

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It is well known that Vedic Sanskrit, as well as later stages of Sanskrit, has two negative particles, *mā* and *na*.[1] These two particles differ in their syntax, in particular with regard to the types of verbal forms they typically occur with. Both can occur in principle with all person/number combinations,[2] but they are restricted in terms of the verbal moods they combine with. The particle *mā* regularly occurs only with the injunctive mood,[3] as a special syntagm for the expression of prohibitive statements, while *na* occurs with the other moods as a simple negator, i.e. with no particular value beyond the negation of the form it occurs with.

This distribution of the negative particles is implicit in the prescription of Pāṇini 3.3.175-176 (though admittedly for Classical Sanskrit usage), and is restated in most grammars of Sanskrit, for example in Whitney 1889:§1122c, Macdonell 1910:§648. Some examples that illustrate the use of these particles in the Rig Veda are given in (1) and (2):

(1) (a) mā́ rāyó rājant suyámād áva sthām
'Let me not forfeit, O king, well-regulated riches' (2.27.17)

(b) mā́ no vadhīr indra
'Do not slay us, O Indra!' (1.104.8)

(c) mā́ hṛṇīthā abhy àsmā́n
'Do not be angry at us!' (8.2.19)

(d) mā́ vo ... jaritā́ bhūd ájoṣyaḥ
'Let your singer not be(come) unwelcome' (1.38.5)

(2) (a) yásmād ṛté ná sídhyati yájño
'Without whom the sacrifice does not succeed' (1.18.7)

(b) pū́ṣan táva vraté vayáṁ ná riṣyema kadā́ caná
'Would that we not suffer harm at any time in your service, O Pūṣan!' (6.54.9)

(c) ná tā́ naśanti ná dabhāti táskaro
'They (the cows) do not perish, the robber will not deceive them' (6.28.3)

From the evidence exemplified in (1) and (2), it can be said that the two negation particles are in syntactic and functional complementary distribution, i.e. in terms of the verbal moods they select for and the function of the collocation of **negative particle + verbal form**: *mā* occurs in negative commands with the so-called injunctive mood (cf. (2)); *na* is found elsewhere.

This, however, is not the whole picture, for there are some exceptions in Vedic to the scheme exemplified in (1) and (2).[4]

In particular, *na* can occur with the injunctive if this mood has the value of a timeless truth, e.g. a statement about the gods or the mythic past, or if it has the sense of what Delbrück (1893:358) referred to as 'zuversichtliche Erwartung' ('confident expectation'). An example of such a timeless injunctive negated with *na* is given in (3):

(3) bhadrā́ te agne svanīka saṁdṛ́g ghorásya sató víṣuṇasya cā́ruḥ ná yát te śocís támasā váranta ná dhvasmā́nas tanvī́ répa ā́ dhuḥ
'O fair-faced Agni, your visage is pleasant, beloved (even) of (you when you are) awesome and manifold; since they do not cover your flame with darkness, the (powers of) darkness do not put (any) blemish on your body' (4.6.6)

Examples such as (3) might be viewed as disturbing the syntactic complementary distribution of the negative particles, but they do not affect their **functional** complementary distribution. The reason for this is that the collocation of *na* plus the injunctive here does not infringe upon the clear prohibitive sense of the injunctive when associated with *mā*.

On the other hand, there are a few instances — admittedly not systematic ones — which show *mā* occuring with verbal moods other than the injunctive and which nonetheless seem to have a prohibitive value.[5] The one monographic survey of the injunctive in Vedic, however, namely Hoffmann 1967, views these few instances as having no probative value concerning the analysis of the syntax of the negation particles in Vedic. For Hoffmann, *mā* alone is the carrier of prohibitive meaning in the collocation, since the injunctive is used in constructions other than the prohibitive and in those uses is negated with *na*, as seen in (3). Thus, Hoffmann finds other explanations for these nonsystematic occurrences of *mā* with moods other than the injunctive.

For example, the single instance of *mā* with the imperative, *mā́ no hṛṇīṭām átithir* 'Let the guest not be angry at us', occurring at RV 8.103.12, is explained by Hoffmann (1967:94-5) as a false normalization of an affective pluta form,[6] i.e. **hṛṇīṭā3m*, for an expected imperfect injunctive **hṛṇīṭa*.[7] Grassmann (1872:1026), moreover, labels the passage 'wahrscheinlich verderbt' ('probably corrupted'; similarly Whitney 1889:§579c), and noting that for the same passage, the Sāmaveda has the middle imperfect injunctive 2sg form *hṛṇīṭhās*, suggests that both *hṛṇīṭām* and *hṛṇīṭhās* may be the result of a reformation motivated by a need to avoid a hiatus in the original (*...*hṛṇīṭām átithis* ...).[8]

Similarly problematic, though still explainable, are five occurrences of *mā* with the optative. All, however, involve the same collocation, *mā́ bhujéma* 'may we not atone (for)'. These have been dismissed by Hoffmann as the result of a conflation of the common collocations *bhujé me* 'for my atonement' and *bhujé nas* 'for our atonement', consisting of the dative of the root noun of the root √*bhuj-* with a clitic form of a genitive personal pronoun, with an implied copular injunctive, i.e. 'let it not be for our/my atonement'.[9] It may even have been the case that the copula form, especially if **as(t)*, the archaic 3sg form of an augmentless imperfect of √*as-*,[10] was originally (or synchronically underlyingly) present[11] in *mā́ bhujéma*, but came eventually to be absent (superficially) through the workings of the regular sandhi processes that coalesce vowels and delete word-final consonants.[12]

Finally, there are several occurrences of what appears to be *mā* with a subjunctive, such as *mā́ ... karat* 'may he not do' (RV 5.56.7, 8.2.20). These, however, may instead be real cases of *mā* with an injunctive, for virtually all[13] the subjunctives in this syntagm — including *karat* — are ones that happen to be formally ambiguous between classification as, for example, a root-aorist subjunctive and an *a* -aorist injunctive. In the case of *karat*, for instance, root-aorist forms of √*kṛ-* are quite common in the Rig Veda, and *a*-aorist forms, morphological replacements of the root-aorist, are attested in later Vedic, e.g. the Atharva Veda, the Brāhmaṇas, and the Sūtras.

Thus the exceptions involving *mā* that run counter to the functional complementary distribution implicit in (1) and (2) can all be explained away, according to Hoffmann, in such a way as to preserve the special association between *mā* and the injunctive in forming a prohibitive and thus to preserve also the special value for *mā*. The importance of this result for Hoffmann's overall analysis of the injunctive cannot be underestimated. In trying to argue that the injunctive is a real morphological category in Sanskrit, Hoffmann is at pains to demonstrate that in Vedic its uses went beyond those found in Classical Sanskrit,

where it is limited to prohibitives. In order to do this, he must show not only that the injunctive has several well-defined functions besides its occurrence in prohibitives but also that in the prohibitive, it is *mā*, not the injunctive itself, that is the carrier of prohibitive value (see also note 5).

It is therefore quite problematic for Hoffmann that there are some instances of the other logically possible type of counterexample to the generalization implicit in (1) and (2), namely the occurrence of the negation particle *na* with the injunctive where the collocation has a prohibitive sense. The occurrence of such collocations presents a problem not only for Hoffmann with his special interpretation of the injunctive, but also for the usual statement of the syntax of these negative particles, e.g. those noted above. These examples therefore command attention and it needs to be considered how the problems they raise might be accommodated.

One possible such example is given in (4), from RV 3.41.6, repeated at RV 6.45.27, so that the two occurrences in question represent but a single distinct case:

(4) sá mandasvā hi ándhaso | rā́dhase tanvā̀ mahé | ná stotā́raṁ nidé karaḥ
'Take delight in Soma, yourself, for great giving; do not abandon the worshipper to disgrace'

It must be admitted that the prohibitive reading is not absolutely required by the sense of the verse, though the appearance of a true imperative in pāda (a) suggests that a command may be intended in pāda (c). However, from a formal standpoint, (4) is not unequivocally a case of a prohibitive injunctive with *na*, for *karaḥ* is formally ambiguous, being classifiable as either an *a*-aorist injunctive or a root-aorist subjunctive (cf. the discussion above concerning the *karat* of 5.56.7 and 8.2.20). If a subjunctive, then negation with *na* would be expected and a translation as '... you should / will / do not abandon ...' would be more appropriate.

The second example, given in (5), is a more certain case of a prohibitive injunctive with *na* than the one in (4):

(5) tvā́vato hÌndra krátve ásmi tvā́vato 'vituḥ śū́ra rātaú | viśvéd áhāni taviṣ Ìva ugraṁ̆ ókaḥ kṛṇuṣva harivo ná mardh Ìḥ
'O Indra, I am in the power of one like you, O hero, in the grace of a helper like you; O powerful, mighty one, make your dwelling with us all (our) days; O god of fallow mares, do not neglect us.' (7.25.4)

From a formal standpoint, *mardh Ìḥ* must be taken as an injunctive, specifically a second singular *iṣ*-aorist injunctive of √*mṛdh*-, and admits of no other interpretation.

Moreover, there seem to be good reasons for taking the combination *ná mardh Ìḥ* as prohibitive in value. For one thing, the combination of a command with an immediately preceding vocative — *harivo* — is quite natural, and there is a clear imperative (*kṛṇuṣva*) in the preceding pāda expressing a command. Furthermore, the whole phrase is very short, as commands often are. And although Hoffmann dismisses this example as a mere verse-filler (probably a compromise between *mā́ mardh Ìḥ* and *ná mardhiṣas*), pointing to the fact that the verb √*mṛdh*- ordinarily occurs with an object noun phrase, he overlooks the fact that neither 'correct' collocation (i.e. *na* plus noninjunctive mood or *mā* plus injunctive) really fills out the metre adequately[14] and that √*mṛdh*- does occur without an object elsewhere in Vedic in the meaning 'be neglectful'.[15] Finally, it is significant that the same form of √*mṛdh*- found here, namely *mardh Ìḥ*, occurs in a clear prohibitive with *mā* at 4.20.10[a]:

(6) mā́ no mardh Ìr ā́ bharā daddhí tán naḥ
'Do not neglect us; bring that, give (it) to us.'

Given all these considerations, it seems safe to work with the assumption that at least 7.25.4 has a real instance of *na* plus injunctive with a prohibitive meaning (and that perhaps the example in (4) does too), and see what possibilities for an explanation exist.

As it happens, a consideration of the metre of the verse in question leads to an interesting possibility for explaining diachronically the emergence of the prohibitive *na* plus injunctive in 7.25.4, an explanation which may be extendable to the other examples as well.

The explanation starts from the observation that the difference between *na* and *mā* potentially matters for the metre of a verse in that one is inherently light and the other inherently heavy. Moreover, in the best example of a prohibitive *na* plus injunctive, i.e. the irregular occurrence under consideration in 7.25.4 (example (5)), the metre of the verse is triṣṭubh, consisting of 11 syllables per pāda. As such, it has certain positions in which a long or a short syllable is favored — though not necessarily required. A position favoring the occurrence of a short syllable in a trimeter verse is the 9th position (Arnold 1905: §47), and interestingly, it is the ninth position that *na* in its irregular occurrrence with the injunctive in 7.25.4d occupies. The scansion of this pāda is indicated in (7):

(7) – – ⏑ – ⏑ | ⏑⏑ | – ⏑ – –
ókaḥ kṛṇuṣva harivo <u>ná</u> mardhaḥ

The occurrence of *ná mardhaḥ* with *na* in a metrical position favoring a short syllable is important when a comparison is made with the other instance of prohibitive *mardhaḥ*, cited in (6) above. There, *mā* occurs in pāda-initial position, which represents a metrically indifferent slot, i.e. one favoring neither a long nor a short syllable. For such a metrical position then, the composer of the verse presumably was free to give the most neutral or unmarked syntagm for a given expression. The metrical alternation, as it were, between short-position *ná mardhaḥ* and indifferent position *mā́ mardhaḥ*, then, takes on considerable significance, and suggests that the metre is at the heart of the apparent anomaly involved in 7.25.4. It must be noted, though, that the other possible instance of *na* with the injunctive in a prohibitive sense, 3.41.6c repeated in 6.45.27 (cf. example (4) above), has *na* in pāda-initial position; this fact is dealt with below after a fuller consideration of 7.25.4.

If the correlation found in 7.25.4 of a position favoring a short syllable with the occurrence of the inherently short negative particle *na* is taken seriously, especially in comparison with *mā* in 4.20.10, then two hypotheses suggest themselves as explanations of the otherwise anomalous pattern of a prohibitive *na* with the injunctive. First, it may simply be the case that this is a metrically induced substitution of a negative form with a short vowel, i.e. *na*, for one with a long vowel, namely *mā*. This possibility, however, is not very attractive as an explanation, since *na* and *mā* were in general functionally distinct and thus presumably exactly not the sort of elements that might stand in a relationship of substitutability.

More interesting, and in no way excluded by the notion of a metrical substitution, is the second possibility, namely that it is not so much the substitution of one completely different form for another one, but rather a metrically induced selection of a preexisting — but by Vedic times no longer synchronically available — short-vowel variant of the long-vowel form. This short-vowel form would presumably have been **ma*, and would have fit into the metrically short slot in 7.25.4d. The ultimate form *na* found in 7.25.4 would, under this hypothesis, represent a normalization — or better, reanalysis — of the short-vowel variant of *mā* to the synchronically more usual short-vowel negative particle, *na*.

On independent grounds, of the two hypotheses, the latter is to be preferred, given the difficulties associated with the substitution of entirely different forms in the former, as opposed to the mere selection among allomorphs of a single morpheme in the latter. Moreover, there is a considerable amount of empirical evidence, both internal and external to Sanskrit, that supports the second hypothesis, and especially the positing of a short-vowel alternant of *mā* that it requires.

First, a short-vowel variant of *mā* would explain the exceptional behavior in Classical Sanskrit of this long-vowel form in triggering the doubling of initial *ch* to *cch*, as prescribed by Pāṇini 6.1.174. In general, only short vowels trigger the change optionally. However, the long vowel in *mā* aligns itself with the short vowels and triggers the doubling of *ch* obligatorily.[16] If there had once been a short-vowel variant of *mā*, then this otherwise unexpected short-vowel-like behavior of *mā* would have an explanation, under the assumption that with the elimination of the short-vowel variant, the remaining form of *mā* took on the sandhi properties of its counterpart allomorph.

Second, a lengthened form of *na*, i.e. *nā*, occurs in RV 10.34.8c; cf. (8). This form is either a metrical lengthening — it is in a metrical slot, eighth in a trimeter (triṣṭubh), that regularly favors a long syllable — or else represents an inherited long-vowel alternant, cf. Latin *nē* or Gothic *nē*. The existence of *nā* beside *na* in Indic suggests a system of length alternation in the negative particles, dating at least to early Indic, though conceivably of Indo-Iranian or even Indo-European age, by which a short vowel counterpart to *mā* would be expected. At the very least, moreover, the presence of such an alternation in Indic (or earlier) — and others like it in other particles, most notably *nu / nū* 'now' — would have presented the possibility for the creation at any time of **ma* via a proportional analogy such as the one in (9).

(8) ugrásya cin manyáva nā́ namante
'They do not bow even to the rage of the mighty.'

(9) nā́ : ná = mā́ : X
X → *má

Third, there is comparative evidence that provides another possible source of a short-vowel form beyond the internal sources just noted. Sanskrit *mā́* derives from Proto-Indo-European **mē* (cf. Armenian *mi*, Albanian *mo(-s)*,[17] Greek *mḗ*), and the long vowel in this proto-form can be 'rewritten'[18] in laryngealistic terms as *-eE* (where *-E-* is the neutral or *e*-coloring laryngeal), giving a proto-form **meE*. Under this laryngealistic interpretation, a short vowel variant of **mē* or **meE* could be expected to occur as a result of a well-known Proto-Indo-European process by which a final laryngeal was lost before a vowel-initial word. The expected alternation between preconsonantal **meE* and prevocalic **me* can then be considered to have been eliminated by the spread of the long-vowel form to prevocalic environment. The same process occurred with the neuter plural (nominative / accusative) ending **-eA*, giving rise to the Vedic variation *-ā / -a*, from **-eA/ *-e*, and is probably the cause of several other shortenings of long final vowels in Vedic.[19]

Less satisfactorily — only so because the conditions under which such a form would arise are not entirely clear[20] — it may be that there was a zero-grade form of **meE* in which the laryngeal vocalized, giving Proto-Indo-European **mə* from which a putative Sanskrit **mi* would develop under the standard view of the outcome of Proto-Indo-European **ə*, or possibly **ma*, under the view propounded by Burrow (1979). A relevant form here is the Tocharian particle *mā*, used in general (indicative) negation. This form is unlikely to be a borrowing from Indo-Iranian, because it is a basic vocabulary item. Thus one should look for an etymology for this form that treats it as an inherited item. One possible source for Tocharian *ā* in general, according to van Windekens 1976, is Proto-Indo-European **ə*, the vocalized counterpart of the laryngeal consonants. Thus, Tocharian *mā* could be from **mə*,[21] with a vocalized laryngeal. If so, then the Tocharian form would confirm the laryngealistic interpretation of **mē*, thereby opening the door for the emergence of a short-vowel form via the above-noted laryngeal-loss sandhi process before vowel-initial words.

In an indirect way, then, this comparative evidence provides support for the Sanskrit-internal evidence pointing to the likelihood of a short-vowel variant of *mā* in early, i.e. pre-Vedic, Indic, and thus for the availability of a variant *mă* of *mā* that would give a prohibitive reading for 7.25.4 naturally and would at the same time fit into the constraints of the metre of that verse. Under this view, then, *ná mardhīṭh* in 7.25.4d shows the effects of a metrically-induced selection among earlier allomorphs of *mā*, and sub-

sequent reinterpretation of the synchronically opaque short-vowel form as the more usual short-vowel negative, *na*. The apparently anomalous syntax of 7.25.4d, then, becomes understandable in terms of the diachronic phonological developments that gave rise to it. This conclusion further supports the view that Hoffmann took of the injunctive and of the function of the negation particles vis-à-vis the injunctive.

To voice a word of caution in closing, it must be admitted that the explanation advanced here for *ná mardhṬḥ* has a rather limited scope. The evidence supporting it seems quite suggestive, and the significance of the result for Hoffmann's analysis of the injunctive is considerable, but it must be remembered that the hypothesis is really most valid for t just his one example. In particular, the argument from metrics that was crucial for the understanding of *ná mardhṬḥ* does not extend naturally to the other possible occurrence of prohibitive *na* with the injunctive, the repeated example in 3.41.6 and 6.45.27 given in (4), since in it, *na* occurs in a metrically indifferent slot. And, given the evidence of examples such as 4.20.10 (cf. (6) above), *mā* would be expected in such metrically indifferent positions. It may be, of course, that 3.41.6 / 6.45.27 does not really contain an injunctive but rather a root-aorist subjunctive, a possibility suggested earlier. Altenatively, one could suggest that once *na* plus the injunctive emerged as a pattern, even if it had its origins in metrical considerations, it was freed from the metre and could spread to other positions. Such a view would take passages like 7.25.4 as the locus for the innovative reanalysis and the other occurrences — if they are real — as the extension of the new pattern. It is clear, though, that this is a pattern that did not spread very far, and in fact on the way to Classical Sanskrit, together with the change in the verbal moods that included restricting the injunctive to just its prohibitive use, the syntax of the negative particles was rearranged. To a certain extent, then, the developments discussed here may at the very least be an indication that the negative particles constituted a 'weak point' in Sanskrit syntax in the Vedic period and on into the Classical language, and hence represent an area further potentially fruitful research.[22]

NOTES

*I wish to thank Alice Davison, Hans Henrich Hock, and Gary Holland for their helpful comments on an earlier draft of this paper. For different treatments of the topic of this paper, see Hejib & Sharma 1976 and 1977.

[1]Although these forms occur in various negative compounds, e.g. *nakis* 'no one', *mākis* 'no one', and the like, just the simplex negation particles are the focus of attention here.

[2]Actually, no first person dual forms are attested with *mā*, but given the rarity of dual forms in general, and in particular with prohibitive *mā* (only 17 duals out of a total of 287 prohibitive collocations with *mā*), this is most likely only an accidental gap in attestation.

[3]Following Hoffmann 1967, I classify as a separate verbal mood the 'injunctive' forms, i.e. what have also been called the 'augmentless preterit' — imperfect and (more commonly) aorist forms without the augment, the initial past-tense marker *a-*.

[4]I am here excluding from consideration a few exceptions to this distribution to be found in the Vedic khilas (as noted, for example, in Macdonell 1975: 430, fn. 5), though other Vedic — especially Rig Vedic proper — exceptions are treated below. There are, of course, numerous exceptions to this pattern in later Sanskrit, where even Pāṇini's prescription is violated. These later patterns are briefly considered below, though clearly much more can be said about them.

[5]Or at least 'quasi-prohibitive', for it is not always obvious how to distinguish among various possible interpretations and translations. Similarly, as Whitney (§580) notes, there are instances of *na* with the optative in Vedic and in later Sanskrit which have a (quasi-)prohibitive value. For example, he includes *ná riṣyema kadā́ caná* (6.54.9), cited above in (2b), translating it as 'May we not suffer harm at any time'. In such examples, however, the optative itself seems to be contributing at least as much, perhaps even

more, to the modal meaning as the negation particle, inasmuch as an affirmative *riṣyema* can mean 'may we suffer harm'. Thus such a collocation seems to be quite different in nature from the prohibitive *mā* with the injunctive, where the negative particle itself appears to be the primary bearer of modal meaning (see discussion below), and so can be excluded from consideration here.

[6]As Whitney (§78a) points out, pluta (i.e. overlong) vowels are rare in Vedic, but they may be used in cases 'of calling to a distance or urgently', and hence could well be appropriate in a prohibition.

[7]However, the occurrence of *mā* with the imperative occasionally in the Vedic khilas (e.g. *mā paśya* 'do not see!' (3.15.17)) and, especially, more regularly later in Classical Sanskrit as the more common prohibitive pattern (e.g. *mā́ viṣīdata* 'do not be dejected', Hitopadeśa 3.4, or *mā ... paritāḍaya* 'do not strike', Kathāsaritsāgara 6.114) suggests that one might take *mā́ hṛṇīṭām* at face value as representing the beginnings of this later pattern.

[8]Note in this regard the tendency (alluded to by Hoffmann) for pluta vowels not only to become trimoric, but also to acquire a secondary nasalization (as in RV 10.146.1 *vindat ī3m̃* = pluta form of *vindati*). Such a structure could conceivably have been reanalyzed as derived from a form in underlying *-m*. (On the issue of Vedic pluti, see also Strunk 1983.) [Editor's note.]

[9]If Whitney (§579b) is correct, however, in identifying a few instances of *mā́* with the optative (or the precative, derived from the optative) in later Sanskrit, then it may be that this Vedic collocation was ultimately interpreted by some speakers as a true optative, thus allowing other such combinations to arise. Such a later reinterpretation, if it did occur, would have no bearing, however, on the Vedic collocation in question.

[10]The augmented counterpart to this putative form, namely *ās*, is attested in Vedic. It later gave way to 3sg forms with *-ī-* inserted between the root and the ending, i.e. *ās īt*.

[11]Admittedly, it is not entirely clear if the form of *√as-* would have occurred in this context, since *√as-* is ordinarily suppressed in purely copular function. It is true that a verb occasionally needs to be supplied with *mā*, but that is only when the verb is understood from previous context and never involves the independent supplying of *√as-*, as in 8.97.2 *tásmin tám̐ dhehi mā́ paṇaú* 'Give him to this one, (do) not (give him) to the niggard', where an injunctive *dhās* is implicit with *mā*. Interestingly, with the negation particle *na*, a form of *√as-* can be implicit, that is, it can be underlyingly present though absent in surface structure, as in 1.105.16 *ná sá devā atikráme* 'this (path), O gods, (is) not for walking through'. Thus the possibility of having a form of *√as-* in a negated clause may be a function of which negation particle is present. However, even if *√as-* were a part of the *mā bhujéma* instances at some level of structure, it would not have been present on the surface, because of the workings of regular sandhi processes (see note 12).

[12]That is, the regular sandhi development (diachronic and/or synchronic) would be:

/ mā # as(t) # bhujema / → mās bhujema → [mā bhujema].

[13]By using the term 'all' here, I am purposely excluding one example in Vedic prose of what appears to be *mā* with an unambiguous subjunctive, *mā ... ní padyāsai* (ŚB 11.5.1.1); Whitney (§579d) feels that 'there is perhaps something wrong about the reading' in this line.

[14]The metrical side of this line is taken up in greater detail below.

[15]For example, in RV 6.60.4:

> tā́ huve yáyor idám papné víśvam purā́ kṛtám indrāgnī́ ná mardhataḥ
> 'I call them both, of whom all that was formerly made is admirable; Indra and Agni are not neglectful (of us).'

[16]Admittedly, this argument is weakened by two considerations. First, in Classical Sanskrit, two other long-vowel morphemes, the preverb / preposition elements *ā* and *acchā*, both trigger the doubling of *ch* to *cch* obligatorily. With the first of these two elements, there does not seem to be any other evidence suggestive of a short-vowel form, although for the latter, a short-vowel form *a(c)cha* does occur in Vedic. Second, in Vedic, there do not seem to be any instances with *mā* clearly triggering the doubling of *ch* to *cch*.

[17]The *-s* most likely represents the Albanian reflex of the Proto-Indo-European postpositive conjunctive particle **k^{w}e*.

[18]This 'rewriting' essentially involves the substitution of the sequence *e-* plus-laryngeal for the reconstructed long vowel.

[19]For example, the variation between *-i* and *-ī* in the instrumental singular of *i*-stem nouns (e.g. *svasti* 'with well-being' as opposed to *ūtī* 'with aid'), is probably to be explained in the same way, since the fuller form of the ending *-yā* (e.g. *ūtyā* 'with aid') points to a reconstruction **-yeE* (and thus **-iE / -i* for the other variants). To be sure, though, there are numerous other alternations in vowel length in Vedic, usually involving nonfinal vowels, that are not explainable in this way (e.g. the metrically-induced variation of *dīdihí* with the more regular *didīhí*).

[20]In particular, different ablaut grades of a morpheme are usually associated with some different function of the element involved, e.g. a different nominal case, verbal category, etc., and no such difference seems likely in the case of the putative full-grade **meE* as opposed to the zero-grade **mə*. However, if, as seems likely, the origins of the morphologically-based ablaut are to be found in some phonetic aspect of the zero-grade syllables, for example a lack of accentuation, then **mə* could have been generated by some suprasegmental process, perhaps one ranging over a phrase or clause, affecting **meE*.

[21]There are other possible sources for a Tocharian *ā*, and van Windekens himself (1976: 282-3) feels secondary influence of Sanskrit could have led to a lengthening of an inherited Tocharian **ma* (evident in the compound form *mar* of Tocharian A, used in prohibitions).

[22]The scope of such a study is considerable, given the rather large number of deviations, some of which are noted in this paper, from the general pattern stated at the outset. With the present paper as a starting point, I plan to embark on a more detailed study of the development of the various patterns of negation in Sanskrit, paying particular attention to the Classical Sanskrit situation.

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