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Reflexes of intervocalic laryngeals in Sanskrit

ALEXANDER LUBOTSKY

The analysis of the Indo-Iranian *-*ăHV*- sequences shows that intervocalic laryngeals were lost phonetically at some stage in Proto-Indo-Iranian (probably, posterior to Brugmann's Law, but anterior to *$\underset{\circ}{n}$ > *a*). In general, if *-*ăH*- belonged to the root and **V*- to the suffix (and in some other instances of a transparent morpheme boundary), the laryngeal was restored. This restored laryngeal yielded hiatus in Gāthā-Avestan, but was lost again in Indic. The Vedic bards still knew, however, that some of the long vowels and diphthongs can be scanned as two syllables and used that as a metrical device.

Reflexes of the Proto-Indo-European (PIE) laryngeals in Sanskrit have been largely clarified in the brilliant early articles by Kuryłowicz (1927, 1935) and the fundamental studies by Kuiper (1947, 1955, 1961, 1987).[1] One of the remaining problems is the behaviour of the laryngeals in Proto-Indo-Iranian (PIIr.) *-*aHV*- sequences, the major issue being the question where the laryngeals yielded a hiatus in the Ṛgveda (RV) and where they were lost without a trace. As we find ample evidence both for hiatus and for contraction, we must look for a distribution.

In the present paper, the emphasis will be on the Vedic reflexes of PIIr. *-*aHi*- and *-*aHu*-. Whereas all other sequences always contain a morpheme boundary (e.g. *-*aHa*- is either *-*aH-a*-, or, more rarely, *-*a-Ha*-), *-*aHi*- and *-*aHu*- also occur within a single morpheme, to wit, within a root. This difference may prove essential, as the distribution of instances with and without hiatus is likely to be of morphological origin.

The metre of the RV shows that the original text had sometimes more and sometimes less syllables than the text we now have. Restoration of extra syllables is possible in several instances: we may restore a late contraction (e.g. *-*aḥ a*- for -*o Ø*-), *$CR\underset{\circ}{R}$- for *CR*- (e.g. **Ciy*-, **Cuv*- for -*Cy*-, -*Cv*-), and assume disyllabic scansion of a long vowel or diphthong. Disyllabic scansion of a vowel was a metrical device in Vedic poetry. On the one hand, it was not applied at random and was restricted to a limited number of words. On the other hand, these words could have a varying number of syllables, depending on their position in the verse. There are only a few words which always show disyllabic quality of a vowel, so that if the vowel in a particular word is attested only as monosyllabic, it does not mean that disyllabic scansion is impossible. Its absence may be accidental.

[1] For a survey I refer to Polomé 1972, Mayrhofer 1981 and Beekes 1988a: 61ff. It seems to be a reasonable assumption that at some stage in Indo-Iranian the three PIE laryngeals merged into one phoneme **H* (cf. Polomé 1972: 241, 244, Lubotsky 1990), phonetically probably a glottal stop [ʔ] (Lubotsky 1981: 138). In this article, I use the following symbols: *R* = any resonant (*i*, *u*, *r*, *n*, *l*, *m*), *V* = any vowel, *H* = any laryngeal.

PIIr. *-*aHi*-

We find no less than five reflexes of this sequence in the RV: monosyllabic and disyllabic -*e*-; -*ayi*-; monosyllabic and disyllabic -*ai*-. The evidence presented below does not pretend to exhaustiveness, but I believe that it is fairly complete.

PIIr. *-*aHi*- > monosyllabic -*e*-

Here only those words are included where *e* is consistently monosyllabic in the RV. Words with a varying number of syllables are presented in the next section.

1. *devár*- m. 'husband's younger brother' < *deH_2i-uer*- (2x). The position of the laryngeal follows from Gr. δᾱήρ 'id.' < *δαιϝηρ and Balto-Slavic barytonesis, cf. Latv. *dieẽveris*, Lith. *dievẽris* (AP 1 in Žemaitian), SCr. *djëvēr*, Slov. *dẹ́ver* 'id.' (Illič-Svityč 1963: §§30, 63). This accentuation must be due to accent retraction in accordance with Hirt's Law, which unambiguously points to the position of the laryngeal before the -*i*-.

2. *dhénā*- f. 'milk-stream, stream of speech' < *d^heH_1i-neH_2- (15x). There has been much argument about the etymology and original meaning of this word, the major point of discussion being the relation between *dhénā*- and Av. *daēnā*- 'vision, religion'. Most reasonable seems to me the position expressed by H.-P. Schmidt (1975), who posits for *dhénā*- the original meaning 'milk-stream, nourishing stream' and, figuratively, 'nourishing stream of speech' and rejects a connection with Av. *daēnā*-, phonologically */dayanā-/*, which is derived from the root *dī*- 'to see'.

3. *dhenú*- f. 'dairy cow' < *d^heH_1i-*nu*- (122x) and *dhenumánt*- (3x); compounds: *ádhenu*- (2x), *ékadhenu*- (1x).

4. *revánt*- adj. 'rich' < *$HreH_1i$-uent*- (61x). Along with this word we find *rayivánt*- (I^1, VI^3) and *rayimánt*- (X^2), where *rayí*- (for which see below) has secondarily been reintroduced.

?5. *sétu*- m. 'fetter, band, bridge' if from *seH_2i-*tu*-. The reconstruction *sH_2ei-*tu*- cannot be excluded, however (cf. Lubotsky 1988: 52).

6. *stená*- m. 'thief' < *$steH_2i$-*no*- (12x). For the root cf. Skt. *(s)tāyú*- 'thief', Gr. τηΰσιος 'deceitful' < * *(s)teH_2i-u*-.

7. *stéya*- n. 'theft' (AV+), attested in the RV in the compound *steyakŕ̥t*- adj. 'committing theft' (7.104.10c) < *$steH_2i$-i̯o*- (for syllabification cf. fn. 2). 215

8. *stheyas*- comp. to *sthirá*- 'firm, hard', attested in the RV only in the hapax *ástheyas*- (10.159.5d) 'nicht hartherzig' (Geldner). This comparative is formed by adding a secondary suffix variant -*īyas*- to *sthā*-. Older formations are *jyā́yas*-, *bhū́yas*- with the suffix -*yas*-.

9. Neuters in -*éya*-, derived with the suffix -*ya*- < *-*iHa*- from roots in -*ā*- and occurring only as second members of compounds: °*déya*- 'giving' < *daH-iHa-; °*dhéya*- 'giving, providing' < *d^haH-iHa-; °*péya*- 'drinking'[2] < *paH-iHa-.[3]

[2] Next to *pūrva-péya*- n. 'precedence in drinking' (1.135.4e, 7.92.1d) < *-paH-iH̯a-, we find trisyllabic °*pā́yya*- (<

?10. The gerundives of roots in *-ā-* show *-éya-* < **-áH-iHa-*. In the RV, we only find *anudéyam* (6.20.11c), on which Geldner comments: "*anudéyam* ist ganz unsicher", and the fem. *anudéyī-* (10.85.6a, 10.135.5d,6a) of uncertain meaning.[4] The *e* in *anudéya-* is monosyllabic.

11. The nom. / acc. dual ending *-e* of the *ā*-stems < **-aH-iH* < PIE **-eH₂-iH₁* is monosyllabic. The likewise monosyllabic vocative singular ending *-e* may reflect **-aH-i* (cf. the discussion of this ending in Beekes 1985: 102ff.).

12. The sandhi of final *-ā̆* with initial *ī̆-* generally yields monosyllabic *-e-*, and instances of disyllabic *-e-* are very rare (cf. Arnold 1905: 72f.). The relevance of these cases for the development of PIIr. **-aHi-* in Sanskrit can hardly be assessed, however, because the juncture can have been restored at any stage of the development.

We may conclude that laryngeals of the sequence **-aHi-* were lost if the whole sequence belonged to the root (Nos. 1-3, 5-7), if the whole sequence belonged to the desinence (stem + ending) (No. 11), and if the sequence occurred in the second member of a compound (No. 9; for the loss of laryngeals in compounds cf. Kuiper 1961). No. 8 is secondary, Nos. 10 and 12 are unclear. The opposition between *re°* in *revánt-* (No. 4) and *rayí-* shows that *re°* is the phonetic reflex of **HreH₁i-*, whereas *rayí-* is due to a special condition, for which see below.

In more general terms, we can state that the laryngeal of **-aHi-* was lost if there was no morphological pressure to restore it. This probably happened already in Proto-Indo-Iranian, since **-aHi-* yields a monosyllabic diphthong in the Gāthās (Beekes 1982: 52ff). Beekes' evidence 216
comprises the following items:[5]

ϑβōi poss. 2sg. pron., nom.sg.f. (Y 31.9a, 44.11c, 48.8c) < **tueH₂-i*;

xᵛaē refl. pron., nom.sg.f. (Y 46.11c) < **sueH₂-i*;

ubē adj. 'both', nom.du.f. (Y 34.11a) < **-eH₂-iH₁*;

bərəxϑē adj. 'honoured', voc.sg.f. (Y 48.6b) < **-eH₂-i*;

vyānayā f. 'competence' (Y 29.6a, 44.7c) < **-eH₂-i* (?), if this is a loc. sg. in *-ai* + postpos. *ā*, which is very uncertain.

I found only one instance where restoration took place, viz. *ādāi* /ādā'i/ (Y 33.11c) < **ādaH-i*, loc.sg. of *ādā-* 'gift'. It is important to note that in this case the length has been reintroduced, too, which proves that this is a late development.

**-paHi̯-iH̯a-*) in *pūrva-pā́yya-* n. 'id.' (8.34.5b) and *kuṇḍa-pā́yya-* N. pr. (8.17.13b). Cf. also the likewise trisyllabic *°pā́yya-* 'protecting' in *nṛ°* (5x) and *bahu°* (2x).

[3] This derivational device (root in *-ā-*: neuter in *-éya-*) served as a model for the creation of *°séya-* in *śataséya-* n. 'obtaining of a hundred' (3.18.3d), based on the zero-grade *sā-* of the root √*san*^{i}- 'to gain, obtain'.

[4] Geldner comments (ad 10.85.6ab): "'die Mitzugebende', wohl die Begleiterin, spez. die Amme, die die vornehme junge Frau ins neue Haus begleitet".

[5] *zaranaēma* (Y 28.9a), mentioned by Beekes, is 1pl. pres. opt. act. of the thematicized nasal present of √*zar-* (< **zr-nH-a-iH-ma*) and therefore does not contain an intervocalic laryngeal (cf. Narten 1982: 145). If this present were athematic, we would expect zero grade of the stem, cf. Skt. *krīṇīyā́ma.*

PIIr. *-*aHi*- > disyllabic -*e*-

In this section I give those words which show *e* of varying quality (D = disyllabic, M = monosyllabic):

1. Superlatives with the suffix -*iṣṭha*-, formed from root nouns in -*ā*:

jyéṣṭha- 'the most powerful' < **jyaH-iṣṭha*- (18x D, 21x M; monosyllabic *e* also in derivatives from *jyéṣṭha*- and compounds); it seems significant that the lexicalized *jyeṣṭhá*- 'the oldest' (with oxytonesis) shows monosyllabic *e* (2x), which shows that the morpheme boundary was not transparent here any more.

déṣṭha- 'the most bountiful' < **daH-iṣṭha*- (8.66.6d D).

dhéṣṭha- 'providing the most' < **dhaH-iṣṭha*- (3x D).

yéṣṭha- 'going most quickly' < **yaH-iṣṭha*- (3x D).

2. Disyllabic *e* has also been assumed in the optative of the root aorist from roots in -*ā*- (cf. Arnold 1905: 91). The following forms are attested: 1sg. *deyā́m* from √*dā*- (8.1.5b D); 1sg. *dheyā́m* from *ādhā*- (5.64.4b D; 10.52.5c M); 3sg. *jñeyā́s* from √*jñā*- (2.10.6a M); 3sg. *peyās* from √*pā*- 'to drink' (5.29.3b and 9.109.2a M); 1pl. *stheyāma* from √*sthā*- (3x M); 3pl. *dheyur* from √*dhā*- (3.50.2c M). Kortlandt (1987: 220ff.) recently argued that the -*e*- originates from the 3pl., where the root had full grade (e.g., **d*^{h}*eH*$_1$*-iH*$_1$*-nt* > **dhaH-iH-at*, with the usual replacement of the ending **-at* by *-ur*). The root form in **-aH-iH*- later spread over the paradigm. It is uncertain, however, whether the trisyllabic forms *deyā́m* and *dheyā́m* are due to disyllabic *e*: since these forms are only found in the 1sg., it is more probable that it is *á* which is disyllabic (**-iaH-(a)m*). In the same hymn (5.64.4b) where we find trisyllabic *dheyā́m*, two more trisyllabic optatives are attested, viz. opt. aor. *aśyā́m* (3a) and opt. pres. *yāyām* (3b), analyzed by Arnold as *aś*^{i}*yā́m* and *yā̃yām*, respectively, which is *ad hoc*. All three optatives are followed by a disyllabic word with a short first syllable, occupying the end of the line, and are no doubt intended to be scanned in the same fashion. It is further important that the GAv. 1sg. athematic opt. ending is always disyllabic, cf. 1sg. aor. opt. *diiąm* /dya'am/ (Y 44.14b) < **d*^{h}*H*$_1$*-i̯eH*$_1$*-m* and opt. pres. *hii̯ə̄m* /hyaam/ (Y 43.8c, 50.9d) < **H*$_1$*s-ieH*$_1$*-m*. 217

3. The root form of *deṣṇá*- m. 'gift' (5x D, always in the cadence, vs. 4x M; in compounds M) is problematic because the suffix -*iṣṇa*- is further unknown in Sanskrit. As -*sna*- is normally added to the zero grade of the root, the original formation must have been PIIr. **dH-sna*-, which had to yield Skt. **diṣṇa*-. The root *dā*- 'to give' has no zero grade **di*-, however (this zero grade is only attested with roots *dā*- 'to mow', 'to bind' and 'to distribute'), so that **diṣṇa*- was probably analysed as **d-iṣṇa*-. In order to make the formation more transparent, the full grade was introduced in this word, which resulted in **daH-iṣṇa*-.

In contradistinction to the examples of consistently monosyllabic *e*, words with disyllabic *e* have in common that there is a morpheme boundary between -*aH* and *i*-, -*aH* belonging to the

root, and *i-* to the suffix. This distribution between monosyllabic and disyllabic *e* confirms that the laryngeal of the sequence **-aHi-* was phonetically lost and that in forms with disyllabic *e* the root (or the suffix) was restored if there was a transparent morpheme boundary. As there must have been a model for this restoration, we may conclude that the laryngeals, which at this time had most probably become glottal stops, were preserved in other positions, viz. word-finally and anteconsonantally. This conclusion is in accordance with Kuiper's analysis (1955) of the shortening *in pausa* of *-ā*, *-ī*, *-ū* in the RV, which provides strong evidence for the survival of word final laryngeals until the historical Vedic period.

In order to better understand the development of **-aHi-* to disyllabic *e*, we must consider another important source of disyllabic *e* in the RV, viz. the contracted sequence *-ayi-*. Consider the following evidence:

1. Superlatives with the suffix *-iṣṭha-*:
śréṣṭha- 'most beautiful' < **śray(H)-iṣṭha-* (8x D[6] vs. 23x M; 3x D in compounds),
préṣṭha- 'the dearest' < **pray(H)-iṣṭha-* (13x D vs. 3x M).

The presence of a laryngeal in these forms can hardly have played a role, since at the time 218
of the RV the prevocalic laryngeals must have disappeared, although their original presence is reflected in the formulaic use of e.g. *ávase* < **avHase* in the cadence (cf. Kuryłowicz 1927: 239ff, 1928: 208ff.) with the first *a* being in the position of a long syllable.

2. *tredhā́* 'threefold' (9x D vs. 2x M). This form must be due to the introduction of the stem *tray-* (*tráyas* nom.pl. m.) into *tridhā́* 'id.', triggered by the reanalysis of *dvídhā* 'twofold' as *dv-i-dhā*.[7] The accentuation of *tredhā́* is not old and follows that of *caturdhā́* and the higher numerals. In the later texts, we find analogical *dvedhā́* (Br.+), which has been reshaped after *tredhā́*.

3. The same origin has often been suggested for disyllabic *-e-* < **-aḭH̯(C)* under the assumption that the laryngeals were vocalized after *i̯*. The following list is based on Arnold 1905: 91:[8]

√*nī-* 'to lead': *néṣi* (1.129.5d? D vs. 9x M), *netár-* (5.50.1a,2a,5a?; 10.103.8a? D vs. 14x M), *netrī́-* (1.92.7a = 1.113.4a vs. 4x M), *praṇetár-* (1.169.5b?, 8.19.37d?, 8.46.1b D vs. 9xM), *ānetár-* (9.108.13b? D);

pretár- m. 'lover' (1.148.5d? D vs. 1x M).

Most of these instances are doubtful, however. 1.129.5 is metrically irregular anyhow: 5f is a triṣṭubh line instead of jagatī, 5g contains seven syllables, which can also be assumed for 5d,

[6] Add 5.25.3b and 6.26.8c to Arnold's list (1905: 92). In the latter instance we find a twelve-syllable line with a triṣṭubh cadence, which is also found in the same hymn in 2c and 7c. Van Nooten - Holland ad ll. must be corrected.
[7] Contraction of **trayadhā*, proposed in AiGr. III: 347, is improbable.
[8] I have omitted from his list *néṣam* 10.61.4d, which must be read with the Pp. *ná íṣam* (van Nooten - Holland ad loc. must be corrected) and added *netrī́-*.

if we leave *neṣi* as it stands. The metre of 5.50 is irregular, too: there are several lines of seven syllables (2a, even with the resolution of the voc. *netar*, only counts seven syllables), many cadences are "wrong". The resolution of *netā́* in 10.103.8a still yields an irregular cadence. The triṣṭubh hymns 1.148, 1.169 contain several ten syllable lines. The fact that in 8.19.37, which is the final stanza of the hymn, pāda *a* counts nine syllables, does not inspire confidence in the regular character of pāda *d*. In 9.108.13b *yó rāyā́m ānetā́ yá íḷānām*, we may read the two gen. pl. forms as *-aam*, which would give a perfectly acceptable jagatī line.

The only reliable examples, then, are *netrī́-* (1.92.7a = 1.113.4a) and *praṇetár-* (8.46.1b), the disyllabic *e* of which can better be seen as one of the cases where the poets sporadically used disyllabic scansion of etymological *e* < *ai*. A well-known example is *rékṇas-* n. 'property' < PIIr. **raiknas-*, which must be read **rā́yikṇas* / **raïknas* at least in 7.40.2c.[9] As disyllabic *e* from **-aiHC* is extremely rare and is attested only in late hymns, we cannot regard these forms as an argument in favor of the development **-aiHC* > **aiC*. 219

The contraction *-ayi-* > *-e-* [10] is likely to be a phonetically regular development involving loss of *y*, followed by monophthongization of **ai* to *e*. The loss of *y* is part of a more general rule **yi* > *i*, **vu* > *u* (cf. AiGr. I: 261f). Accordingly, all *-ayi-* sequences actually attested in Vedic must be secondary and have arisen after the contraction took place. This is indeed the case. The majority of *-ayi-* sequences in the RV is found in finite forms and derivatives of verbal stems in *-ay-*, where *-ay-* of the stem is combined with the *iṭ* vowel of the suffixes, cf. *iṣ*-aorists *aśayiṣṭhāḥ*, *cayiṣṭam* (cf. Narten 1964: 255, Hoffmann 1975-6: 367), futures in *-iṣya-* (e.g. *vāsayiṣyá-*), perfect participle *yayivā́ṃs-*, gerund *mohayitvā́*; nominal suffixes *-itár-* (e.g. *codayitár-*), *-itnú-* (e.g. *mādayitnú-*), *-iṣṇú-* (e.g. *mādayiṣṇú-*). There can be no doubt that the *iṭ* vowel is secondary in these forms, added in order to preserve their transparency. The two super-

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[9] Other passages (1.121.5c = 10.61.11c, 8.46.15a, 10.132.3b,c) are less certain. Improbable is the reading *rékᵃṇas* in some of these passages suggested by Arnold 1905: 99 and put in the text by van Nooten - Holland (incidentally, neither Arnold, nor van Nooten - Holland have seen that 1.121.5c and 10.61.11c are identical).

The disyllabic quality of *e*, assumed by Arnold (1905: 100) for *véḥ* gen.sg. 'bird' (*ví-*) in 1.130.3b and 6.48.17d (vs. 12x M), is most probably unwarranted. The metre of 6.48.17 is *satobṛhatī* (scheme 12-8-12-8), but since 17c counts eleven syllables, I see no problem in assuming that 17d contains seven syllables. As far as the 1.130.3b passage is concerned, it is hard to believe that the formulaic pāda initial *vér na*, occurring in 6.3.5d, 9.72.5d, 10.33.2d (although *vér* is nom.sg. here) with monosyllabic *e*, is used with a disyllabic scansion here.

The consistently disyllabic *e* of *śréṇi-* f. 'row' (6x D; also in *śreṇi-śás* (2x D) and *śréṇi-dant-* (1x D)) remains enigmatic, as it does not make any sense from an etymological point of view (the derivation from the root *śri-*, PIE **klei-* with the suffix *-ni-* seems the only plausible option) and as *śréṇi-* is the only word the *e* of which is always disyllabic, which already makes Arnold's **śrā́yiṇi-* unattractive. This word must have been adjusted by the redactors of the text, similarly to what happened to **pavāká-*, substituted by *pāvaká-*. Should we reconstruct **śrayáṇi-* (for the accent see AiGr. II,2: 207) and assume post-Vedic irregular contraction, due to the following *i* ?

[10] Another example of the contraction **ayi* > *e* seems to be the locative of the personal pronouns *tvé*, *asmé*, *yuṣmé* (cf. AiGr. III: 462, Insler 1966: 232, fn.16) < **-áyi*, which are *pragṛhya* in the RV (**-ayi V-* > **-ayy V-* > **-ey V-* > *-e V*; **-ayi C-* > **-ai C-* > *-e C-*). The *e* of these forms is always M.

latives *vícayiṣṭha-* 'removing best' (4.20.9c) and *náyiṣṭha-* 'leading best' (10.126.3c) must also be recent formations. The loc. sg. of the pers. pron. *máyi* is likely to be a remodelled form, especially in view of its late distribution (I^1 $VIII^1$ IX^1 X^5). Note that the loc. sg. of the second person *tvé* appears as *tváyi* since AV (cf. fn. 10 and AiGr. III: 462). For *rayí-* and *yayí-* see below.[11]

It follows that **-aHi-* with a restored laryngeal and **-ayi-* have the same reflex in the RV, viz. *e*, which is sometimes scanned as two syllables. Hence, it is tempting to assume that **-aHi-* merged with **-ayi-* at some prehistoric stage. This is supported by the fact that, as we shall see below, **-aHi-* is represented by *-ayi-* in *rayí-* 'goods, wealth'. A comparable reflex of the intervocalic laryngeal is also found with the so-called passive aorists in *-i*, derived from roots in *-ā-*: *ájñāyi* (√*jñā-* 'to know'), *dāyi* (√*dā-* 'to give'), *dā́yi* (√*dā-* 'to bind'), *ádhāyi*, *dhā́yi* (√*dhā-* 'to put'), *ápāyi* (√*pā-* 'to drink'). These formations had *o*-grade of the root and were subject to Brugmann's Law (e.g. **doH₃-i* > **dāH-i*, cf. Kuryłowicz 1935: 38, Kuiper 1947: 200, fn. 11; note that the long root vocalism of these forms implies that Brugmann's Law was anterior to the loss of the intervocalic laryngeals). As *-āyi-* is the only attested reflex of **-āHi-*, it is possible that this is the regular development (**-āHi-* > **-āï-* > *-āyi-*). On the other hand, since intervocalic laryngeals were lost in PIIr., it is likelier that after the loss of the laryngeal, **dāH-i* developed into **dāi*. The latter form was either remade into **dāH-i* again, which later yielded *dāyi* (cf. on *rayí-* below), or simply acquired an extra *-i* as a characteristic feature of the passive aorist.[12] 220

PIIr. **-aHi-* > *-ayi-*

There is but one example of this reflex[13]: *rayí-* m./f. 'goods, wealth' < **HreH₁-i-*. This is an *i*-stem, which is derived from the root *rā-* 'to bestow' and has a unique inflection, showing the stem *rayí-* before endings starting with a consonant (nom. sg. *rayíḥ*, acc. *rayím*, instr. *rayíṇā* (X^1) / *rayyā́* (X^1), gen.pl. *rayīṇā́m*, instr. *rayíbhiḥ*) and the stem *rāy-* before endings starting with a vowel (instr.sg. *rāyā́*, dat. *rāyé*, gen.abl. *rāyáḥ*, nom.pl. *rā́yaḥ*, acc. *rā́yaḥ / rāyáḥ*, gen. *rāyā́m*). The accusative *rā́m* (X^1), as well as the accentuation of the nom. and acc. pl., is due to the reinterpretation of this irregular paradigm as a paradigm of a root noun. The word *rayí-* is found in numerous compounds[14], in *rayíntama-* 'very rich' (6.44.1a, a nonce form) and in *rayimánt-*,

[11] The unclear *prayíyu-* and *vayíyu-*, attested in 8.19.37a, are most probably nonce formations (Geldner takes them as NPr.). Note that this line has nine syllables. Also the two forms with the suffix *-in-* (8.2.1c *ánābhayin-*, 10.60.2b *niyayín-*) are likely to be nonce.

[12] Wackernagel (AiGr. I: 208) suggests the influence of roots like *pā(y)-*, which seems less probable. In later texts, we find more instances of *y* as a *Hiatustilger*, cf. AV+ °*dā-y-in-*, etc.

[13] *yayí-* adj. 'running, hastening' has been assumed by Kuryłowicz (1935: 37) to be an *i*-stem **yaH-i-*, derived from the root *yā-* 'to go'. However, this word is rather a reduplicated noun of the type *cákri-* 'working', *jágmi-* 'going quickly', *dadí-* 'giving', etc. (Kuiper 1942: 227 fn.1) and thus reflects **i̯ai̯Hí-*.

[14] The hapaxes *ṛdhád-rayas* (8.46.23a) nom.pl. 'increasing wealth' and *bṛhád- -raye* (1.57.1a; cf. also 6.49.4b *bṛhádrayim*) dat.sg. 'of great wealth' are most probably due to haplology of \°*rayayas*, \°*rayaye* (AiGr. III: 149).

rayivánt- 'rich', which are younger than *revánt-* 'id.' (cf. above). The stem *rāy-* is attested in the compound *árāya-* (8.61.11b) 'mean, stingy'.

The inflection of *rayí-* has been clarified by Kuryłowicz (1927: 230, 1935: 36), who has demonstrated that the peculiar alternation is due to the original paradigm: nom.sg. **raH-í-s*, acc. **raH-í-m*, gen. **raH-i̯-ás*. A hysterodynamic paradigm of this type is found, for instance, with *arí-*, cf. nom. *aríḥ*, acc. *arím*, gen. *aryáḥ*.

An alternating paradigm of this word is also attested in Avestan. In the Gāthās, we only 221
find gen.sg. *rāyō*, to which Late Avestan adds acc.sg. *raēm*, instr. *raya*, acc.pl. *raēš*, gen. *rayąm* (for the consistently short *a* in the root of the LAv. forms cf. Henning 1942: 50). LAv. *raēvant-* corresponds to Skt. *revánt-*. This Avestan paradigm has often been considered identical with the Sanskrit one. For instance, Szemerényi (1956: 171) equates *raēm* with Skt. *rayím*, *raya* with Skt. *rāyā́*, gen.pl. *rayąm* with Skt. *rāyā́m*. There is no evidence, however, that forms like **rayis* or **rayim* ever existed in Avestan. The Avestan spelling *aē* may stand for an old diphthong **ai* or for **-ayə(m)* < **-aya(m)* and, possibly, < **-ayi(m)*. The spelling *aē* is therefore ambiguous, so that we cannot tell whether *raēm* must be read */raim/* or */rayim/*. Szemerényi further assumes that acc.pl. *raēš* (< **rayīš*) is older than Skt. *rā́yas / rāyás*. This is improbable: of these two endings of the acc.pl., *-yas* is attested only in a couple of words in Sanskrit and Avestan, whereas Sanskrit *-īḥ / -īn*, Avestan *-īš* was productive. The form *raēš* rather is secondary and does not testify to an original **rayīš*.

The unusual Sanskrit reflex *-ayi-* of IIr. **-aHi-* has puzzled many scholars. The following passage from Edgerton's review of Burrow's *The Sanskrit Language* is illustrative: "The article [Burrow 1949, AL] is not wholly free from inconsistencies, nor from strained and improbable interpretations. Examples: on p. 42 the *e* of *jyéṣṭha-*, *déya-* etc. is derived from *-aHi-*, with loss of *H* and simple contraction. In the footnote on the same page, *rayís* is "the development one would expect from an earlier *raHís*"; exactly the same *-aHi-* now produces *-ayi-*, not *e*!" (Edgerton 1956: 193, fn. 1). At first sight it seems natural to ascribe the deviating reflex of *-aHi-* in *rayíḥ* to paradigmatic levelling, as *rayíḥ*, in contradistinction to the cases of monosyllabic or disyllabic *e*, occurred in an alternating paradigm. This was already indirectly surmised by Kuryłowicz (1935: 37), who stated that "le manque de contraction dans v.ind. *rayíḥ* est obscure" and proposed three possible explanations for this in a footnote: "A priori on peut soit l'expliquer par le désir de conserver la transparence morphologique de la forme, soit admettre qu'il s'agit d'une création postérieure au passage de *ai* > *e*, remplaçant l'ancient nom.sg. *rā́ḥ*; on peut aussi mettre en ligne de compte le caractère dissyllabique de la forme". The latter two proposals are improbable (there was no old nom.sg. *rā́ḥ* and there was no need to preserve the disyllabic character of the nom. and acc.sg., cf. *dyaúḥ, dyā́m, diváḥ*, etc.), but it is now indeed the

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Their different inflection may reflect the archaic tendency of the second members of compounds to switch from hysterodynamic to proterodynamic paradigm (Schindler, p.c.).

communis opinio that *-ayi-* stands for, or developed from, a hiatic *-a-i-* due to morphological pressure (cf. Szemerényi 1956: 177, fn. 1, Mayrhofer 1981: 433, fn. 22, etc.).

It has never been made explicit, however, why and how this hiatic form came into existence. Schindler's suggestion that "im ASg konnte **ra'im* bei Aufgabe des Hiats nicht **raim* > **rem* ergeben und wurde daher durch *rayím* ersetzt, wonach der NSg *rayíḥ* geschaffen wurde" 222
(1969: 153, fn. 56) may explain the motivation for the creation of a new form (although I do not think that at that stage the form **rem* was phonetically impossible), but does not account for the form *-ayi-* itself. Beekes (1985: 80) assumes that after the development **raHis* > **rais* the *y* was introduced from the oblique cases. It is difficult to imagine, however, how a paradigm nom. **rais*, gen. *rāyás* can give rise to a new nom. *rayís*. One would rather expect that the long vowel of the oblique cases would also have been generalized: there is nothing against a nom.sg. ***rāyíḥ*.

If we want to account for *rayís* in terms of morphological pressure, we have to assume that in the paradigm: nom.sg. **raHis*, gen. **raHyas*, the laryngeal of the nom. was lost and then restored time and again on the basis of the oblique cases until finally, at a stage posterior to the contraction of *ayi* to *e*, this **raHis* yielded *rayís*. However, this scenario has the same weak spot as any other morphological solution for *rayís*: The form itself is young, but it can hardly have been influenced by the other forms of the paradigm because these were so deviant that they were considered suppletive by the speakers of the language already at the times of the RV, as can be concluded from the new accusative *rā́m* (X^1), created on the basis of the oblique cases. Moreover, the hysterodynamic paradigm of *rayí-* was obsolete in the RV.

As a morphological explanation does not seem very plausible, I would like to venture a phonetic solution. If we apply to **raHi-* the rules we have discussed above in connection with monosyllabic and disyllabic *e*, we expect the following developments. In the nom.sg. **raHís*, the laryngeal was phonetically lost in PIIr., but was restored on the basis of the oblique cases (like gen. **raHiás*). The new sequence *-aHi-* yielded *-ayi-* at some point, so that the paradigm was nom.sg. **rayís*, gen. **raHyás*. The question is why this *-ayi-* was not contracted to *e*, as happened elsewhere. In a recent article, Kuiper (1987) has shown that the place of the accent played an important role in contraction of the sequences **uva* and **iya*: whereas **úva* and **íya* are preserved in the RV, sequences with a different accentuation were prone to contraction, yielding monosyllabic *-va-, -ya-*. As *rayí-* and *yayí-* are the only examples of **ayí* with accented *í* (beside *prayíyu-*, *vayíyu-*, and *niyayín-*, for which see fn. 11), it seems reasonable to assume that the sequence **ayí* was not contracted, which is in conformity with the non-contraction of **úva* and **íya*.

PIIr. *-*aHi*- > -*ai*- (monosyllabic and disyllabic)

This development is practically found only with the augment, which in combination with initial *ĭ*- of the root yields *ai*- (the combination of the augment with initial *ŭ*- yields *au*-, for which see infra), cf. *ainos* (4.16.7c), *ainot* (1.66.10a), *aichāma*, *aírata*, etc. In *aíchaḥ* (10.108.5a), 223
the *ai*- is disyllabic. The same sandhi is applied once to the preverb *pra*, viz. *prá-iṣayúḥ* = *praíṣayúḥ* (1.120.5c).

As the sandhi of the augment applies to every root beginning with *ĭ*- or *ŭ*-, the presence of a laryngeal was most probably irrelevant, but for the sake of completeness I shall briefly discuss the origin of this sandhi. According to Renou (1952: 30), the *ai*- "pourrait être analogique de la solution normale *aít* = **a-et*", but as this "analogy" has led to the loss of the opposition between full grade (**a-e-*) and zero grade (**a-i-*), Renou's solution does not seem probable. Wackernagel (AiGr. I: 53 and 318f.) explains -*ai*- as the result of a late (post-Vedic) contraction of -*a* and *i*-, giving as an example *prauga*- (S.+) vs. RV. *práüga*-. The problem with this explanation is that the combination of the augment with an initial *i*- is generally monosyllabic in the RV, i.e. the contraction had already taken place. Nevertheless, I believe that this explanation is essentially correct. We must only assume that in the RV this sandhi yielded **ai*- (monosyllabic or disyllabic) as expected, but in the post-Ṛgvedic period, when **ai* became monophthongized to *e*, the augment was restored, giving rise to new *a-i-*, which resulted in *ai*- after the new contraction (cf. also Mayrhofer 1986: 130, fn. 134).

Let us now summarize our results. The first stage of the elimination of the intervocalic laryngeals took place in PIIr., where the laryngeal in the sequence *-*aHi*- was lost phonetically. In some other positions (anteconsonantal and word-final), the laryngeals were preserved (probably as a glottal stop), which led to the restoration of the laryngeals in Indic if *-*aH* belonged to the root and *i*- belonged to the suffix. At some later stage, this new sequence *-*aHi*- merged with -*ayi*-. Not long before the composition of the RV, -*ayi*- was contracted to -*ai*- (later monophthongized to *e*), except if the *í* was accented. In the latter case, the sequence -*ayí*- remained. The Vedic poets still knew that in some words they could substitute *ayi* for **ai* for metrical purposes.

The combination of the augment *a*- with initial *i*- and *u*- became **ai*- / **au*-. Later, at a post-Ṛgvedic stage, the augment was restored so as to produce hiatic **aï*-, **aü*-, which were contracted to long diphthongs *ai*- and *au*-.

PIIr. *-*aHu*-

The evidence for this sequence in Sanskrit is scanty, but the reflexes of PIIr. *-*aHu*- at first sight seem to be partly parallel to those of *-*aHi*-: we find monosyllabic and disyllabic -*o*-, monosyllabic and disyllabic -*au*-. A reflex -*avu*-, which would be parallel to -*ayi*-, is not attested in Sanskrit.

PIIr. *-*aHu*- > monosyllabic -*o*- 224

Apart from the sandhi -*ă̆ u*-, for which see above, I find monosyllabic -*o*- only in *bodhí*, 2sg. aor. impv. of the root √*bhū*- 'to be, become'. This form has never been adequately explained. The aor. impv. takes either zero grade (cf. *kr̥dhí*, *gadhi*, *śrudhí*) or full grade of the root (cf. *yandhí*, *yódhi*, *śagdhí*), but, as a matter of fact, neither of the two can account for the vocalism of *bodhí* if we reconstruct the root as *b^heuH-. The zero-grade would have yielded **būdhí*, and the full grade **bhavidhí*. One would certainly expect the former form in view of the fact that the zero-grade *bhū*- was generalized in the aorist: *ábhuvam*, *ábhūs*, *ábhūt*, etc.

In a series of publications (1975, 1986), Kortlandt has argued that the correct reconstruction of this root is not *b^heuH-, but *b^heH_2u-, with the laryngeal preceding the resonant. There is manifold evidence for this reconstruction from Indo-Iranian, Greek, Balto-Slavic, and Italo-Celtic:

1). The peculiar predilection of this root for the zero grade has frequently been noted, but the question of why the full grade was avoided has seldom been posed. The reconstruction *b^heH_2u- makes clear why, for instance, the root aorist has the unique zero grade in the active singular (cf. Sanskrit *ábhuvam*, *ábhūs*, *ábhūt*, Greek ἔφῡν, ἔφῡς, ἔφῡ, OCS *by(stь)*, etc.). Apparently, at some point the ablaut of the type *b^heH_2u- : *b^hH_2u- > *b^huH_2- was not tolerated any more.

2). The reconstruction *b^heH_2u- is indirectly confirmed by the initial accentuation of *bhū́mi*- f. 'earth, soil' and *bhū́ri*- adj. 'much, many, abundant', which are derivatives of the root *bhū*-. As I have tried to demonstrate elsewhere (Lubotsky 1992), *i*- and *u*-stems derived from roots with a final laryngeal are always oxytone due to an Indo-Iranian accent shift. The barytonesis of *bhū́mi*- and *bhū́ri*- thus indicates that the reconstruction *b^huH- is improbable for this root.

3). The final accentuation in Russ. *bylá* 'she was' (as in *pilá* 'she drank' < **pHi-laH*) and the broken tone in Latvian *bût* 'to be' indicate that the accent retraction under Hirt's Law did not take place in this root (as opposed to, e.g., initial accentuation of Russ. *bíla* 'she stroke' < *b^hiH-*laH* or the sustained tone of Latv. *jũ̂ts* 'fork in the road' < **i̯uH-ti*-). The reconstruction *b^huH-*laH* is therefore improbable (cf. Kortlandt 1975: 3), whereas *b^hHu-*laH* is in agreement with the Balto-Slavic facts.

4). The accentuation of SCr. *bȁviti se* 'to stay' (AP *a*) unambiguously points to PSl. **baHu̯*-. Contrary to what has often been suggested, the Slavic form cannot be analogical because productive causatives have a different accent, cf. SCr. *pàliti* 'to burn', *stàpati* 'to merge'. There is only one other verb of the same accentual type as SCr. *bȁviti se*, viz. SCr. *stȁviti* 'to place, put', which no doubt reflects PSl. **staHu̯*-.

5). The derivatives of this root often have short *u*, cf. Lat. *fŭtūrus*, OIr. pret. pass. *-both* 'was', *buith* 'being', Gr. φῠτός. These forms receive an explanation if we start from the reconstruction *b^hH_2u-*tó*- (see Schrijver 1991: 240, 517, 526f.). 225

6). Old Irish forms of the substantive verb, e.g. 1,2sg. pret. *-bá* can be explained if we

start from *b^h*āw-V-* (Kortlandt 1986: 90f.). For further details on the Celtic facts I refer the reader to Kortlandt's article.

7). OIr. *bá e* 'benefit, profit, advantage', which has traditionally been connected with the same root, must be derived from *b^h*āwio-* (Kortlandt ibid.). Moreover, this word can hardly be separated from Lat. *favēre* 'be favorable'. We find two phonologically acceptable etymologies for *favēre* in the literature (cf. Schrijver 1991: 441f.): *b^h*ou̯H-e̯ie-* and *g^{wh}*ou̯-* (OCS *gověti* 'to worship', etc.), the *a* vocalism of the Latin word being ascribed to Thurneysen – Havet's Law (*-ou̯- > -au̯-*). Walde-Hofmann (1938: 465f.) opt for the latter etymology for two reasons: "wegen der ganz entsprechenden Bed.-Entw." and because of the intransitive construction in Italic, which is incompatible with the causative formation *b^h*ou̯H-e̯ie-*. I must admit that I do not understand the first argument: the meaning 'be favorable' is only attested in Upper Sorbian (!) *howić*. The second argument is to some extent valid (although cf. the intransitive *nocēre*), but there is no need to assume a causative formation with the meaning 'to make grow'. The meaning of the Skt. verb *bhū-* is often reminiscent of that of *favēre*, cf. for instance 6.46.3d *bhávā samátsu no vr̥dhé*, litt. 'be in the battles for our strength!' = 'help us in the battles to achieve strength!'. Moreover, the Skt. root *bhūṣ-*, which is undoubtedly related to *bhū-*, means 'to exert oneself for smbd., to take pains for smbd.'. In other words, *favēre* can contain a stative suffix and reflect *b^h*H₂u̯-eH₁-*. This etymology has the advantage that OIr. *bá e* can be connected with the Latin verb.

8). Specht (1932: 58ff, 1935: 142; accepted by Fraenkel 1949: 146ff) argued that the Gr. aorist φάε (ν 502 φάε δὲ χρυσόθρονος ἠώς, which he compares with RV 7.76.2c *ábhūd u ketúr uṣásaḥ purástāt*) reflects *φαϝε and belongs to the same root. Specht reconstructs the root as *b^h*au̯ə-, but *b^h*H₂u̯-* would do as well.

The Sanskrit 2sg. impv. aor. *bodhí* receives a straightforward explanation if we reconstruct *b^h*eH₂u-d^{h}i*. It follows that *bodhí* has preserved the original vocalism of the aorist which has been replaced in *ábhūt*, etc. because of the irregular ablaut *-o-: -ū-*. The imperative often stands outside the paradigm (cf. the Skt. imperatives *dehí* to *dádāti*, *dhehí* to *dádhāti*, *jahí* to *hánti*), so that it is feasible that the imperative preserves an archaism, whereas the regular paradigm has innovated. This is not the proper place to discuss other proposals concerning *bodhí*. I would only like to mention that an irregular or Prakrit-like contraction of the type *-ava- > -o-* is improbable because *bodhí* clearly belongs to the paradigm of the aorist, where there is no place for the stem *bhava-*. 226

The monosyllabic *o* as a reflex of *-aHu-* within a root indicates that in this position the laryngeal was lost phonetically.

PIr. *-*aHu*- > disyllabic -*o*- (?)

This reflex has been suggested by Kuryłowicz (1927: 224f.) for some forms of the word for ‘cow’ and for the oblique cases of *maghávan*- ‘generous’. Eight years later, in the section on the laryngeals of *Études indoeuropéennes I* where Kuryłowicz repeats his theory of the laryngeals "pour la corriger et pour la compléter de faits nouveaux" (p.27), he did not mention these words any more, and rightly so because neither is disyllabic *o* in these words well-established, nor is the laryngeal origin of the hiatus probable. As far as the word for ‘cow’ is concerned, Arnold (1905: 90) assumes disyllabic *o* in the following forms:

gen.sg. *góḥ* (1.61.12c, 1.180.5b and 1.181.8d). The hymn 1.61 abounds in decasyllabic verses (there are more then twenty of them), so that it appears unnecessary to assume disyllabic *o* in *góḥ*. In the other two instances, disyllabic *o* is probable (but cf. decasyllabic 1.180.6c), but the fact that it is attested in two adjacent hymns in the late first book is suspect: it can simply be an invention of the author of these hymns, inspired by disyllabic forms of acc.sg. *gā́m* = **gaH-am* and acc.pl. *gā́s* = *gaH-as*, for which see below. Note that GAv. gen.sg. *gəuš* is always monosyllabic.

gómant- ‘rich in cows’ (9.107.9a vs. 105x M). The metre of 9.107 is too uncertain. Kuryłowicz’ remark that there are three cases of disyllabic *o* in this word (p. 225) must be a lapsus.

gójāta- ‘cow-born’: in 7.35.14d = 10.53.5b (in 6.50.11d M) there are other ways of adding a missing syllable (see Oldenberg, ad loc.).

gopī́thya- ‘protection’. The hapax (10.95.11a) reads: *jajñiṣá itthā́ gopī́thyāya hí* ‘Du bist doch geboren, um hier Schutz zu bringen’ (Geldner). The cadence of this triṣṭubh verse is irregular anyhow. Arnold (1905: 323) proposes to read **gavapī́thiyāya* and considers the verse as an "extended Triṣṭubh verse" (= *jagatī*), but Oldenberg (ad loc.) comments: "Gewiβ nicht **gavapī́thiyāya* (Arn. 323). Vermutlich Jagatīausgang mit Unterzäligkeit".

It follows that the evidence for disyllabic scansion of *go*- is too uncertain. Moreover, even if this word contained a laryngeal, we would expect **g^{w}H$_3$ous* in the gen.sg., so that a laryngeal hiatus is out of the question.[15]

Similarly, disyllabic *o* of some forms of *maghávan*- ‘generous’ can hardly be accounted for by laryngeals, especially if we accept Meißner’s (1993) tempting etymology explaining this aberrant word as an original compound *maghá-van*- ‘procuring, winning gifts’. Disyllabic *o* has been postulated for the following forms of *maghávan*- (Arnold 1905: 90f.): 227

[15] Nom.sg. *gaús* ‘cow’ probably reflects PIE **g^{w}ēH$_3$us* (for the reconstruction of the laryngeal in this word see Lubotsky 1990: 133f.) with lengthened grade, which also explains the falling intonation of Latv. *gùovs* < **g^{w}ēH$_3$us* with a loss of the laryngeal after a long vowel (Kortlandt 1985: 118). Although the origin of the lengthened grade in this word is not quite clear, the fact that *gaús* is always monosyllabic is in conformity with the regular PIIr. loss of intervocalic laryngeals. The occasional disyllabicity of *ā* in acc.sg. *gā́m* and acc.pl. *gā́s* is most probably analogical (parallel to root nouns in -*ā*), cf. consistently monosyllabic GAv. *gąm* and *gå̊*, and, on the other hand, likewise analogically disyllabic *kṣā́m, kṣā́s*.

nom.pl. f. *maghónīḥ*: 6.65.3c at the beginning of a triṣṭubh line (vs. 4.51.3b M) is uncertain in view of the decasyllabic verse 6.65.5c.

gen.sg. m. *maghónaḥ*: 5.16.3a, 9.32.1b in the cadence of octosyllabic verses vs. 9x M.

gen.du. m. *maghónoḥ*: 5.86.3b, also in the cadence of an octosyllabic verse.

All other forms of this word with *-on-* contain monosyllabic *o* (70x). It is important that forms like the gen.sg. and acc.pl. m. *maghónaḥ*, nom.sg. f. *maghónī*, voc.sg. f. *maghoni* primarily occur at the end of the triṣṭubh lines, the above-mentioned forms with disyllabic *o* constituting an exception. Therefore, Tichy (1987: 101, fn. 30) is probably right when she assumes that this metrical treatment is due to the dual ending *-oḥ*. The phonetically regular reflex of the dual form was **̊ávanos* < **̊áu̯n̥Haus* (cf. Hoffmann 1975-6, 561, fn.2, who reconstructs this ending as **-əɪous*), and "der Ersatz von **̊ávanos* durch *˚ónos* unter Beibehaltung der Silbenzahl ermöglichte schon im R̥gveda eine entsprechende metrische Behandlung des Gen.Sg. *maghónas*, der V 16,3 und IX 32,1 ebenso wie der Gen.Du. am Schluβ eines Achtsilbers gebraucht ist".

It follows that there are no clear examples of the development **aHu* > disyllabic *o* in Vedic.[16]

PIr. **-aHu-* > monosyllabic *-au-*

This reflex is found with the augment, parallel to **a- (H)i-* > *ai-*, which we discussed above. Examples of monosyllabic *au-* are *aúkṣan*, *aúnat*, *aubhnāt*, etc. Disyllabic *au-* is only attested in *aurṇoḥ* (7.79.4d). Further, this sandhi is once applied to the prefix *ā*, *ā-usānám* yielding disyllabic *au-* in *ausānám* (10.30.9c) (Oldenberg, ad loc.).

dhautí- f. 'stream' (2.13.5b) (√*dhāv-* 'to run, flow'), which at first sight seems to show the same development, is in its vocalism dependent on the present *dhā́vati*, so that this word cannot be used for our purpose. As a matter of fact, *-ti*-derivatives in general have zero grade of the root if the root shows productive ablaut, cf. *gáti-*, *bhr̥tí-*, *śrití-*, *srutí-*, etc. Otherwise, these derivatives have adopted the vocalism of the present, cf. *kṣātí-* (*kṣā́yati*), *bhaktí-* (*bhájati*), *rātí-* (*rā́ti*), *śaktí-* (*śaknóti*), etc. As the root of the present *dhā́vati* 'to run, flow' does not show productive ablaut (the participle *dhūtá-* belongs to the verb *dhā́vati* 'to rinse, clean'), *dhautí-* has adopted the vocalism of the present. 228

Moreover, the root √*dhāv-* most probably does not contain an internal laryngeal. The roots *dhāv-* and *dhav-* (pres. *dhavate* < PIE **dʰeu(Hɪ)-*, cf. for the reconstruction Gr. θέω, OHG *tou*, OIc. *dǫgg* 'dew' < PGerm. **dowwo-* < **douHo-*) are synonymous and almost in complementary distribution, *dhav-* always being medial (3x), whereas *dhāv-* is in general active (42x).

[16] All other instances of disyllabic *o* mentioned by Arnold (1905: 100), viz. *kṣoṇī́* (1.173.7c, 10.95.9b), *kṣóda-* (6.17.12a), *stoṣam* (1.187.1a), are improbable.

The medial occurrences of the verb *dhāv-* are restricted to constructions with a locative: *dhāvate divíi* (1.105.1b and 6.48.6b), *úpa dhā́vamānam divíi* (8.3.21d). To these places Narten (1964: 153) adds two medial occurrences of *níi dhāv-* (listed by Grassmann as belonging to the root *dhāv-* 'to rinse'), which she translates as 'herniederlaufen, -rinnen auf bzw. in (Lok.)': *ny ȁdhāviṣṭa sā́navi* (9.70.8b) and *níi návyasīṣv ávarāsu dhāvate* (1.141.5d). The distribution of the vocalism and diathesis of the roots *dhāv-* and *dhav-* is parallel to that of the so-called "proterodynamic" presents (Narten 1968), cf. act. *stáuti* 'praises' vs. med. *stáve*, which indicates that the roots *dhāv-* and *dhav-* originally belonged to a single proterodynamic paradigm (act. **dʰéHuHti*, med. **dʰéuH-e*) and became thematicized before the vocalization of the laryngeals, yielding **dʰéuH-e-ti* and **dʰéuH-e-toi*, respectively. A similar solution has already been proposed by Beekes (1973: 98) for the pair *krā́mati: krámate* 'to step out'. Gotō (1987: 58), who extensively discusses these two pairs and adds **nāvati: návate* 'to scream', rejects this explanation and opts for "zwei verschiedene Stammbildungen mit verschiedener Funktion", which is definitely much less probable.

*-*aHu-* > disyllabic -*au-*

The nom.sg. *naús* 'ship' occurs only once (5.59.2b) and is disyllabic. In spite of the fact that the original paradigm of *naú-* was identical with that of *rayíi-* (nom.sg. **neH₂-u-s*, acc. **neH₂-u-m*, gen. **neH₂-u̯-os*, cf. Kuryłowicz 1927: 225), the result is different, as *naú-* has generalized the stem *nāv-* throughout the paradigm, viz. acc. *nā́vam*, gen. *nāvás*, etc., and *naú-* before consonants, cf. nom.sg. *naús*, instr.pl. *naubhíis*). The mobile accentuation is the result of the reinterpretation of this word as a root-noun. As has already been observed by Szemerényi (1956: 185f), the generalization of the stem *nāv-* probably started from the accusative, where we have *nā́vam* < **naHu-am* instead of **naum* < **naHum* (the reason for the creation of *nā́vam* being the awkward sequence of the two labial resonants in **-aum*). However, the generalization of a single vocalism throughout the whole paradigm could only take place in the post-Ṛgvedic period, when **naHu̯-* had become *nāv-*, because otherwise we would expect **no-* < **naHu-* before consonants. 229
This indicates that in the RV, where the anteconsonantal laryngeals were still extant, the paradigm was: nom.sg. **naHus*, acc. **naHu̯am*, gen. **naHu̯as*, instr.pl. **na(H)ubhis*. If the difference between disyllabic *-au-* in the nom.sg. *naús* and monosyllabic *-au-* in the instr.pl. *naubhíis* (2x in rather late hymns 1.116.3c, 8.83.3b) is significant, then we may assume that in the nom.sg. the laryngeal was restored, whereas in the instr.pl. it was not, which seems quite understandable.

The analysis of the reflexes of IIr. **-aHu-* in Sanskrit to a certain extent confirms our results concerning the reflexes of IIr. **-aHi-*: when **-aHu-* was found within the root, the laryngeal disappeared without a trace, *-aHu-* yielding monosyllabic *o* (*bodhíi*). If the laryngeal was restored, we find disyllabic vowels. There are no certain examples of disyllabic *o*, but we do find disyllabic *-au-* in *naús*.

PIIr. *-aHa-*

A detailed analysis of reflexes of the IIr. sequences **-aHa-*, **-aHn̥-* and **-aHr̥-* in Sanskrit remains a task for the future. Here I shall limit myself to a few remarks. The most important result of our investigation of the IIr. sequences **-ă̆Hi-* and *-ă̆Hu-* is the conclusion that the laryngeals were phonetically lost already in PIIr. This must *a fortiori* be valid for the sequence **-aHa-*, where the laryngeal stood between two equal vowels. In other words, any disyllabic long *ā* which reflects IIr. **-aHa-* is likely to be due to restoration of the laryngeals. The occurrences of disyllabic *ā* < **-aHa-* can be divided into the following categories (cf. Arnold 1905: 90ff):

Root-nouns in *-ā*, e.g. acc.sg. *°pā́m* = *°paH-am*, nom.pl. *°pā́s* = *°paH-as*, nom.du. *°pā́* = *°paH-ā*, cf. also acc.sg. *gnā́m* = *gnaH-am,* nom. and acc. pl. *gnā́s* = *gnaH-as*. The disyllabic *ā* in acc.sg. *pā́nthām* = *-aH-am* and nom.pl. *pā́nthās* = *-aH-as* belongs here, too. For disyllabic *ā* in acc.sg. *gā́m* and acc.pl. *gā́s* see fn. 15.

The *s*-stems *dā́s-* (in *dā́svant-* and *sudā́s-*) = *daH-as-* and *bhā́s-* = *bhaH-as-*.

Verbs in *-ā*, cf. 3pl. pres. *pā́nti* = *paH-anti*, 3pl. impv. pres. *pāntu* = *paH-antu*, nom.pl. ptc. *pā́ntas* = *paH-antas*, 3sg. subj. *pā́t* = *paH-a-t*.

For the athematic 1sg. optative ending *-ām* = *-aH-am* see above.

For the gen.pl. ending *-ām* = *-aHam* see Kortlandt 1979 and Beekes 1988: 91.

Pronouns *mā́m* = *maH-am* and *vā́m* = *vaH-am*.

Due to disyllabic scansion of *ā* < *-aHa-*, long *ā* of a different origin is also occasionally scanned as two syllables, cf. 3sg. aor. *asthāt*, *akṣār*, abl.sg. *-āt*, etc.

To the words mentioned by Arnold, we must add *somā́nam* (1.18.1a) acc.sg. ‘presser of Soma’, which counts four syllables (as already seen by Grassmann) and reflects **soma-Hān-am*, a derivative with the so-called Hoffmann’s possessive suffix. This word offers a perfect parallel to GAv. nom.sg. *mąϑrā* ‘poet, Spruchkenner’ < **mantra-Hā* with disyllabic *-ā* (Y 50.6 and 51.8, as opposed to monosyllabic *-ā-* in dat. *mąϑrānē* and gen. *mąϑrānō* < **mantra-Hn-*; cf. Hoffmann 1975-6: 378f.), but somehow escaped Hoffmann’s attention. 230

From this survey we can clearly see that in the vast majority of the occurrences of disyllabic *ā* < **-aHa-* there is a morpheme boundary between *-aH* and *a-* or between *-a* and *Ha-*. We may conclude that the root or the suffix was restored if there was a transparent morpheme boundary. The situation regarding disyllabic *ā* is thus comparable to that regarding disyllabic *e*, which we discussed above.

The same conclusion can be drawn for Gāthā-Avestan. From the material, which is conveniently presented in Beekes 1988: 90ff., it follows that *-aHa-* is always divided by a morpheme boundary: either *-aH-a-* or *-a-Ha-*. The only difference between Sanskrit and Avestan is that Av. *ā* < **-aHa-* with the restored *H* is consistently disyllabic, whereas in Sanskrit the laryngeal was lost again, as a result of which the Vedic bards used the disyllabic forms as a metrical device only.

PIIr. *-aHn̥-*

We have two pertinent cases of PIIr. **-aHn̥-* (cf. Beekes 1982a: 56f.):

GAv. *må̊* m. ‘moon’ (Y 44.3d) */ma'ah/* (the monosyllabic *å̊* in the vocative Y 51.19a *maidyōi.må̊ŋhā* may be due to the loss of laryngeals in compounds), Skt. *mā́s-* m. ‘moon, month’ (2.24.5b D[17] vs. 13x M) < PIE **meH₁ns-*;

GAv. *vātāi* dat.sg. m. ‘wind’ (Y 44.4d) */va'atāi/*, Skt. *vā́ta-* m. ‘id.’ (9x D vs. 77x M) < PIE **H₂ueH₁nto-*.

Although here, too, there is a morpheme boundary between the root in *-aH* and the suffix beginning with *n̥-*, a model for restoration of the laryngeal is lacking. Both formations were not productive in Indo-Iranian, and if **meH₁ns-* > **maHas-* would have yielded **mās-* and **H₂u̯eH₁n̥to-* > **Hu̯aHata-* would have yielded **u̯āta-* in Indo-Iranian already, the intervocalic laryngeal could hardly have been restored. We must therefore assume that the development of PIIr. **-aHn̥-* was different from that of *-aHa-*: while in the latter sequence the laryngeal was lost, 231
in the former it was retained.[18] This means that at the time of the loss of intervocalic laryngeals, *n̥* had not yet coincided with *a*. Taking into consideration that Brugmann’s Law was probably anterior to the loss of intervocalic laryngeals in Indo-Iranian (cf. the remarks on the passive aorist above), we can now exactly determine the chronological position of the latter development:

1. Brugmann’s Law;
2. Loss of intervocalic laryngeals;
3. **n̥* > *a*.

PIIr. *-aHr̥-*

I know of only one instance of the sequence PIIr. **-aHr̥-* within a word, viz. *vā́r* n. ‘water’, which has been convincingly analyzed by Watkins (1987: 402f) as an *r*-stem, PIE **ueH₁-r* (> IIr. **uaH-r*, cf. LAv. *vār-* m. ‘rain’). Five occurrences of this word in the RV are disyllabic (4.19.4b, 8.98.8a, 10.105.1b; 2.4.6b and 10.93.3b are less clear), the other seven (or

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[17] *mādbhíḥ śarádbhiḥ dúro varanta vaḥ* ‘Durch Monate und Jahre waren euch die Tore verschlossen’ (Geldner) counts eleven syllables in a *jagatī* verse, which was considered problematic (cf. Oldenberg, ad loc.). Reading *maadbhíḥ*, we arrive at a line with the caesura after the sixth syllable, which is unusual, but not exceptional in the archaic hymns (Arnold 1905: 191f.).

[18] As the relatively frequent disyllabic *ā* in *dāsá-* m. ‘enemy, barbarian, demon’ (2.20.6d, 5.33.4d, 8.46.32a D vs. 23x M), *dā́sa-* m. ‘id.’, adj. ‘demonic, barbarian’ (1.104.2c, 6.26.5c, 10.23.2d, 10.49.6b,7d D vs. 18x M), *dā́sī-* f. ‘she-demon’ (2.20.7b = 10.148.2b, 6.20.10d D vs. 6x M) can hardly be due to chance and as this *ā* cannot reflect *-aHa-* (*dāsa-* is cognate with *dásyu-* m. ‘demon, barbarian’, GAv. *dahiiu-* ‘land, district’, OP *dahyu-* ‘province’), it is tempting to reconstruct the root of *dā́sa-* / *dāsá-* as **deHn̥s-* and the root of *dásyu-* as **dHn̥s-*. Other cognates are uncertain: one may venture a connection with Gr. δῆμος m. ‘people’ < **deH₂mo-*, OIr. *dām* f. ‘company, retinue’ < **deH₂meH₂-* and suggest that the "root" of the IIr. words is **d(e)H₂m-s-*.

eight, the meaning of *vā́r* in 1.132.3c being unclear) are monosyllabic. As in the case of IIr. *-*aHn̥*-, we must assume that the loss of intervocalic laryngeals was anterior to the vocalization of the final -*r* in IIr. **uaHr* because there was no model for restoration of the laryngeal. In other words, at the time of the loss of intervocalic laryngeals the final *-*r* had not yet become *-*ar*. I see no objections to this chronology: the evidence of Skt. *dhánur* 'bow', *cátur°* 'four' vs. Av. *ϑanuuarə*, *caϑβarə°* (Hoffmann 1975-6: 330) even suggests that the vocalization of word-final -*r* was "einzelsprachlich".

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