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Length vacillation -īy-/-iy- and related phenomena in Vedic*

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The present paper deals with length vacillations, i.e. secondary shortenings and lengthenings, in a number of Vedic formations, most of which have been disregarded by Sanskritists thus far. It will be argued that these phenomena can be accounted for in terms of two general tendencies.

1. -īy-/-iy- in -ya-presents

To begin with, I will discuss the length vacillation in the stems of the -ya-presents (i.e. -yá-passives and class IV presents) of the type *CRīya-^{te}*.

1.1. The secondary shortenings: -īy- → -iy-

As is well-known, the short root vowels *i* and *u* are lengthened before the class IV present and passive suffix -ya- (cf. Pāṇ. 7.4.25), cf. *kṣi* ‘perish’ – *kṣīyate* / *kṣīyáte*, *mī* ‘fix, set up’ – pass. *mīyá-^{te}*, *śri* ‘lay on, fix on’ – pass. *-śrīyá-^{te}* etc. However, alongside the regular long vowel stems we find the short vowel variants. This vacillation is particularly frequent for the passive *-śrīya-^{te}*. The short root vowel stem *-śriya-*, only mentioned in passing by some Sanskritists (AUFRECHT, WHITNEY, LIEBICH, BÖHTLINGK, GARBE, CALAND, BLOOMFIELD & EDGERTON, GOTÖ)¹ as an (abnormal) variant of the regular *-śrīya-*, turns out to be almost as common as the regular stem *-śrīya-*. Below I give a synopsis of forms attested in the middle and late Vedic texts, i.e. in the Brāhmaṇas, Āraṇyakas and Sūtras:

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¹ *-śriyete* (AB 1.29.21) is mentioned in ed. AUFRECHT, p. 431 as abnormal. LIEBICH (1891: 23f., 27) also draws attention to this “un-Pāṇinian” form (in accordance with Pāṇ. 7.4.25 we expect **-śrīyete*) and qualifies *pari-śriyete* as “eine fast in der ganzen ind. Literatur vereinzelt stehende Anomalie”, probably representing (together with AB 4.19.2 *pra-vliyeran*, for which see below) a peculiarity of the Aitareya-Brāhmaṇa (ibid.: 27). BÖHTLINGK (1900: 414) conjectures **-śrīyete. uc-chriyamāṇa-* (ĀpŚS 9.11.26) is mentioned in ed. GARBE (B.Ind. 92, vol. III, Preface, p. viii) as “praktical shortening” and emended in CALAND’s translation (1924: 96) to **ucchrīya^o*. See also WHITNEY 1885 [Roots]: 179; BLOOMFIELD & EDGERTON 1932 [Ved. Var. II]: 257, §536; GOTÖ 1987: 314, fn. 754.

with <i>ī</i>		with <i>i</i>	
<i>adhi-śrīyamāṇa-</i>	KS ^p 6.3:52.3 GB 1.3.12:78.13 HirŚS 15.2.7	<i>adhi-śrīyeta</i>	KaṭhĀ ^p 3.233:94.24-25
<i>uc-chrīyate</i>	ŚB 3.7.2.8	<i>adhi-śrīyamāṇa-</i>	VaikhŚS 20.11:305.7 APrāyaś. 4.3
<i>uc-chrīyamāṇa-</i>	ŚB 3.7.1.13 AB 2.2.6 DrāhyŚS 2.4.1, 3 ~ LāṭyŚS 1.8.1, 3 ŚŚS 5.15.3 KauśS 43.8 VaitS 10.8	<i>uc-chriyante</i>	BaudhGS 3.5.7
<i>pāri śrīyasva</i>	VS 37.13 (= ŚB 14.1.3.26 = 27)	<i>uc-chriyamāṇa-</i>	ĀpŚS 9.11.26 VaikhŚS 20.24:312.17
<i>pāri-śrīyamāṇa-</i>	ŚŚS 5.13.7	<i>pāri-śrīyete</i>	AB 1.29.21

both variants (*ī*)

<i>adhi-śrīyamāṇa-</i>	GB 1.3.11:77.5 (<i>adhi-śrīyamāṇa-</i> , v.l. °śrīya°) ĀpŚS 9.5.8 (ed. GARBE <i>adhi-śrīyamāṇa-</i> , ed. ŚĀSTRĪ <i>adhi-śrīyamāṇa-</i> in the text, <i>adhi-śrīyamāṇa-</i> in the comm.)
<i>uc-chrīyate</i>	JB 3.62:13 (<i>ucchriyate</i> , v.l. <i>uśchrīyate</i>)
<i>uc-chrīyamāṇa-</i>	KB 10.2 (ed. ĀnSS, ed. SARMA [10.3.2] <i>ucchrīyamāṇa-</i> , ed. SARMA (v.l.) °chraya°, ed. LINDNER °chriya°) MānŚS 2.2.3.14 (°chrīya°, v.l. °chriya°, °chaya°) ĀśGS 2.8.16 (ed. STENZLER, ed. SASTRI [2.8.19] <i>ucchrīyamāṇa-</i> , ed. VIDYĀRATNA/VEDĀNTĀVĀGĪSA, ed. ĀnSS, ed. SHARMA, ed. AITHAL °chriya°)

In my view, the evidence for the short root vowel variant is too strong (almost half of the total amount of occurrences – at least in variant readings) to explain away forms with the short vowel as mere scribal errors. Obviously, we are confronted with the inadequacy of grammatical prescriptions (resp. descriptions) with regard to the linguistic evidence.

The stem *-śriya-* might be accounted for as emerging under the influence of the *-ya-* presents built on *Cṛ* roots, such as *mriyá-^{le}* ‘die’, *hriyá-^{le}* ‘be brought’, etc.² Given the phonological similarity of the *-ya-* stems built on *Crī* and *Cṛ* roots (*Crīya-* / *Criya-*), one might expect that these two morphological types would mutually influence each other and could be partly confused. Thus, we find the irregular *Crīya-* stems built on *Cṛ* roots (e.g. *dhriyate* and *hriyate* from *dhṛ* and *hṛ*; for details, see below, Section 1.2), particularly, from the late Vedic period onwards. In other words, forms derived from the stem *-śriya-* could be regarded as built on the secondary root variant *śṛ*. There are indeed some rare forms which can only be derived from *śṛ*,³ but they are clearly late and isolated.

Besides the stem *-śriyá-*, the length vacillation occurs in two more stems with similar phonological structures (*Crīya-*), namely in AB 4.19.2 *pra-vliyeran* (*√vli* ‘collapse’)⁴ and in the present *prīya-^{le}* (*√prī* ‘please’) – mostly in imperative forms *priyatām* and *priyantām* ‘let him/them be pleased’, attested in a few late mantras⁵ (alongside the expected *prīyatām* and *prīyantām*).⁶ Obviously, the short root vowel in *-vliyeran* cannot be (directly) explained by the influence of the type *mriyáte* / *hriyáte*. Furthermore, assuming that the shortening of *ī* in *Crīya-* (and lengthening of *i* in *mriyáte* / *hriyáte*) is merely due to the confusion of these two morphological types, one might expect a random character for the length vacillation. This is not the case, however. As it turns out, there are two conditions which are relevant for the vowel length:

(i) We find short vowel variants **before the long suffix vowel**. In particular, two of the forms built on the stem *-śriya-* have the vowel *e* in the suffix (*adhi-śriyeta* KāthĀ,

² For this morphological type and its genesis, see KULIKOV 1997.

³ Cf. the absolutive *adhiśṛtya* (instead of the correct **adhiśṛitya*) in KauS 2.31 *vilīnapūtām ājyam gṛhītvādhiśṛtya* ... ‘having taken some melted clarified butter [and then] having put it [on the fire] ...’; part.pf.pass. *ucchṛta-* attested in VaitS 10.10 as a variant reading (in one ms.; another ms. [C] has the correct reading *ucchrita-*; see ed. GARBE, crit.app., p. 64).

⁴ The form is mentioned by WHITNEY (1885 [Roots]: 168) and LIEBICH (1891: 27).

⁵ In particular, in the following mantras:

(ŚGS 4.4.12 = BaudhGS 1.1.24 = BhārGS 3.16:85.5 = VaikhGS 6.2:90.21-91.1 ~ VaikhŚS 1.4:5.13-14 ~ JGS 1.6:6.18 ~ ĀgnivGS 2.3.2:56.9)

nāndūmukhāḥ pitarāḥ prīyantām

‘Let the fathers, with joyful faces [a particular class of ancestors], be pleased’ (the short vowel variant is attested in four Taittirīya Sūtras: VaikhŚS, VaikhGS, BaudhGS, BhārGS);

(VaikhGS 1.6:7.16 ~ ĀgnivGS 2.3.4:58.1)

prajāpatiḥ prīyatām

‘Let Prajāpati be pleased’

(as in the preceding example, the long vowel variant is attested in the ĀgnivGS, in contrast to other Sūtras of the Taittirīya school – an editorial conjecture of the non-critical edition by RAVI VARMA?);

(MānŚS 11.9.2.5)

priyantām pitarāḥ; priyantām pitāmahāḥ; priyantām prapitāmahāḥ

‘Let the fathers be pleased; let the grandfathers be pleased; let the great-grandfathers be pleased’

(the mss. have short vowels in all the three occurrences, which ed. VAN GELDER emends to **prīy^o*).

⁶ In addition, one might mention BaudhŚS 23.8:161.16 (mss.) *abhyunniran*, *abhyupanīra^o* (*√nī* ‘lead’), which may represent **abhyunniyeran* or **abhyupaniyeran*; ed. CALAND reads **abhyunniyeran*.

pari-śriyete AB); the only attestation of the stem variant *-vliya-* (*pra-vliyeran* AB) displays the same feature. On the other hand, we find not a single form with following *e* or *ā* among the occurrences of the regular long vowel stem *-śrīyā-*.

(ii) All the short root vowel forms (except for the late *priyantām*) are **compounds** with preverbs. While the passive *-śriyā-*^{1e} does not occur without preverbs (at least in Vedic prose; see KULIKOV 2001: 202ff.), the present *vliya-*^{1e}, well-attested as a simplex in Vedic prose, never displays the short vowel variant *in simplicia*.

1.2. The secondary lengthenings: *-iy-* → *-īy-*

Indirect evidence for the significance of these two parameters is furnished by the cases of the secondary lengthening in the *-ya-*stems built on *Cṛ* roots, such as *kṛ* ‘make’, *dhṛ* ‘stay’, *bhṛ* ‘carry’, *vṛ*₁ (*vṛ*) ‘choose’, *hṛ* ‘bring’. Below I give a list of such forms (which by no means claims to be exhaustive):

<i>kṛ</i>	<i>krīyamāṇa-</i>	AVP 19.3.1 (Kashm.)
<i>dhṛ</i>	<i>dhṛīyate</i>	GB 1.1.2:2.6 (v.l. [mss. A, B])
[<i>bhṛ</i>]	<i>dhṛīyamāṇa-</i>	GB 1.2.20:56.3 (v.l., also <i>dhṛiyamāṇa-</i> ; recte <i>bhṛiyamāṇa-</i>)
<i>bhṛ</i>	<i>bhṛīyamāṇa-</i>	AVP 4.14.7 (Kashm., Or., v.l. [ms. Vā.]) (ed. BHATTACHARYA <i>bhṛiyamāṇa-</i>)
<i>vṛ</i> (<i>vṛ</i>)	<i>pra-vṛīyamāṇe</i>	GB 1.5.21:134.4 (v.l.), BaudhŚS 3.18:89.14 (v.l. [ms. B])
<i>hṛ</i>	<i>hrīyāmāṇa-</i>	AVŚ 12.5.29 (v.l.; other v.l. <i>hṛy^o</i> , <i>hiy^o</i>)
	<i>hrīyamāṇa-</i>	KB 9.5, ed. ĀnSS, ed. BHATTACHARYA (ed. LINDNER, ed. SARMA [9.5.17] <i>hṛiya^o</i>); GB 1.2.9:41.13 (all mss. in ed. GAASTRA; ed. MITRA [1.2.8] also v.l. <i>hīya^o</i>), 1.3.11:77.5 (v.l.), 1.3.11:77.11 (v.l.), 1.3.12:78.13 (v.l.), 1.3.12:79.4 (v.l.) [consistently in mss. A. and E.]; KauśS 71.12; DrāhyŚS 14.3.15 (<i>hṛiyamāṇāyām</i> , v.l. <i>saṃhṛīya^o</i> , <i>saṃbhṛīya^o</i>), 15.1.13 (v.l.)
	<i>hrīyamāṇa-</i> , <i>abhi-hṛīy^o</i>	APrāyaśc. 3.2 (v.l.)
	<i>ā-hṛīyamāṇa-</i>	MānŚS 7.2.7.21, JŚS 1.24.14 [ed. GAASTRA 23:30.4] (v.l. [ms. B2]) ⁷
	<i>ud-dhṛīyāmāṇa-</i>	AVŚ 12.5.34 (v.l.)
	<i>ud-dhṛīyamāṇa-</i>	JŚS 1.23.7 [ed. GAASTRA 22:28.5] (v.l. [mss. B2, B3, Ba])
	<i>udhṛīyamāṇa-</i>	BhārŚS 6.7.6 ^{2x} (v.l., also <i>udhṛiyamāṇa-</i> , recte <i>ud-dhṛiyamāṇa-</i>)

⁷ I would like to take this opportunity to thank A. PARPOLA for providing me with a preliminary version of his edition of JŚS (vol. I).

<i>upa-hrīyamāṇa-</i>	AVŚ 12.5.35 (v.l.; also <i>hiy^o</i>)
<i>pari-hrīyamāṇa-</i>	VaitS 16.1 (in all mss., ed. GARBE emends to ^o <i>hriy^o</i>)
<i>prati-hrīyamāṇa-</i>	JŚS 1.18.25 [ed. GAASTRA 17:22.3] (v.l. [ms. B2] ⁸)

Most importantly, in contrast to the forms with the secondary short root vowel, the above list contains a number of simplex forms and no form with a long suffix vowel (*e*, *ā*).

Even more instructive is the ‘negative’ evidence provided by the GB: some mss. (above all, A and B in ed. GAASTRA’s critical apparatus) consistently substitute *ī* for *i* in *hriya-* and *dhriya-* (see above), but all mss. unanimously read *dhriyeta* (not ***dhriyeta*) at 1.1.34:27.9.

To sum up, there are two independent parameters which preclude the lengthening of the root vowel *i* before the suffix *-ya-*: the vowel length of the following syllable and the presence of a preverb. It turns out that the scope of these two conditions is not limited to the *-ya-* presents. Below I will discuss further evidence for these phenomena.

2. Shortening after preverbs / lengthening in the simplex before *-y-*

While the influence of the length of the following vowel has never been noticed by grammarians, the shortening of the root vowel after preverbs before some suffixes beginning with *-y-* (in particular, in *-yá-* passives, absolutives, precatives) is prescribed by Pāṇini (7.4.23–24) for two roots with vocalic anlaut; see WACKERNAGEL/DEBRUNNER 1896 [AiG I]: 92; DEBRUNNER 1957 [Nachtr. zu AiG I]: 54; RENOU 1930: 70, §63e; NARTEN 1982: 131 [= *Kl. Schr.* 1, 257]. Pāṇini’s sūtra 7.4.23 requires the shortening of the long *ū* in some derivatives of the root *ūh* ‘shift, transpone’ (attested, for instance, in the passive *vy-uhyá-*⁹ MS, ŚB).⁹ The next sūtra precludes the lengthening of *i* in the root present optatives of *i* ‘go’ (prescribed by Pāṇ. 7.4.25 for the simplex: *īyāt* etc.). The actual state of affairs is somewhat more complicated, however: we find indeed only the short vowel after preverbs¹⁰ in Vedic texts¹¹ but both variants in the simplex (3pl. *īyūr* / *-iyūr* etc.).¹²

⁸ Apud ed. PARPOLA, not recorded in ed. GAASTRA.

⁹ For this passive and its confusion with the passive of the etymologically related root *vah* ‘carry’ in late texts, see KULIKOV 2001: 181ff.

¹⁰ Cf. even the irregular short *i* in *pariyā[t]* in mss. (against the sandhi *-i + i- → ī*), recorded by CALAND (1904: 200 [= *Kl. Schr.*, 161], with fn. 6), for which he emends ^o*pariyā[t]*.

¹¹ But cf. *-īyāt* (built on the secondary root *ī*; see OBERLIES 2003: 139, 208f., 392f.) in the Mbh. I would like to thank Th. OBERLIES for having drawn my attention to this Epic form.

¹² See RENOU 1930: 65 and his 1960’s Addenda ad loc.; DEBRUNNER 1957 [Nachtr. zu AiG I]: 28 (with bibl.); for the full evidence, see GOTŌ 1990: 994f., with fn. 35.

Incidentally, this rule might also explain the fact that *-śrīyá-*^{1e} is more frequently attested with the short root vowel than other *-ya*-presents of the same structure (*C(R)īyá-*): as said above, this passive is employed only with preverbs, so that there may have been a weak tendency to generalize the short root vowel irrespectively of the length of the suffix vowel.

3. *-iy-/-īy-* vacillation in nominal stems

3.1. Derivatives of *pī₂* (*pīy*)

The tendency outlined above (*-iy-* before long vowels, *-īy-* before short vowels) nicely accounts for the vowel length in the four nominal derivatives of the root *pī₂* (*pīy*) ‘blame, scorn’ (pres. *pīyá-*^{1f}), which otherwise can hardly be explained:

pīyú- ‘scornful’ RV 1.174.8 = 2.19.7 (also in *deva-pīyú-* AV, VS, ŚB);

pīyaka- id. AV 16.6.8;

pīyatnú- id. RV 8.2.15;¹³

pīyāru- id. RV, AV.¹⁴

3.2. Nominal stems in °*CRīya-*

There is a class of nominal (adjectival) stems where the *ī/i*-vacillation is particularly common and, at first glance, totally random. These are a few stems with the suffix *-īya-* (*-ya-*),¹⁵ most of which are listed and briefly discussed by WACKERNAGEL/DEBRUNNER (1954 [AiG II/2]: 441f., §268d); according to WACKERNAGEL/DEBRUNNER, the long vowel variants are recent and secondary:

āgrīya- / *āgrīya-* ‘chief, foremost’;

aponaptriya- / *aponaptrīya-* and *apāṇnaptriya-* / *apāṇnaptrīya-* ‘relating to the grandson of the waters (= Agni)’;

āśviya- / *aśvīya-* ‘relating to horses’ (cf. also RV 4.17.11 *aśviyā* (neutr.pl.) ‘troops of horses’);

pātriya- / *pātrīya-* ‘relating to / suitable for a (sacrificial) vessel’, also in *yajñapātrīya-*;

¹³ DEBRUNNER (1954 [AiG II/2]: 170, §73), and subsequently HOFFMANN (1957 [= *Aufs.* 2, 411]), consider *pīyatnú-* as a *-nú-* derivative based on the participle *pīyat-* (“nach dem Muster von *kṛ-t-nú-* ‘tätig’”).

¹⁴ See DEBRUNNER 1954 [AiG II/2]: 288, §177a.

¹⁵ Along with the short and long vowel variants, some of these stems are also attested with the monosyllabic variant of the suffix, i.e. *-ya-* (*-yā-*): *stotrya-* etc. For the (partly related) problems of the representation of the early Vedic group *Cuv* (*Ciy*) in later texts and the middle/late Vedic anaptyxis of the type *sathya* → *sathīya*, see, in particular, WITZEL 1989: 173ff.

putriya- / *putrīya-* ‘relating to a son’, also in *aputriya-* ‘relating to the absence of sons’;

mahendriya- / *mahendrīya-* ‘relating / belonging to the great Indra’;

yajñiya- / *yajñīya-* ‘worthy of sacrifice’, also in *yajñāyajñīya-* / *yajñāyājñīya-*, the name of the last laud (stotra) of the evening Soma pressing, *ayajñīyá-* ‘not fit for sacrifice, profane’;

rāṣṭriya- / *rāṣṭrīya-* ‘relating to a kingdom’, also in *anyarāṣṭrīya-* ‘belonging to another kingdom’;

rudriya- / *rudrīya-* (in *śatarudriya-* / *śatarudrīya-*, a particular oblation to Rudra and the corresponding litany, lit. ‘relating to hundred Rudras’);

sat(t)riya- / *sat(t)rīya-* ‘relating to the sattra sacrifice’;

sahasriya- / *sahasrīya-* ‘(giving) thousandfold’;

stotriya- / *stotrīya-* ‘relating to a stotra’; *stotrīyā-* (fem.), a stotra verse, also in *astotrīya-* ‘not having stotra verse’, *asvastotrīya-* ‘not having its own stotra verse’, *ukthyastotrīya-* ‘the verse of the uktha-stotra’, *pr̥ṣṭhastotrīya-* (var. *pr̥ṣṭhya-*) ‘relating to pr̥ṣṭhastotra (a particular form of singing in the Soma ritual)’;

hotriya- / *hotrīya-* (in *cāturhotrīya-* ‘attended by four chief priests’).

First let it be noted that in all of these stems the length vacillation occurs in the same phonological context as in the passive *-śrīyá-*, i.e. after a consonant + sonant (mostly *r*) before *-y[a]-* – which can hardly be accidental.

Apparently, in most cases, the paradigmatic pressure has levelled the vowel length, so that we find no traces of the vacillation within one text. Thus, for instance, the Brāhmaṇas and Sūtras of the Ṛgveda (AB, KB, ĀśŚS, ŚŚS, ŚGS) and Atharvaveda (GB, VaitS), as well as the texts of the White Yajurveda (VS, ŚB, KātyŚS) have generalized *stotriya-*. On the contrary, the texts of the Taittirīya school (TS, TB, ĀpŚS, BaudhŚS, VaikhŚS) and the PB (with the corresponding Śrauta-Sūtras: LāṭyŚS and DrāhyŚS) attest the long vowel stem *stotrīya-*. Of the two closely related Śrauta-Sūtras of the Sāmaveda, Lāṭyāyana and Drāhyāyana, the former has *yajñiya-* and *ayajñiya-* (e.g. at 2.6.1, 3.12.2, 4.11.6), while the latter has introduced the long vowel: *yajñīya-* and *ayajñīya-* (5.2.1, 10.4.2, 12.3.3 etc.; *ayajñīya-* also occurs in DrāhyGS 1.1.25); see RENOU 1947: 104. For the sake of convenience, I summarize the distribution of the attested variants in Vedic texts / schools in the below table:

stems	-īy-	-īy-	-īy-
<i>āgrīya-</i>	TS ^m 4.5.5.2; TB, PB, ŚB; ĀśŚS, BaudhŚS, BaudhGS, VaikhŚS, KauśS		MS ^m 2.9.5:124.13 ¹⁶ , 2.7.13:94.18 ¹⁷ ; Pāṇ. 4.4.117
<i>aponaptrīya-</i>	JB; KātyŚS, ŚŚS	TS, MS; AB, PB; ĀśŚS, ĀpŚS, BaudhŚS, MānŚS, DrāhyŚS, LātyŚS, VaitS	KB 12.3 [ed. SARMA 12.4.16] ¹⁸ ; Pāṇ. 4.2.27-28
<i>apāṇnaptrīya-</i>		KS	Pāṇ. 4.2.27-28
<i>aśvīya-</i>	TS 2.2.12.8	Pāṇ. 4.2.48	
<i>pātrīya-</i>	TS; Pāṇ. 5.1.68		MS ¹⁹ ; ŚB ²⁰
<i>putrīya-</i>	VādhS, KāthGS, ŚGS	Pāṇ. 5.1.40 ²¹	SVB 2.8.1 ²²
<i>mahendrīya-</i>		KS, KpS	Pāṇ. 4.2.29 ²³
<i>yajñīya-</i>	RV, TS, MS ²⁴ , KS; most Br. and Sū.	DrāhyŚS, DrāhyGS ²⁵	KpS ²⁶ ; JB
<i>yajñāyajñīya-</i>	MS ²⁷ , KpS; ŚB, TB; Taittirīya ŚrSū.: ĀpŚS, HirŚS, VaikhŚS; KātyŚS, KauśGS	KS; AB, PB, JB, AĀ, SVB; ChU ²⁸ ; ĀśŚS, LātyŚS, DrāhyŚS, KāthGS	KB ²⁹ ; ŚŚS ³⁰ ; BaudhŚS 10.15:14.17 ³¹ ; MānŚS 1.5.4.15 ³²
<i>rāṣṭrīya-</i>	Pāṇ. 4.2.93	ŚB ³³ , MānŚS 5.1.7.48	MS ³⁴ , KS ³⁵

¹⁶ MS^m *āgrīyāya* (Pp. *āgrīyāya*) ~ TS^m 4.5.5.2 *āgrīyāya* ~ VS 16.30 *āgrayāya*.

¹⁷ *āgrīyam*, v.l. °īyam, °īyam.

¹⁸ Ed. LINDNER, ed. ĀnSS *aponaptrīyasya*, ed. SARMA °īyasya.

¹⁹ MS 3.8.5:101.14 *pātrīyah*; 4.5.5:70.12 *pātrīyah*, v.l. °īyah; 4.5.9:77.16 *yajñapātrīyah*.

²⁰ ŚBM 2.2.4.10 *yajñapātrīyo* ~ ŚBK 1.2.4.7 °trīya- (thus ed. SWAMINATHAN), v.l. °tryā- (thus in ed. CALAND); see ed. CALAND, Preface, p. 50.

²¹ Also *putrya-*.

²² Ed. BURNELL *putrīyāṇām*, ed. SHARMA and comm. °iyāṇām.

²³ Also *māhendra-*.

²⁴ But MS 1.6.4:93.2 [*a*]yajñīyó, v.l. °īyo, °īyo [ms. M2].

²⁵ DrāhyGS 1.1.25 *ayajñīyam*.

²⁶ The °īy-stem occurs from Chapter 39 onwards; see below.

²⁷ But MS 1.6.7:98.10 *yajñāyajñīyam*, v.l. °īyam [ms. M2].

²⁸ ChU 2.19.1, 2 *yajñāyajñīyam*.

²⁹ KB 16.7, ed. LINDNER, ed. ĀnSS *yajñāyajñīyasya*, ed. SARMA [16.7.21] °īyasya.

³⁰ Variant readings in mss. (ed. HILLEBRANDT consistently -īy-), e.g. in °6.3.8, 8.6.1 *yajñāyajñīyam*, v.l. °īyam; 8.6.5 *yajñāyajñīyasya*, v.l. °īyasya; etc.; see ed. HILLEBRANDT, crit.app., p. 251, 254 etc.

³¹ *yajñāyajñīyam*, v.l. °īyam.

³² *yajñāyajñīyena* (thus in ed.), v.l. °īyena.

³³ ŚBM 5.3.4.9 ~ ŚBK 7.2.2.7 *anyarāṣṭrīyo*.

³⁴ MS 3.3.7:40.7 *rāṣṭrīyam*; 2.1.12:13.18, 14.4 *rāṣṭrīyah*.

³⁵ KS 37.11:91.16 *rāṣṭrīyah*, v.l. °īyah; 37.11:92.5 *rāṣṭrīyah*.

stems	-īy-	-īy-	-īy-
<i>°rudrīya-</i>	YV except Taittirīya: ³⁶ MS, KS, KpS, VS; ŚB, Kāth-Samk.; MānŚS, VārŚS, KātyŚS, BaudhPS, VāsDhS	Taittirīya: TS; ĀpŚS, BaudhŚS, VaikhŚS, HirŚS	TB; ViṣṇuSmṛ. 56.21 ³⁷ , KaivalyaU 2.5 ³⁸ , Vārttika 2 on Pān. 4.2.28
<i>sattrīya-</i>	KS, KpS; AB, TB, TĀ, PB, JB; BaudhŚS, ĀgnivGS ³⁹	ĀpŚS 14.7.22 = HirŚS 9.8.46 ⁴⁰	
<i>sahasrīya-</i>	RV, AVP 1.39.24 ⁴¹ , TS, KS, KpS, VS; TB, ŚB; Pān. 4.4.135		MS ^m 42
<i>stotrīya-</i>	RV school: AB, KB; ĀśŚS, ŚŚS, ŚGS; AV school: GB, VaitS; White YV: VS, ŚB, KātyŚS	Taittirīya: TS, TB; ĀpŚS, BaudhŚS, VaikhŚS; PB ⁴³ ; LātyŚS, DrāhyŚS, NidānaS ⁴⁴	JB
<i>°hotrīya-</i>	TĀ 1.22.1 = 1.26.2	ĀgnivGS, BaudhGS	

Apparently, the treatment of the sequence *-CRīy-* is not quite consistent for some texts of the first two groups (*-īy-*, *-īy-*). Thus, the MS (together with the corresponding Śrauta-Sūtra, MānŚS) usually has the long suffix vowel in *āgrīya-*, *aponaptrīya-*, *rāṣṭrīya-* and *sahasrīya-*, while the Taittirīya school has *āgrīya-* and *sahasrīya-*⁴⁵ (but *aponaptrīya-*). However, for *°rudrīya-* the distribution is the opposite (MS *°rudrīya-*, TS *°rudrīya-*), and in *stotrīya-* the Taittirīya school has generalized the long vowel as well. Some texts of the third group (*-īy-*) indiscriminately use two or even three variants, sometimes with variant readings in the different manuscripts; for instance, the JB has *stotriyā-*, *stotryā-* and *stotriyā-*.⁴⁶ The MS almost exclusively has the short vowel in (*a*)*yajñīya-* and *yajñāyajñīya-*, but one of the mss., SCHROEDER's M2, which reaches only up to Chapter

³⁶ But BaudhPS *-īy-*.

³⁷ *°rudrīyam* in both eds. (ed. JOLLY, ed. KRISHNAMACHARYA), v.l. (in ed. KRISHNAMACHARYA) *°rudrīyam*.

³⁸ Ed. "108 Up." *-īy-*, ed. ĀnSS 29 ("32 Up.") *-īy-*, v.l. *-īy-*.

³⁹ Both the geminate (*sattrīya-*) and non-geminate (*satriya-*) variants are well-attested. The distribution is roughly as follows: *-ttri-* occurs in the KS and KpS; *-tri-* appears in the AB, TB, TĀ, PB, JB; BaudhŚS 10.25:24.8 has *sattrīyo*, with v.l. *satriyo*.

⁴⁰ ĀpŚS *sattrīy[ā]* = HirŚS *sattrīy[ā]*.

⁴¹ Or. mss. *sahasrya-*.

⁴² MS^m 2.12.4:147.13 *sahasrīyo*, v.l. *°īyo* (thus also Pp.) ~ TS^m 4.7.13.4, KS^m 18.18:278.14, KpS^m 29.6:134.4, VS 15.52 *sahasrīyo*.

⁴³ But with the short root vowel in *stotriyānurūpa-* (see below).

⁴⁴ In *ukthyastotriya-*.

⁴⁵ See BLOOMFIELD & EDGERTON 1932 [Ved. Var. II]: 258, §541.

⁴⁶ Cf. e.g. JB 2.11:9 *stotriyā*, v.l. *stotriyyā*, *stotryā*, 2.238:6 *stotryās*, v.l. *stotriyās*, 2.300:4 *stotriyāḥ*, v.l. *stotriyā*, 2.321:4 *stotryāḥ*, v.l. *stotriyā*.

1.8.9, clearly prefers $\bar{i}y$ -, as noticed already by SCHROEDER in his edition (vol. I, Einleitung, p. xxv). In the KpS both $(a)yajñīya$ - and $(a)yajñīya$ - are well-attested, but the distribution of the variants in the text is not totally random. The short vowel variant occurs in the first half of the text: 1.16:12.14, 6.5:63.7 ($^{\circ}iyā$), 1.17:13.7 ($^{\circ}iyā^{\circ}$), 7.5:76.2 ($^{\circ}iyās$), 28.1:121.2^{2x} ($^{\circ}iyā[h]$, $^{\circ}iyānām$). From Chapter 39 onwards, the long vowel variant becomes more frequent⁴⁷ – which may point to the work of a different copyist (cf. also the irregular 3pl. ending $-uṃs$ (instead of $-an$) before t -, which appears in sections 37.8-44.9; see ed. RAGHU VIRA, Introduction, p. 5f.). The \bar{i} -variant is consistently employed in Chapters 39 and 40 (and sporadically appears in some other Chapters: 39.1:213.2, 39.3:214.18 and 39.4:215.23 $ayajñīyam$, 39.2:213.8 $yajñīyam$, 39.4:216.12 $yajñīyaḥ$, 39.4:216.13 $yajñīyas$, 40.1:220.1, 40.2:223.11, 47.6:289.5 $yajñīye$); the $-iy$ -variant re-appears from Chapter 41 onwards (41.6:242.11 $yajñīyo$, 41.6:242.15, 47.9:293.2 $yajñīyam$, 47.8:291.21 $ayajñīyām$, 47.8:292.15 $yajñīyām$).

There are, however, a few cases – which are of particular interest for our discussion – where we are probably confronted with a non-random distribution of the variants:

(i) The stem $yajñīya$ - occurs in ed. RAGHU VIRA/LOKESH CHANDRA with both short and, more rarely, long vowels, cf. JB 2.63:2 $yajñīyam$ ~ JB 2.245:5 $yājñīyam$, ^m3.38:12 $yajñīyam$ (thus in ed.). In general, the text seems to have generalized the variant $yājñīya$ -, whilst $yājñīya$ - is found only in bad mss. (G. EHLERS, p.c.).⁴⁸ Yet, taking the full mss. evidence into account, we can formulate the following (weak) regularity with respect to the distribution of i and \bar{i} : we find i before long vowels, whereas both i and \bar{i} may appear before short vowels. The full evidence is given below:

<i>i</i> before long vowels			<i>i</i> (\bar{i}) before short vowels		
<i>yajñīyā</i>	JB	1.245:6 = 1.246:5	<i>yajñīyam</i>	2.63:2 (thus mss., ed. $^{\circ}r^{\circ}$)	
		1.246:8	<i>yajñīyam</i>	2.245:5 (ed. $^{\circ}r^{\circ}$)	
<i>yajñīyām</i>	JB	1.256:1		2.401:5-6 ($^{\circ}r^{\circ}$ in ms. Ka; ed. $^{\circ}r^{\circ}$)	
				^m 3.38:12 ($^{\circ}r^{\circ}$ in mss. Ka, Ga = Bur; other mss. $^{\circ}r^{\circ}$) ⁴⁹	
			<i>yajñīyasya</i>	1.164:9 = 3.301:8	
			<i>yajñīyasya</i>	3.301:8 (ed. $^{\circ}r^{\circ}$)	
				3.303:15 ($^{\circ}r^{\circ}$ in ms. Bur and ed.)	

⁴⁷ Ed. RAGHU VIRA emends everywhere to $^{\circ}iy$ -.

⁴⁸ I would like to take this opportunity to thank G. EHLERS for providing me with a preliminary version of A. MURAKAWA's edition of the Gavāmayana-Section of the JB (2.1-50, 2.371-442) and for discussing with me the JB evidence.

⁴⁹ This occurrence appears in the repetition of RV 1.6.4c = SV 2.201c [= 2.2.2.7.2c] *dādhanā nāma yajñīyam* 'having made for themselves a name worthy of sacrifice'.

(ii) More scant is the evidence in the case of the three attestations of the compound *śatarudrīya-* in the TB. The distribution of the short and long vowel variants follows our rule: *śatarudrīyāṇām* (3.6.11.2), *śatarudrīyam* (3.11.10.3), *śatarudrīyasya* (3.11.9.1). However, while *śatarudrīya-* (3.11.10.3, 3.11.9.1) exhibits the standard meaning of this ritual term (a particular oblation to Rudra and the corresponding litany), the context of the only attestation of the -iy-stem (*ghāstām nūnām ... śatarudrīyāṇām*) is obscure. DUMONT (1962: 259) hesitatingly translates the passage as ‘Let them both now eat of these [offerings] ... as strong as one hundred Rudras’ (with a question mark, cf. also fn. 61); in any case, in the TB, the meaning of *śatarudrīyā-* seems to be different from that of *śatarudrīya-*. It cannot be ruled out that the redactors of this text distinguished the two meanings of this word depending on the suffix vowel length.

(iii) The PB has generalized the long vowel in *stotrīya-* (cf. 14.1.7 *stotrīyaḥ*, 5.6.4 *stotrīyā* (4x) etc.), probably on the model of the forms with the short vowel after -īy-. However, in the compound *stotriyānurūpa-*, a technical term denoting a particular verse and the corresponding reply (PB 11.6.6 etc.), where *iy* is always followed by a long vowel, the short *i* could be due to the long vowel of the next syllable.

4. Some related phenomena in -ya-presents before long suffix vowels

Below I will briefly discuss a few irregularities attested in the stems of the -ya-presents which do not belong to the type *CRīya-* but seem to have also been triggered by the length of the suffix vowel.

4.1. Irregular duals and subjunctives; indicatives for subjunctives

4.1.1. *tujete* for **tujyete* (RV)

Alongside two occurrences of the passive *tujyá-*¹⁰ ‘be terrified, put to panic flight [by Indra]’ (both in maṇḍala I of the RV), we find in precisely the same usage (see RENOU 1958: 64f.; KULIKOV 2001: 82) the dual form *tujete*, cf. (1):

(1) (RV 1.61.14ab)

asyéd u bhiyá giráyaś ca dṛlḥá ' dyāvā ca bhūmā janúṣas tujete

‘Because of the fear of his (sc. Indra’s) birth, both firm mountains and heaven and earth are set to panic motion.’

From the formal point of view, this form could only be a class VI present. However, the passive usage is extremely unusual for class VI presents and, furthermore, the present *tujá-*¹¹ is unattested with middle inflexion elsewhere. In my view, the form *tujete* can be explained phonologically, as a replacement of the original **tujyete*. The loss of *y* (and thus the lightening of the root syllable) before *e* may betray the same tendency, i.e. to “lighten” the root syllable before long vowels.

4.1.2. -śīṣātai for *-śīṣyātai (AV)

The same explanation is appropriate for the abnormal subjunctive *ucchīṣātai* in

(2):

(2) (AVŚ 2.31.3cd)

śīṣṭān āśīṣṭān nī tirāmi vācā ' yāthā krīmīṇāṃ nākir ucchīṣātai

‘Those [worms], left [or] not left [i.e. remaining – L.K.], I draw down by my spell, that no one of the worms be left.’ (WHITNEY)

The form *śīṣātai* is morphologically impossible, since neither class VI presents nor thematic aorists are derived from this root (note also the impossible root accentuation); besides, middle subjunctives of thematic aorists are practically unknown in Vedic. In accordance with the intransitive syntax of the pāda, one might expect a -ya-present; WHITNEY (1905: I, 74) conjectured **ucchīṣyātai*.⁵⁰ Again, the loss of *y* may be due to the long suffix vowel.

4.1.3. Irregular forms in Vedic prose

Forms with the secondary loss of *y* before the long suffix vowel in the subjunctive are found in the KS and KpS, too. Most instructive is the following YVic passage, to which SCHROEDER (1896: 6) has drawn attention:

(3) (KS 27.3:141.20-142.1, 4-5 = KpS 42.3:250.5-6, 10-11 ~ TS 6.4.7.1-2)

vāryaṃ vṛṇai madagrā eva grahā $\left\{ \begin{array}{l} \text{[TS] } gṛhyāntā \\ \text{[KS] } \mathbf{gṛhāntā} \\ \text{[KpS] } gṛhyantā \end{array} \right\} iti.$

tasmād vāyvagrā grahā gṛhyante <...>

vāryaṃ vṛṇai maddevatyāny eva pātrāṇy $\left\{ \begin{array}{l} \text{[TS] } ucyāntā \\ \text{[KS] } \mathbf{ucyantā} \\ \text{[KpS] } \mathbf{ucyantā}^{51} \end{array} \right\} iti$

‘“I will choose the wealth; verily, [your] cups will be drawn starting with mine”. Therefore the cups are drawn starting with those for Vāyu. <...> “I will choose the wealth; verily, [your] cups will be called having me as their deity”.’

The forms shown in the bold case (*gṛhāntā*, *gṛhyantā*, *ucyantā*) are ungrammatical; SCHROEDER emends to **gṛhyāntā iti* and **ucyāntā iti* for the KS. Apparently, in the case of subj. **gṛhyāntā*, the KS and KpS have followed two distinct (and, in a sense,

⁵⁰ For the accentuation of this form, see KULIKOV 1998; 2001: 325, 533-537, 554.

⁵¹ According to SCHROEDER (1896: 6), the KpS ms. reads ... *pātrāṇy uccaṃtāma iti*; ed. RAGHU VIRA does not mention this reading in his crit. app.

symmetrical) ways to solve the prosodic conflict between the long (closed) root syllable and long suffix vowel: the Kāṭhaka “lightens” the root syllable by dropping the *y*, the KpS shortens the suffix vowel (see also RENO 1933: (90)).

Also worthy of mention is the YVic passage (4) noticed by RENO (1937: 35):

- (4) (TS 5.2.10.3 ~ [^]KS 20.9:28.9-10 ~ KpS 31.11:158.21-22)

ádad ít sá bráhmanā́nnaṃ, yásyaitá [TS, KS in v.l.] *upadhīyántai* / [KS,⁵² KpS] *upadhīyanta* *íti*

‘The one for whom these [bricks] shall be put down shall eat brahmaṇa-food.’

The TS has the expected subjunctive *upadhīyántai* (attested also in the KS in variant readings *upadhīyántai* and *upadhīyantā*). The indicative form, by contrast, is attested in the KS–KpS, and must be secondary.⁵³

Cf. also coordinated subjunctive and indicative forms in (5):

- (5) (ŚB 14.9.1.2 = BĀUM 6.1.2)

véttha yáthemāḥ prajāḥ prayátyo vipratipádyantā3y *íti* <...> *véttha yáthāsáu loká evaṃ bahúbhiḥ pūnaḥ-punaḥ prayádbhir ná saṃpūryátā3y* *íti*⁵⁴

“‘Do you know, how these beings on passing away separate in different directions?’ <...> ‘Do you know, how yonder world does not overfill with the many [beings] who continually pass away?’”.

Yet another YVic example of an abnormal passive with a secondarily shortened suffix vowel is the form *vi-jñāyate*, attested in KpS^p 4.1:37.3 and KS^p 6.2:50.11 (as a variant reading) for the correct *vi-jñāyete* (thus emended in ed. RAGHU VIRA in accordance with the Kāṭhaka reading).

4.1.4. The sporadic loss of -y- in late Vedic and post-Vedic optatives

Finally, the tendency to “lighten” the root syllable before the long suffix vowel (*e*) may be responsible for the rise of the irregular third person optative forms built on some present stems in -ya-, such as -aset, -set, *naśet*, -*nahe*⁵⁵ instead of -*asyet*, -*syet*, *naśyet*, *nahyet* (roots *as* ‘throw’, *sā* ‘bind’, *naś* ‘perish’, *nah* ‘tie’).⁵⁶ Forms without -y- are attested from the Sūtras onwards. We find, for instance (the below list does not claim to be exhaustive):

⁵² V.l. **yantā* in the KS.

⁵³ Cf. KEITH (1914: 415, fn. 1): “the subj. in TS. is obviously better than the indic. of KS.”

⁵⁴ Ed. BÖHTLINGK **saṃpūryátai*.

⁵⁵ Note that in all these forms -y- is dropped after a sibilant.

⁵⁶ For -aset, see, in particular, BÖHTLINGK 1896: 249f.; M. LEUMANN 1968: 58. For the attestations of -aset in the Dharma-Sūtras, see BHARADWAJ 1982: 101; for Epic forms, see OBERLIES 2003: 197, with fn. 2, 3.

- √*as* *abhy-aset* LāṭyŚS 7.5.18, ĀpDhS 1.27.8 (~ HirDhS 1.7.33 *abhy-asyet*)⁵⁷,
 VāsDhS 25.4 = BaudhDhS 4.1.22, VāsDhS 25.10, ParāśSmṛ. 2.5, MaitrU
 6.23,
 late Up.
ny-aset Kāṭh-Saṃk. (ed. SŪRYAKĀNTA, p. 141, l. 16), HirŚS 22.2.26
 (~ ĀpŚS 19.19.3 *ny-asyet*), MānŚS 10.3.5.22, 11.7.1.6^{2x}, VaikhGS.
 ĀgnivGS, ViṣṇuSmṛ., ManuSmṛ. 6.46, YājñSmṛ. 2.103, 3.35, ParāśSmṛ.,
 BhāgP 7.12.24⁵⁸, late Up.
vi-ny-aset MānŚS 11.7.1.6, ManuSmṛ. 3.226, ParāśSmṛ. 5.16, 5.17,
 AVPariś., late Up.
saṃ-ny-aset ĀgnivGS, BaudhPS 2.4:7.1 (thus in mss., ed. RAABE emends to
 *^o*asye^o*), VāsDhS 10.4^{3x} (v.l. *san-tyajet*), ManuSmṛ. 6.94
nir-aset ĀśŚS 1.3.31
- √*naś* *naśet* Mbh.
vi-pra-naśet Mbh.
vi-naśet BhāgP 4.14.16⁵⁹, Mbh.
- √*nah* *pari-nahet* Mbh. 1.26.19
- √*sā* *adhy-ava-set* BaudhŚS 21.11:88.18-19, KauśS 137.1
vy-ava-set MānŚS 5.2.8.20, Mbh.

The morphological analysis of these forms is unclear. The form *-set* is hesitantly qualified by WHITNEY (1885 [Roots]: 185) as a class I present formation, but the derivation of a class I present from an *ā* root (**sāti*??) is impossible, and thus *-set* cannot represent anything but an optative of *-syāti* (i.e. ⁺*-syet*). In the case of the *-ya*-present *āsyā-^{ti}*, we find a few instances of non-optative forms without *y* in late texts (e.g. ManuSmṛ., Mbh. 3sg.med. ^o*abhyasate*, late Up. 3sg.act. *saṃ-ny-asati*; Mbh. 1sg.act. *naśāmi*, *vy-ava-sāmi*, 3pl.act. *vy-ava-santi*, etc.; see BÖHTLINGK 1896: 249f.; M. LEUMANN 1968: 58; OBERLIES 2003: 197, 390, 458, 531), but the obvious preponderance of optative forms among attestations of this secondary class I present clearly shows that the starting point for the rise of the present *asa-^{ti/te}* was the 3sg.opt. form. The loss of *y* in compounds has probably been supported by dissimilation processes after preverbs in *-i* (*-y* before vowels); see M. LEUMANN 1968: 58; GOTŌ 1987: 85; OBERLIES 2003: 197.

4.2. Forms with long suffix vowels and gaps in the paradigms of *-yá*-passives

The general tendency to avoid long (closed) syllables before long suffix vowels may also explain some remarkable gaps in the paradigms of the *-yá*-passives in

⁵⁷ See RENOU 1947: 193; BHARADWAJ 1982: 101.

⁵⁸ See BISWAS 1968: 171.

⁵⁹ See BISWAS 1968: 74.

the early Vedic period (noticed, for instance, by ARNOLD (1897: 317), JAMISON (1984) and HOCK (1985-86); for a detailed discussion, see KULIKOV 2001: 552ff.). While present indicative forms properly speaking (i.e. forms with primary endings) are well-attested from the RV onwards, we find in early Vedic only one subjunctive form (RV 5.31.12 *-bhriyāte*; see RENOUE 1937: 7; no subjunctives in the AV) and no optatives at all (among the earliest attestations of the passive optatives are *vr̥jyeta* and *-bhriyeta* in the young mantra RVKh. 5.7.3.a–YV^m).⁶⁰ The defective inventory of the -yá-passives in early Vedic can hardly be explained by semantic reasons.⁶¹ Rather, it betrays particular morphophonological constraints. Since the stems of -ya-presents were not subject to SIEVERS' law (i.e. could not be distracted in ***CVCya-*),⁶² forms with long suffix vowels were avoided. Bearing in mind that the suffix vowel is long throughout the whole paradigm of subjunctives and optatives, this morphophonological constraint could be reinterpreted as a paradigmatic (grammatical) one. Only in the later periods (Vedic prose), due to the growing productivity of -yá-passives and to the accompanying paradigmatic pressure, have subjunctives and optatives been added to the paradigm;⁶³ but even at that period the aforementioned prosodic tendency triggers the irregular subjunctives discussed in Section 4.1.2-3.

5. Related phenomena in Vedic and Indo-European

5.1. Length vacillation in compounds

The correlation between the length of the root and suffix vowels, particularly, in the phonological context -īyV-, is not an isolated phenomenon in Sanskrit. A similar tendency may account for the secondary changes of the vowel length in compounds, noticed by E. LEUMANN more than 100 years ago (1896). LEUMANN has drawn attention to the fact that the final vowels of the first element of some compounds can be shortened before consonant clusters and/or before long vowels, cf. *pr̥thivi-ṣṭhá* RV, *senāni-grāmanyāu* TS, *ūr̥ṇa-vābhi* RV (but *ūr̥ṇā* MS), etc. See also WACKERNAGEL 1889; WACKERNAGEL 1905 [AiG II/1]: 134f., §56e; BLOOMFIELD & EDGERTON 1932 [Ved. Var. II]: 252ff. For a detailed discussion of the length vacillation in compounds in Vedic prose (particularly, in the Kāṭhaka), see OBERLIES 1990: 149-153 and 162f.; as OBERLIES (1990: 162, note 17) points out, here may also belong the cases of the secondary shortening of the stem vowel before the dual ending *-bhyām*, as in KS *hanu-*

⁶⁰ Note, incidentally, that two of these infrequent forms outside the present tense paradigm properly speaking, i.e. *-bhriyāte* and *-bhriyeta*, are built on the stem *-bhriy[a]-*, which, unlike most other -ya-stems, exhibits a short root syllable.

⁶¹ *A priori*, one might assume the rarity of passive imperatives – which is indeed the case – on the assumption that one cannot “order someone to do something that is by nature automatic, neither requiring nor allowing intentions or effort” (JAMISON 1989: 62). This constraint does not hold, however, for other non-indicative moods.

⁶² See e.g. SEEBOLD 1972: 287ff.; ICKLER 1976: 123.

⁶³ Since subjunctives and optatives are lacking only for -yá-passives, but do occur in the system of the -ya-presents with root accentuation (class IV, cf. *paśyeta* RV 10.117.5, *prāti paśyāsai* AV 3.4.3, *manyethām* RV 3.58.4, 8.26.5, *manyāte* RV 10.27.11, *yūdhyai* RV 4.18.2, *riṣyāti* RV 10.97.11, etc.), one may assume that the place of the accent could also be a relevant feature.

bhyām (~ TS *hánū-bhyām*), KS *śroni-bhyām* (~ TS *śrónī-bhyām*); see also WACKERNAGEL 1930 [AiG III]: 54f., §21bβ.

5.2. Lengthenings before short syllables

On the other hand, there is also some evidence for a “twin” tendency, i.e. the lengthening of short vowels before single consonants and short vowels, foremost in certain phonological contexts. In Section 1.2 I briefly discussed the secondary lengthening of *i* in the *-ya*-stems built on *Cṛ* roots (*hrīyāmāṇa-* for *hriyāmāṇa-* etc.). The generalization of this tendency (probably operating together with some other mechanisms) may account for the obligatory lengthening of *i* and *u* before the present suffix *-ya-* (in passives and denominatives).⁶⁴ The same tendency may be responsible for the vowel length in the reduplication syllable of the causative aorist of the type *ājījanat* (*jījana-*, *būbudha-*, etc.) and for the shortening of the originally long root vowel, as in *arīradhāma* (√*rādh*), *avīvaśat* (√*vāś*), in accordance with the trochaic pattern – ◡; see, for instance, WHITNEY 1889: 309f.; WACKERNAGEL 1889: 18 [= *Kl. Schr.* II, 914]; M. LEUMANN 1962. The same explanation may hold true for some perfect forms (cf. *pīpivāṃs-*, *tūtujāna-* / *tūtujāná-*, *ḍīdaya-* / *ḍīdāya-*, impv. *ḍīdihī* / *didihī* etc.).

Another phonological context which seems to be rather sensitive to this tendency is the open syllable before *ṣ* (and probably also *h*). Here, again, we arrive at the trochaic pattern, cf. aor.part. *rīṣant-* (attested also with the short root vowel: *rīṣant-*) ~ pres. *rīṣya-*⁶⁵; caus. *dūṣayati* ~ pres. *duṣya-*⁶⁶; *snīhān-* ‘snot’ ~ *snihya-*⁶⁷ ‘stick, be sticky’ (HOFFMANN 1965: 21ff. [= *Aufs.* 2, 451ff.]), etc.; see also WACKERNAGEL 1896 [AiG I]: 92f.; KUIPER 1934: 224, fn. 4; RENOU 1952: 43; KULIKOV 1999: 232, fn. 14 (with bibl.).

5.3. Parallel phenomena in Ancient Greek

To conclude the discussion of the evidence from Indo-European, one should mention similar phenomena attested in Ancient Greek – as it seems, at a much larger scale than in Vedic. Already F. de SAUSSURE (1884) formulated a “loi rythmique de la langue grecque”, according to which, originally, Greek could not have sequences of three short syllables. This law accounts, in particular, for the rise of such forms as *ἄρχετης* ← **ἄρχεταγός*, *ἄπρητης* ← **ἄπερέτης*, *ἄπορφος* ← **ἄπορόφιος*; for a detailed discussion, see WACKERNAGEL 1889.

⁶⁴ Of particular significance is the evidence furnished by the denominatives built on the *a*-stems. As INSLEER (1997) has demonstrated, the stem vowel is lengthened after a short syllable (cf. *aghāyá-*⁶⁸), but remains short after a long syllable (*devayánt-*).

6. Chronological remarks

The fact that we meet instances of the shortening (lightening) of the root syllable before long suffix vowels both in the oldest Vedic texts (RV and AV) and in the late Vedic and post-Vedic period (Sūtras, Epic Sanskrit) immediately poses the problem of the chronology of the phonological processes in question. As it seems, we are confronted with a rather weak but quite stable tendency, which has survived up to the very end of the Old Indo-Aryan period. The cases of the lightening of the root syllable in the Sūtras and post-Vedic texts, as in *-aset*, even plead for the existence of a similar tendency in Middle Indo-Aryan (at least in some dialects), when the redaction of the relevant texts was completed (see, in particular, Chl. WERBA apud OBERLIES 1990: 163, note 29).

Closely related to the chronological issue is yet another question: is the length vacillation dependent on the character of the text or not? It is often assumed that the length vacillation is limited to the metrical texts and does not represent any linguistic reality of the contemporary living language (see e.g. WACKERNAGEL 1889: 20 [= *Kl. Schr.* II, 916]). This holds true, indeed, for several phenomena typical for Vedic hymns, such as lengthening in auslaut (*yátrā*, *kṛdhī*, etc.) or length vacillation in forms like *dīdihī/didihī*. Yet, the rich collection of examples from Vedic prose (cf. *śrīya-* / *śriyē-*, *yajñīya-* / *yajñiyā-*, *asya-* / *ase-*, etc.) shows that this tendency, albeit widely used for metrical purposes, holds for non-metrical texts, too.

7. Typological parallels

All the correlations discussed above can be put in a broader perspective, as a consequence of the general tendency to reach a certain balance of syllable length within word boundaries and, in particular, to avoid the accumulation of long vowels and/or heavy syllables. In general, such a tendency should not be regarded as limited to the poetic texts and appears quite natural from the prosodic point of view.

7.1. The Balto-Fennic-Saami consonant gradation

In my view, a typological parallel with this phenomenon (albeit incomplete in some respects) is the Balto-Fennic-Saami consonant gradation, or, to be more precise, some of the paradigmatic alternations which belong here. A few examples relevant for our discussion are given in (6):

- (6) Finnish nom.sg. *tyttö* – nom.pl. *tytöt* ‘girl’;
 Finnish nom.sg. *kukka* – gen.sg. *kukan*, elative sg. *kukasta* ‘flower’;
 Saami nom.sg. *namma* – elative sg. *namast* ‘name’;
 Finnish nom.sg. *jalka* – gen.sg. *jalan*, elative sg. *jalasta* ‘leg’
 (for further examples and detailed discussion, see GORDON 1997).

I am not going to discuss the various diachronic explanations of this phenomenon (see GORDON, op.cit.). Here I will only draw attention to the fact that at least one of the possible **synchronic** interpretations of the alternations above (*tt* – *t*, *kk* – *k*, *mm* – *m*, *ll* – *l*) can be formulated as parallel to that suggested for the secondary shortenings and lengthenings in Vedic. Specifically, on the assumption that closed syllables are heavier than open ones, the consonant gradation as in (6) can be regarded as resulting from the phonological process which makes the penultimate syllable open (= less heavy) if the last syllable becomes closed (= heavier), in accordance with the pattern Closed + Open / Open + Closed: *tyt.tō* – *ty.tōt*, *kuk.ka* – *ku.kan*, *nam.ma* – *na.mast*, *jal.ka* – *ja.lan*.

7.2. Iambic lengthening

Another phenomenon which is concerned with the vowel length balance within a word is the ‘**iambic lengthening**’, attested, in particular, in a number of Amerindian languages (see HAYES 1995: 205f. for examples and discussion). Together with some other parameters, such as stress and position in word, the metrical scheme of a word determines changes in vowel length. For instance, the even-numbered light (= short open) syllables become heavy in sequences such as $\acute{\cup} \cup \acute{\cup} \cup$ (cf. Hixkaryana *owto-hona* → *ówto-hó:na* ‘to the village’), $\acute{\cup} \cup \acute{\cup} \cup \cup \acute{\cup} \cup$ (cf. Hixkaryana *tohkur^le-hona-hašaka* → *tóhkur^lé:-honá:-hašá:ka* ‘finally to Tohkurye’), $\cup \cup \cup$ (cf. Choktaw *pisali* → *pisa:li* ‘I see’), $\cup \cup \cup \cup \cup$ (cf. Choktaw *čihabinačili* → *čiha:bina:čili* ‘I give you a present’). Note that the vowel lengthening in Hixkaryana does not depend on the stress in dissyllabic words consisting of two short syllables (CVCV), cf. *kwaya* → *kwa:ya* ‘red and green macaw’, *tuna* → *tu:na* ‘water’. This lengthening does not operate in (C)VCCV words (i.e. in the closed syllable), such as *arko* ‘take it’.

7.3. Phonological patterning in Yidj

Finally, the most striking parallel with the Vedic phenomena discussed above occurs in the Australian aboriginal language Yidj. In accordance with the permitted phonological patterning described by DIXON (1977: 40-42), two long vowels must be separated by a short syllable, as e.g. in *magi:riŋá:ldaŋú:n* ‘climb up-ASPECT-COMIT-COMING-DAT.SUBORD’, *burwá:liŋá:lŋa* ‘jump-GOING-COMIT-PURP’. In the cases where this constraint is violated, i.e. two long vowels appear one after another, one of them is obligatorily shortened, as, for instance, in *bargandaŋi:n* ← **barganda:ŋi:n* (a form of the verb *barganda-n* ‘pass by’); see DIXON 1977: 74-76.

Abbreviations

AB	Aitareya-Brāhmaṇa	KātyŚS	Kātyāyana-Śrauta-Sūtra
ĀgnivGS	Āgniveśya-Gṛhya-Sūtra	KauṣGS	Kauṣītaka-Gṛhya-Sūtra
ĀpDhS	Āpastamba-Dharma-Sūtra	KauS	Kauśika-Sūtra
APrāyaśc.	Atharvaprāyaścittāni	KB	Kauṣītaki-Brāhmaṇa
ĀpŚS	Āpastamba-Śrauta-Sūtra	KpS	Kapīṣṭhala-Kaṭha-Saṃhitā
ĀśGS	Āśvalāyana-Gṛhya-Sūtra	KS	Kāṭhaka(-Saṃhitā)
ĀśŚS	Āpastamba-Śrauta-Sūtra	LātyŚS	Lātyāyana-Śrauta-Sūtra
ĀnSS	<i>Ānandāśramasaṃskṛta-granthā-valiḥ</i> (<i>Ānandāśrama Saṃskṛta Series</i>).	MānŚS	Mānava-Śrauta-Sūtra
AV	Atharvaveda	ManuSmṛ.	Manu-Smṛti
AVP	AV, Paippalāda recension	Mbh.	Mahā-Bhārata
AVPariś.	The Pariśiṣṭas of the AV	MaitrU	Maitri (Maitrī), Maitrāyaṇa, Maitrāyaṇīya Upaniṣad
AVŚ	AV, Śaunakīya recension	MS	Maitrāyaṇī Saṃhitā
BaudhGS	Baudhāyana-Gṛhya-Sūtra	NidānaS	Nidāna-Sūtra
BaudhPS	Baudhāyana-Pitṛmedha- Sūtra	Or.	Orissa mss. (of AVP)
BaudhŚS	Baudhāyana-Śrauta-Sūtra	ParāśSmṛ.	Parāśara-Smṛti
BhāgP	Bhāgavata-Purāṇa	Pāṇ.	Pāṇini (Aṣṭādhyāyī)
BhārGS	Bhāradvāja-Gṛhya-Sūtra	PB	Pañcaviṃśa-Brāhmaṇa
BhārŚS	Bhāradvāja-Śrauta-Sūtra	Pp.	Padapāṭha
Br.	Brāhmaṇas	RV	Ṛgveda
ChU	Chāndogya-Upaniṣad	RVKh.	Ṛgveda-Khilāni
DevatādhB	Devatādhyāya-Brāhmaṇa	ŚB(M)	Śatapatha-Brāhmaṇa (Mādhyandina recension)
DrāhyGS	Drāhyāyana-Gṛhya-Sūtra	ŚBK	Śatapatha-Brāhmaṇa, Kāṇva recension
DrāhyŚS	Drāhyāyana-Śrauta-Sūtra	ŚGS	Śāṅkhāyana-Gṛhya-Sūtra
Ep.	Epic Sanskrit	ŚŚS	Śāṅkhāyana-Śrauta-Sūtra
GB	Gopatha-Brāhmaṇa	ŚrSū.	Śrauta-Sūtras
HirDhS	Hiraṇyakeśi-Dharma-Sūtra	Sū.	Sūtras
HirŚS	Hiraṇyakeśi-Śrauta-Sūtra	SV	Sāmaveda
JB	Jaiminīya-Brāhmaṇa	SVB	Sāmavidhāna-Brāhmaṇa
JŚS	Jaiminīya-Śrauta-Sūtra	TĀ	Taittirīya-Āraṇyaka
KaivalyaU	Kaivalya-Upaniṣad	TB	Taittirīya-Brāhmaṇa
Kashm.	Kashmir ms. (of AVP)	TS	Taittirīya-Saṃhitā
KaṭhĀ	Kaṭha-Āraṇyaka	Up.	Upaniṣads
Kāṭh-Saṃk.	Kāṭhaka-Saṃkalana	VādhS	Vādhūla-Sūtra
		VaikhGS	Vaikhānasa-Gṛhya-Sūtra

VaikhŚS	Vaikhānasa-Śrauta-Sūtra
VaitS	Vaitāna-Sūtra
VārŚS	Vārāha-Śrauta-Sūtra
VāsDhS	Vāsiṣṭha-Dharma-Sūtra
ViṣṇuSmṛ.	Viṣṇu-Smṛti
VS	Vājasaneyi-Saṃhitā
YājñSmṛ.	Yājñavalkya-Smṛti
YV	Yajurveda(-Saṃhitā)
	(= VS, MS, KS, KpS, TS)

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