

The Vedic type *grbhāyāti*

In his *Grundriss*, II, 3, p. 145–178 and 197–204, Brugmann deals with verbal stems in long vowels, and with their expansion by y^e/yo . His account presents a serious flaw: it does not distinguish long stem vowels from long radical vowels. So, for instance, *mñnē* in Greek ἐμὲνη (Lith. *minė̃jo*) and **plē* in Hom. πλῆτο (Ind. *áprāt*) are put on a level (p. 146). Here we observe a difference between reduced grade and zero grade. Brugmann notes that after an initial consonant cluster we never have the zero grade. The reason is obvious: the clusters of three consonants that might otherwise have arisen would have been unpronounceable except in the special case of *s + plosive + y, v, l, r*. In those cases where the root contained a final cluster *sonant + plosive* or *s*, no option was available either, because (*pace* Güntert, *Ablautsprobleme*) between consonants *el, er, em, en, ey, ev* have only one weak grade form (noted l, r, m, n, i, u or, alternatively, l, r, m, n, i, u). When the sonant is in final position, there is, for *seṭ* roots, a difference between the reduced grade and the zero grade (ἐδέμη – πλῆτο), which reflects the distinction between expansions of the stem and radical elements. On the basis of these divergent treatments of the unstressed vowel in **d_emē* ($e > \text{zero}$) and **plē* ($e > \text{zero}$), we have found it necessary to split the process of quantitative apophony into two stages, which could be symbolised in the following way¹:

(1) **pel₁ – ple₁* (2) **p_el₁nó-, *pl_e₁nó-* (Ind. *pūrṇá-, prāṇá-*).

The expansion of roots with *-ē, -ā* took place in between these stages: **dem₁-ē > d_em₁-ē > d_emē* (rather than *dmē*); **per₁-ā > *p_er₁á* (cf. Lith. *piřšo*), **per₁* itself entering, with **pre₁*, an alternation dating back to stage (1).

¹ Evidence and further implications are presented in our article *Les effets du ə en indoiranien* (*Prace filologiczne* XI, 1927, p. 235 ff.).

The Indic verbs in *-āyati* can be divided into three markedly distinct groups:

(a) verbs with stress on *ā*: this *ā* belongs, in this case, to the root and it occurs in the first syllable. Cf. *kāya-*, *kṣāya-*, *rāya-*, *śrāya-*, *ślāya-*, *gāya-*, *glāya-*, *trāya-*, *dhyāya-*, *pyāya-*, *mlāya-*, *vāya-*, *śyāya-*, *styāya-*, *dāya-* 'cleanses', *drāya-*, *snāya-*, *dāya-* ('give', *Mahābhārata*), *dhāya-* ('put', *Mahābhārata*);

(b) deverbative verbs with stress on *-ya-*. The long *ā* belongs to the suffix and occurs in the second syllable.

(c) denominative verbs with stress on *-ya-*; they occur alongside denominative verbs in *-āya-* (with short stressed *a*).

The second category is represented, in the *Rigveda*, by the following verbs: *gr̥bhāyā-*, *mathāyā-*, *śrathāyā-*, *pruṣāyā-*, *muṣāyā-*, *skabhāyā-*, *stabhāyā-*, *damāyā-*, *śamāyā-*, *priyāyā-*, *dhiyāyā-*, *panāyā-*, *vṛṣāyā-*, *śubhāyā-*, *manāyā-*, *aśāyā-*, *naśāyā-*, *vasāyā-*. From the *Atharvaveda* we can add *tudāyā-*. The *Avesta* has only one instance: *gēurvāyā-*.

These verbs are not denominative. Thematic action nouns (or agent nouns) with the weak grade of the root syllable are exceedingly rare. Moreover, as we will see presently, *ā* represents an original long vowel here.

In most cases, the weak grade of the first syllable is obvious. In *śrathāyā-*, *śamāyā-*, *panāyā-*, *manāyā-*, *naśāyā-* and *vasāyā-* we find the reduced vowel *e* in the first syllable. Only *damāyā-* could hold an *o*, if it is completely identical to Lat. **domāyō*.

The presence of the reduced vowel is sufficient proof that these are not root formations, like those of group (a). The second full grade forms would be **dmā*, **śmā*, *dhyā-*, to say nothing of the verbs *vṛṣāyā-*, *śubhāyā-*, *aśāyā-*, *naśāyā-*, *vasāyā-*, where *ā* can only be suffixal.

An interesting detail catches the eye: out of sixteen verbs of the type under discussion (*manāyā-* and *priyāyā-*, which could be denominative, are not taken into account), seven have a present in *nā-*: *gr̥bhñā-*, *mathñā-*, *śrathñā-*, *pruṣñā-* (in the *Brahmaṇas*), *muṣñā-*, *skabhñā-*, *stabhñā-*. As out of the 480 verbal roots of the *Rigveda* only 34 build presents in *-nā-*, we would not expect to find more than one or two verbs in *-āyā-* building presents in *-nā-* if there were no connection

between the type in *-āyá-* and the present in *-nā-*. This points to a correlation between these two phenomena.

This important fact, which Whitney had already touched upon in his grammar (p. 369, § 1066b and p. 256, § 732 of the German translation) was brought to prominence by Bartholomae in a study of the present of the type *grbhāyá-* (*Studien zur indogermanischen Sprachgeschichte* II, p. 90 ff.). But what is even more striking is that in these 7 verbs, *nā* is preceded, in the present, by a consonant. This is not the normal type of formations in *nā*: usually, these are built on bare roots. Now Indo-European roots may end in a final cluster *sonant + ʒ*, but not in a cluster *plosive + ʒ*². In our case, the formation in *nā* is derived from an expanded root, and this is done – in the regular fashion, we should say – by inserting the nasal between the two final consonantal elements (*plosive* and *ʒ*).

The formation in *-āyá-* is therefore not specifically implied by a present in *-nā*. We should rather say that the property of forming a present in *nā* is characteristic of roots expanded with *ā* (*e + ʒ*₂), as it is of true roots in *ā*. It follows that the other presents with a consonant before *nā*: *iṣṇā-*, *ubhnā-*, *uṣṇā-*, *badhnā-* presuppose the existence of the expanded roots **iṣā-* (Greek **ἰαίεται* would be **iṣāyāte* in Indic), **ubhā-*, **uṣā-*, **badhā-*. If, on the other hand, 9 presents in *-āyá-* do not have counterparts in *nā* in the *Rigveda*, this is no doubt partly due to chance. So, for example, the form *aśnā-*, built on the expanded root **asā-*, implied by *aśāyá-*, is attested only in the epics.

The presence of an expansion *ā* in the type *grbhāyāti* is thus proved (1) directly, by the *aniṭ* roots in *-āyá-* (like *aśāyāti*, *vṛṣāyāti*); (2) indirectly, by the reduced grade (rather than zero grade) of the first syllable; (3) by the presents of class 9 with a consonant before *nā*; (4) by the accent, which differs from that of the type *śrāyati*.

From such an expanded root, a present is derived either by infixation of *n* or by means of the suffix *-ya*³.

² This should be viewed as evidence for the consonantal nature of *ʒ*. We do not find any roots ending in two plosives, or in plosive + sonant. **petʒ* (*πέπτωκα*, *patitá*) seems to be an exception, but cf. *ἐ-πτό-μην*.

³ Cases where both procedures overlap are obviously secondary. Cf. Greek *δαμνέω*, which is to *δέμνημι* as Ind. *hṛṇāyá-* is to *hṛṇā-*.

The expansion \bar{a} with which we are dealing in deverbatives in $-\bar{a}y\acute{a}-$ could either correspond to Indo-European \bar{a} or to \bar{e}/\bar{o} . The first possibility seems more likely: (1) because of the present in $-n\bar{a}-$, which, in Indo-European, is derived exclusively from stems in $-\acute{a}-$ (cf. Meillet in *Mélanges Vendryes*, p. 275 ff.); (2) because of the meaning, which is not intransitive like that of formations in \bar{e} (the Greek passive aorist, the type Latin *rūbēre*, OHG *rotēn*, OChSl. *rūděti*). In ten verbs in $-\bar{a}y\acute{a}-$, the meaning is always transitive; in four instances, it is intransitive, but only middle forms are attested; in $vṛṣ\bar{a}y\acute{a}-$, it is transitive in the active and intransitive in the middle voice.

We have endeavoured to connect the aspirate in *math-*, *śrath-* with ϱ_2 , contained in $\bar{a} (= e + \varrho_2)$ (s. l. c., p. 202 ff.). According to de Saussure's hypothesis, which we have defended with certain corrections, *th* is originally $t + \varrho_2$ ⁴. It follows, considering the structural laws of the Indo-European root, that every root in an unvoiced aspirate is a root expanded with ϱ_2 . In addition to the two examples cited above, cf. also the verbal roots *rikh-* (*likh-*), *śnath-*, *vyath-*, *grath-*, *prath-*, *kvath-*, *mith-*, *pruth-*, *puth-*. The existence of ϱ_2 can be proved in a number of cases: *śnathi-hi*, *grathnāti*, *pr̥thivī*, the causatives *śnathāya-*, *vyathāya-*, *prathāya-* with \bar{a} in closed syllable (cf. *loc. cit.*, p. 207).

If, then, the \bar{a} of *grbhāyā-* goes back to an Indo-European \bar{a} , this type corresponds, without even the slightest difference of detail, to the Latin type *cubat* (< **kubāyeti*), Greek *ἰέομαι* (< **isāyomai*). The same type is found in Armenian (Meillet, *Esquisse*, p. 81) and part of the Germanic languages (Old English, Old Saxon). Elsewhere, the athematic inflection, without *ye/yo*, has been preserved or generalised: this is observed in the remaining Germanic languages, Celtic and perhaps also Greek (Aeolic inflection).

This expansion with \bar{a} has played a considerable role in the verbal system of Indo-European. As the marker of a grammatical category it

⁴ De Saussure posited $t + \varrho > th$. Similarly Cuny in *Revue de Phonétique* II (1912), p. 101 ff. In his study of the Latin 5th declension (*Det Kgl. Danske Videnskabernes Selskab, Historisk-filologiske Meddelelser* XI, 5, p. 48), Mr. Pedersen has recently endorsed this theory. His general arguments (1 and 3) should be added to ours. Cf. also our article ϱ *indoeuropéen et h hittite*, in the *Symbolae Grammaticae* offered to J. Rozwadowski, where we posit $\varrho_2 = h$.

has been retained only in Italo-Celtic (subjunctive in $-\bar{a}$ built on the reduced grade of the root, e. g., Lat. *fūgās*, *attigās* < $*-tāgās$) and in Balto-Slavonic (preterite in $-\bar{a}$, e. g., Lith. *liko*, OChSl. aorist *žīda-xū*, imperfect *žīda-axū*). An important trace of this expansion is the nasal affix $^{ne}/_{no}$, which is only a transformation of the infix in its shape $nā/nə$, and which has developed mainly in Greek and in Slavonic (Gk. $\delta\acute{\epsilon}\kappa\upsilon\omega$, Sl. *bŭnŏ* < $*dŭkǎ́$, $*bhudhǎ́$); these forms with nasal affix, though not directly inherited in most cases, obviously presuppose ancient models.

Brugmann (*loc. cit.*, p. 147) suggests these formations should be explained as being built on ancient feminine nouns in $-\bar{a}$ with zero grade of the root. But, in our case, out of 18 verbs in $-\bar{a}yá-$ cited above, only *manāyá-* occurs alongside a feminine noun in $-\bar{a}$ (*manǎ́*). In this particular case, the specialised meaning of the verb betrays its denominative origin.

Methodologically, it is preferable to explain a verbal form by another form of the verbal system whenever such an explanation is possible. In our case, *grbhāyá-* can be viewed as a present in $-ya-$ built on an aorist in $-\bar{a}$ (Indo-European \bar{a})⁵. This hypothesis finds support in the following arguments:

- (1) the actual existence of such aorists in Balto-Slavonic;
- (2) the procedure consisting in building a present in $^{ye}/_{yo}$ on a long vowel aorist is widespread in Indo-European. There can be little doubt that at least part of the presents listed above in (a) were built on root aorists. The aorists themselves did not survive, except for a few optative forms mentioned by the grammarians, such as *geyāt*, *mleyāt* and *mlāyāt*, *dreyāt* and *drāyāt*, *sneyāt* and *snāyāt*, *gleyāt* and *glāyāt*. The only ones to survive were *ádhāt* and *ádāt* (the presents in *ya* seem to be late here [*Mahābhārata*]). In a few cases a new (sigmatic) aorist was created. The *Rigveda* has *gās-*, *trās-*, *drās-*, but in the last two cases the bare root (*trā-*, *drā-*) was used in the present.

⁵ The present *grbhñāti* is built on the same aorist. The co-existence of Lith. *bundù* and Slav. *bŭnŏ* proves that the nasal present could be based either on the bare root or on the aorist stem (expanded root): *bŭnŏ* presupposes a thematicised form $*bhudhnā-$, itself built on $*bhudhā-$.

The Indo-European origin of this procedure is proved by such Slavonic forms as *lajǫ*, *gojǫ*, *vějǫ*, *dějǫ*, *sějǫ* and the corresponding Baltic forms. As for the other Indo-European languages cf. Brugmann, *loc. cit.*

(3) Vedic still has verbs in *-áya-* with the weak grade of the root syllable, such as *riṣáya-*, *śucáya-* etc. (Their Iranian counterparts are the verbs of Bartholomae's 24th class.) It is easy to notice that, in this case as well, we are not dealing with denominative verbs, built on nouns in *-i-* (as Brugmann, *loc. cit.*, p. 245 f. contends), but with deverbatives. Out of more than twenty verbs of this type attested in the *Rigveda*, only five correspond to nouns in *-i-*: *śucáya-* (*śuci-*), *iṣáya-* (*iṣi-*), *grbháya-* (*gr̥bhi-* in the *Atharvaveda*), *tujáya-* (*tují-*), *turáya-* (*turí-*). If, on the other hand, we accept the segmentation *-a + ya-* (*riṣá-ya-*, *śucá-ya-*), i. e., if we explain this type as a present in *ya* derived from a verbal stem in *a*⁶, it becomes obvious why, alongside most of these verbs, we find a root aorist or a present of the type *tudāti*. Cf. *iṣáya-* : *iṣá-*, *kṛpáya-* : *kṛpá-*, *tujáya-* : *tujá-*, *turáya-* : *turá-*, *riṣáya-* : *riṣá-*, *śucáya-* : *śucá-*, *maháya-* : *mahá-*, *rucáya-* : *rucá-* (in the classical language), *śubháya-* : *śubhá-* (in the grammarians), *sprháya-* : *sprhá-* (in the *Sūtras*); *tuṣáya-* : *tuṣá-* (grammarians), *śundháya-* : *śundhá-* (nasal infix), *dhvasáya-* : *dhvasá-*, *ukṣáya-* : *ukṣá-*, *mṛḍáya-* : *mṛḍá-*, *dyutáya-* : *dyutá-*, *dr̥mháya-* : *dr̥mhá-* (with nasal infix), *hváya-* : *hvá-*, *śváya-* : *śvá-* (in the *Brahmaṇas*), *vyáya-* : *vyá-*. A small group of verbs is left, comprising *grbháya-*, *citáya-*, *chadáya-*, *vipáya-* and *sūdáya-*, for which no verbal stems **grbhá-*, **citá-*, **chadá-*, **vipá-* and **sūdá-* are attested.

The parallelism of the types *grbhāyá-* and *riṣáya-* lends support to the hypothesis that *grbhāyá-* must be based on an (Indo-European) aorist in *ā*. It is impossible to decide whether this aorist was lost in Indo-Iranian or whether this group did not inherit it.

⁶ This formation has nothing to do with the causatives of the type *vācáya-*. There is, first of all, a difference in root vocalism. Secondly, both types co-exist in the same verbs: *citáya-* : *cetáya-*, *chadáya-* : *chandáya-*, *dyutáya-* : *dyotáya-*, *riṣáya-* : *reṣáya-*, *rucáya-* : *rocáya-*, *vipáya-* : *vepáya-*, *śucáya-* : *śocáya-*, *maháya-* : *mamháya-*. Finally, the meaning (of forms in *-áya* with zero vocalism) is causative in a mere quarter of the cases.

The first of these possibilities cannot be excluded, for even if the Avestan forms *fra-mravāire*, *ānhāire* (though they bear the stamp of high antiquity) are not sufficient to establish the existence of an aorist in *ā*, it is no less certain that Indo-Iranian has considerably reduced the number of root aorists with long vowels based on (disyllabic) *set* roots. Against nine root aorists derived from monosyllabic roots: *gā-*, *dā-*, *dhā-*, *dhā-* ('cleanse'), *pā-*, *śā-*, *sā-*, *sthā-* *hā-*, we find only three aorists derived from disyllabic roots: *ghrā-*, *jñā-*, *prā-*. This is very little compared with the materials of Greek (s. Brugmann-Thumb, *Griechische Grammatik*, p. 325, § 325).

We cannot, then, exclude the possibility that the aorists of the type **grbhā-* have totally succumbed to the same tendency which has so strongly reduced the number of aorists of the type *jñā-*.

Without the support of the aorist, the type *grbhāyá-* could lead but a precarious existence in the verbal system of Indic. Yet, in the *Rigveda* its position is still stronger than in Italo-Celtic, where we find only lexicalised traces, not very numerous at that (cf. Mr. Vendryes' article in *MSL*, XVI, p. 300 ff.). Because of its element *-āyá-*, the type *grbhāyá-* could become associated with the denominative verbs in *-āyá-* (where *ā* alternates with the thematic vowel); perhaps this would also explain its accentuation, which is irregular if we compare it to the types *śrá-yati* and *riśá-yati*⁷.

Thanks to the evidence provided by *grbhāyá-*, the Balto-Slavonic preterite in *ā* and Latin *er-ā-s*, *-b-ā-s*, it can be established that Indo-European had two kinds of aorists with the weak grade of the root:

- (1) the type **liq^ué-* (preserved mainly in Indo-Iranian and Greek), and
 (2) the type **liq^uā-* (preserved mainly in Balto-Slavonic).

⁷ Cf. also the causative type *pādá-yati*, *rocá-yati*, *janá-yati* (for this is the correct segmentation, rather than *pādáy-ati* etc). The causative cannot be directly linked to another verb form, as was the case with *grbhāyá-* and *riśáyá-*. But its association with the action and agent nouns of the type *-pādá-* etc. results: (1) from the basic structural identity of *pādáyá-* and *pādá-* etc. (cf. *Les effets du ə en indo-iranien*, p. 206–214), and (2) from the fact that every verb has, or may have, an action or agent noun of this type.

The intransitive *yugé-*, *rudhé-* is parallel to *liq^uá-*. As for the traces of the type *liq^uá-* in Greek, cf. Brugmann-Thumb, *loc. cit.*

There is little doubt that *-e/o* and *-ā*, *-ē* were originally abstracted, as formative elements, from aorists where they had been integral parts of the root. As soon as the prototypes underlying Greek ἔσχον, (ἐνι-)σπον, ἀγρόμενος were reanalysed as ἐσχ-ον, ἐνι-σπ-ον, ἀγρ-ο-μενος instead of ἐσχο-ν, (ἐνι)σπο-ν, ἀγρο-μενος, the possibility of *λιπ-ο-ν was also given. This whole evolution is closely connected with the rise of the thematic vowel. In a similar way, the use of *ā* spread from cases where the prototypes of Greek ἔδρᾶν, ἔτλᾶν were reanalysed as ἐδρ-ᾶ-ν, ἐτλ-ᾶ-ν instead of ἐδρᾶ-ν, ἐτλᾶ-ν⁸.

The question must now be posed why, given the consonantal character of *ǰ* ($a^x + \text{ǰ} > \bar{a}^x$), *ǰ*⁹ should have been the only consonant to be extracted from roots and become productive. The answer is not hard to find. Any other consonant was still felt to belong to the root, whereas *ǰ* ceased to be part of the consonantal frame of the Indo-European word as soon as the contraction $a^x + \text{ǰ} > \bar{a}^x$ had occurred.

The oppositions ἔχει – ἔσχε and *pr̥hāti* – *āprāt* are thus more ancient than the oppositions λείπει – ἔλιπε and *liēka* – *liko*. The parallelism of **pelǰ₁* and **leiq^u* leads us to postulate an aorist **lyeq^u*, a type that has survived almost nowhere; *ásnóti* – *ānāṭ* (**enĕ* – **neĕ*. Cf. our article *ə indo-européen et ĥ hittite*, in the *Symbolae Grammaticae* offered to J. Rozwadowski) are perhaps the only traces of it, such cases as *pr̥hākti* – *āprāk*, *pr̥cchāti* – *āprāṭ*, *sr̥jāti* – *ásrāk* being less reliable. Everywhere else, the *internal* inflection (**seĝh* – **sĝhe*, **enĕ* – **neĕ*, **pelǰ₁* – **pleǰ₁*) was replaced with *external* inflection (**leiq^ué-*, *liq^uā-*).

⁸ We cannot subscribe to Mr. Chantraine's opinion (*MSL*, XXIII, p. 136 and 138), according to which ἔβλην and ἔβαλον both proceeded from one single paradigm.

⁹ *ǰ₁* and *ǰ₂* ($e + \text{ǰ}_1 > \bar{e}$; $e + \text{ǰ}_2 > \bar{a}$). Cf. the formations in *ē* (Balto-Slavonic preterite in *ē*, the intransitive formation ἐμένη – *rubēre* – *rotēn* – *rūdēti* etc.) alongside those in *ā*.