

The disyllabic reduplication of the Sanskrit intensives

1. The handbooks suggest that the reduplication of the intensives of the type *karī-kr-(at-)* is no problem. Most of them say nothing about its origin, so they probably agree with the one explanation given, that the *-i-* is identical with the *-i-* found at the end of the stem of many intensives (type *tar-tarī-ti*), which originated in the disyllabic roots; thus BRUGMANN 1906-30, II 3, 20f; 1904 § 624 III A 1a; KURYŁO-WICZ 1968, 229; THUMB-HAUSCHILD 1959, II, 347; TISCHLER 1976, 9 n. 8. I don't think this explanation is correct.

2. The oldest evidence (the Vedic material as given by MACDONELL 1910, 390-3) does not allow us to find the origin of the reduplication-*i*. There has been too much reshuffling. It does show, however, that there is no relation between this *-i-* and the disyllabic roots.

If we look at the distribution, we see that a large part of the forms with stem-*i* are derived from disyllabic roots, but that only a few forms with reduplication-*i* belong to disyllabic roots. I counted:

stem- <i>i</i>	tot. 23 roots:	11 set roots (and 3 doubtful) <sup>1)</sup>	= 47(60)%
red.- <i>i</i>	tot. 17 roots:	4 set <sup>2)</sup>	= 23%

We see that the stem-*i* has been introduced in aniṭ roots, and specially, for evident phonetic reasons, after stops and ś.

The reduplication-*i* is very often found before a consonant cluster, i.e. its occurrence is largely determined by phonetic reasons.

3. It might be useful to look at the intensives from disyllabic roots, to see whether the reduplication-*i* might have originated there.

We know that in composition and after augment or reduplication the laryngeal of a root is lost (KUIPER 1961, 21-31), e.g. *kīrtī-* < \**kṛHti-* but *carkṛtī-* < \**-kṛti-*, *huve* but *áhve*, *pápri-* < \**pa-pr-i-* beside *pápurī-* < \**pa-pṛH-i-* with restored *H*. Forms of the root *kṛ* 'commemorate' and *dṛ* 'pierce' still have no (stem-)*i*: *carkarmi*, *carkṛdhi*, *carkṛtát* (gdv. *carkṛtya-*). (The laryngeal was reintroduced in sub. *carkīran*<sup>3</sup>) to avoid \**carkran.*)

For *carkarmi* the form without laryngeal is confirmed by *carəkərəmahī* Y 58.4 (Old Avestan). With *carkṛtī-* compare GAv. *carəkərəθra-*. (For the *seṭ* root cf. NARTEN 1964, 97 on *akāri-ṣam*, *akārīt.*)

If it is correct that the root itself originally lost its laryngeal, the forms with *-i-* must have got it analogically or they are recent formations. If the *-i-* was later restored, this might have contributed to the remarkable spread of the *-i-* in the intensives (as forms - from *seṭ* roots - with and without *-i-* must have coexisted).

If the root had lost its laryngeal, it is improbable that the reduplication had one (*CeRH-CeR-*). In the case of *kṛ*, we have no instance of *cari-* (*kari-*).

Later introduction of *H* in the reduplication - and not in the root - is of course most improbable: there was neither motivation nor model.

4. Even if the loss of the laryngeal in compounds (etc.) would not be correct or did not occur with the intensives, it would still be highly improbable for the reduplication to have had a laryngeal (*CeRH-CeRH-*). As far as I see a final consonant group is never repeated in the reduplication in any Indo-European language: we never find more than one consonant. (Even initially two consonants were not tolerated, though it

seems much more evident that the beginning of a root was repeated than the end. At the end it was moreover much more difficult, as it would give a cluster of three or four consonants.) This means that the intensive of a *seṭ* root, even provided that it retained the laryngeal in the root, had no laryngeal in the reduplication (*CeR-CeRH-*).

5. One might assume, then, that not *H*, but (Skt.) *i* was introduced from the root: *CaR-CaRi-* becoming *CaRi-CaRi-*.

In the first place, here again, there is neither motivation nor model for such an innovation, which resulted in a highly unusual form: the only instance of a disyllabic reduplication. The assumption, then, is in itself improbable. The *-i-* must be due to a phonetic development, it must have arisen as it were 'by accident'.

As is well known, there are in the texts no forms with both *i*'s, a fact that has never been explained satisfactorily. Therefore, if one assumes that the *i* was introduced in the reduplication, one would have to assume that soon (it must have happened after Indo-Aryan was separated from Iranian but long before the beginning of our texts) one of the two *i*'s was ousted again. This gives an improbable series of assumptions. Nor is it clear why two *i*'s would not have been tolerated. (The grammarians did not object to two *i*'s. From BURCHARDI 1893 I cite: *banībhraṃśīti*, *vanīvañcīti*, *varīvṛścīti*, *śarīśṛdhīti*, *canīskandīti*, *sanīśraṃśīti*.)

6. A last possibility would be to assume that the *-i-* was not taken directly from disyllabic roots, but that it was the 'connecting-*i*' found elsewhere, e.g. in perfect forms like *tu-tod-i-tha* (which ultimately also derives from disyllabic roots). I think this is also improbable. Such an innovation requires both a motivation and a model. The motivation could

have been to avoid certain consonant clusters. But as *dardrat-*, *taṃstanīhi*, *caṅkramata* are tolerated, this can hardly have been sufficient motivation for a quite new device. And there is no model. The *-i-* in the perfect has its origin in perfect forms which got *-i-* from regular phonetic development. Most important is that this *-i-* is always found after the root. It is hardly believable that it was introduced after a reduplicating syllable without a model. KURYŁOWICZ (1968, 229) rejects reduplication of the total set root, and explains the *-i-* as the 'Bindevokal', comparing *so-tṣ-*, *sav-i-tṣ-* giving *cod-i-tṣ-*. But this is a quite normal process, where the element remains in the same place in which it originated. It stresses the difficulty rather than solving it. Though in some cases the reduplication was identical to the root, on the whole the reduplication was clearly marked: it was partial as regards the end (*var-vart-*) and the beginning (*sani-ṣvan-*) and it was not subject to ablaut as was the root.

7. If the *-i-* is not in origin identical with that of the disyllabic roots, we must look for another explanation. It is probable that it derives from a laryngeal, because Avestan does not have the type (though the evidence is very small) and because an old (PIE) *-i-* is quite improbable. (It seems as if SZEMERÉNYI 1970, 248 means this, but his formulation is not clear.)

A simple solution is that it derives from roots that had initial laryngeal before consonant, *HC-*. It must have been roots of the type *HCeR(C)-*. The intensive of such a root would have been *HCeR-HCeR(C)-* giving e.g. *\*vanīvan(d)-*. That such roots existed is shown by the Greek and Armenian prothetic vowel, and from some of them intensives will have been formed. (If the laryngeal in this position disappeared

as a result of the reduplication, it was soon restored: the loss of the first phoneme of the root was not tolerated.) As *HCeR-* became *CaR-* in Sanskrit, it is evident that *\*vanivan-*, beside a root *\*van-*, was analysed as *\*vani-van-*. In this way an apparently facultative *-i-* became free for use. It was then used predominantly to avoid consonant clusters.

This theory explains at the same time that there were no forms of the type *darīdarī-*. There were hardly any roots of the shape *HReRH-* which would have given two *i*'s.

Roots of the type *HCeT* were reduplicated *HCe-HCeT-*. Thus the long vowel reduplication is explained in the same way as the *i*-reduplication. The assumption of a PIE reduplicating vowel *-ē-* is most improbable, as long vowels occurred only in a few categories (originally monosyllables and final syllables before resonant). A rhythmical lengthening is no adequate explanation either: it cannot be the sole origin of a new type of reduplication<sup>4</sup>).

8. It cannot be proved that one of the roots with reduplication-*i* had initial laryngeal. In Vedic reduplication-*i* is found with the roots: *kr̥, tū, drā, dhū, pan, phaṇ, bhg; nu, vṛ, vṛt; krand, dyut, skand, svanī, han*. Initial laryngeal might be expected only with *nu, vṛ, vṛt*. It can only be established through cognates with prothetic vowel in Greek or Armenian. (The lengthening of the augment or the lengthening in compounds in Sanskrit is in itself not reliable enough.) *Nu* and *vṛt* have no cognates in Greek or Armenian. (This means that they could have had initial laryngeal.) If *vṛ* (*vṛṇōti*) is cognate with Gr. *érumai*, this shows that there was no laryngeal (which would have given Gr. *\*e/a/oüer-*). The same is true of *eilúō* (with which *vṛ* has also been connected), as *eilu-* is late and the older forms have *elu-*.

On the other hand the one root for which I found a Greek cognate with prothetic vowel, *mṛj* 'wipe' (Gr. *omōrgnumi*), does not have *-i-* in Vedic. It has *marmṛj-*; *marīmṛjyāte* is first found in the Brāhmanas.

I don't think that this refutes my solution. It is easily understandable that from a root *mṛj-*, once it had got that shape, a (new) intensive *marmṛj-* was made. In general it is an instance of an old development of which we have not one old form.

#### Notes:

- 1) I consider disyllabic: *gṛṛ*, *car<sup>i</sup>*, *tṛṛ*, *dhū*, *bhur*, *bhū*, *rū* 'cry', *vad<sup>i</sup>*, *sū*, *stan<sup>i</sup>*, *hū*; doubtful *cal<sup>i</sup>*, *dṛ/dṛṛ*, *pat<sup>i</sup>*; anit: *kāś*, *nam*, *nu*, *yam*, *yu* 'separate', *raḥ*, *rap*, *lap*, *vac*.
- 2) Set: *tū*, *tṛ*, *dhū*, *svan<sup>i</sup>*; anit: *kṛ*, *kṛand*, *gam*, *drā*, *dyut*, *nu*, *paṇ*, *phaṇ*, *bhṛ*, *vṛ*, *vṛt*, *skand*, *han*.
- 3) THIEME, 1929, 12f, thinks these forms are thematic injunctives; they could not be subjunctives as the root has zero grade. Thus HUMBACH 1959 ad 30.8 on GAv. */vaividati/*. However, the latter form is more probably a subjunctive (INSLER 1975) and 3 sg. (and so subjunctive; LOMMEL 1971, 42 "findet sich ein"). As regards Sanskrit, it is improbable that there would be no subjunctives at all. (NARTEN 1964, 97, for example, takes *carḥkirāma* as subjunctive.)
- 4) Gr. *\*dēdēkhatai*, often cited as evidence for reduplication with *ē*, is a conjecture for *deidēkhatai*, which has been explained by FORSSMAN 1978 (it has intensive reduplication *\*dei-dik-*).

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