Avestan *ddbōraštar- and the Indo-European root */turk-*

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1. The etymological identity of the Vedic god-creator Tvaśtar- and A.v. *ddbōraštar- m. `creator' was proposed for the first time by Wackernagel (AIGr. I: 270) and, after the studies by Leumann (1954), Gershевич (1959: 54ff.) and Mayrhofer (1964), may be considered proven. On the other hand, the usually reconstructed Indo-Iranian proto-form, viz. *tvārśtar- (given, for instance, by all mentioned authors), seems improbable to me.

2. As a matter of fact, A.v. *ddbōraštar- rather represents */dbyarəstar-*/ddbəstar/- (Reichel 1909: 60, Beekes 1988: 94). In Avestan, the coloring of a to o by a preceding or following labial is commonplace, cf. GAv. məraṇdą < *məraṇaṭ /mɾəndət/, garəbiš < *garəbųś /garbəʃ/, dužəzəbā < *-zaːbā < *-zaːb < *-zaː /-zuʔa/, əbarəždəm < */dbyärəzduṃ/ (for which see below), etc. (Beekes 1988: 34f.), whereas o stands for /a/ only in some well-defined contexts. We find this o in -ōiV- for -aiIV- (ōiā, isōiā, axtōiā, urudōiātā, etc., Beekes ibid.: 34), where it may represent the spelling of /ai/, and before the endings -dām (gausōdām, mazdāghōdām, siʔdām), -huuā (abaxsəhuuā), -duiʔ (dəɾaʔyəduiʔ), -tū (vəɾəziʔuʔ-čā, vəɾəziʔuʔ). Narten (1986: 115) has suggested that o is here due to the liturgical pronunciation, but this explanation does not account for the distribution. It therefore seems preferable to return to Bartholomae’s explanation (GIP: 173), who reckoned these verbal forms among cases of analogical split by the redactors. Finally, in Y. 44.7, 45.9 cōɾəṭ /cart/ and V. 19.28 uziiʔarətī /uz-ijaɾaɾə/ o is probably due to the preceding palatal consonant (Hoffmann – Narten 1989: 40, fn. 9). Since *ddbōraštar- does not show any of these contexts, it seems more probable that o stands for a.

In Late Avestan, /ʃi/ and /ɾʃi/ became ars-, arz-, e.g. LA v. ars, marždika- vs. GA v. aɾaʃ, maɾəzdika-, etc. (cf. Bartholomae 1898: 261ff.). In Gothic, /ʃi/ often appears with the Late Avestan spelling ars̚-, cf. darṣtį-/dʃɾtį/- `sight' (Skt. dṛṣṭi-), parṣta- /prəɾtə/- `question' (Skt. prəṣṭa-), dužuwarṣtā-/vrəɾtə/-, but sometimes aɾaʃ is preserved, cf. aibādareṣtā-, dарəʃtā, aənəh-. Presumably, the redactors of the text did not adjust *ddbəraštar- to Late Avestan norms and only recorded the phonetic coloring of the first shwa.

Another argument against the proto-form */dbyarəstar- is that -əɾst̚- is normally written without a shwa between r and š. If we take the texts with the best manuscript tradition (Y asna, Vīdevdād, Vīsperad), we see that -əɾst̚- is found without a shwa 216 times (I made use of the electronic text of the Avesta prepared by Dr. S. Gippert-Fritz at Berlin University, which includes all Avestan texts except the Nirangistān), whereas Geldner put the spelling -aɾəst̚- only in Y 50.11 haišiʔuʔarəst̚ām (and its repetitions Y 64.7 and Y 65.14) and in the names of the North-Western countries vouru.barāṣṭ̚i- and vouru.jarṣṭ̚i- (Vd 19.39, V 10.1) of unclear
etymology. The spelling of the 3sg. -s-aor. dārəst (43.13) and dōrəst (49.2) /dārəst/ may be attributed to the final position of the cluster.

The manuscript readings of hai ṣauarəstəm are interesting. In Y 50.11, only L 2.3, O 2, Dh 1, which belong to the Indian Vīdēvdād-Sāde (cf. Geldner: X X), write ṣauarəstəm. The same reading is found in J 2 and K 5, the main mss. of the Indian Pahlavi-Y asna (cf. Geldner: X X X IV), in the citation of the same passage in Y 64.7 and Y 65.14 (plus L 2 in Y 65.14). Geldner opted, however, for the reading with ā on the basis of the mss. of the Persian Pahlavi-Y asna. In yet another citation of this passage (Y 0.14), not only the Indian mss., but also Pt 4 (Persian Pahlavi-Y asna) have ṣauarəstəm, and this time Geldner adopted this reading.

In the Yashts, the spellings -arəst- and -arəst- are used indiscriminately by the mss., cf. darəya.arəstaem (Y t 17.12), darəya.arəstaem (Y t 10.102) beside darəya.arəstaiia (Y t 10.39), which have been tacitly corrected to -rəst- in Bartholomae's dictionary; aṣauua.karəstahe (Y t 13.105), but -rəst- in the same passage in Y t 13.129; pəra̱ıuuarəsta, pəra̱ıuuarəstı (Y t 15.48), but pəra̱ıuuarəstı (Y t 13.101); dūra̱dərəstəma (Y t 12.7), but -rəst- in Y t 1.12. Y t. dūra̱sta and paiti.dūra̱sta have been corrected by Bartholomae to ṣdārəstə.

In the remaining texts, mss. of which are much less numerous and much less reliable, ṣauarəstə is occasionally spelled with -arəst-, but, considering the overwhelming majority of ṣauarəstə spellings, the shwa insertion must be due to the late pronunciation of the -rəst- cluster, which found its way into the mss. (cf. on this source of mistakes Hoffmann – Narten 1989: 17f.).

Consequently, the Avestan manuscript tradition points to the distribution: -arəst- vs. -ərəst#. Similarly, -arəz (< Gathic -əra̱z-) is normally written without a shwa. The only exceptions are marəzdikā Aog. 49, marəzdikā Y t 2.2 (although some mss. have mar(a)zdikā), marəzdikəm Y t 2.7, and garəza F 21 (which is a citation of Y 29.1 garəza). These spellings must also be due to the late pronunciation of the cluster -rəzd-. For ṣdərəzdūm see below.

3. It follows that ṣbarəstər- can hardly represent *ṣbarəstər-, but rather points to *ṣbarəstər- /ṣbərstər/-. This reconstruction was recently given by Beekes (1988: 94), who further remarked: "Only the fact that it is the only form in -tar with zero grade of the root in Indo-Iranian (even its Sanskrit equivalent Tvāṣtar- has full grade) raises some doubt". Now it is by no means certain that Skt. Tvāṣtar- contains a full grade of the root and goes back to *tvārṣtar-. We know several cases in Vedic where vocalic r loses its consonantal element and becomes i, u, or a, depending on the following vowel, cf. *mṛhur [mərhur] > [mṛhur] > mühr, *śṛthirə [śərthrə-] > [śṛthirə-] > śithirə-, *durḥna [durḥnə] > [durhānə] > durhānə (Narten 1982: 140). These forms are not Prakritisms, as is often assumed (e.g., by Bloch 1929), but are the result of dissimilation (Narten ibid.). It is therefore quite possible that tvāṣtar- goes back to a formation with zero grade of the root, viz. *tvṛṣṭar-. In the forms where the suffix had full-grade (e.g. acc.sg. *tvṛṣṭāram, voc.sg. *tvṛṣṭar), *tvṛṣṭar- would yield [tvārṣṭər-] > [tvārṣṭər-] > tvāṣṭər-.
4. Accordingly, the combined evidence of Sanskrit and Avestan points to the reconstruction PIIR. *tuyr-č-tar-. There remains the problem that this is the only formation in -tar-with zero grade in the root. The rather obvious reason for this seems to be the fact that the root tuyr-č- had no full grade in Indo-Iranian. In Sanskrit this verbal root is not attested. In Avestan, the root √βαρ-ασ- `to cut, shape' has the following formations: present βαράσαίti ¹ and Gathic 2pl. middle aor. βαράζδαm.² The latter form is generally regarded as standing for *βαραζδuím /βαραζdvam/ and, because of its apparent full grade, considered to be 2pl. middle of the s-aorist. This analysis contradicts the rule discussed above, viz. that / arž/ is spelled without a shwa. It therefore seems more probable that βαραζδuím stands for *βαραζδuím /βαζdvam/ < *tuyr-č- dũyem and is the 2pl. of the root aorist with zero grade of the root.³ The spelling ἂ for sha in the Indo-Iranian root *tuyr-č- is found elsewhere, it seems reasonable to emend these three places to ἂ. For Av. *tu-č-tar- is attested and the fact that *tuyr-č- is instr. sg. of a ti-derivative *βαρατι- reflect zero grade of the root. Forms with apparent full grade are only attested in the late texts: N 40 βαραςάsca acc.pl.m. `end, split' (the stem is βαραςa- and not βαραςah-, as given by Bartholomae, cf. Hoffmann 1970: 277, fn. 5 = 1975: 277), nom.sg. βαραςό id. in an Avestan citation of the Pahlavi translation of V 21.9, and gen.sg. auua.βαραςάhe `cutting' in F. 25a. Considering the status of the texts where βαραςa- is attested and the fact that (*βαραςa-) is found elsewhere, it seems reasonable to emend these three places to *βαραςa-.

5. Consequently, we may conclude that the Indo-Iranian root *tuyr-č- is only attested in the zero grade, which may account for the unusual zero grade in *tuyr-č-tar-. Furthermore, cognates of this root outside Indo-Iranian also show zero grades only.

5.1. Greek στόπζ `flesh' reflects *tuyr-č-. In order to account for unexpected -αρ- < *γ (instead of -ρα-), Schindler (1972: 34) assumed that somewhere in the paradigm Greek had full grade, which may be reflected in Aeol. and Dor. στόρζ < *tuyr-č-. This reasoning is not com-

¹ Theoretically, this can be either a present of the tudáti type or an sk-present (for *kšk- > A v. -s- cf. A v. parása- `to ask').
² The forms, including the 3 pl. opt. upa-βαραςαιαn, erroneously given by Bartholomae as an -aiia-present, are conveniently listed in Kellens 1984: 101. According to Bartholomae, upa-βαρατι V 9.2 is 3sg. of the root-present, a recent analogical formation to βαρατι- as ταᾶi to τάᾶa. Although the syntax of the passage is difficult, it seems more probable that upa-βαρατι is instr. sg. of a ti-derivative, attested also in V 14.13.
³ For A v. ἂδ < PIE *kůd-, cf. G A v. inf. of nas- `to attain', ἂδδίαi /aδδίai/ < *H2nk-důi, 3sg. inj. middle γαραζδά `to complain' < *g(w)Ṛ̌γ- to, etc.
pelling, however. The form σφξ is only attested in Hesych and in the Etymologicum Magnum. Even if we take this information seriously, it is unlikely that σφκ- represents *τουρκ-', since this development has no parallels (*ο > υ in the neighborhood of labials always involves nasals, cf. νόξ, ὀνυξ, γυμνος, etc.). On the other hand, it seems conceivable that σφξ reflects *τωρκ- < *τωρκ-, cf. Lesb. πέσκυφες < *κτωρρυά- - < *κτωρρυά - vs. Att. τέταρτες.

As to the vocalization of ſ, I think that it is by no means certain that every Gr. αρ < *ř must necessarily be attributed to the influence of full grade forms. I believe that an important role in the vocalization of the Greek liquidae was played by the initial clusters. A n example may clarify the issue. The vocalization -αρ- in σπάρξαν 3pl. aor. 'to wrap', σπάργανα pl. 'swaddling-clothes' can hardly be explained by the full grade attested in σπείρον 'piece of cloth' or σπείρα 'coil, etc.' because the latter words contain a different root. On the other hand, since the initial cluster σρ- is unattested in Greek, we may suggest that the vocalization *σραρÇ > *σραραř, etc. was phonetically impossible and that the sequence *σρ- regularly yielded *σραřC- > Gr. *σαραřC-. Similarly, vocalization in forms like ἀσφαλτος, καλλιμίς, φθάρμα, etc. may be explained by the particular initial clusters.

Since the "normal" vocalization of *τυρκ- (> *τυρκ-,-) would have given a strange and perhaps impossible initial cluster *τωρ-, the shwa was pronounced before the resonant, which regularly yielded *τυρκ- > σωρκ-. Accordingly, the Greek forms can be explained on the basis of the zero grade *τυρκ-.

5.2. McCone has recently (1993) argued that OIr. torc `(wild) boar', M W twrch, M C torch, M Br. tourc'h `pig' are derivatives of the same root. McCone gives the following semantic justification: "A n original sense along the lines "cutter, hacker" for torc etc. would be eminently compatible with the boar's notorious talent for tearing and uprooting with his sharp tusks" (p. 292). A n additional argument in favour of this etymology can be found in Avestan (upa-)ni-δός-ς-, which means 'to cut out, to dig out (a pit, hollow)'. This verb appears several times in V 9, where the purification ritual is described in great detail. V 9.6-7 reads: paorīm (bitīm, girtīm, tūrīm, puxām, xātūm) upa mayām ni δός, pasca hamō aiβi.gaitīm duua arāthu nismah, pasca zemō isaoš aiβi.gaitīm yaβa caδδārū arāzuuō 'You should dig the first (second, third, fourth, fifth, sixth) pit: after the beginning of the summer (it must be) two fingers deep, after the beginning of the frosty winter (it must be) four fingers.' The same verb, but without the preverb upa-, appears in V 9.9 ṣrāiō aniai mayā ni δός,δός `you should dig three other pits', etc. These undeep hollows, pits were presumably not really dug out, but rather cut out, which may account for the use of the root δός-. Important is also the Avestan word δός `piglet', if this word is not invented by the scribe (as suggested by Hoffmann 1967: 35 = 1976: 491).

McCone reconstructs for the Celtic words *τούρκος, but a form with zero grade (*τουρκός) is preferable in view of OIr. gen.sg. tuirc (TBC² 466, etc.), acc.pl. turcu (Thes. ii 293.4, etc.) because clusters of the rC type normally resist raising (cf. Thurneysen 1946: 47f.), but allow
lowering. The British forms reflect Proto-Br. *turch-. Also A v. əβərəsə `piglet' points to zero grade in this word. For the vocalization of the Celtic word cf. OIr. Oic No, olc, gen. uilc `bad' < *ulko- < PIE *ulko- (see McCone 1985). A similar vocalization may explain OIr. flaith f. (later m.) `sovereignty, rule; lord, prince', MW. gwlad f. `land, territory' < *ulati- < *ulati- < *ulHəti-, where the initial u- must have been vocalic at the time of the vocalization of the laryngeals.

6. Since the root *turk- only appears in the zero grade in Indo-Iranian, Greek and Celtic, we may assume that this was also the case in Proto-Indo-European. This result has important consequences for the problem of the metathesis of IE *CurC to *CruC. It has often been assumed (cf. most recently Mayrhofer 1986: 161f.) that *CurC yielded *CruC in PIE already. The material presented by Mayrhofer comprises the following items:

(1). Compounds of the word for `four': *kʷetru(C)- > *kʷetru- in A v. caθru, Gall. petru (e.g. Petru-corii), cf. also Lat. quadru(r), MW pedry, Gr. τρῦ-φαλεια `helmet' with four φάλαι.'

(2). Indo-Iranian *snəyt `sinew' (cf. A v. snăuaɾə) > *snărut > Pāli nhāru vs. Skt. snāvan- `id.'.

This Pāli form can hardly testify to a PIE sound law, however. Tedesco, who discussed the Sanskrit and Middle Indic words for `sinew', also mentions (1957: 185) Pāli pāruta- < Skt. prāvrta-, with a similar development.

(3). *drāt̥y (#) `tear' > *d[r]ākr̥u (Gr. δάκρυ, German Zähre), but in the oblique cases *drākt̥y(C) > *drākun- (OHG trahin) (Eichner).

The OHG form does not prove heteroclitic inflection for this word in PIE. Beside this form with -n-, we also find MHG traher, treher, reflecting PGM. *trahru-, and OHG zah(h)ar (related to OE te(h)er, etc.), reflecting PGM. *tahru-. Most probably, OHG trahin, OS (pl.) trahni go back to *trahnu-, which may be due to dialectal dissimilation of PGM. *tahru- (cf. Franck – van Wijk 1912: 705), rather than represent the only vestige of a PIE heteroclitic stem. PGM. *tahru- then shows dissimilation of the first r. For the IE reconstruction of this word see now Kortlandt 1985.

There is yet another reason to doubt heteroclitic inflection of this word. If we postulate a regular metathesis of the word-final *-ur to *-ru, we have to account for the nominative of heteroclitic neuters in *-ur, which form the oblique cases as proterodynamic n-stems (gen.sg. *-uṃs, etc., cf. Hitt. paḥjur, paḥjenas). A natural explanation would be to assume that this nominative was reshaped on the basis of other r/n-neuters. If, then, the word for `tear' was heteroclitic, why was not its nominative reshaped? It seems therefore more promising for the theory of the PIE metathesis *-ur > *-ru to take the word for `tear' as a non-heteroclitic neuter, like the word for `beard', which we shall discuss presently.
(4). *smokyr (#, C-)`beard' > *smokru (Skt. smasru), but Hitt. zamankur is probably an r-stem, as can be inferred from the derivative samankuryant- `with a beard', and although the oblique cases of this word are unattested, one would expect gen.sg. *zamankuras, etc., so that the postulated Hittite nom.sg. in -ru could have been restored on the basis of the oblique cases. Since in the other IE languages the type of non-heteroclitic neuters in *-ur had become obsolete, there was no model for reshaping the nominative, which may account for the preserved metathesized form *-ru.


(6). Skt. á-hru-ta- `not going astray', vi-hru-ta- `crooked', hrut- `ruggedness', derived from hvárate (cf. about this metathesis recently Hoffmann 1980). Mayrhofer also mentions Skt. dhuru-ti- `mistake, delusion' as being cognate with dhváratí `to violate', with a reference to Hoffmann, who, however, explicitly pleads against this connection in his article.

As to Skt. á-hru-ta-, it can be demonstrated that the metathesis is recent. The zero grade forms of Skt. hvárate show a remarkable distribution in Vedic (Hoffmann 1980: 90f): we normally find hru- (áhruta-, vihruta-, ávihruta-, áhruta-, hrut-, abhihrut-, vihrut-, avahrut-, abhihruti-, vihrunáti), but hr- after the preverb pári (áparihvarta-, parihvrt-, parihvrti-; the only exception is RV 6.4.5 parihvrt-, probably due to hrut- in the same pāda). Hoffmann did not try to account for this distribution, but the fact that hr- is found after pári can, in my opinion, only be explained if we assume that r of pári "prevented" the metathesis, which then is not of PIE date, but fairly recent, probably Vedic only.

(7). Gr. otpúwo `to stir up' as derived from *o-tur- > *otrus, cf. Skt. tvárate `to hurry' (I would rather think of PIE *h2uer-). Here, too, we cannot be sure that (if the etymology is correct) the metathesis is of IE date.

Brugmann's list in the Grundriss (I: 260f.) does not offer more reliable material, so we must consider these seven items as our starting point. The question is whether the metathesis is a sound law of PIE date or, as it was put by Hoffmann 1980: 95, "handelt es sich bei der Mehrzahl der Beispiele mit ru/lu für ŭṛ/ûṛ wohl nicht um ein wirkliches Lautgesetz, sondern eher um eine phonetische Spielform, die auch einsprachlich bzw. in der Einzelsprache dialektal eintreten konnte".

The material presented above is of uneven value. As we have seen above, Pāli nhāru (No. 2) and Gr. ótpúwo (No.7) are only attested in one language and, in view of the fact that the groups ra, ŭṛ are often unstable and liable to metathesis (cf. Latin nervus, parvus, etc. < *-vr- or Skt. arváne- < *-vr-, jivri- < jírvi-, Pinault 1987-88: 336ff), these forms cannot testify to a PIE sound law. Metathesis in Skt. á-hru-ta- (No. 6) must be recent. All other instances concern metathesis in word-final position or, at least, in the final syllable (Gr. ótpúwo if derived from
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*əɾəst also shows metathesis in this position). If we combine this observation with the absence of metathesis in the root *turk-, we may tentatively suggest that in PIE the metathesis *-ur- > *-ru- was phonetically regular in the final syllable only.⁴

References

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⁴ I would like to express my gratitude to Haye van den Oever and Peter Schrijver for valuable comments on an earlier version of this paper.
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