Mnemonica Iranica

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The semantic as well as formal history of words pertaining to mental operations is often elusive. An example, with a solution suggested, will be detailed in this article: the Iranian for 'memory', *abiyāta- and its verbal cognate *abiyāsa-. It may first be observed that Indo-Iranian *√smar 'to remember' had come to mean 'to reckon, to count' etc. in Iranian, and it is dubious that even in Avestan *√hmar still had the meaning 'to remember', except perhaps as a marginal retention.

We find that in Sogdian the verbal notion 'to remember' was expressed by šyā (*uši- 'awareness, intelligence') with various auxiliary verbs. Similarly, in Khwarezmian, ʾxwʾzy- (m/xwʾzy-) 'to remember' (wrongly compared with Parthian wxʾz- etc. 'to desire') is an old compound of *ʾx f. 'mind' (cf. mβywxydʾh c.xy 'he learned it by heart') and *āzaya- (=Avestan āzaiia) 'to drive, conduct'. ʾxw from Old Iranian *ahwā finds its equivalent in Sogdian ʾxw seen in Christian Sogdian ʾxwsyd 'to encourage', with wsyd 'to stir, stimulate', and ʾxwdʾwny 'diligent' < 'giving the mind (over to...)', where, as in the Khwarezmian verb, ʾxw functions as accusative.

Etymologically problematic is Sogdian /ptfrāu/, as verb, 'to remember, to remind', and as noun, 'the act of remembering, memory'. SIMS-WILLIAMS (1989, p. 262) cites as a possibility GERSHEVITCH's etymology *pati-mrāwaya- for Khwarezmian pcrʾwȳ-, and comments that the Khwarezmian word "can hardly be separated from Sogd. ptfrʾw 'to remember.'" In fact GERSHEVITCH's etymology fails for either or both words, since the consonantal change is unparalleled, and the root, *mrauH, would give causative *-mrawaya-, cf. Y 32.14 mraoī and not *mrāuuī, and the meaning of GERSHEVITCH's etymon would be 'to make answer' and not 'to recall', cf. Y 32.2 paitī.mraoṯ.

YAKUBOVICH (2011, pp. 174ff) proceeds from the aporia of an etymological way of reconciling the foregoing Sogdian and Khwarezmian words, and, abandoning further explanation of the Khwarezmian form, suggests an origin in *√frau 'to swim, float'. His alleged parallel, an English expression 'to float up in memory', is unknown to me and not corroborated by an internet search. YAKUBOVICH's "main piece of evidence" for his etymology is [Iron] Ossetic fæjlawyn 'to undulate, go in waves', which is, however, different from 'float up', and his citation of Y 9.32, about a whore-witch whose mind 'floats' (frafrauuaiti) like a wind-driven cloud, it is the mind itself which is floating, and not a datum floating up *in* the mind, and it refers to loss of awareness, rather than to the presence of awareness involved in memory.

To return to the synonymous Sogdian and Khwarezmian for 'to remember', upon whose etymological connectedness Sims-Williams (1989, p. 262) rightly insists, I posit *pati-srāwaya- *'to call back' = 'to recall' for both. Sims-Williams (*loc. cit.*) had doubted this because of Sogdian *ptsrʾw* 'to consecrate (with a mantra)'; cf. Cheung 2007, p. 91, "*pati-srāwaya-* would not explain the Sogd. forms, which are surely related to [Khwarezmian] *pcrʾwy-*." Cheung's only recourse, however, is to set up a root *frau? 'to remember'.

Sims-Williams now (in an email of November, 2020) notes that Sogdian *ptsrwm* 'mantra, spell' (which occurs as with verb *ptsrʾw* at P 14, L. 6 *ptsrwmʾy ptsrʾwʾt*) "doesn't look like a regular Sogdian form" (*sr normally gives Sogdian *š*), and that these words may be "from an archaic language of magical practitioners". In such an event, one may propose that *pati-srāwaya-* may have undergone an early semantic splittage, 1) 'to incantate' (cf. Middle Persian *srāy-* 'to sing, recite'), whose status as a solemn technical term preserved its *sr*, and 2) 'to call back, recall, remember'.

The Sogdian noun *ptsrwm* from 1) yielded a denominative verb *ptsrwm* (P 7, L. 67), whence, probably as an early loanword, the Khwarezmian verb *pcfrwmȳ-* (cf. Sims-Williams 1989, p. 267), whose -*f-*, due to *p-* (in a further labial environment) is relevant, but cannot straightforwardly be used to explain Sogdian /ptfrāu/ 'to remember' < *pati-srāwaya-*. The decisive factor for the /f/, I propose, was the antonymy of Sogdian /ptfrāu/ 'remembering, memory' vs. /frāuči/ 'forgetfulness, oblivion' (with /-či/ an old verbal noun suffix, see Gershevitch 1961, p. 152 §1002 and 153 §2006) whereby /pt-/ < *pati-*, taken with its adversative function, would make /ptfrāu/ be felt as virtually *'counter-forgetfulness'. A reverse relationship is wrongly envisaged by Yakubovich (2011, p. 176 fn. 24) citing P. Lurje, for whom the /āu/ of /frāuči/ is an irregularity based on /ptfrāu/, but the former word, < *frāmršti-*, is like Common Sogdian /āu-/ < *hāma- 'homo-' and Christian Sogdian *mrʾw* 'to weep' < *brāma-*, Gershevitch 1961, p. 53, § 351. By the way, Yaghnobi *fĭrómĭč, fĭrómĭš* 'forgetfulness, forgetting' have *m* from Tajik *faromŭš*).

Khwarezmian *pcrwʾk* 'reputation' is probably based not on a verb from √*srau* with preverb *pati-*, but from a compound *pati-srawah- *'characterized by fame/rumor' (Avestan *srauuah-*), cf. Khwarezmian *pcfrn* 'lucky' < *farnah- 'fortune'.

The preceding etymological discussions will serve to exemplify how the histories of words can entail complexities, a subtheme for what is to follow here.

For our focal noun, Old Iranian *abiyāta- 'memory', we may start with two old forms attested in non-Iranian texts. The early Byzantine dictionary of Hesychius Alexandrinus, continuing a lexicographical tradition going back to some citation of a Greek historical work which touched on the Achaemenids, transmits a form *ABIATAKA (mss. αβιλτακα), glossed as μνήμονα 'memorious', and referring to Artaxerxes (II) Mnemon; this represents an Old Persian adjective *abiyāta-ka- 'memorious'. Far to the east, Tocharian B *epiyac* and Tocharian A *opyāc* 'memory' represent a borrowing from an East Iranian

language early enough for the word apparently to have merged with Proto-Tocharian reflexes of Indo-European *-ti- abstracts (cf. ADAMS 2013, p. 95); thus *abiyāta- 'memory' entered Proto-Tocharian before the well-attested wave of Tocharian borrowings from Middle Iranian (i.e. Bactrian and then Sogdian and Khotanese).

With regard to the foregoing view that Proto-Tocharian integrated *abiyāta- as an indigenous *-ti- stem, MICHAEL WEISS (e-mail of 28 August, 2020) wrote me that XAVIER TREMBLAY and others have derived the Proto-Tocharian form directly from Old Iranian *abiyāti-. Against such a derivation I would note: 1) *abiyāta- 'that which is remembered' has clear formal reflection in the Hesychian *ABIA-TAKA, and (see the forms listed in my next paragraph) in Sogdian and Khotanese; 2) Parthian uses the auxiliary phrases ʾbyʾd dʾr-, ʾbyʾd kr- for 'gedenken' and ʾbyʾd bw- for 'gedacht sein', a fact which we owe to WEBER (1970, pp. 88f, § 39), where Khotanese phrasal parallels are also indicated (P.O. SKJÆRVØ, e-mail of 30 August, 2020, stresses that Khotanese byāta by itself means only 'that which is remembered'); with such auxiliaries also Parachi awḗ (MORGENSTIERNE 1929, p. 237) all of which reflect *abiyātam 'that which is remembered'; and 3) *abiyāta- is reflected as an internal object in compounds with *kāra- and/or *-kara- in the sense of 'memorializing, remembrance' in Christian Sogdian, Khotanese, Parthian, and Middle Persian. Thus the analysis of the Proto-Tocharian, as per ADAMS, is justified, and only Old Iranian *abiyāta- lies behind all the nominal forms.

For the nominal forms from *abiyāta- attested in Iranian, the following list suffices: Early Sogdian (in Sogdian script) ʾβyʾtw, cf. Christian Sogdian byʾtqʾryc; Old Khotanese byāta-; Manichean Parthian ʾbyʾd /aβyād/; Manichean Middle Persian ʾyʾd, Pahlavi ʾbydʾtʹ; both /ay(y)ād/; Persian yād, and Parachi awḗ. Apart from the verbal notion 'to remember' formed *abiyāta- in phrases with auxiliary verbs, there is an actual verbal stem *abiyāsa- reflected in Bactrian, Parthian, and Middle Persian, which will prove etymologically important. First, however, an examination of the currently most visible etymological proposition for *abiyās, abiyāta- is in order.

CHEUNG (2007, pp. 175f) gives as etymon Proto-Iranian *Hi̯aH 'to remember', commenting, "This root with the meaning 'to remember' is solely attested with the preverb *abi-. It is probably originally identical to *Hi̯aH 'to go, drive to' (Skt. yā etc.) that acquired a specialized meaning with abi-: *'to come to mind' > *'to remember'." (In what follows, for the notation of [Indo-]Iranian, y will be used in place of i̯, and w will be used in place of u̯.)

CHEUNG comments: "The peculiar form OAv. (+)yāməṇg gen. sg. 'course' (Y 48.2) may actually contain *Hi̯aH 'to go, drive to', on which, for instance, IN-SLER, Gathas, 286." The fact is that *yāmə̄ṇg (ə̄ sic) is the late INSLER's excellent emendation for the text's yā mə̄ṇg; it was not implemented in subsequent Gatha-editions (although HUMBACH 1991 II, p. 197 mentions it as a "possible" alternative to his edition's maintaining the received text; cf. MAYRHOFER 1996, p. 409

"überlegenswert"). Since Indo-Iranian √yā (*HiaH*) deserves fuller discussion, I take this opportunity to set forth the further evidence.

There is nothing "peculiar" about the emended **yāmə̄ṇg*, neither as an inflected form, nor for its stem **yāman-*; note e.g. Y 50.6 *rāzə̄ṇg*, genitive of *rāzar/n-* 'direction', cf. Y 34.12 *rāzarə̄ ... rāšnəm*. What Insler had written was: "The peculiar *yā mə̄ṇg* if for orig. *yāmə̄ṇg*, gen. of *yāman-* 'course' = Ved. *yā́man-*". There is another Iranian reflex of √yā in Old Avestan *yāh-* (**yaHah-*). In Schwartz 2014 I defend, in very great detail, the meaning 'chariot race, contest'. For this I availed myself of the systematic ring-compositional concentrism, whereby Y 30.2, which demands declaration of choice between the two sides, correlates with Y 30.10, which states that there will occur breakage of the pole-and-yoke device (of the chariot) of Wrongness, while the swift team of Rightness will remain yoked, and win in good fame. I further compared with Y 30.2/10 two Gathic passages with locative *yāhī* juxtaposed with a vocative possessive name ending -*aspa-* '-horse': Y 49.6 (Də̄jāmāspa) and theme of being yoked with Rightness for the best prize, and Y 46.14 (Vīštāspa) and theme of the righteous ally becoming famed. I concluded with a demonstration of the thematic relationship between Y 30.2 *yə̊ṇhō* and Y 48.2 **yāmə̄ṇg*, for which I also showed their intertextual lexical relationship, via the analytic charting which I now call by the acronym SCRIM (Serially Corresponding Recursive Intertextual Mechanics); see Schwartz 2018, p. 117 (seq.), with a list of articles in which I had illustrated the principle, to which add Schwartz 2019, p. 265. I take this occasion to revise the SCRIM chart which shows the correspondence of *yə̊ṇhō* and **yāmə̄ṇg*:

30.1a′ *vaxšiiā*   48.1b″ *fraoxtā*
         √'speak'

30.2c′ *parā ... yə̊ṇhō*   48.2b *parā ... *yāmə̄ṇg*
         'before the race/course' √'to course'

30.3c′ *hudǎ̊ṇhō*   48.3b′ *hudǎ̊*
         'beneficent one'

30.4b″ *aṇhaṯ apə̄məm*   48.4d *apə̄məm ... aṇhaṯ*
         'will be (at) the last (...)'

30.5a″ *vərəziiō*   48.5d′ *vərəziiātąm*
         '(to) effect'

30.6c″ *ahūm*   48.6d′ *aṇhə̄uš*
         'existence'

30.7c″ *paoruiiō*   48.6d″ *paouruiiehiiā*
         'first'

30.8b″ *vohū manaṇhā*   48.7b *vaṇhə̄uš manaṇhō*
         'Good Mind'

30.8c″ *ašāi*   48.8c′ *ašā*
           'Rightness'

30.9c″ *aŋhaṯ*   48.9d″ *aŋhaṯ*
           'will be'

30.10a′ *adā*   48.10a′ *kadā*
           'when/then'

30.10b″ *hušitōiš*   48.11b″ *hušəitiš*
           'fine dwelling'

30.11c′ *sauuā*   48.12a″ *saošiiaṇtō*
           √'bring weal'

30.11d″ *aṯ ... aŋhaitī*   48.12a′ *aṯ ... aŋhōn*
           'and ... will be'

There are several difficulties with CHEUNG's derivation of **abi-yāsa-*, **abi-yāta-* as related to the verb of motion seen in Old Indic √*yā*. The fact that there is no independent evidence for such a root 'to remind, to remember' necessitates for CHEUNG's hypothesis that **abi-yāsa-*, **abi-yāta-* be from a specialized meaning of the root of motion √*yā* with preverb **abi*. However, in Vedic *abhi*+√*yā* means 'to encounter inimically'. In Iranian, the root is attested only in nouns, which leaves unlikely any inner-Iranian verbal formation **abhi*+√*yā*. In addition, Old Indic has no verbal stem **yācha-* in support of Iranian **abi-yāsa-* from this root. Finally, the historical semantics of CHEUNG's proposal are somewhat *ad hoc*. As will now be shown, an alternative explanation of the Iranian words in question is at hand, one which entails an established Iranian verbal stem *yāsa-* for which a preverb **abi* is demonstrable with apt semantics.

Let us return to **abiyāsa-* 'to remember'. It is represented in Middle Iranian, by Bactrian αβοιασ- (SIMS-WILLIAMS 2007, p. 186) /ayās-/; Manichean Parthian *aby's-* /aβyās-/; Manichean Middle Persian *'by's-*, and Pahlavi *'byd's-*, both /ay(y)ās-/. Given the widespread **abiyāta-* plus auxiliary verb for 'remember', the verb **abiyāsa-* in the contiguous Bactrian-Parthian-Middle Persian continuum for 're-member' suggests an areal innovation in early Middle Iranian. This development may be attributed to the influence of the verb **(-)grāsa-*, past stem **(-)grāta-* 'to become awake, aware', belonging to the same semantic field; see Appendix.

The etymological solution for the formal origin of **abiyāsa-*, **abiyāta-* from a root 'to (seize) hold, grasp' (albeit with no semantic expatiation) was seen *in nucleo* by WEBER (1970, pp. 87ff, § 39), s.v. Parthian *'by's-* etc., and cf. pp. 171f, § 106 s.v. Sogdian *ny's-* 'nehmen, fangen', with citation of *Henning apud* GERSHE-VITCH, as in my next paragraph.

GERSHEVITCH (1954, pp. 83f, §539) lists, under Old Iranian Present classes in Sogdian, inchoative *''s-* 'to take' < **ā-yasa-*, past stem *'yt-* from **ā-yata-*; and *ny's-* 'to take' < **ni-yāsa-*, past stem *ny't-*, from **ni-yāta-*. The matter is con-tinued in the footnotes, beginning (§539[2]) with reference to an observation by

(W.B.) HENNING: "Acc. to H. the root *yam* seems to appear in two forms, *yam*- and *yamə*-; thus we have *yasa*- (*yṃsǩo*-), and *yāsa*- (*yṃ̇sǩo*-), *yata*- and *yāta*-." In §539³, *inter alia* an analogical Christian Sogdian *nymt*- /nyamt-/ is cited for *nyʾs* /nyās/: *qt nyʾstʾ ʾdyy γwʾnt nymtyt bntqʾ* "if you retain anybody's sins, they will be retained" (it may be added that Sogdian examples of present stem /nyās/, past stem /nyāt/ 'take, seize' are very common).

The relevant Old, Middle, and New Iranian examples of the verb-complex in question, including stems in *yasa*-: *yata*- and *yāsa*-: *yāta*-, are given fairly adequately (but without much formal discrimination) in CHEUNG 2007, pp. 211f s.v. **i̯am* 'to hold [etc.]'. As for the Avestan, which likewise includes stems **yāsa*- and **yasa*-, note the stems in *yāsa*- with preverbs *ā*, *apa*, and *ni*; for the last, we have the semantic correspondence of *niiāsa*- (*Yasht* 19.48 and 50) to Sogd. *nyās* 'to seize' (for the relationship between Sogdian *ʾyt* and *nyʾt* etc., see SIMS-WILLIAMS 1989, pp. 257f). As for the verb with preverb **ham*, CHEUNG's 'attend to' involves wrong analysis of Yasna 51.3a *hə̄miiaṇtū*; the latter means 'let them come together', from √*ay* 'to come, to go'; the passage says, "Let those come together with You via (their) (h)ear(ing), who are united/connected with You via their actions', which the context shows to refer to comprehension of the inner revelatory meaning of the utterances. However, **ham* occurs with *yāsa*- in Yasna 33.1c *hə̄miiāsaitē* "are held up together (in comparison)'. The problem (unnoted by CHEUNG) of what (to reformulate HENNING's observation in terms of laryngeals) may be stated as roots *yam* vs. *yamH* (*yāsa*-: *yāta*- belonging to the latter) will be resumed later.

Enough has already been said here for a new historical semantic explanation of **abiyāta*- 'memory' and **abiyāsa*- 'to remember': from **yāsa*- 'to hold', **abiyāsa*- would be **'to retain or maintain something (in the mind) for a period of time', and **abiyāta*-, 'something retained (in the mind) for a period of time', i.e. '(a) memory'. As for the preverb **abi*, there is one example, reflected in Christian Sogdian. It occurs in the martyrology of Placidus/Eustathius, fragments of which I identified in my unpublished dissertation (SCHWARTZ 1967, pp. 1–9, 151); the relevant textual details are readily accessible in SIMS-WILLIAMS 1985, pp. 161 and 164, and cf. SIMS-WILLIAMS 2016, p. 57. Here **byʾm* (= Syriac *rby*) 'rear/foster' in *bʾyʾmnt* 'they reared/fostered [the children]'. *Contra* CHEUNG 2007, p. 212, the *b*- of **byʾm* is not from **upa*-, which would give **p*-, but Estrangela Syriac script *b*, representing the Sogdian continuant /β/, as e.g. *byʾtqʾrc*, cited above, would be from **abi*-. Thus **byʾm* /βyām/ 'to rear, foster' is from **abi*+√*yam* **'to retain/maintain for a period of time', compatible in meaning with what was proposed above for the meaning underlying our **abiyāsa*- and **abiyāta*- from the same preverb and ultimate root. For our verb /βyām/ comparable Sogdian verbs are Sogdian /ptyām/ 'to finish' < **pati*+√*yam* **'to bring containment', and /pyām/ 'to cure' < **api*+√*yam* or **upa*+√*yam* 'to sustain into the future, bring sustainment'. The series probably continues **-yāmaya*-.

It remains to explain why we have Iranian reflexes of roots **yam* as well as **yamH.* I propose a merger of two Indo-Iranian verb roots, **yam* 'to hold fast'

and *√(H)amH 'to grab, seize, lay hold of' (> 'attack'); for the latter, see MAY-RHOFER 1992, pp. 96f. This would have taken place after a preverb, likely *ni or *abhi, with *-i-HamH- merging with *-i-yam-. The merger resulted in Iranian *√yamH alongside the more conservative *√yam. A trace of Iranian *√(H)amH may remain as *anta- < *(H)amHta- in *anta-ahwa- 'characterized by consciousness having gone under attack' > Middle Persian and Persian andōh, Khwarezmian ʾndx, Sogdian ʾntwxc 'sorrow'.

The proposal that Indo-Iranian *√yamH is the result of interaction between roots (a) *yam and (b) *(H)amH, is paralleled by two other pairs of roots, each pair again showing partial similarity phonologically and semantically: Proto-Indo-European *√h₂i̯emh₂ 'to replicate, duplicate, be twinned' (for which see the excellently detailed BLAŽEK 2016, esp. pp. 368–371), and Proto-Indo-European *√ĝem 'to match, to pair, to couple', first proposed by SCHWARTZ (1975); and (the second pair) (a) *√HyamH, i.e. the Proto-Indo-Iranian outcome of Proto-Indo-European *√h₂i̯emh₂ 'to duplicate, to pair, to replicate' and (b) Proto-Indo-Iranian *√yam 'to hold, to grasp', these again citable as factors which brought about *√yamH as variant of the latter root.

From *√ĝem I derived, *inter alia*, Latin *geminus* 'twin', RigVedic *vijā́man-* 'paired, matching, twinned' (both with -n- formation like that in Old Irish *emon* 'pair of twins'); RigVedic *ájāmi-* (in the hymn about the twins Yama and Yamī), if 'not paired'; Greek γαμέω 'to mate, to wed'; and the many words in Indo-European languages for male relationships through marriage, which reflect *ĝVm-.

With all the foregoing I posited a series of Iranian words pertaining to compensation and requital as semantic developments of 'to match, bring parity': Avestan *zəmanā* 'reward, payment, wages'; Mugh Sogdian *zʾmnʾk* 'payment'; Pashto *zəman, zamnə* 'stipend, debt'; and Khotanese *ysaṃtha-* 'payment'. To these I related Sogdian *ōzām* 'to requite, repay, compensate, condemn', passive *ōzams*, past stem *ōzat*, to which now add Bactrian ωζαμο 'liability' and ωζι- / ωζαδο 'to be a liability' (SIMS-WILLIAMS 2007, pp. 281f).

Of these Iranian forms, none provides clear evidence for an Iranian laryngeal root *zamH (as against *zam), but Khwarezmian ʾwzʾcyk /ūzācīk/ f. 'culpability, crime, offense' < *awa-zāti- must go back to *√zamH and supports SIMS-WILLIAMS' derivation of Bactrian ωζαδο from *awa-zāta-. The contrast of Sogdian *ōzams-* vs. Khwarezmian *ūzācīk* as to the root vowel points to the secondary formation of a laryngeal root *zamH (alongside non-laryngeal *zam) for *'to give parity, match', due to the eventual influence of the semantically similar Proto-Indo-European *√h₂i̯emh₂ (whence Vedic *yamá-*, Gathic *yə̄ma-* 'twin' < *h₂i̯emh₂ó-).

CHEUNG (2007, p. 464) gives *zamH 'to repay, reward, compensate', and cites my 1975 article, *inter alia* ignoring my having adduced Latin *geminus* and Vedic *vijā́man-*. CHEUNG contests my attribution of an underlying definition for PIE *√ĝem 'to match, make parity, couple', whence I derived γαμέω 'to mate, to marry' and related Indo-European words pertaining to relationship through marriage. CHEUNG instead sees here reference to the bridal payment, and reconstructs PIE

*√ĝemH 'to compensate' as lying behind the Greek, for which he cites POKORNY 1959, p. 369 *ĝem(e)- 'heiraten', where there is no mention of payment. HAMP (1988) proceeds from the evidence in my 1975 article and agrees with my attributing to *√ĝem the primary sense of 'pairing, coupling' and states that Greek γάμος and γαμέω "simply reflect a specialized sense of 'mating', derived from 'pairing'", in accord with my view, and he denies that there is in these words any reference to the payment given to the bride. HAMP also notes lack of evidence for a final laryngeal in γαμέω and its non-Iranian cognates. HAMP thereby supports PIE *√ĝem (for which he denies a laryngeal root) 'to match, to pair', etc. From this root, *√zam in Iranian would have interacted with *√HyamH 'to duplicate, to replicate, to pair', whence Iranian *√zamH with laryngeal.

It may be further proposed that *√HyamH 'to duplicate, to pair' interacted with *√yam as 'to hold two things together, to clasp' (cf. e.g. Vedic yáma- 'reins'). Such an association is in effect seen independently from the SCRIM charts in SCHWARTZ 2002 [2006], pp. 59ff, as analyzed on pp. 55f, where the Gathic correspondence of *Yama- 'the *Twin' with */yama-/ 'twin(ned)' (both < *HyamHá-) is shown as further correlating with verbal forms, with and without preverbs, from *√yam 'to hold'.

In sum, in the background of Iranian *√yam becoming *√yamH we may have four different, formally and semantically overlapping roots, complexly interacting. The chief roots whereby *√yam became *√yamH were *√(H)amH and, arguably, *√HyamH.

With the foregoing remarks ancillary to the formation of *yāsa-/*yāta- (*√yamH), our account of the history of *abiyāta- '(a) memory' and *abiyāsa- 'to remember', both from *abi+√yamH 'to retain (in the mind)', comes to an end.

Appendix

An extra impetus for the verb *abiyāsa- 'to retain, maintain' (alongside *abiyāta- 'that which has been retained/maintained as a memory') becoming the verb for 'to remember' areally in Bactrian, Parthian, and Middle Persian was probably *-grāsa- 'to become awake, aware' in the same semantic field as 'to remember'. In what follows, my account differs from that given by YAKUBOVICH (2013), which argues for a stative origin of some Middle Iranian intransitive verbs in -ās-, for which he makes use of the material in WEBER 1970, whence he speaks of "Weber's Law"; YAKUBOVICH also touches on Parthian ʾbyʾs- (p. 68 fn. 10) as a starting point for the developments he proposes.

First, a suggestion as to how Iranian developed *√grā (unparalleled in Old Indic) from inherited *√(H)gar. The inherited gradations *gar/gār yielded *grāsa-: *grāta- by analogy with inherited *zana-, *zāna-, źnāsa-: źnāta- 'to know', which belongs to the same semantic field, as seen especially in Old Khotanese

ysān- 'to shine', *biysān-* (**wi-zāna-*) 'to become awake', *vis-à-vis haysān-* 'to become aware' with **fra-*, which is widely distributed elsewhere in Iranian with stems **zāna-*, **źnāsa-* 'to know', and it is noteworthy that **fra-* is the sole preverb with *√grā in Avestan.

The attestations for Avestan *fra+√grā* are all worth brief discussion. V 18.16, 24 *fraγrāta-* (stem correctly given by KELLENS 1984, p. 157; the texts' *fraγrātō* is nominative (not locative of an improbable stem **fraγrātu-*, as implied by CHEUNG 2007, p. 173 and YAKUBOVICH 2013, p. 69). For the construction, I adopt the English translation of DARMESTETER (1880, pp. 193ff): 'Bushya[n]sta ... who lulls to sleep the whole ... world, as soon as it has awoke', in which *ahūm* 'existence, world' accusative and, in its own clause, *fraγrātō* 'having awoke' = 'being awake' agree as masculine nouns in decent syntax for the late "Vendidadic" grammar.

The second example for *fra+√grā* is N 19, in which a priest, lest he sleep though morning prayers, tells his colleague, 'You should awaken me, man' (*frā mā gāraiiōiš narə*). Despite his colleague's promise to 'get him up' (text *fraγrāraiiō*), 'he does not get [him] up' (*nōiṯ fraγrāγrāiieiti*). (From here, the corrupt *fraγrāraiiō*, a cross of *frā ... gāraiiōiṯ* and *fraγrāγrāiieiti*, further induced by dissimilation, yielded the form *frγrārāiieiti* at V 18.23.) I take *frγrāγrāiia-* as 'to get someone up (be sure to awaken someone) by a series of actions' (e.g. calling, touching, shaking), with the fully reduplicative stem being frequentative-iterative, as in Gathic *zaozaomī* 'I keep on invoking'.

The last example of *fra+√grā* is the most plausible interpretation for the problematic Hadōxt Nask I.13 *fraγrisəmnō*, KELLENS' (1984, pp. 159f) reconstruction **fraγrāsəmnō*, which furnishes us with **-grāsa-* alongside **-grāta-* (*fraγrāta-* above).

The pair seen in Avestan **fraγrāsa-: fraγrāta-* would have been a factor motivating **abiyāsa-*, originally 'to maintain, retain', areally to become, in Early Middle Iranian, 'to remember', alongside the long-established **abiyāta-* 'that which is memorized' < **'that which is maintained (in the mind)', these sharing with **fraγrāsa-: fraγrata-* 'to become awake' the semantic field 'to be aware'. For this phenomenon note Old Iranian *gāraya-* 'to awaken' > Yazghulami *žir-* 'to think'. **-grāsa-* is an "inchoative" like the inherited **źnāsa-* 'to know', whose form and meaning may also may also be relevant for **abiyāsa-*.

However, it is with preverb **wi-*, not **fra*, that **-grāsa-: *-grāta-* is attested in Middle Iranian: Middle Persian and Parthian /wiγrās-/: /wiγrād/; Sogdian /wiγrās/: /wiγrāt/; and Khwarezmian /uγrās-/: /uγrād/ (*γrʾs-: ʾγrʾd*, also attested without ʾ-); for **wi-* > Khwarezmian /u-/, cf. *ʾzdx* < /wazdah-/. Cf. further with **wi-* Ossetic D *(i)qal* 'awake'. I propose that the marginal **wi* was promoted (to replace **fra-*) in Middle Iranian **wigrāsa-: *wigrāta-* by the rhyming influence of **abiyāsa-: *abiyāta-*.

An approach again taking into account semantic fields provides alternate explanations for other forms discussed in YAKOBOVICH 2013. First, the group

consisting of Psalter Pahlavi ʾwnʾd- /ōnāy-/, Khwarezmian (ʾ)γnʾs-: (ʾ)γnʾsʾd, Persian γunaw-: γunūd, and Christian Sogdian γnʾw 'to slumber' (it is odd that, in connection with Christian Sogdian γnʾw adduced by Sims-Williams 1989, p. 261 from an unpublished text, nobody has mentioned the precise Yaghnobi cognate, γnóу̯- 'to slumber' [Andreev and Peščereva 1957, p. 258 'dremat'']). For the entire series one should proceed from *√gnā (cf. Henning 1971, p. 20b; Yakubovich 2013, p. 69, where, however, as also for *√grā, Yakubovich posits an underlying stative formation). The Middle Persian form *√ōnāy-/ would be parallel to the many stems like /nimāy-/ 'to show' < *√mā. For the remaining forms, *√gnā should be upheld against Cheung (2007, p. 119) root *gnauH. Sims-Williams (1989, p. 261), on the Khwarezmian verb, remarks, "CSogd. γnʾwt ... 'slumbers' ... indicates that the root is in fact *gnu-, hence Chor. *gnāu-sa- (or influenced by its antonym (ʾ)γnʾs-?)." However, the reasoning in Sims-Williams' parenthetic speculation works better as a factor for the existence of *√gnā as a phonic counter to its antonym *√grā, so Khwarezmian (ʾ)γrʾs- served as a model for (ʾ)γnās-. Furthermore, Avestan γənana- 'a blow', γnāna- 'abortifacient' yielded the basis of a root *gnā, whence 'to (be) knock(ed) out', and would give, as in English, 'to slumber'.

Persian γunaw-: γunūd would be from an East Iranian, most probably a Bactrian loanword /γnāu/. Persian γunaw-, with its rare -aw- present stem, shows a past stem γunūd parallel to the common baw-: būd 'to become'. Similarly šunaw-: šunūd 'to hear', where no laryngeal is involved. I explain the latter Sogdian and Persian (< Bactrian?) forms for 'to slumber' from *√gnā crossed with *√nau *'to nod' (cf. English 'to nod out' = 'fall asleep'), evidenced by Sogdian /nāu/ 'to shake one's head' and /nau-/ 'to go slowly', both attested in Manichean spellings, and Old Khotanese vanau- 'to become inactive', with preverb *awa- as also reflected by Middle Persian /ōnāy-/ 'to slumber'; phonetically, the cross was made easier by the spirantization *g > γ, cf. the Greek cognates νεύω 'I nod', νυστάζω 'I am getting sleepy, delay, slumber'.

Finally, the development of *√hwah 'to beat, thrash, thresh' is rightly connected by Yakubovich (2013, p. 68) to Parthian /xwās-/: /xwāsād/ 'to be weak, tired', Khwarezmian */xwās/: /xwād/ 'be weak, tired', Sogdian /xwāt/ 'weak, tired', with */xwāhāta-/ > */xwāt-/. It may be added that */xwāt(a)-/: */xwās(a)-/ was influenced, in the same semantic field, by */gnāt(a)-: */gnās(a)-/ (*'be beat, knocked out' > 'to slumber'), with consequent semantic distinction from */xwāh(a)-: */xwāst(a-) 'to beat, thrash, thresh'.

I have tried throughout this paper, inter alia, to show how taking into account associative processes within and across the realms of form and meaning can yield solutions to etymological problems, where linear explanations fail.[1]

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