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## Where Does Skt *bhāvati* Come From?

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Skt *bhāvati* 'is, becomes' (root *bhū-*) was for the Indian grammarians the canonical specimen of a regular present, the typical representative of the first, or *bhavati*-class.<sup>1</sup> More recently, the derivation of *bhāvati* from *bhū-* has been used as a classroom example to introduce students to two of the most basic rules of Sanskrit grammar – the *guna*-strengthening of *-ū-* and *-ī-* to *-o-* and *-e-* and the change of *-o-* and *-e-* to *-av-* and *-ay-* before vowels. Yet for all its synchronic regularity, the stem *bhāva-* poses daunting historical problems. An exactly cognate form is found in Iranian, where GA *bauvaitī* and OP *bavatiy* all but prove the existence of a class I present *\*bhāuati* in Indo-Iranian. Further afield, however, there is no evidence for a full-grade thematic present of the type Gk *\*phé(w)ō*, Lat *\*fouō* or Gmc *\*bewwan* in any of the other IE languages. We have no basis for assuming a PIE *\*bhéuHeti*; the present *\*bhāuati* was an Indo-Iranian innovation.

This fact is hardly surprising, given the well-known predilection of the root *\*bhuH-* for the zero grade.<sup>2</sup> The apparent substitution of the root form *\*bhuH-* for expected *\*bhēuH-* or *\*bhōuH-* is well documented in the following PIE categories:

1. ROOT AORIST. PIE root aorists of the normal type had *e* ~ zero ablaut, as, e g, in 3sg *\*dhéh<sub>1</sub>-t* 'put', pl *\*dhh<sub>1</sub>-ént*, 3sg *\*g<sup>h</sup>ém-t* 'went', pl *\*g<sup>h</sup>m-ént*. The root aorist of *\*bhuH-*, however, had invariant zero grade, as shown by Ved *ābhū*, *ābhūvan*, Gk *éphū*, *éphūn*, OCS *by(stǔ)*, *byšę* (with secondary sigmatization) and probably Lat *fuī*. The corresponding subjunctive, contrary to the pattern of regular

<sup>1</sup> This paper is an adaptation of my Collitz Lecture at the 1991 Linguistic Institute, held at the University of California, Santa Cruz.

<sup>2</sup> This fact has frequently been noted; see, e g, Anttila (1969:141), Strunk (1972:24-5), and McCone (1991:127 ff). Here and below I give the root as *\*bhuH-*, since there is no reliable evidence for the commonly cited full grade *\*bhēuH-*. The root-final laryngeal is sometimes mistakenly identified as *\*h<sub>2</sub>* on the strength of Lat *-bam*, *-bās*, *-bat*; see note 3.

forms like Ved *gámat* < \**g<sup>u</sup>émet*, *kárat* 'may do' < \**kéret*, etc, clearly had zero grade as well: cf Ved *bhúvat*, *-an*, etc, matching YAv 1sg *buua*, 3sg *buuat*, 3pl *bun* < \**buuən* and, almost certainly, GAv *b(a)uuuat*, etc (see below). Further evidence for the aorist subjunctive \**bhuHe/o-* comes from the Latin future auxiliary *-bō*, *-bis*, *-bit* < \**bh<sup>u</sup>e/o-*, with the same secondary laryngeal loss as in Ved *ābhva-* (disyllabic) 'monster, Unwesen' < \**ǵ-bhu(H)-o-*.<sup>3</sup>

2. PERFECT. The regular *o* ~ zero ablaut pattern of the PIE perfect (e.g., 3sg \**memón-e* 'bears in mind', pl \**memn-ér*, 3sg \**uóid-e* 'knows', pl \**uid-ér*) did not extend to the perfect of \**bhuH-*, which had only the non-alternating zero-grade stem \**bhebh<sup>u</sup>H-*. Typical reflexes are Ved 1, 3sg *babhúva*, with analogical *-ū-* from forms of the type 2sg *babhútha* (< \**bhe-bh<sup>u</sup>H-th<sub>2</sub>e*), etc; Gk 3sg *péphūke*, with secondary *k*-inflection; Umbr 3pl fut perf. *fefure* < \**fefu-z-ent*; and – most interesting of all, perhaps – OIce 3sg *bjó* 'dwelt' < \**beu* < \**bewu* < \**befu*.<sup>4</sup> The apparent *o*-grade of YAv 3sg *buuānuu* (< \**bubānuu*) is clearly an innovation vis-à-vis the zero-grade of Skt *babhúva*. OIr *boí* '(there) was', which has usually been traced to an unreduplicated *o*-grade perfect \**bowe*, is, as we shall see shortly, better explained otherwise.

3. PRESENT. Many PIE roots in \**-VH-* formed athematic presents of the type 3sg \**dhéh<sub>1</sub>-i-e* 'sucks', 3pl \**dhh<sub>1</sub>-i-énti* (or \**-i-é-*

<sup>3</sup> Additional cases of the *ābhva*-type, which reflect a rule of PIE antiquity, will be discussed below. Lat *-bō*, *-bis*, *-bit* closely resembles the Insular Celtic subjunctive of the verb 'to be', which presupposes a stem \**b(w)e/o-* (cf McCone 1991:116 ff). The Celtic forms, however, probably owe their monosyllabicity, at least in part, to an inner-Celtic shortening of \**buwe/o-* (< \**bhuH-e/o-*) to \**b(w)e/o-* in clitic position rather than to an IE sound law. Entirely parallel to Lat *-bō*, *-bis*, *-bit* and Celtic \**b(w)e/o-* are the Latin imperfect auxiliary *-bam*, *-bās*, *-bat* and the Old Irish preterite \**b(w)ā-* (cf 1sg *bá*, 3pl *báir*, etc), which can only go back to a virtual PIE \**bhuH-eh<sub>2</sub>-*, with an element \**-eh<sub>2</sub>-* of controversial origin. Nothing, in my opinion, speaks for Rix's derivation of *-bam*, *-bās*, *-bat* from an otherwise unknown full-grade root aorist \**bh<sup>u</sup>eh<sub>2</sub>-* (Rix 1976:214).

<sup>4</sup> I owe this derivation to Haraldur Bernharðsson. The Proto-Germanic reduplicated stem \**bebū-* is still palpable in OHG 3pl pret *biruun* (i.e., *birū +un*), with the curious, but independently documented, substitution of *-r-* for medial *-b-* (β).

*r*), with *e* ~ zero ablaut, invariant \**-i-* as a stem formative, and perfect-like endings.<sup>5</sup> The original 'i-present' inflection is best preserved in the Hittite type 3sg *išhāi* 'binds', pl *išhiyanzi*, 3sg *dāi* 'puts', pl *tiyanzi* – a class on which Jaan Puhvel wrote insightfully a generation ago.<sup>6</sup> Outside Anatolian such forms were mostly remade to presents in \**-je/o-*, usually with generalized full grade of the root (cf Arm *diem*, Latv. *dēju* 'I suck', OHG *tāen* 'suckle' < \**dhéje/o-*; Ved *dháyati* 'suckles' < \**dhéje/o-*).<sup>7</sup> The PIE present of \**bhuH-* was of this type as well. Here, however, there were no full-grade forms; the daughter languages show only reflexes of \**bhūje/o-* (Gmc \**būan* 'dwell'), \**bhūje/o-* (Gk *phúomai* 'I grow') and – with laryngeal metathesis of \**bhuH-i-* to \**bhūiH-* – \**bhūje/o-* (Lat *fiō* 'I become', OIr *búid* 'is wont to be', OS *biu(m)* 'I am').

4. DESIDERATIVE/FUTURE. The PIE desiderative presents in \**-(h<sub>1</sub>)s-*, of which several types must be distinguished, were mostly characterized by full-grade vocalism. The 'future' in \**-(h<sub>1</sub>)s-je/o-*, best attested in active participles, normally had *e*-grade: cf Ved *vakšyánt-* 'about to say', *karišyánt-* 'about to do', Lith *dėgsiant-* 'about to burn', *veřksiant-* 'about to weep', etc. Ved *bhavišyánt-* 'about to be' conforms to this pattern, but the full grade *bhav-* is shown to be secondary by the three-way agreement of YAv *būšiant-*, Lith *būšiant-* and OCS *byšqšt-*, all with zero grade. Another sigmatic formation, athematic and originally characterized by *ē* ~ *ě* ('Narten') ablaut, underlies the Oscan-Umbrian future and the finite forms of the Baltic future (cf 3p *dėgs*, *veřks*).<sup>8</sup> Significantly, here too the corresponding forms of the verb 'to be' have zero grade

<sup>5</sup> A second, less frequent type, represented by 3sg \**spéh<sub>2</sub>-i-e* 'gets along well', 3pl \**spéh<sub>2</sub>-i-nti*, had *ē* ~ *ě* ablaut; both types inflected according to the '*h<sub>2</sub>e*-conjugation' (cf Jasanoff 1994:160-1).

<sup>6</sup> Cf, e.g., Puhvel (1960:55-60).

<sup>7</sup> The short *-ā-* of Ved *dháyati* appears to have been extracted from the original 1sg form, where the root-final laryngeal was lost by a regular IE dissimilation rule (\**dhéh<sub>1</sub>-i-h<sub>2</sub>e* > \**dhéh<sub>1</sub>h<sub>2</sub>a* > \**dhāja*). So too Gk *dēō* 'I bind', *ktáomai* 'I obtain', etc, likewise with a short vowel (cf Jasanoff 1994:160-1).

<sup>8</sup> Narten ablaut is suggested by the Baltic union vowel *-i-* (Lith 1 *phėřksime*, 2pl *veřksite*, etc), which points to a lost 3pl in \**-inti* < \**-nti*. Cf Jasanoff (1988b:233-4).

(Osc, Umbr 3 sg *fust*, Lith *būs* < \**būst(i)*). In Greek, where the future in *-se/o-* properly has *e*-grade (cf *punthánomai* 'I learn', fut *peúsomai*, etc), the future of *phúomai* is simply *phúsomai*.

5. ITERATIVE-CAUSATIVE. The causative of *bhū-* in Sanskrit is *bhāvayati*, which has sometimes been compared with OCS *iz-baviti* 'save, redeem' and referred to a PIE lengthened grade \**bhōuH-éje/o-*. Neither the Sanskrit nor the Slavic form, however, is likely to be old. *bhāvayati* has no counterpart in Avestan, and is represented in the Rigveda only by the adjective *bhāvayú-* 'invigorating', which is found once in the tenth book.<sup>9</sup> In Slavic, *iz-baviti* is transparently a derivative of *iz-byti* 'escape', and as such is easily explained as an analogical creation on the model of pairs like *u-naviti* : *u-nyti* 'make/grow slack', \**taviti* (cf Slov *o-taviti* 'fortify') : *tyti* 'make/grow fat', etc. The PIE iterative-causative of \**bhuH-*, if there was one, was probably in fact simply \**bhuH-éje/o-*, with zero-grade. Indirect evidence for such a preform survives in Germanic, where \**bhuH-éje/o-* initially yielded pre-Gmc \**buwijan-* and then, with analogical substitution of the vowel of the non-causative present (\**bū-(j)an-*), \**būwijan-*. The new \**būwijan-* gave \**buwwijan-*, which eventually yielded the Old Norse weak verb *byggva*, *-ja* 'live, settle, populate'.<sup>10</sup>

We are now in a position to see the problem of IIr \**bháuati* in a slightly wider perspective. The root \**bhuH-* was apophonically invariant in late Proto-Indo-European, at least as far as the verbal system was concerned. Early Indo-Iranian inherited a complete inventory of zero-grade tense stems, including, inter alia, an aorist (\**bhū-*), a perfect (\**bhabhū-*), a future (\**bhūšjád-*), (probably) a causative (\**bhuuájá-*) and, above all, a present (\**bhūjā-* or \**bhūjā-*). The last of these, for which we may write simply \**bhūjā-*, was replaced within Indo-Iranian by the innovated stem \**bháuā-*; it was this present that became the starting point for the spread of the *guṇa* grade \**bhau-* and the *vṛddhi* grade \**bhāu-* to other morphological

<sup>9</sup> The evidently secondary character of the causative of *bhū-* in Indo-Iranian makes it impossible to accept Insler's suggested emendation of GAV *dābāuuaiiat* to \**bāuuaiiat* at Y. 31. 17 (Insler 1975:16, 189).

<sup>10</sup> So Þórhallsdóttir (1993:157 ff).

categories. So far as we can judge, the propagation of \**bhāu-* outside the present system was largely or wholly a post-Indo-Iranian process. Thus, the Vedic future *bhaviṣyá-* is demonstrably an innovation vis-à-vis Av *būšjā-*, while the late Vedic causative *bhāvaya-*, along with such forms as the gerundive *bhāvīa-/bhāvīá-* and the infinitive *bhāvītum*, are wholly confined to Indic. Another secondary full-grade form is the peculiar Vedic imperative *bodhī*, which appears to be based on an inner-Indic treatment of the Indo-Iranian 2sg present imperative \**bháuā*.<sup>11</sup>

Comparable instances of 'neo-*guṇa*' and 'neo-*vṛddhi*' in Iranian are harder to identify. The only clear case is the Younger Avestan 3sg perfect *buuāuua*, which corresponds to a virtual Indic \**bubhāva*. More problematic are the Gathic root aorist subjunctives variously transmitted as 3sg *bauuat*, *bauuaiti*, 3 pl *bauuaitī*, with apparent full grade, and as *buuat*, *buuaiti*, *buuaitī*, with zero grade. Hoffmann (1967:236-7, n 246) takes the spellings with *-auu-* to be correct and assumes a full-grade subjunctive \**bháuat(i)* for Indo-Iranian; the use of the stem \**bháuā-* in non-modal contexts, in his view, eventually led to its reinterpretation as a present indicative in Sanskrit, Younger Avestan and Old Persian.<sup>12</sup> This is hardly possible. The shared zero grade of Ved *bhūvat*, YAv *buuat*, and Lat *-bō*, *-bis*, *-bit* is palpably an IE inheritance; even if *bauua-* were the real root aorist subjunctive of *bū-* in Gathic Avestan, the full grade would have to be an inner-Gathic innovation. In fact, however, there is no reason to trust the spellings with *-auu-* at all. The graphic sequences <aii> and <auu> are often substituted for original <ii> and <uu> in Avestan, and vice versa; a particularly revealing example is the hapax form *hābuuaitīš* Y. 38. 3 (Yasna Haptanḥāiti), which is

<sup>11</sup> *bodhī* is discussed in an important paper by Stephanie Jamison (Jamison, to appear), who shows that this form, unlike the regular imperative *bhāva*, occurs primarily in positions in the pada that would have been favorable to sporadic contraction or shortening. She advocates a Prakrit-like contraction of \**bhāua* to \**bho*, with subsequent addition of \**-dhi*. I would prefer to take \**bho* from an apocopated byform \**bhau'*, typologically comparable to Lat *fac*, *dīc*, *dūc* < *face*, *dīce*, *dūce*.

<sup>12</sup> So already Kuiper (1937:98).

found with *-auu-* spellings in four manuscripts.<sup>13</sup> The only economical hypothesis is that the true Gathic subjunctive was *buuat*, *buuaiti* and *buuainī*, with the same zero grade as in the other Indo-Iranian dialects.<sup>14</sup>

Where then – to modify the question asked in our title – did Ir *\*bháuyati* in fact come from? There was nothing even remotely similar-looking in Proto-Indo-European, where the present of *\*bhūH-* was *\*bhūH-i-*; nor was there any other tense or mood of Ir *\*bhū-* from which a full grade *\*bhau-* could have been abstracted. No other common Indo-Iranian root in *\*-ū-* had a present in *\*-áuyati* – a fact which eliminates the possibility of explaining *\*bháuyati* as a rhyme formation.<sup>15</sup> Given the absence of any obvious alternatives, it may seem tempting to regard the replacement of pre-Ir *\*bhújati* (vel sim.) by *\*bháuyati* as an unmotivated morphological shift, a simple change in lexical marking that transferred the root *\*bhū-* from one form class (present class IV) to another (present class I). Realignment of this kind are found in many languages: nouns, e.g., may change their plural in German or their gender in French. The mechanism at work in such cases is clear: children with limited exposure to primary linguistic data make incorrect assumptions about the grammatical behavior of individual words and transmit their errors to other speakers. The reason why the shift from *\*bhújati* to *\*bháuyati* cannot be adequately explained in this way is that it is impossible to imagine the conditions under which a remodeling so drastic, especially in the common verb ‘to be’, could have resisted

<sup>13</sup> Cf Narten (1986:69, 211-2), disambiguating Kellens (1984:360-1).

<sup>14</sup> So correctly Insler (1975:19, 132) and, more recently, Kellens and Pirart (1988:50), who note that the change of the preverb *auuā* to *auuō* in *auuō.b(a)uuaitī* (Y.30. 10) points to an original *-u-* in the following syllable.

<sup>15</sup> Thematic presents were formed by the Indo-Iranian roots *\*pū-* ‘purify’, *\*žhū-* ‘call’ and *\*ū-* ‘favor’. The stem *páva-* is media tantum in Vedic and not found in Iranian. Ved *háva-* is likewise media tantum; its rare Avestan cognate *zauua-* is found once in the middle and once in the active beside the far commoner *zabaiia-* (= Ved *hváya-*). The closest parallel to the pattern *\*bhū-* : *\*bháuyati* is thus *\*ū-* : *\*áuyati* (cf Ved *ávati*, Av *auuaiti*), but the similarity is illusory: the two verbs are in no other way parallel, and the zero grade *\*ū-* is, synchronically speaking, little more than a grammarians’ fiction.

correction and taken root in a language as conservative as Indo-Iranian.

A new and more promising approach to the problem of *\*bháuyati* is suggested by the history of a seemingly unrelated form in another branch of Indo-European. The Old Irish 3sg *boí* (conjunct *·boí*, unstressed *-bae*) ‘(there) was’ belongs synchronically to the paradigm of the substantive verb; it is usually traced to a Common Insular Celtic *\*bowe* (cf above) and compared with MW *bu* ‘was’, which presupposes an apocopated variant *\*bow*.<sup>16</sup> The preform *\*bowe*, outwardly the 3sg of an *o*-grade perfect, occupies a position in Celtic somewhat analogous to that of *\*bháuyati* in Indo-Iranian. Celtic, like Indo-Iranian, inherited only zero-grade forms of *\*bhūH-*, and limited its apophonic experiments with this root to the form *\*bowe* itself (cf pres *\*b(w)jē/o-*, pret *\*b(w)ā-*, subj *\*b(w)e/o-*, verbal noun *\*butā*). At first glance, it might seem attractive to attribute the *o*-grade of *\*bowe* to a pre-Celtic remodeling of the inherited 3sg perfect *\*bhebhūH-e* (or *\*bebuwe*) to *\*bhebhóuH-e* (*\*bebowe*),

<sup>16</sup> A preform *\*bāwe* (*\*bāw*) would also account for the attested forms, but would be much harder to justify morphologically. McCone (1991:131-3) favors starting from a thematic 3sg *\*buwet*, which he sees as the analogical replacement of an earlier root aorist *\*būt*. This does not seem likely. There is at best uncertain evidence that Proto-Celtic *\*uwe-* would have given *-owe-* in Irish; McCone’s belief in a ‘Celtic change *uw > ow* before a vowel other than *i*’ seems to be based on his view that OIr *oac* and MW *ieuanc* ‘young’, along with Gallo-Lat *louincillus*, go back to a preform *\*yowankos* < *\*yūwankos* < *\*h<sub>2</sub>ju-H<sub>2</sub>ko-*. But *\*yowankos* is not the phonological reflex of *\*h<sub>2</sub>ju-H<sub>2</sub>ko-*, which would have given *\*yunkos* < *\*yūnkos* in Celtic, just as *\*Hi-H<sub>2</sub>ko-* ‘reaches’ gave *\*inketi* and OIr *icc*. The vocalism of *oac* and *ieuanc* is an analogical transfer from the comparative and superlative (OIr *oa*, *oam*, MW *ieu*, *ieu(h)af*), where *\*h<sub>2</sub>jeu-* was inherited from the parent language (cf Ved *yávīyas-*, *yávīṣṭha-*). Chronologically, the creation of McCone’s *\*buwet* would have to have postdated the replacement of the stems *\*buwe/o-* (subj) and *\*buwā-* (imperfect (?)) by *\*b(w)e/o-* and *\*b(w)ā-* – a replacement that was only completed in the Insular Celtic period. But if *\*buwet* was in fact a relatively late innovation, it is curious that neither Irish nor Brittonic preserves any trace of the thematic stem *\*buwe/o-* elsewhere in the preterite paradigm. Old Irish, in particular, shows only suppletive forms in *bá-* (1sg *bá*, etc) where McCone’s theory predicts *\*bó-* < *\*bowo-* < *\*buwo-*. The isolation of the 3sg *boí* suggests that it is a relic form, not a recent normalization.

parallel to the remodeling of IIr *\*bhabhūya* to *\*bubāya* (> *bu-uāuua*) in Younger Avestan. But the creation of *\*bubāya* (> *bu-uāuua*) in Iranian was powerfully assisted by the already well-established present *\*baūati*, which had no equivalent in Celtic. And *\*bowe*, it must be emphasized, is NOT the regular reflex of *\*bebowe*, which would have retained its reduplication and yielded *\*bebae* in Old Irish (cf 3 sg *lelaig* 'licked' < *\*lelōigh-e*, *geguin* 'slew' < *\*g<sup>h</sup>heg<sup>h</sup>hón-e*, etc). Reduplication was an integral part of the perfect stem in Proto-Indo-European and remained so in most of the early IE languages – a fact which tends to be underappreciated by scholars steeped in the special history of the perfect in Germanic. If the early Celts had taken the trouble to create a 'normal' 3sg perfect *\*bebowe*, it is hard to see why they would have proceeded to strip the newly regularized form of its canonical first syllable.

In an article written some years ago (Jasanoff 1988a), I reviewed these facts and proposed a different analysis of *\*bowe*. The PIE 3sg perfect *\*bhebhúH-e*, I argued, would almost certainly have given Celtic *\*bebwe*; this, I suggested, was dissimilated to *\*bewe* within Celtic, whence the quasi-attested *\*bowe*.<sup>17</sup> I did not attempt to specify the mechanics of the change from *\*bhebhúH-e* to *\*bebwe*, noting merely that PIE roots with zero-grades of the form *\*(C)CRH-* normally appear in Old Irish with 3sg perfects of the type *\*Ce(C)CR-e* or *\*Ci(C)CR-e* (cf 3sg *ad.géuin* 'knows' < *\*-gegne* (root *\*g<sup>h</sup>neh<sub>3</sub>- / \*g<sup>h</sup>nh<sub>3</sub>-), *túil* 'took away' < *\*túle* (root *\*telh<sub>2</sub>- / \*tlh<sub>2</sub>-), *dith* 'sucked' < *\*did(y)e* (quasi-root *\*dheih<sub>1</sub>- / \*dih<sub>1</sub>-)).* Most such forms, of course, are analogical, as shown by their generalized zero grade. In the case of the root *\*bhuH-*, however, there is good reason to believe that the 3sg perfect *\*bhebhúH-e* would have been reduced to *\*bhebhue* within the parent language itself. A well-known PIE process (the 'neognós rule') deleted root-final laryngeals in sequences of the form *\*-CRH-V-* in certain word-medial environments; these included (a) second position in compounds (cf Gk *neognós* 'new-born', Lat *prīui-gnus* 'stepson' < *\*-g<sup>h</sup>n(h<sub>1</sub>)-ó-*; Ved *tuvi-grá-* 'mightily swallowing' < *\*g<sup>h</sup>r(h<sub>3</sub>)-ó-*; Ved *a-grú* 'maid' (< *\*'never pregnant'*) < *\*g<sup>h</sup>r(h<sub>2</sub>)-ú-*), and (b) the position following a**

<sup>17</sup> Cf McCone (1991:126-7), who appears not to know my 1988 discussion.

reduplication syllable (cf Gk *gígnetai*, Lat *gignitur* 'is born' < *\*-g<sup>h</sup>n(h<sub>1</sub>)-e-*; Ved 3 sg *ápíprata* 'filled' < *\*-pl(h<sub>1</sub>)-e-*; probably Ved *cákra-*, Gk *kúklos*, etc 'wheel' < *\*-kel(H)-o-*).<sup>18</sup> Among the roots known to have been subject to this treatment was *\*bhuH-*, which clearly underwent reduction to *\*-bhū-* in Lat *\*-bō*, *\*-bis*, *\*-bit* < *\*-bhu(H)-o-* and Ved *ábhva-* < *\*-bhu(H)-o-* (cf above). The reduplicated perfect *\*bhebhúH-e* should therefore have appeared as *\*bhebhue*.<sup>19</sup>

The subsequent simplification of *\*bebwe* (*\*bhebhue*) to *\*bewe* (*\*bheue*) could in principle have come about through regular sound change or sporadic dissimilation. In my 1988 discussion, which took it for granted that the reduction of the internal cluster was a purely Celtic phenomenon, I favored the assumption of an early Celtic (i e pre-lenition) sound law which converted intervocalic *\*-bw-* to *\*-w-*. Such a rule could probably still be defended, although recent discoveries have significantly diminished its appeal.<sup>20</sup> Celtic considerations aside, however, the recognition that *\*bhebhue* was already a PIE form makes it attractive to think of the change of *\*-bhū-* to *\*-ū-* as a PIE development as well. This assumption would have the advantage of allowing a common solution to the problem of Celtic *\*bowe* and the still unexplained Indo-

<sup>18</sup> Cf Mayrhofer (1986:129, 140), who confines his examples to cases of *\*h<sub>1</sub>* and to *\*bhuh<sub>2</sub>-*, the laryngeal of which is in fact indeterminate (see n 2). That the word for 'wheel' belongs here was pointed out to me by Alan Nussbaum.

<sup>19</sup> Since accented zero grades were infrequent and for the most part secondary in Proto-Indo-European, the perfect of *\*bhuH-* is inevitably the only quotable case in which the laryngeal lost by the *neognós* rule was preceded by an accented vowel. (Note, however, the possibly related laryngeal loss in Ved 3sg perf *jájana* (: *jan'-beget*) < *\*gégón(h<sub>1</sub>)e*, if the *-ā-* of this form is not simply analogical.) Whether the accent of 3 sg *\*bhebhúH-e* would have been displaced leftwards (*\*bhébhue*) or rightwards (*\*bhebhúé*) by the loss of the medial syllable is unknowable but irrelevant; see further below.

<sup>20</sup> In particular, it is now clear that OIr *subae* 'joy' < *\*su-bwiyo-* 'well-being' is a genuine counterexample; my earlier comparison of *subae* with Gk *hugieta* 'health' must be withdrawn in the light of Weiss' demonstration that *hugieta* goes back to *\*h<sub>2</sub>iu-g<sup>h</sup>ih<sub>3</sub>-* 'having long-lasting life' (Weiss 1993:169 ff). The origin of the Old Irish *f*-future is too obscure to shed any light on the treatment of medial *\*-bw-*.

Iranian *\*bháya-*. I would therefore now suggest that the simplification of PIE *\*bh...bhū...* to *\*bh...ū...* was an inner-IE dissimilation – a sporadic change favored both by the unstable, typologically marked character of the cluster *\*bhū*<sup>21</sup> and by the frequency of the form *\*bhebhūe*, which had a meaning approaching that of the copula (see below). Once in place, the new *\*bheue* would have developed normally to *\*bewe* in Celtic, whence *\*bowe* and OIr *boí*. The treatment of *\*bheue* in Indo-Iranian was, as we shall see, somewhat more complicated.

If the above hypothesis is correct, the pre-Indo-Iranian perfect of the root *\*bhū-* must have included a 1sg *\*bhebhūya* < *\*bhebhūH-h<sub>2</sub>e*, a 2sg *\*bhebhūtha* < *\*bhebhūH-th<sub>2</sub>e*, and a 3sg *\*bheue* < *\*bhebhūe* < *\*bhebhūH-e*.<sup>22</sup> A few other synchronic facts can be noted. It is probably safe to assume that the 3sg *\*bheue* would have been accented *\*bhéue* in early Indo-Iranian – either because the position of the PIE accent was regularly shifted leftward when *\*bhebhūH-e* underwent the *neognós* rule within the protolanguage, or because *\*bheué*, the phonologically regular output of the *neognós* rule, was analogically remade to *\*bhéue* under the influence of *\*uóide* ‘knows’ and other 3sg perfects in *\*-e*. From a semantic point of view, the perfect of pre-Ir *\*bhū-* would have covered a considerable spectrum of values, ranging from the inherited stative sense (‘be in the state of having become’ > ‘be, be wont to be’) to the

<sup>21</sup> Note that the cluster *\*b(h)u-* even where apparently secondary as in Celtic *\*b(w)e/o-* and *\*b(w)ā-* – is almost never retained in the attested IE languages. Ved *ābhva-* is altogether exceptional and may owe its preserved *-bhv-* to the still palpable synchronic connection of this form with the root *\*bhū-*. Indeed, it is not unlikely that the simplification of *\*bhū* to *\*bh* was already a PIE change and that the aberrant development of *\*bhebhūe* to *\*bheue* was a special treatment conditioned by the *\*bh* of the immediately preceding syllable. Such a view would be consistent with the old idea that PIE *\*-bhūo-* was the source of the nominal suffix *\*-bho-* in animal names (cf Ved *vṛṣabhá-* ‘bull’, Gk *éripfos* ‘kid’, etc).

<sup>22</sup> The phonological treatment of the 3sg would presumably have been repeated in the 3pl, where *\*bhebhūH-ér* (*\*-r(s)?*) ought to have given PIE *\*bheué<sub>r</sub>* or *\*bheú<sub>r</sub>(s)*. Not surprisingly, there is no reflex of such a form in the attested daughter languages.

newer ‘resultative’ value (‘have become’) that the perfect displays in most of the IE daughter languages.

Predictably, the paradigm just described, with its idiosyncratic alternation of *\*bhebhū-/bhebhūy-* and *\*bheue-*, proved highly unstable. Like Greek, Germanic and possibly Italic (though not Celtic), Indo-Iranian reintroduced the reduplicated stem *\*bhebhū-/bhebhūy-* into the 3sg, thus creating a new *\*bhebhūye* or *\*bhebhūye* (> Ved *babhūva*). The effect of this step, however, was not to eliminate the older 3sg *\*bhéue*, but to trigger a paradigm split. *\*bhebhūye*, as the formal renewal of the 3sg perfect, took on all the productive perfect functions, maintaining them into the historical period. *\*bhéue*, on the other hand, survived as a relic form in the meaning ‘is, is wont to be’, losing its specifically resultative value and approaching the sense of the inherited present *\*bhūje/o-* (< *\*bhūH-i-*) ‘become, be, be wont to be’. Once established in Proto-Indo-Iranian as the functional equivalent of a present, *\*bhéue* – or, as we may now write, *\*bháya* – appeared exceptional in another way: it lacked the characteristic ending *\*-ti*, which marked every other 3sg present active in the language. Almost inevitably, the anomaly was corrected through the expansion of *\*bháya* to *\*bháyati*, just as, e.g., 3sg *ásaya* ‘lay’ and *áduha* ‘milked’ were later remade to *ásayat* and *áduhat* in Vedic. The new *\*bháyati* gave rise to a complete class I paradigm (1sg *\*bháyā(mi)*, 2sg *\*bháyasi*, etc), which fell together semantically with the older present *\*bhūyati* and eventually replaced it entirely.<sup>23</sup>

According to this account, then, Ir *\*bháyati* was not originally a full-grade thematic present at all. The root *\*bhūH-* did not make a full grade in Proto-Indo-European, nor did a full grade of *\*bhū-* exist in Proto-Indo-Iranian prior to the creation of *\*bháyati* itself. The entry of the stem *\*bháya-* into the Indo-Iranian verbal system was effected, so to speak, by the back door. Normal phonological processes reduced the 3sg perfect *\*bhebhūH-e* to *\*bheue* in late Proto-Indo-European; the synchronic opacity of this form then led in Indo-Iranian to its complete disassociation from the perfect

<sup>23</sup> *\*bhūyati* too, it should be noted, would have acquired its *\*-ti* secondarily; the PIE 3sg was *\*bhūH-j-e* (cf note 5).

paradigm and, ultimately, to the formal renewal \*bháya > \*bháyati. The seeming transparency of Skt *bhávati* merely underscores the truth of Meillet's famous dictum (Meillet (1931:194)) that 'les formes qui, à date historique, sont normales, sont celles qui ont subi le plus de réfection.'<sup>24</sup>

## REFERENCES

- Anttila, Raimo  
1969 *Proto-Indo-European Schwebeablaut*. Berkeley and Los Angeles: University of California Press.
- Hoffmann, Karl  
1967 *Der Injunktiv im Veda*. Heidelberg: Carl Winter.
- Insler, Stanley  
1975 *The Gāthās of Zarathustra*. Leiden: Brill.
- Jamison, Stephanie  
to appear Syntactic Constraints on Morphological Change: the Vedic Imperatives *bodhí, dehí, dhehí*.
- Jasanoff, Jay H.  
1988a Old Irish *boí* 'was'. In *Languages and Cultures: Studies in Honor of Edgar C. Polomé*, edited by M. A. Jazayery and W. Winter, 299-308. Berlin, New York and Amsterdam: Mouton de Gruyter.
- 1988b PIE \*ǵnē- 'Recognize, Know'. In *Die Laryngaltheorie*, edited by A. Bammesberger, 227-39. Heidelberg: Carl Winter.
- 1994 Aspects of the Internal History of the PIE Verbal System, in *Früh-, Mittel-, und Spätindogermanisch.*, ed. G.E. Dunkel et al, 149-68. Akten der IX. Fachtagung der Indogermanischen Gesellschaft. Wiesbaden: Harrassowitz.
- Kellens, Jean  
1984 *Le Verbe Avestique*. Wiesbaden: Harrassowitz.

<sup>24</sup> Quoted after Watkins (1969:63).

- Kellens, Jean and Eric Pirart  
1988 *Les Textes Vieil-Avestiques*. Volume I: Introduction, texte et traduction. Wiesbaden: Harrassowitz.
- Mayrhofer, Manfred  
1986 *Indogermanische Grammatik. 1.2. Lautlehre* [Segmentale Phonologie des Indogermanischen]. Indogermanische Bibliothek. 1. Reihe: Lehr- und Handbücher. Heidelberg: Carl Winter.
- McCone, Kim  
1991 *The Indo-European Origins of the Old Irish Nasal Presents, Subjunctives and Futures* [= Innsbrucker Beiträge zur Sprachwissenschaft 66]. Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
- Meillet, Antoine  
1931 Caractère secondaire du type thématique indo-européen, *BSL* 32:194-202.
- Narten, Johanna  
1986 *Der Yasna Haptaṅhāiti*. Wiesbaden: Harrassowitz.
- Puhvel, Jaan  
1960 *Laryngeals and the Indo-European Verb* [= University of California Publications in Linguistics, no. 21]. Berkeley and Los Angeles: University of California Press.
- Rix, Helmut  
1976 *Historische Grammatik des Griechischen*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Strunk, Klaus  
1972 Ai. *babhúva*, av. *buuāuua*: ein Problem der Perfektbildung im Indoiranischen, *KZ* 86:21-7.
- Pórhallsdóttir, Guðrún  
1993 *The Development of Intervocalic \*j in Proto-Germanic*. Unpublished Cornell University dissertation.
- Watkins, Calvert  
1969 *Indogermanische Grammatik. 3. Formenlehre. Erster Teil. Geschichte der Indogermanischen Verbalflexion*. Heidelberg: Carl Winter Verlag.

Weiss, Michael

1993

*Studies in Italic Nominal Morphology*. Unpublished  
Cornell University dissertation.

## The Myth of Direct Reflexes of the PIE Palatal Series in Kati

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The reconstruction of a Proto-Indo-European stop system with a five-place contrast (exemplified throughout this discussion by the voiceless series, *\*p*, *\*t*, *\*k*, *\*kʷ*, and *\*kʷʰ*) is surely taken for granted now. The reasons for three different dorsal contrasts are well-known and do not require rehearsal. At a minimum, it is the only reconstruction compatible with sound theory and method; beyond that there are Indo-Europeanists who seem to accept it as a reasonable stab at actual history or even regard the threeway dorsal contrast as an important discovery.

As late as the 1920s, however, the acceptability of the three-dorsal reconstruction was still a live issue; and some scholars dismissed it in blunt terms (Sturtevant 1926, for example, inveighs against the whole idea of a centum/satem division). And the problems with the plausibility of the PIE stop system qua system have if anything increased with time and reflection. Although there are known stop systems with as many contrasts – and more – they always are elaborated in fashions different from the PIE reconstruction. The choice seems to be between an elaboration of coronal oppositions, as in Malayalam's /p t̪ c k/; or an elaboration of dorsal contrasts in a fashion quite different from the Indo-European reconstruction, as in the typical Salishan system, e.g. Bella Coola, of /p t k kʷ q qʷ/. In fact, there seem to be no known languages with a five-place contrast distributed in the way reconstructed for PIE.

When uneasiness is voiced over the usual reconstruction, the plain velars are usually the focus of concern. To cite a recent example, Huld (1984:138) frames his discussion of the reflexes of three dorsal stops in Albanian in terms of its bearing on the reconstruction of the plain velars specifically. There is no question that the evidence for the palatals and labiovelars is qualitatively different from the evidence for the plain velar series. Most good cases of plain velars are attested adjacent to liquids (chiefly *\*r*, but not rarely *\*l*), the high