Long-vowel preterites in Indo-European

Long-vowel preterites — the term we will use here for the Latin perfect type *lēgī* (: pres. *legō* 'gather, read') and related forms with past-tense value elsewhere — remain a notorious loose end in our picture of the PIE verb.[1] The data are too well known to require full discussion here; the purpose of the present paper is to develop a framework for understanding the role of these forms in the parent language.

In addition to Italic, where perfects with *ē*-vocalism are formed to about a dozen roots,[2] long-vowel preterites are robustly attested in four IE branches:

Baltic. Lengthened-grade preterites, all extended by the productive tense sign **-ē-*, are regularly built to *e*-grade presents in **-C-i̯a-*. Exx.: Lith. 3 p. *gẽria* 'drink(s)' : pret. *gė́rė*, *lẽkia* 'fly(s)' : pret. *lė̃kė*, etc.; with secondary lengthening of other vowels *skìria* 'divide(s) : pret. *skýrė*, *gùlia* 'lie(s) down' : pret. *gū́lė*, etc.

Albanian. Aorists with *o*-vocalism (< **-ē-*) occur beside presents with historical *e*-grade (= Alb. -*e*-, -*je*-, -*i*-). Exx.: 3 sg. *vjedh* 'robs' : aor. *vodhi*, *mbledh* 'gathers' : aor. *mblodhi*, etc.; with root-final palatalization *djeg* 'burns' : aor. *dogji*, etc.

Tocharian. Class II preterites, regularly causative, have etymological *ē*-vocalism in Toch. B. Exx. *kärs-* 'know' : caus. pret. 3 sg. *śārsa* 'proclaimed', *läm-* 'sit' : caus. pret. *lyāma* 'seated', etc.; without causative meaning *läk-* 'see' : pret. *lyāka* 'saw' (= Toch. A impf. *lyāk*), etc.[3]

---

[1] Here and below, "preterite" is used as an informal cover term for any kind of past tense, including the Latin perfect, the Greek, Albanian, and Slavic aorist, the Baltic, Tocharian, and Germanic preterite, and the imperfect in all these languages. The long-vowel preterites of PIE, to the extent we can use this expression, could in principle have been perfects, aorists, imperfects, or something else entirely.

[2] These are a mixed bag, including root aorists (e.g., *fēcī* < **dheh₁-k-*, *uēnī* < 1 sg. **gʷēm* < **gʷem-m* (Stang's Law; cf. Kim 2001)) as well as apparent lengthened-grade forms like *lēgī*.

[3] The B *lyāka* = A *lyāk* equation is uncontroversial, but the relationship of *lyāka*/*lyāk* to causative B *śārsa*, *lyāma*, etc. has been questioned. See the discussion by Malzahn (2010: 158 ff., 186 ff., 262-3).

Germanic. Strong verbs of class V, and by analogy class IV, show *-$\bar{e}$- for expected zero grade in the preterite plural. Exx.: Go. *giban* 'give', pret. 3 sg. *gaf*, pl. *gebun*; *sitan* 'sit', pret. 3 sg. *sat*, pl. *setun*; with *-$\bar{e}$- in both singular and plural Go. *itan* 'eat', pret. *et*, *etun*.

The evidence of Italic, Baltic, Albanian, Tocharian, and Germanic can be supplemented by important isolated forms elsewhere in the family, e.g., OCS aor. 1 sg. *ob-rětъ* 'I found', *sъ-rětъ* 'I met' (< *$r\bar{e}t$-; pres. *-ręštǫ*); Gk. μῆστο· βουλεύσατο 'took counsel' (< *$m\bar{e}d$-); OIr. pret. 3 sg. ·*mídair* 'judged' (< *$m\bar{e}d$-; pres. ·*midethar*). The last two of these are cognate, forming a word equation almost as significant as the often-noted three-way equation of Lat. *lēgī*, Alb. *mblodhi*, and Toch. B *lyāka* ('saw' < *'gathered'). The long-vowel preterite was thus clearly an inherited category. From an IE perspective, the challenge is 1) to identify the locus and extent of the original formation, and 2) to translate the informal notion "preterite," which has no place in IE comparative grammar, into the familiar tense and aspect categories (aorist, perfect, etc.) of the protolanguage.

Two approaches dominate recent discussions of the problem. One is the REDUPLICATION THEORY, which takes as its starting point the reduplicated perfect. Two kinds of roots, under this approach, yielded perfects with $\bar{e}$-vocalism in the daughter languages: a) roots in initial *h_1e- (e.g., Lat. $\bar{e}d\bar{\imath}$ (: $ed\bar{o}$ 'eat') < *h_1e-$h_1(o)d$-); and b) roots of the form *T_1eT_2- (T = obstruent), where, at least according to the most widely accepted version of the theory, *T_1e-T_1T_2- gave *$T_1\bar{e}T_2$- by an inner-PIE development. The alternative to the reduplication theory is the NARTEN THEORY, which takes long-vowel preterites from the imperfects of Narten presents (e.g., Lat. $\bar{e}d\bar{\imath}$ < *$h_1\bar{e}d$-, $\bar{e}g\bar{\imath}$ (: $ag\bar{o}$ 'drive') < *$h_2\bar{e}\hat{g}$-, etc.). Although both approaches have strengths and weaknesses, it will be seen below that the objections to the reduplication theory are insurmountable.

A reduplication-based account is least problematic in Latin, where no fewer than three $\bar{e}$-perfects ($\bar{e}d\bar{\imath}$, $\bar{e}m\bar{\imath}$ (: *h_1em-), $co\bar{e}p\bar{\imath}$ (: *h_1ep-)) are formed to roots in initial *h_1e-, and a fourth, $s\bar{e}d\bar{\imath}$, can with no difficulty be derived from reduplicated *se-zd-. If the

Latin facts could be considered in isolation, it would be easy to see how these forms, joined by the otherwise explainable *fēcī*, *iēcī*, and *uēnī* (cf. note 2), could have led to the spread of -ē- to the remaining half dozen or so verbs with perfects of this type. But Latin cannot be disengaged from the rest of the IE family. The long-vowel preterite, as a PIE formation, must be older than the post-IE processes of laryngeal loss, laryngeal lengthening, and post-laryngeal contraction. No roots beginning with *h_1e- form long-vowel preterites in Albanian and Tocharian, yet these languages have cognates of Lat. *lēgī*. For the reduplication theory to work at the PIE level, the inherited nucleus of long-vowel preterites would have to have included a wider class of forms than the perfects of *h_1ed-, *h_1em-, *h_1ep-, etc.

The idea that reduplicated structures of the form *T_1e-T_1T_2- might have been realized as *$T_1\bar{e}T_2$- in the early IE languages is suggested by the restriction of *-ē- to the "weak" forms (= plural, dual, optative) of the Germanic strong preterite. Since Go. 3 sg. *gaf* goes back to *$gheghobhe$, scholars have often been tempted to wonder whether 3 pl. *gebun* (PGmc. *-ǣ-) could reflect earlier *$gheghbh\mathring{n}t$ (*vel sim.*). The most recent advocate of this position is Schumacher (2005: 602 ff.), who proposes a "morphonological" change of reduplicated sequences of the type *$T_1eT_1.T_2$- to *$T_1\bar{e}T_2$- within the parent language (the "*bigetun*-rule").[4] Everything about this rule, however, is problematic. Even morphologized phonological processes normally begin as Neogrammarian sound laws; yet no such regular sound change can be discovered behind the *bigetun*-rule.[5] Moreover,

---

[4] "Bei schwachen Perfektstämmen von zweiradikaligen Obstruentenwurzeln (Wurzelstruktur *T_1eT_2-) geht der auf die Reduplikationssilbe (*T_1e-) unmittelbar folgende Obstruent (*-T_1-) regelmäßig unter Ersatzdehnung verloren." Variants of this idea can be found across the Neogrammarian literature (cf., e.g., Streitberg (1896: 82-3)). Schumacher's main innovation, which I do not find convincing, is to link the change *$T_1eT_1.T_2$ > *$T_1\bar{e}T_2$- to the PIE lexical constraint against roots of the structure *T_1eT_1-.

[5] The most embarrassing counterexamples are in Indo-Iranian, where, despite the well-known tendency of Sanskrit to eliminate reduplicated *$T_1eT_1T_2$- structures in the historical period, Schumacher is obliged to explain forms like Ved. perf. 3 pl. *paptúḥ* (: *pat-* 'fall') and *sedúḥ* < *$sazd$- (: *sad-* 'sit'; cf.YAv. perf. opt. *hazdiiāt̯*) as prehistoric analogical remodelings of regular *$p\bar{a}t$- and *$s\bar{a}d$-. Neither of his two alleged exemplifications of the rule in Vedic, the perfect participles *sāhvā́ṁs-* (*sah-* 'overcome') and *dāśvā́ṁs-* (: *dāś-* 'wait upon'), will stand scrutiny. *sāhvā́ṁs-* is simply the inner-Indic reflex of inherited *$saźhu̯as$- (< *$sezĝh$-). *dāśvā́ṁs-* is probably the analogical replacement (with *dāś-* from the present) of *$dakṣvā́ṁs$-

even if the *bigetun*-rule could be upheld for PIE, it could not explain the long-vowel preterite in languages like Tocharian and Baltic, where the perfect did not become a past tense, or Albanian, where the contribution of the perfect to the synchronic category called the aorist was at best peripheral.[6] A Schumacher-type perfect **leloĝ-* / **lēĝ-* (ultimately analogical for **leloĝ-* / **lelĝ-*) would explain Lat. *lēgī*, but not its cognates Alb. *mblodhi* and Toch. A *lyāk*, B *lyāka*. Similarly, a perfect **h₁eh₁om-* / *h₁eh₁m-* ~ **h₁ēm-* could have given Lat. *ēmī* (with or without the *bigetun*-rule), but not its Baltic lookalike Lith. *ė̃mė* (infin. *im̃ti*) 'took'.

  These problems vanish under the Narten theory. Although the possibility of taking a stem like **lēĝ-* or **h₁ēd-* from the imperfect of a present with **ē* : **ĕ* (Narten) ablaut was first proposed by Michael Weiss nearly twenty years ago (Weiss 1993: 178 ff.; see also 2009: 412 f.), the consequences of this idea have never been fully explored. Conceptually, the Narten theory is more "modern" than the reduplication theory, in the sense that it takes an apparent lengthened grade at face value and tries to relate it systematically to other instances of Narten ablaut. It thus fits well with other widely accepted "Narten" analyses, such as Klingenschmitt's explanation (1978) of the Latin causative *sōpiō* 'put to sleep' or the more general range of apophonic phenomena discussed by Schindler (1994). The up-to-dateness of a theory, of course, is no proof of its correctness. But even a superficial survey of the most archaic-looking long-vowel preterites around the family shows that a disproportionate number are associated with roots that display Narten behavior elsewhere. The following are among the clearer cases:[7]

< **de-dĉ-*, with the regular treatment of a "thorn" cluster, or (less likely in my view) **daśvám̆s-* < **de-d̥ĉ-*, with dissimilatory loss of the second **-d-* (so *LIV* 111).

[6] Nore should it be overlooked that Gk. μῆστο (= OIr. *·mídair*) is expressly glossed by an aorist (βουλεύσατο). As for Albanian, even if Klingenschmitt (1981: 99 f., 124) is right in taking Old Gheg 3 sg. /erθ/ 'came' and /deš/ 'liked' from preforms in **h₁orĝh-* and **ĝous-*, respectively, it is by no means clear that these stems were perfects.

[7] For reasons of space, only a sampling of data is presented.

*lēǵ- (Lat. *lēgī* = Alb. *mblodhi* = Toch. B *lyāka*):   cf. Lat. *lēx*, *lēgis* 'law' (lengthened-grade root noun); Gk. (Dor.) λωγάω 'say' = OE *lōcian* 'look' < *lōǵ-eh₂i̯e/o-* (lengthened-grade iterative in *-eh₂i̯e/o-*).[8]

*mēd- (OIr. *·mídair* = Gk. μῆστο): cf. Gk. μήδομαι 'be minded' beside μέδομαι 'be mindful of';[9] μήδεα 'counsels', Arm. *mit* 'mind' (lengthened-grade *s*-stem).

*h₁ēd- (Lat. *ēdī* = Go. *et* 'ate'):[10] cf. OLat. subj. *edim* (acrostatic optative);[11] Arm. pres. *utem* < *h₁ōd-ei̯e/o-* (lengthened-grade iterative-causative).

*bhēr- (Toch. A impf. 3 sg. mid. *pārat* (< *bhēr(a)to*) 'carried'): cf. Ved. *bhā́rman-* = BCS *brème* 'burden' (lengthened-grade *men*-stem); MIr. *birit* 'sow' < *bhern̥tih₂* (Narten present participle).

*h₂ēǵ- (Lat. *ēgī*): cf. Myc. *o-ka* = *ώγᾱ 'detachment'(?) (*ō*-grade collective; cf. Vine 1998: 698 f.); Narten behavior is predictable from the general morphological parallelism of the roots *h₂eǵ-* and *bher-*.[12]

*rēt- (OCS *-rětъ*): cf. OIr. pret. *ráith* 'ran' < *rōte* (lengthened-grade perfect); Latv. *ruõtât* 'hop' < *rōt-eh₂i̯e/o-* (lengthened-grade iterative in *-eh₂i̯e/o-*).[13]

---

[8] For the Greek and Germanic comparanda see Adams (1999: 550). The lengthened-grade iteratives in "*-ā̆i̯e/o-*," which are ultimately denominative, are discussed by Villanueva (forthcoming), building on Vine (1998).

[9] To which can probably be added OLith. *pamė̇(d)mi* 'imitate' (Villanueva 2006).

[10] Although Lat. *ēdī* can easily be taken from a perfect *h₁e-h₁d-* (cf. above), a perfect-based etymology is unlikely for Gmc. *ēt*, pl. *ētun*. The synchronically irregular 1, 3 sg. *ēt* cannot go back to the strong perfect stem *h₁e-h₁od-*; on the other hand, a direct transfer of *ēt-* to the singular from the plural (*h₁e-h₁d-*) would be unprecedented in Germanic. Lith. *ė̆dė* 'ate' is probably a long-vowel preterite as well, although Winter's Law would in any case have produced lengthening before *-d-*.

[11] The long vowel before consonants in *ĕdō*, *ēs*, *ēst*, however, is a secondary effect of Lachmann's Law (cf. Jasanoff 2004).

[12] As I have argued elsewhere (Jasanoff 1998: 307 and later), the roots *h₂eǵ-* and *bher-* were morphological "twins," with parallel present formations and no extra-presential forms.

*h₃rēĝ- (OLat. *surēgit* for *surrēxit* 'arose'): cf. Lat. *rēx, rēgis* 'king' (lengthened-grade root noun); Ved. *rā́ṣṭi* 'rules' (Narten present).

*klēp- (OLat. *clēpī* 'stole', on which see Pike 2009): cf. Toch. B pres. mid. *klyeptär* 'touches' < *klēp-; Gk. κλωπάομαι (Hesych.) 'steal' (lengthened-grade iterative in *-eh₂i̯e/o-).

*nēuH- (Toch. B pret. *ñāwa* 'let out a cry'): cf. Toch. B pres. *ñewetär*, Ved. 3 pl. impf. *anāvan* 'roared' (thematized Narten present), pres. *pra nauti* (Br.; Narten present).

*sēd- (Lat. *sēdī* = Go. pl. *setun*):[14] cf. Ved. *sādád-yoni-* 'occupying his place' (Narten present participle); OIr. *sáidid* 'fixes' < *sōd-ei̯e/o- (lengthened-grade iterative-causative); Lat. *sēdēs* 'seat', OIr. *síd* 'fairy mound' (lengthened-grade *s*-stem).

The Narten theory thus passes the test of formal and etymological "fit" better than the reduplication theory. But it raises questions of its own. If long-vowel preterites were originally the imperfects of Narten presents, were they still *synchronically* imperfects in late PIE? It would be surprising to find ordinary imperfects yielding unmarked preterites in the IE daughter languages;[15] yet if the forms ancestral to long-vowel preterites were no longer imperfects in PIE, what were they? The discussion that follows will attempt to answer this question.

---

[13] On the Narten profile of this root see Villanueva (forthcoming 8 f.). The *LIV* reconstruction (*reh₁t-, 501) is wholly *ad hoc*.

[14] While *sēdī* could also go back to *sezd- (cf. above), and *setun* (PGmc. *sǣtun) could simply have been built according to the productive class V ablaut pattern, the decision to start from an inherited *sēd- leads to a much more economical overall picture.

[15] The great exception here, of course, is Hittite, where present and preterite are formed from the same stem.

To be as concrete as possible, let us focus on two specific forms. If the Narten theory is correct, then Lat. *lēgī* and Toch. A *pārat* must go back etymologically to Narten imperfects **lēĝ-m̥, -s, -t*, etc. and **bhēr-m̥, -s, -t*, etc., respectively, corresponding to Narten presents **lēĝ-mi, -si, -ti*, etc. and **bhēr-mi, -si, -ti*, etc.[16] But it does not follow that these forms, **lēĝ-m̥, -s, -t* and **bhēr-m̥, -s, -t*, still had the value of imperfects in late PIE. One could easily believe, for example, that by the time of the breakup of the parent language, the historical imperfects **lēĝ-m̥* and **bhēr-m̥* had evolved into the functional equivalent of aorists. Many cases are known of imperfects yielding aorists in the post-IE period (cf., e.g., Arm. 3 sg. aor. *eber* 'brought' = Gk. impf. ἔφερε; aor. *ebacʿ* 'said' = Gk. impf. ἔφασκε), and there is no reason in principle why the same process could not have taken place in PIE itself.[17] Other things being equal, an aorist **lēĝ-m̥, -s, -t* would have been a more natural point of departure for Lat. *lēgī*, Alb. *mblodhi*, and Toch. B *lyāka* than an ordinary imperfect or a Schumacher-style *ē*-perfect; the aorist, after all, was an uncontroversial source of simple preterites in all three languages.

Yet there are strong reasons *not* to conclude that **lēĝ-m̥* and **bhēr-m̥* were aorists in late PIE. Toch. A 3 sg. *lyāk*, the exact formal correspondent of B *lyāka*, is not a preterite but an imperfect. The same is true of the handful of other such forms in Toch. A: 3 sg. mid. *pārat*, pl. *pārant*; 3 pl. *śārsar* (: *kärs-* 'know'); 3 sg. mid. *śālpat* (: *kälp-* 'obtain'); 3 pl. mid. *śākant* (: *tsäk-* 'draw'); 3 pl. *cārkar*, 3 sg. mid. *cārkat* (: *tärk-* 'release'). It is clear from the overall patterning of the Tocharian verbal system that the Toch. A situation is original.[18] Likewise pointing in this direction is the fact that the root **bher-*

---

[16] I use the term "imperfect" to include what some scholars distinguish as the imperfect (with augment) and the present injunctive (without augment). Readers who posit a separate injunctive will have no trouble accommodating to this usage.

[17] An early example of an imperfect developing into an aorist, in my view, was the 3 sg. of the PIE *s*-aorist, historically the 3 sg. imperfect of a Narten *s*-present (Jasanoff 2003: 176 ff.).

[18] Former imperfects are a common source of preterites in Tocharian, as in the types B *klyauṣa* 'heard' and *kraupaṣṣa* 'collected' (Malzahn 2010: 163 ff., 220), both built to present stems and containing the same palatalizing **-a-* that marks the Tocharian A imperfect. The only multiply attested example of the reverse development (preterite > imperfect) is A 3 sg. impf. *craṅkäs* 'said', pl. *craṅkär* (*ibid.*, 263), formally an *s*-preterite.

was *praesens tantum* in PIE. If **bher-* had formed a synchronic aorist in PIE — even a "late" aorist based on an original imperfect — we would not expect to find the suppletion pattern *ferō* : *tulī* (Lat.), φέρω : ἤνεγκον (Gk.), *pär-* : *kām-* (Toch.) in the daughter languages. The possibility that PIE **bhēr-m̥* was an aorist can therefore be discounted. It follows that **lēĝ-m̥* was not an aorist either.

The logic of the Narten theory thus forces us to conclude that **lēĝ-m̥, -s, -t* and **bhēr-m̥, -s, -t* were still imperfects in late PIE. But that cannot be the end of the story. Despite the historical links of the roots **leĝ-* and **bher-* to Narten presents, the unmarked late PIE presents of these roots were simple thematic stems **leĝ-e/o-* and **bher-e/o-*. These formed regular imperfects **leĝ-om, -es, -et*, etc. (cf. Gk. ἔλεγον, -ες) and **bher-om, -es, -et*, etc. (cf. Ved. *ábharam*, Gk. ἔφερον, Arm. *eber*), which must have *coexisted* with the Narten imperfects **lēĝ-m̥*, **bhēr-m̥*, etc. in the late protolanguage. Given their simultaneous occurrence within the same linguistic system, the question arises how the two imperfect types might have differed in usage and/or meaning. An answer is suggested by the principle of morphological change known as Kuryłowicz's Fourth Law of Analogy.[19] Within PIE, the Narten present **bhēr-* / **bher-* was in the process of being replaced by the newer thematic present **bher-e/o-*. A predictable outcome of this situation would have been that the more expressive, "vivid" functions of the present stem — the functions of the present *qua* present, so to speak — would be transferred to the new (thematic) stem, while the older (Narten) stem would be restricted to contexts where iterativity, durativity, etc. were less relevant to the discourse situation.[20] For the imperfect in particular, this would have meant the relegation of the Narten imperfect **bhēr-m̥* to a more colorless, "aorist-like" role than its thematic counterpart **bher-om*. Precisely such a contrast, I suggest, is to be assumed for the late

---

[19] "Quand à la suite d'une transformation morphologique une forme subit la différentiation, la forme nouvelle correspond à sa fonction primaire (de fondation), la forme ancienne est réservée pour la fonction secondaire (fondée)" (Kuryłowicz 1949: 30).

[20] A case can be made that outside the preterite the stem **bhēr-* / **bher-* had become largely or wholly confined to the imperative in late PIE. Cf. *LIV* 77, note 1.

PIE pair *bher-om 'I was carrying, went on carrying, used to carry, etc.' vs. *bhēr-m̥ 'I carried' — and thus also for the parallel *leĝ-om 'I was gathering, etc.' vs. *lēĝ-m̥ 'I gathered'. The only significant difference between the roots *bher- and *leĝ- was that the Narten present (*sensu stricto*) *bhēr-mi maintained a marginal existence in late PIE, while the present *lēĝ-mi was entirely replaced by its thematic competitor (cf. Gk. λέγω, Lat. legō, Alb. mbledh).

If the pairs *bher-om : *bhēr-m̥ and *leĝ-om : *lēĝ-m̥ contrasted in this way, there must have been other such cases as well. In what follows we will refer to imperfects of the more vivid, or *bher-om, *leĝ-om type as "descriptive" imperfects, and to those of the more aorist-like, or *bhēr-m̥, *lēĝ-m̥ type as "narrative" imperfects. The descriptive : narrative opposition, thus understood, was an accidental byproduct of morphological renewal, arising in situations where an older imperfect was incompletely replaced by a newer one. The contrast was *not* a pervasive feature of PIE grammar, but an exceptional, lexically coded idiosyncrasy of a small number of individual verbs.[21] Both within the parent language and later, root presents would naturally have been a favored locus for the kinds of renewal (e.g., thematization,[22] ablaut leveling) that produced descriptive : narrative pairs. From the modern observer's point of view, the most easily recognizable narrative imperfects, identifiable by their distinctive lengthened grade, are the "stranded" imperfects of obsolete or obsolescent Narten presents.

The Narten theory of long-vowel preterites thus implies a two-stage development. At stage I, starting in PIE but reaching into the dialectal period, the imperfect forms of certain Narten presents were renewed and replaced in their more overtly imperfective

---

[21] An approximate comparison, therefore, might be with the non-one-to-one aspectual pairings of verbs of motion in Slavic; cf. Russ. pojtí 'go' (perf.) vs. xodít́ '(habitually) go' (imperf.) ≠ idtí '(actually) go' (imperf.). A *systematic* contrast between two imperfects is well known from Ionic Greek: ἔφερε 'carried, was carrying' : φέρεσκε 'would carry', ἔκλαιε 'lamented' : κλαίεσκε 'would lament', etc.

[22] In either of the two possible senses of the term: 1) the mechanical replacement of athematic by thematic inflection (e.g., PIE *h₁ēd-mi → Lat. edō, Lith. ếdu, Go. itan); and 2) the partial or complete displacement of a root present by a derivationally distinct thematic stem (e.g., PIE *bhēr-mi → PIE bher-o-h₂ (> Gk. φέρω, etc.)).

functions and specialized as narrative imperfects. At stage II, after the breakup of PIE, narrative imperfects were either assigned to the aorist (the usual treatment; cf. Lat. perf. (< aor.) *lēgī*, Alb. aor. *mblodhi*) or retained as imperfects (the Tocharian treatment; cf. A *lyāk*, CToch. **lyaka*). The "two imperfects" model thus serves to resolve an apparent paradox of the Narten theory. PIE imperfects — which the Narten theory takes as its point of departure — should not have been expected to yield Latin perfects, Albanian aorists, or Germanic preterites; yet the inherited "preterites" **lēĝ-*, **bhēr-*, **mēd-*, **h₁ēd-*, **h₂ēĝ-*, etc. could not, at the PIE level, have been perfects or aorists. Within the framework adopted here, they were narrative imperfects — imperfects of a distinctive, aorist-tending type that predisposed them to become full-fledged aorists in the post-IE period. Critics of this framework may be inclined to see the narrative imperfect as an *ad hoc* construct, useful only for the purpose it was invented to serve. As we shall see, however, a surprising and very different-looking reflex of the narrative imperfect appears in Celtic.

The *t*-preterite is one of the best-known verbal formations of Old Irish. The conjunct forms of *berid*, *·beir* 'bears' are as follows (after Schumacher 2004: 62 ff.):

sg. 1	*·biurt*	<	**bir-t-ū* (< **-ō*)[23]	pl. 1	*·bertammar*	<	**bir-t-omos*
2	*·birt*	<	**bir-t-ī* (< **-esi*)	2	*·bertid*	←	**bir-t-ete*
3	*·bert*	←	**bir-t*	3	*·bertatar*	<	**bir-t-ont*

---

[23] The vocalism of the *t*-preterite is partly controversial. The older view, represented by Thurneysen (1946: 421 ff.) and defended by Isaac (1996: 403), assumes *e*-grade in all normally ablauting roots; a more recent opinion, represented by McCone (1991: 67) and defended by Schumacher (2004: 63 f.), posits **-e-* in roots ending in a nasal or (usually) **-g-*, but **-i-* < **-ī-* (by Osthoff's Law) < PIE **-ē-* in roots ending in a liquid. Both scenarios rely heavily on analogy to explain non-compliant forms. Strictly speaking, the **bert-* vs. **birt-* controversy is irrelevant for our purposes, since both reconstructions are compatible with the historical theories of the *t*-preterite considered below. For purposes of exposition I adopt the McCone-Schumacher framework.

Since Watkins (1962: 156 ff.) two historical claims have generally been accepted regarding these forms, which are exclusively associated with roots ending in a liquid, nasal, or *-g-:

1) the tense sign *-t- was originally the 3 sg. desinence *-t, which was extended analogically to the rest of the paradigm; and

2) The 3 sg. in *-t was the reflex of an earlier s-aorist 3 sg. in *-st (*birst, etc.), the *-s- of which was lost by sound change.

The first point is unchallenged and unchallengeable. The second, however, is surprisingly difficult to square with the comparative evidence. Of the nineteen ordinary t-preterites in Old Irish,[24] not a single one can be unambiguously traced to a PIE s-aorist. In the case of ·beir, ·bert (absolute birt) the t-preterite cannot go back to a PIE s-aorist because the root *bher- made no aorist at all in the parent language. The same holds for the parallel root *h₂eĝ-, the source of OIr. ·aig 'drives', pret. ·acht (cf. note 12 and LIV 255 f.). The t-preterites of at·baill 'dies', ·dair 'bulls', ·meil 'grinds', ·mairn 'betrays', do·es-sim 'pours out', and ·sern 'strews', from laryngeal-final roots, cannot continue old s-aorists because the laryngeal would have vocalized, yielding derivations of the type *mēlh₂-s-t > *mīlăs(s) > **·mīl (3 pl. **·mīlsat). The roots underlying ·ail 'rears', ·anich 'protects', dligid 'is entitled to', do·eim 'covers', ·gair 'calls', ·geil 'grazes', fo·geir 'heats', ·ceil 'hides', do·for-maig 'increases', and ·oirg 'slays', had no final laryngeal, but are not known to have made s-aorists outside Celtic.[25] The only t-preterite that can be compared with an s-aorist in another branch of the family is at·recht 'arose' (: pres. at·reig), seemingly matching Gk. ὤρεξα 'stretched out', Toch. B reksa 'spread out', and Lat. rēxī 'directed', surrēxī 'arose'. But even here there is a complication. The root *h₃reĝ- made a Narten present in PIE (cf. Ved. rā́ṣṭi), which might have been expected to

---

[24] I omit the recharacterized perfect ·siacht < *sesag-t 'made for' (: pres. ·saig).

[25] Some of these roots (e.g., *h₁em- 'take', *gʷher- 'heat up', and *h₃erg- 'perish; destroy') are suspected of having formed root aorists in PIE; cf LIV s.vv. The evidence, however, is not decisive.

be correlated with a root aorist, not an *s*-aorist. And since Lat. *(sur)rēxī* is known to be the replacement of an older *ē*-perfect *(su)rēgī* (cf. above), the case for an *s*-aorist is at least partly illusory.

Let us now consider two possible "theories" of the *t*-preterite ·*recht* — one the familiar *s*-aorist-based account, starting from a paradigm with a strong stem *$h_3 rēĝ$-s*- and a weak stem *$h_3 reĝ$-s-*:

<center>

3 sg. *$h_3 rēĝ$-s-t*   3 pl. *$h_3 reĝ$-s-ṇt*

</center>

— and the other a narrative imperfect account, likewise with *$\bar{e}$* : *e* ablaut, but lacking *-s-*:

<center>

3 sg. *$h_3 rēĝ$-t*   3 pl. *$h_3 reĝ$-ṇt*

</center>

Under the usual assumption that *-ĝ-s-t* would have lost its *-s-* and given *-χt* by sound change,[26] the two theories are formally equivalent. In both cases the vocalism of the plural would have been generalized to the singular, giving 3 sg. *reχt*; and in both cases the 3 sg. would then have given rise to a new paradigm along the lines sketched out by Watkins. Favoring the *s*-aorist interpretation are Gk. ὤρεξα and Toch. B *reksa*; favoring the narrative imperfect interpretation are OLat. *surēgit* and the overall Narten profile of the root *$h_3 reĝ$-*.

If ·*recht* can be explained with equal ease as an *s*-aorist and a Narten imperfect, what should we think about the other eighteen *t*-preterites? Nothing in principle stands in the way of applying the narrative imperfect-based explanation of ·*recht* to the *t*-preterite as a whole. Following the loss of laryngeals, all the roots that formed *t*-preterites in Old Irish would have ended synchronically in a liquid (*-R-*), a nasal (*-N-*), or *-g-*; the putative

---

[26] I make this assumption here for the sake of argument, since it represents a worst case scenario for the position I defend below. In fact, however, it is far from certain that *-g-s-t / *-χst* would have given *-χt* in Insular Celtic (cf. Schumacher 2004: 64-5). I am indebted to Ben Fortson (p.c.) for alerting me to the seriousness of this problem.

3 sg. *s*-aorists of these roots, ending in **-Rst*, **-Nst*, and **-gst*, would have lost their **-s-* by sound change, merging with the corresponding imperfects in **-Rt*, **-Nt*, and **-gt* (> **-χt*). *From a formal point of view, therefore, the* s*-aorist and narrative imperfect theories of the* t*-preterite are completely interchangeable.* But the two theories presuppose different historical developments, which would have left different "footprints" in the comparative record. The discovery of a body of independently reconstructable *s*-aorists among the roots that make *t*-preterites would lend support to the *s*-aorist theory; the discovery of a correlation between Irish *t*-preterites and long-vowel preterites elsewhere would support the narrative imperfect approach. Of the Old Irish forms surveyed above, only ·*recht*, as we have seen, has a potential *s*-aorist cognate outside Celtic. The number of *t*-preterites that can be compared with extra-Celtic long-vowel preterites, on the other hand, is *four*:

·*recht* itself, under the alternative comparison with OLat. *surēgit* (original stem **h₃rēĝ-* / **h₃reĝ-*);

·*bert*, absol. *birt* (< **bīrt* < **bhēr-t*)[27] = Toch. A *pārat* (original stem **bhēr-* / **bher-*);

·*acht* = Lat. *ēgī* (original stem **h₂ēĝ-* / **h₂eĝ-*);

·*ét* (< **ent* < **em-t*) = Lat. *ēmī*, Lith. *ẽmė* (original stem **h₁ēm-* / **h₁em-*).[28]

The picture becomes even clearer when we turn to Brittonic, where the *t*-preterite is less robustly attested than in Old Irish. Three roots, and three alone, form *t*-preterites in both Goidelic and Brittonic: **reg-*, appearing in MW *dyrreith* 'came, led' (< **-reχt*) beside OIr. ·*recht*; *ber-*, in MW *kymyrth*, *kymerth* 'took', *diffyrth*, *differth* 'defended' (< **-birt*),

---

[27] See note 23. No attempt is made to represent the particle (**(e)s*? **(e)ti*?) that presumably followed the absolute endings.

[28] Alternatively, the long vowel of *ēmī* and *ẽmė* could have been produced in the same way as that of Lat. *uēnī* and Toch. B *śem* 'came' — via a sound change **-em-m* > **-ēm* in the 1 sg. of a root aorist (cf. note 2). But this seems extremely unlikely.

etc. beside OIr. ·*bert*; and *ag-, in MW *aeth* 'went', *doeth* 'came' (< **(-)aχt*) beside OIr. ·*acht*. It can hardly be coincidental that all three of these belong to the Narten "core" of the *t*-preterite in Old Irish. The obvious conclusion is that the *t*-preterite shares a common origin with — is *cognate* with — the long-vowel preterites of Italic, Baltic, Albanian, Germanic, and Tocharian.[29] What makes Insular Celtic unique is that in this division of the family, the full-grade forms in the underlying Narten paradigm were mostly preserved and generalized, while the lengthened-grade forms that may have survived (*bīrt-, etc.) were shortened by Osthoff's Law. The *t*-preterite thus presents the spectacle of a long-vowel preterite without long vowels.

To return to our larger theme, it should now be clear that the Narten theory of long-vowel preterites, properly formulated, offers the only viable account of these forms. The major novelty in the scenario proposed here is the narrative imperfect, the PIE category to which Narten and other imperfects were assigned when morphological renewal within the protolanguage deprived them of their full range of imperfect functions. Whether the distinction between two imperfects — descriptive vs. narrative — will prove useful in other contexts is an open question, to be explored as our knowledge of the IE verbal system continues to grow.

---

[29] Mention may be made of two other interesting Brittonic forms:

1) 3 sg. MW *gwant* 'pierced', based on a *non*-Narten imperfect *gᵘhen-t : **gᵘh(n̥)n-ent*, with generalization of the vocalism of the weak stem to the singular (so already Isaac 2001). The restriction of the inherited imperfect of this root to the "narrative" role was no doubt linked to the post-IE thematization of the present stem proper (cf. OIr. *gonaid* < **gwane/o*-).

2) 3 sg. MW *gwrith* 'made' < *wriχt, based on a root aorist **u̯erĝ-t* : **u̯r̥ĝ-ent* (cf. OAv. 2 sg. *varəš* 'id.'), again with generalization of the weak stem (**wrig-* < **wr̥g-*). Once the narrative imperfect had been reinterpreted as a root aorist in pre-Celtic, there was nothing to prevent the *real* root aorist *gwrith* from being absorbed into the nascent *t*-preterite as well.

Works cited

Adams, Douglas Q. 1999. *A Dictionary of Tocharian B*. Amsterdam/Atlanta: Rodopi.

Isaac, Graham. 1996. *The Verb in the Book of Aneirin. Studies in Syntax, Morphology and Etymology*. Tübingen: Max Niemeier Verlag.

———. 2001. An Indo-European athematic imperfect in Welsh? *Studia Celtica* 35, 354-359.

Jasanoff, Jay H. 1998. The thematic conjugation revisited. *Mír Curad: Studies Presented to Calvert Watkins*. Eds. Jay Jasanoff, H. Craig Melchert, Lisi Oliver, 300-316.

———. 2003. *Hittite and the Indo-European Verb*. Oxford/New York: Oxford University Press.

———. 2004. Plus ça change. . . Lachmann's Law in Latin. *Indo-European Perspectives: Studies in Honour of Anna Morpurgo Davies*. Ed. J. H. W. Penney, 405-416. Oxford/New York: Oxford University Press.

Kim, Ronald. 2001. Tocharian B *śem* ≈ Latin *vēnit*? Szemerényi's Law and *$*\bar{e}*$ in PIE root aorists. *Münchener Studien zur Sprachwissenschaft* 61, 119-47.

Klingenschmitt, Gert. 1978. Zum Ablaut des indogermanischen Kausativs. *Zeitschrift für Vergleichende Sprachforschung* 92, 1-13.

———. 1981. Albanisch und Urindogermanisch. *Münchener Studien zur Sprachwissenschaft* 40, 93-131.

Kuryłowicz, Jerzy. 1949. La nature des procès dits "analogiques." *Acta Linguistica* 5,15-37.

LIV = Lexicon der indogermanischen Verben. Die Wurzeln und ihre Primärstamm-bildungen, unter Leitung von Helmut Rix und der Mitarbeit vieler anderer bearbeitet von Martin Kümmel, Thomas Zehnder, Reiner Lipp, Brigitte Schirmer. Zweite, erweiterte und verbesserte Auflage bearbeitet von Martin Kümmel und Helmut Rix. Wiesbaden: Reichert. 2001.

Malzahn, Melanie. 2010. *The Tocharian Verbal System*. Boston/New York: Brill.

McCone, Kim. 1991. *The Indo-European Origins of the Old Irish Nasal Presents, Subjunctives and Futures*. Innsbruck: Institut für Sprachwissenschaft.

Pike, Moss. 2009. The Indo-European long-vowel preterite: new Latin evidence. *Internal Reconstruction in Indo-European: methods, results, and problems. Section Papers from the XVI International Conference on Historical Linguistics, University of Copenhagen, 11-15 August, 2003*. Eds. Jens Elmegård Rasmussen, Thomas Olander, 205-12. Copenhagen: Museum Tusculanum Press.

Schindler, Jochem. 1994. Alte und neue Fragen zum indogermanischen Nomen (erweitertes Handout). *In honorem Holger Pedersen: Kolloquium der Indogermanischen Gesellschaft vom 25. bis 28. März 1993 in Kopenhagen*. Ed. Jens Elmegård Rasmussen, 397-400. Wiesbaden: Reichert.

Schumacher, Stefan. 2000. *Die keltischen Primärverben: ein vergleichendes etymologisches und morphologisches Lexikon*. Innsbruck: Institut für Sprachwissenschaft.

———. 2005. 'Langvokalische Perfekta' in indogermanischen Einzelsprachen und ihr grundsprachlicher Hintergrund. *Sprachkontakt und Sprachwandel. Akten der XI. Fachtagung der Indogermanischen Gesellschaft, 17.-23. September, 2000, Halle an der Saale*. Eds. Gerhard Meiser, Olav Hackstein, 591-626. Wiesbaden: Reichert.

Streitberg, Wilhelm. 1896. *Urgermanische Grammatik*. Heidelberg: Winter.

Thurneysen, Rudolf. 1946. *A Grammar of Old Irish*. Dublin: Institute for Advanced Studies.

Villanueva: see Villanueva Svensson.

Villanueva Svensson, Miguel. 2006. Old Lithuanian *pame(d)mi* 'imitate'. *Baltistica* 41, 95–97.

———. Forthcoming. On the origin of the Greek type νωμάω. To appear in *Die Sprache*.

Vine, Brent. 1998. The etymology of Greek κώμη and related problems. *Mír Curad: Studies Presented to Calvert Watkins*. Eds. Jay Jasanoff, H. Craig Melchert, Lisi Oliver, 685-702.

Watkins, Calvert. 1962. *Indo-European Origins of the Celtic Verb, i. The Sigmatic Aorist*. Dublin: Institute for Advanced Studies.

Weiss, Michael. 1993. *Studies in Italic Nominal Morphology*. Unpublished Cornell University dissertation.

———. 2009. *Outline of the Historical and Comparative Grammar of Latin*. Ann Arbor/New York: Beech Stave Press.

Prof. Jay H. Jasanoff
Department of Linguistics
312 Boylston Hall
Harvard University
Cambridge, MA 02138
USA
jasanoff@fas.harvard.edu