16: offenbar noch nicht erschienen<sup>14</sup>.

17: Het'owm Patmič', Patmowt'iwn T'at'arac' [Hethum der Historiker, Geschichte der Tataren] / Getum Patmič, Istorija Tatar / Hetum Patmich, History of Tatars, 4°, 1981, [VI], 704 S. (T: Venetik 1842; B: Bambiš Ašoti Eganyan; 642-691 Wortliste, Namen und Datierungen einschließend; 692-702 Namenliste).

18/1–2: Step'anos Tarônec'i Asolik, Patmowt'iwn Tiezerakan [Stephanos von Taraun Asolik, Universalgeschichte] / Stepanos Taroneci Asolik, Obščaja Istorija / Stepanos Taronetsi Asoghik, General History, 8°, 1: A-Ê, 1987<sup>15</sup>, [IV], 707 S.; 2: H-M, 1987<sup>15</sup>, [IV], 683 S. (T: S. Peterburg 1885; B: Valaršak Arzowmani K'osyan; I 658–666, II 638–645 Namenliste; I 667–706, II 646–682 Wortliste)<sup>16</sup>.

19/1-2: Frik, Banastełcowt'yownner [Frik, Gedichte] / Frik, Stihotvorenija / Frik, Poems, 8°, 1: A-K, 1986, [IV], 598 S.; 2: H-F, 1987, 482 S. (T: Erevan 1941; B: Dšxowhi Sowreni Movsisyan; R: Alek'sandr Simoni Margaryan; I 563, II 449 Namenliste; I 564-597, II 450-481 Wortliste).

Beiläufig sei darauf hingewiesen, daß sämtliche Bände – wohl als Frucht des planwirtschaftlichen Systems auch in der Wissenschaftsadministration – statistische Angaben über 1. die Gesamtzahl der Wörter, 2. die Zahl der Lemmata und 3. die Zahl der Hapax legomena enthalten, die in dem jeweiligen Band erfaßt sind. Teilweise werden auch die Belegzahlen besonders häufiger Lemmata (ew, z, i) oder von Namen mitgeteilt, in Band 10 wird zusätzlich zwischen 'lexikalischen Wörtern' und 'Lexemen' (barowyt'ner) unterschieden. Für statistische Untersuchungen und Vergleiche (aber auch Spielereien) ist damit Material in ausreichendem Maße zur Hand.

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<sup>16</sup> Band 18/3 ist noch nicht erschienen.

## The Origin of the Celtic Comparative Type OIr. tressa, MW trech 'stronger'

The comparison of adjectives in Celtic presents many interesting features<sup>1</sup>. Some of these are structural and grammatical, such as the restriction of the comparative to predicative position and the introduction of a fourth degree of comparison, the equative, beside the usual positive, comparative and superlative. But there are purely formal peculiarities as well. Irregularly compared adjectives are synchronically very conspicuous in Old Irish and Middle Welsh, and many of the individual irregularities that they display are also puzzling from a diachronic point of view. A case in point is the Old Irish comparative ending in -a, the origin of which has never been satisfactorily explained.

An example of regular comparison in Old Irish is furnished by sen 'old', compv. siniu, superl. sinem, equat. sinithir, or, with secondary loss of palatalization, ard 'high', compv. ardu, superl. ardam, equat. ardithir. Apart from the equatives in -ithir, which are clearly a late formation, the origin of these forms is well known. The comparative in -(i)u goes back to earlier  $*-y\bar{u}s < *-i\bar{o}s$ , the nom. sg. masc. of the PIE comparative suffix \*-ies- / \*-ios- / \*-is- (cf. GAv. nom. sg. spania "holier' : spanta- 'holy'). The superlative ending -em, -am is the regular reflex of \*-isamo- < \*-is-mmo-, the Italo-Celtic replacement of the PIE complex superlative marker \*-is--to- (cf. Lat. \*-isamos in pigerrimus 'laziest', facillimus 'easiest', etc., beside Av. -išta-, Ved. -ist(h)a-, Gk. -10705, Go. -ists)<sup>2</sup>. Counterparts of siniu and sinem are found in Middle Welsh, where the comparative of hen 'old' is hyn, with superlative hyn(h)af. In Welsh the comparative in \*  $i\bar{o}s$  is a mere relic, recurring only in *llei* (= OIr. *laigiu*) 'smaller'. The normal Brittonic comparative, continuing a late adjectival type in \*-akkos or \*-okkos, is represented by forms like MW tegach 'fairer', Co. hakcre 'uglier' and MBr. sclerhoch 'brighter', the latter two with analogical provection from the superlative and equative.

The superlative in \*-isamo-, represented by OIr. -em, -am and MW -(h)af, is regular in both branches. But both Goidelic and Brittonic also show a shorter variant \*-samo- in a few synchronically important cases:

<sup>&</sup>lt;sup>14</sup> Briefliche Auskunft von John A.C. Greppin und Amalya Xač'atryan.

<sup>&</sup>lt;sup>15</sup> Auf russisch-englischem Titelblatt "1986".

<sup>&</sup>lt;sup>1</sup> This paper has benefited considerably from discussions with Lionel Joseph, whose help is gratefully acknowledged. All errors, of course, are my own.

<sup>&</sup>lt;sup>2</sup> I use the term "Italo-Celtic" to indicate my agreement with the analysis of \*-isamo- presented by Cowgill (1970).

The Celtic Comparative Type OIr. tressa, MW trech

J. H. Jasanoff

*treksamo-	'strongest'	OIr. tressam, MW trechaf
*nessamo-	'nearest'	OIr. nessam, MW nessaf, Gaul. neddamon
*messamo-	'worst'	OIr. messam
*ouksamo-	'highest'	MW uchaf, Celtib. PN Uxama
*īssamo-	'lowest'	MW isaf
*sāssamo-	'easiest'	MW hawsaf

In a now classic paper, Cowgill demonstrated (1970) that the absence of \*-i- in these forms is an innovation, and not, as earlier claimed by Brugmann (1889: 169) and others, an archaism. This is clearest in the case of \*treksamo-, \*ouksamo- and \*īssamo-. \*treksamo- is the superlative of an adjective whose positive form in Common Celtic was \*treksno- (cf. OIr. trén, MW tren), consisting of a "root" \*treks- and a derivational suffix \*-no-. Following the archaic derivational pattern known as "Caland's Law", the comparison of \*treks-no- was based directly on the unsuffixed root. The corresponding pre-Celtic superlative was originally \*treks-isamo-, formed in the same way as Lat. maximus < \*mag-isamo- beside magnus 'large'<sup>3</sup>. As Cowgill recognized (p. 131), \*treksamo- is simply a haplologically shortened form of \*treksisamo-, typologically comparable to Lat.  $d\bar{\imath}xt\bar{\imath}$  'you have said' beside  $d\bar{\imath}xist\bar{\imath}$ , or PIE 2sg. impv. \* $\hat{k}l\acute{e}usi$  'hear!' < 2sg. subj. \* kléusesi. 4 \*ouksamo- and \*issamo- are explainable in the same way. Here too the underlying "roots" ended in \*-s- in Common Celtic, as is clear both from the corresponding positive forms (OIr. úasal, MW uchel 'high' (: Gk. ύψηλός 'id.'; cf. also Gaul. Uxellodunum); OIr. isel, MW isel 'low') and from the Old Irish prepositions ós, úas 'over' and is 'under'. The original superlatives must have been \*ouksisamo- and \*īssisamo-, later haplologically reduced to the attested forms in \*-(s)amo-. It is hard to tell whether the Gaulish place name Outioaun, presumably meaning 'highest', goes directly back to \*ouksisamo- or owes its seemingly preserved -sis- to analogy with the normal superlatives in \*-isamo-.

The formal prehistory of \*nessamo-, \*messamo- and \*sāssamo- is less clear. Cowgill is surely correct, however, in comparing \*nessamo- with Ved. nédistha- and Av. nazdišta- 'nearest' (p. 132); the PIE form was probably \*nezdisamo-, from which \*netsamo- (cf. Gaul. neddamo-?), and later \*nessamo-, could easily have arisen through a haplology-like shortening. \*messamo- and \*sāssamo- are etymologically obscure, but it is a priori likely that they originated in the same way<sup>5</sup>. The superlatives in \*-(s) amo- are associated with irregular comparatives. OIr. trén 'strong' makes a comparative tressa; its Welsh counterpart, the comparative of tren, is trech. It is probable that these go back to a common source, even though there is no known PIE or Common Celtic comparative morpheme that would have yielded OIr. -a and MW - $\emptyset$ . As a temporary expedient we may set up Insular Celtic preforms with an algebraic ending \*-A:

*treks-A	'stronger'	OIr. tressa, MW trech
*ness-A	'nearer'	OIr. nessa, MW nes
*mess-A	'worse'	OIr. messa
*ouks-A	'higher'	MW uch
$*\bar{\imath}ss-A$	'lower'	MW is
*sāss-A	'easier'	MW haws

The appearance of \*-A for  $*-y\bar{u}s$  is independent of the shape of the preceding root. This can be seen from the comparatives of three further words:

*let-A	'wider'	OIr. letha (: lethan 'wide'), MW llet (: llydan)
*yow-A	'younger'	(ingaun) OIr. óa (: óac 'young'), MW ieu (: ieuanc)
*rem-A	'thicker'	NIr. ramha $< OIr. *rema (: remor$
		'thick') <sup>6</sup>

Of these, the first two belong to IE word families with well-attested Caland systems outside Celtic (cf. especially Ved. prthi- 'broad', compv. prathīyas-, superl. prathistha-; yiwan- 'young', compv. yavīyas-, superl. yavistha-). While \*rem-A has no known etymology, the presence of the suffix \*-ro- in the corresponding positive form (\*rem-ro-) suggests an inherited Caland system here as well. Indeed, whatever the origin of \*-A, it seems clear that the forms in which this morpheme appears constitute an archaic class with a history that reaches back, in some cases, to Proto-Indo-European itself.

Cowgill's explanation of the comparatives in \*-A is less attractive than his account of the superlatives in \*-(s) amo-. Taking OIr. letha and MW llet as his point of departure, he notes (pp. 134ff.) that PIE \*pleth<sub>2</sub>- 'wide' should originally have formed a comparative \*pléth<sub>2</sub>- $i\bar{o}s$ , the Insular Celtic reflex of which, after the vocalization of \*- $h_2$ - to \*-a-, would have been

<sup>&</sup>lt;sup>3</sup> A full account of Caland derivational "systems" in the IE daughter languages is given by Nussbaum (1976).

<sup>&</sup>lt;sup>4</sup> Cf. Jasanoff (1987) and the references there cited.

<sup>&</sup>lt;sup>5</sup> As Cowgill notes (pp. 131-2), there are reasons to think that  $*s\bar{a}ssamo-may$  be based on a "root"  $*s\bar{a}s$ . OIr. messam has been believed to go back to \*miss-max-<\*miss-isamo- (cf. note 12).

<sup>&</sup>lt;sup>6</sup> Cf. Cowgill (p. 133). We are not well informed about the original superlatives of these words. The "regular" Insular Celtic forms would have been *\*letisamo-*, *\*yowisamo-* and *\*remisamo-*, but even before the separation of Goidelic and Brittonic these could easily have been replaced by *\*letamo-*, *\*yowamo-* and *\*remamo-* on the model of pairs like *\*treks-A* : *\*treksamo-*. MW *llettaf* and *ieu(h)af* point weakly to preforms of the first type, OIr. *óam* to the second. The superlatives of *lethan* and *remor* are not attested in texts of the Old Irish period.

\*letayūs > \*letaus. The final sequence \*-aus, in Cowgill's view, was the source of both OIr. -a and MW -Ø. The change of \*letaus to \*llet would have been perfectly normal in Brittonic, where all final syllables were regularly lost. In Old Irish, however, it is usually believed that \*-aus would have given \*- $\bar{o}s$ , whence OIr. -o and slightly later -a (cf. mogo, -a < \*-ous, gen. sg. of mug 'serf'). Cowgill is consequently obliged to explain the nearly total absence of spellings of the type \*letho, even in the oldest sources. He argues that the expected -o is in fact found in the phrase nesso assa nesso 'nearer and nearer', attested at Wb. 12b34a, and that the otherwise general suppression of -o 'is probably due mainly to influence from the superlatives in -am, which favored a phonetic spelling over the archaizing one more common in the [gen. sg. of] u-stems" (p. 135). He compares the -a of 2sg. pret. -cúala 'you heard' < \*kuklowas, which he takes from an immediate preform in \*-ow.

None of this is very convincing. The phrase nesso assa nesso is also attested in a later text, the Voyage of Mael Duin, where it is spelled neso 'sa neso in Stokes' edition (1888: 474). If this reading is correct, it suggests that nesso assa nesso was a fixed expression, perhaps modeled on mó assa mó 'more and more'<sup>7</sup>. Cowgill is too ready to interpret the contrast between early OIr. -o and -a as purely graphic; in fact, the retention of -o in the gen. sg. of *i*- and *u*-stems is far too consistent in the Würzburg Glosses to be dismissed as a mere scribal convention. Nor is it clear how the appearance of a form like messa 'worse' for expected \*messo could have been due to analogy with the superlative messam. The synchronically "regular" comparative corresponding to messam would have been \*messu (cf. the pattern superl. ardam: compv. ardu), and forms of this type are in fact well attested in Middle Irish. The alleged change of \*-ow to -a in 2sg. · cúala is illusory: the development of the corresponding 3sg. · cúalae from \*kuklowe shows that original \*-owa(s) and \*-owe(s) contracted to \*- $\bar{a}(s)$ and  $*-\bar{e}(s)$  in pre-Irish without an intervening diphthongal stage<sup>8</sup>. In the

<sup>&</sup>lt;sup>8</sup> Cf. also  $-bae < *-b\bar{e} < *-bowe$ , the unstressed form of the 3sg. preterite of the substantive verb (stressed form  $\cdot boi$ ). In general, the pre-Irish end-of-word contraction rules took place after the shortening of long vowels in absolute final position, but before the general reduction of all final syllables by one mora. Compare the following groups with \*-i:

*-ijā	>	*-ijă	>	*-ē	>	-e;	but	*-ā	>	*-ă	>	-Ø
*-iį̇̀ās	>	*-ijās	>	$*-\overline{e}h$	>	-e;	but	*-ās	>	$*-\bar{a}h$	>	-a
*-iį̇́e	>	*-iie	>	*-ī	>	-i;	but	*-е	>	*-e	>	-Ø
*-ijas	>	* ijas	>	$*-\bar{e}h$	>	-е;	but	*-as	>	*-ah	>	-Ø

last analysis, the easiest way to explain the absence of spellings with -o would be to assume that \*-aus, rather than merging with \*-ous, underwent a special sound change to pre-Irish \*- $\bar{a}s$  (> -a). Such a rule, which would be difficult to disprove, would merit consideration if the case for Cowgill's theory were otherwise compelling.

But there are other problems of a more fundamental nature. It is not at all certain that  $*pleth_2$  jos would have given  $*leta(y)\overline{u}s$  in Celtic; laryngeals are almost never vocalized in this position in the other Indo-European languages, and OIr. 1sg. airiu 'I plow', 3sg. airid  $< h_2 erh_3$ -je/o- seems to provide a direct counterexample<sup>9</sup>. Moreover, even if the development of \*-CHi- to \*-Cai- were phonologically straightforward, \*letaus would be the only example of its kind. No other comparatives in \*-A are associated with set roots. The PIE word for 'young', which Cowgill reconstructs as \*yuH--on-, is now known to have been  $*h_2iu$ - $h_2on$ -, lit. 'having life/vital energy  $(*h_2 \acute{o} iu$ , Ved.  $\acute{a} yu$ )', with the possessive suffix  $*-h_x(o)n$ - identified by Hoffmann (1955: 35ff.). The comparative of  $*h_2iu \cdot h_2on$  was thus  $*h_2ieu$ --ios 'having life/vital energy to a high degree', which, had it survived, would probably have given OIr. \*ou rather than the attested oa. Of the remaining seven forms in \*-A, \*treks-A belongs unambiguously to an anit root (the positive is \*treksno-, not \*treksano-), while \*ness-A, \*mess-A, \*ouks-A,  $*\bar{\imath}ss$ -A and  $*s\bar{a}ss$ -A are unlikely to have had a root-final laryngeal on structural grounds<sup>10</sup>. There remains only the ambiguous \*rem-A, which provides no significant evidence for or against a laryngeal<sup>11</sup>. The great morphological weakness of Cowgill's theory is that it forces us to regard all but one, or at most two, of the comparatives in \*-A as unmotivated analogical substitutions for the regular type in  $*-y\bar{u}s$ .

The other explanations proposed in the literature are equally unsatisfactory. Kuryłowicz (1964: 231) ignores the Brittonic evidence and treats the ending -a as a purely Old Irish development. He identifies the locus of the comparatives in -a in the form *messa*, which he derives from a thematic adjective \**messo*- (< \**misso*-?) 'very bad (*vel sim.*)'. Unlike the comparatives of the normal type, which generalized the nominative singular mas-

<sup>&</sup>lt;sup>7</sup> The possibility that nesso arose through a contamination of nessa and mó was already considered by Sommer (1900: 240, fn. 1). The phrase mó assa mó is itself probably the replacement of earlier \*má assa má, má being the old neuter form (cf. below). At a time when both \*má assa má and mó assa mó were in use, it would have been easy for nessa assa nessa to acquire an analogical variant nesso assa nesso.

<sup>&</sup>lt;sup>9</sup> Cf. Pinault (1982). The seeming vocalization of  $*-h_{3}$ - in the Greek cognate  $\dot{\alpha}p\dot{\omega}(:\alpha iriu)$  is analogical; the full-grade  $\dot{\alpha}po$ - was introduced into the present system from forms like  $\dot{\alpha}po\tau pov$  'plow', where it was phonologically regular. It is theoretically possible that a pre-Irish  $*letay\bar{u}s$  could have arisen in the same way, with \*leta-, the normal anteconsonantal full-grade, replacing \*let-, the regular outcome of  $*pleth_2$ - before  $*-\dot{z}$ -. The extra step, however, would deprive Cowgill's theory of all its appeal. See further below.

<sup>&</sup>lt;sup>10</sup> Note that Cowgill's tentative derivation of MW hawdd < \*sas-yo- specifically excludes the possibility of a laryngeal.

<sup>&</sup>lt;sup>11</sup> Cowgill (p. 135) cites the acc. sg. fem. *remair* in support of a pre-Irish *\*remaro-*, but the equative *reimir* (see Appendix) points just as cogently to *\*remro-*. As Cowgill remarks, "analogic reshaping in such a paradigm is all too easy".

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culine in \*-ios to all three genders and numbers, \*messo-, according to Kurylowicz, generalized the feminine and neuter nom. pl. messa ( $< *-\bar{a}s$ ), this being the only nominative form with a "redundant" (overt) desinence. From messa the new ending -a was supposedly extended to deradical comparatives like \*lethiu (<  $*lety\bar{u}s$ ) and \*tressiu (<  $*treksy\bar{u}s$ ), but not to regular forms like siniu. The whole scenario is too contrived to be convincing; even the starting point, the assumption of an inherited \*messo- or \*misso- with the required meaning, is questionable<sup>12</sup>. Kurylowicz fails to note that the Insular Celtic precursors of letha and tressa could not actually have been \*letyūs and \*treksyūs, since these would have appeared in Welsh as \*llyt and \*trych (cf. hyn < \*seny $\bar{u}s$ ). In fact, it is hard to avoid the conclusion that forms like letha / llet and tressa / trech must already have had a special ending – either  $*-\bar{a}s$  or some other sequence distinct from \*- $y\bar{u}s$  - in Insular Celtic itself. From a purely phonological point of view, \*letās, \*treksās and \*messās would be perfectly acceptable preforms. But Kurylowicz' argument for deriving the -a of messa from the ending of the feminine nom. pl. presupposes the loss of short final syllables, a development of the fifth century A. D. Before this date the corresponding masculine nom. sg. would still have had an overt ending \*-as < \*-os, and there would have been no rationale for the selection of the fem. pl. \*messās, rather than the masc. sg. \*messas (\*-os), as the invariant comparative form.

Other theories have sought to connect letha, etc. with the three ultrashort Old Irish comparatives lia (lía) 'more' (positive il 'many'), sia (sía) 'longer' (positive sír 'long'), and má(a) 'greater, more' (positive már, mór 'great, much'). Of these, sia has an exact counterpart in MW hwy 'longer' (positive hir), while lia corresponds to a virtual \*llwy 'more', which seems to have provided the model for the change of MW moe (OW moi) 'greater, more' to later mwy (so already Sommer 1900: 237). Since OIr. ia and MW wy normally go back to Common Celtic \* $\bar{e}$  (< \*ei), lia and sia are usually referred to preforms \*pleh<sub>1</sub>-is and \*seh<sub>1</sub>-is or their pre-laryngeal equivalents \*plē-is and \*sē-is. These are to be analyzed as neuter comparatives of the type seen in Lat. magis and plūs (< \*pleuis), Go. mais (< \*meh<sub>2</sub>-is) and Osc. mais (also probably < \*meh<sub>2</sub>-is), all meaning 'more'. The generalization of the zero-grade ending \*-is, though exceptional, was presumably favored in Common Celtic by the frequent use of 'more', 'longer' and semantically related comparatives as adverbs - a function expressed by

<sup>12</sup> Kurylowicz compares Germanic compounds of the type Go. missa-debs and OHG missi-tāt 'misdeed', etc., but the first element in these words probably originally meant 'different', as in Go. missa-leiks 'of different kinds'. The thematic adjective does not occur outside of composition; OHG missi (1×) 'different' is a ja-stem, while Go. misso 'mutually, each other' is an adverb. the nom.-acc. neuter in Proto-Indo-European. The third of the short comparatives,  $m\dot{a}(a)$  (cf. also nammá 'only', lit. 'not more'), is also generally thought to continue an old neuter. Here, however, the facts are less straightforward, since  $*meh_2$ -is, the obvious structural parallel to  $*pleh_I$ -is and  $*seh_I$ -is, would have given \*mai in Old Irish. Many scholars accordingly set up both  $*meh_2$ -is (\*mais) and a variant with full-grade suffix  $*meh_2$ -ios (\*māios; cf. Lat. maius < \*mag-ios), the former yielding MW moe and the latter OIr.  $m\dot{a}(a)$ . Distinct from moe and  $m\dot{a}(a)$  is mo(o), the commonest form in the period of the early glosses, which continues the regular masculine  $*māyūs < *meh_2$ -ios. The byform mou, with secondarily reapplied -u, is typologically younger, as are the similarly formed móa (= mot + a) and máo (= mat + u)<sup>13</sup>.

lia, sia and  $m\dot{a}(a)$  play a central role in the theories of Sommer (pp. 232ff.) and Thurneysen (1946: 236-7). Sommer supposes the -a of letha, nessa, etc. to have spread from lia and sia, which he derives from Common Celtic \* $l\bar{e}s$ , \* $s\bar{e}s < *(p)$  leis, \*seis. But the ia that resulted from  $*\bar{e}$  was a diphthong, and it is not likely that speakers of early Old Irish would have extracted a fully syllabic morpheme -a from the synchronically isolated monosyllables [lia] and [sia]. Sommer therefore assumes an early transformation of lig and sig to disyllabic li-a and si-a under the influence of the disyllabic superlatives \*liam < \*pleh, ismmo- (cf. Lat. plis(i)ma (Paul. ex Fest.) 'plurima') and \*siam  $< *seh_1$ -ismmo-14. The immediate predecessors of letha and nessa, in his view, were endingless \*leth (=MW llet) and \*ness (=MW nes), which he compares with two other forms that he regards as comparatives, OIr. is 'below' (: MW is 'lower') and os, uas 'above' (: MW uch 'higher'). Thurneysen's position is very similar. Like Sommer, he considers the -a of letha to be a purely Irish innovation, the replacement of an earlier zero-ending. He doubts, however, that Common Celtic  $*-\bar{e}(s)$  would have been diphthongized to -ia in final position, and instead makes maximize a the source of the new morpheme -a, invoking both the disyllabic superlative máam and the "tendency of diphthongs and long vowels in final syllables to disyllabic pronunciation".

The most attractive feature of the Sommer-Thurneysen approach is its identification of the final vowel of *lia*, *sia* and/or *máa* with the final vowel of *letha* and *nessa*. *lia* and *sia* are indeed sometimes disyllabic; this may also

<sup>&</sup>lt;sup>13</sup> Jackson (1953: 357-8) points out that MW moe, OW moi could also have come from  $*m\bar{a}_{\bar{a}}\bar{c}\bar{o}s$  via the intermediate stages  $*m\bar{a}y\bar{u}s$ ,  $*m\bar{a}\bar{u}s$ ,  $*m\bar{a}\bar{z}s$  and \*mais. But the loss of  $*\cdot_{\bar{a}}$  was Common Celtic, and it does not seem very likely that the  $*-\bar{u}$ - of the hiatus form  $*m\bar{a}\bar{u}s$  would have retained its quantity long enough to be affected by the much later Brittonic change of  $*\bar{u}$  to  $*\bar{v}$ .

<sup>&</sup>lt;sup>14</sup> Sommer uses the prelaryngeal notation \*plēismmo-, \*sēismmo-. The phonological treatment of these forms in Old Irish is well summarized by Cowgill (p. 136).

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have been true of  $m\dot{a}(a)$ , which does not seem to be attested in early poetry<sup>15</sup>. On the other hand, it is hardly likely that the -a of letha, etc. actually had its source in *lia* and *sia*, since the latter forms, as interpreted by Sommer, owe their ia to a diphthongization process not yet complete in the Archaic Old Irish of the Cambrai Homily (cf. 3 pl. rel. tu thegot for do thíagat 'which come', feda for fíado 'lord')<sup>16</sup>. There is no chronological problem in the case of máa, which could have acquired its "tendency to disvilabic pronunciation" at any time after the contraction of  $m\bar{a}as <$ \* $m\bar{a}ios$  to  $m\dot{a}$ . But it is inherently unlikely that the quasi-disyllabic realization of má, as a mere phonetic variant of the monosyllabic reading, would have been sufficiently robust to induce the effects Thurneysen claims for it - especially in view of the existence of the competing form mó, with monosyllabic and disyllabic variants of its own. Sommer's contention, accepted by Thurneysen, that endingless forms of the type \*leth, \*ness, etc. were preserved in Irish until just before the literary period is not supported by any positive evidence. Ofr. is and os, which mean 'under' and 'over', not 'lower' and 'higher', are not comparatives; there is no reason to doubt that the Irish equivalents of MW is and uch, if they had survived, would have been \**isa* and \**ósa*<sup>17</sup>.

A fresh look at the problem is clearly called for. Insular Celtic, as we have seen, had at least two kinds of comparatives – the regular type represented by OIr. siniu and MW hyn, and the irregular type of OIr. letha and MW llet. The ending of the regular forms was originally \*- $y\bar{u}s < *-i\bar{c}s$ ; that of the irregular forms, the \*-A of our formulaic reconstructions, is unknown. But the difference between the two types appears to be old. It is probably safe to assume, at least as a working hypothesis, that at the stage of Common Celtic or early Insular Celtic when regular adjectives like \*seno- 'old' and \*ardo- 'high' generalized the masculine ending \*- $y\bar{u}s$  as their sole comparative marker, Caland adjectives like \*litano- 'wide' and \*treksno- 'strong' selected a different termination. This second ending – let

us call it \*-X – need not have been the direct *phonological* ancestor of OIr. -a or MW - $\emptyset$ ; in principle, \*-X could as easily have given rise to \*-A by morphological replacement as by sound change. The essential point is that the irregular comparatives are much less likely to have first selected and then abandoned  $*-y\bar{u}s$  than to have chosen a competing morph, whatever its phonological shape, from the outset.

What could \* X have been? There are two obvious candidates – the zero-grade suffix-form \*-is that appears in lia / \*llwy and sia / hwy, and the functionally equivalent \*-ios that has been thought to underlie OIr.  $m\bar{a}(a)$ . On closer inspection only the first emerges as a viable possibility. Unlike \*-is, which is clearly reconstructible for the parent language and securely attested in both branches of Insular Celtic, the nom.-acc. sg. in \*-ios is of doubtful antiquity in Indo-European and is supported in Celtic by only a single Goidelic form <sup>18</sup>. The traditional derivation of  $m\dot{a}(a)$  from  $*meh_2$ -jos is problematic. Both the testimony of the neighboring languages (cf. Osc. mais, Go. mais) and the evidence of lia and sia make it a priori likely that Celtic inherited a neuter \*meh<sub>2</sub>-is, which is in fact probably the source of MW moe<sup>19</sup>. Now it is true that Common Celtic could have maintained both \*-is and \*-ios; Latin, after all, attests both the adverb magis < \*mag-is and the neuter adjective mains < \*mag-ios. But all the information at our disposal suggests that Celtic, unlike Latin, gave up the declension of comparatives very early. It is uncertain whether a contrast between \*-is and \*-jos ever existed at all in this branch of the family; very little trust can be placed in an analysis which assumes the survival of the three variants \*meh<sub>2</sub>-ios, \*meh<sub>2</sub>-ios and \*meh<sub>2</sub>-is at a linguistic stage immediately prior to the separation of Goidelic and Brittonic. Other things

<sup>&</sup>lt;sup>15</sup> máa is the commoner spelling; apart from the adverb nammá, the Glosses offer only a single instance of má.

<sup>&</sup>lt;sup>16</sup> It may be noted in passing that the appearance of -a for -o in fēda has nothing to do with the later sound change of -o to -a, and hence cannot be used as an argument for Cowgill's derivation of *letha* from *\*letho* (cf. above). fēda is the regular Archaic Old Irish reflex of the inherited nom. sg. *\*wēdonts*. The development of *\*-onts* (via *\*-an(t)s* and *\*-ās*) to -a was completely parallel to that of *\*-ons* to -a in the acc. pl. of pronouns and adjectives (cf. *inna firu becca* 'the small men'; the -u of *firu* has been influenced by the old nom. pl. (later voc. pl.) in *\*-ūs < \*-ōs*). Classical Old Irish *fiado* owes its -o to leveling with the oblique cases (cf. gen. sg. *\*fēdot*, with *\*-ot* as in *tu·thēgot*).

<sup>&</sup>lt;sup>17</sup> Taking is and os as etymological comparatives would also rule out Pedersen's attractive derivation (1909: 50) of is from \* $p\bar{e}d$ -su (: Alb. përposh 'below').

<sup>&</sup>lt;sup>18</sup> The only IE language with an unambiguous neuter nom.-acc. sg. in \*-*ios* is Latin. Lat. -*ius*, however, shows every sign of being an innovation; the older neuter in \*-*is* is still preserved in adverbs, where it escaped the leveling that replaced \*-*is*by the strong suffix-form \*-*ios*- (itself later mostly replaced by \*-*ios*-) in the corresponding adjectives. Indo-Iranian has a nom.-acc. sg. in \*-*yas* (Ved. -*yab*, Av. -*iio*), but this ending, as the synchronically predictable counterpart of the masculine nom. sg. in \*-*yās* (Av. -*iiā*), need not even antedate the merger of PIE \*e and \*o as \*a. OCS -(*j*)*e* (cf. *bolje* 'more', *munje* 'less', etc.) is almost certainly not a direct reflex of \*-*ios*, but merely a recharacterized, overtly "neuter" substitute for the \*-(*j*)*b* that would regularly have resulted from Proto-Slavic \*-(*ij*)*is* (a contamination of \*-*is* and \*-*ies*-/\*-*ios*-) in this position. The original situation in Balto-Slavic is best seen in Old Prussian adverbs like  $t\bar{a}l(i)s$  'further' and  $to\bar{u}ls$  'more' (< \*-*is*).

<sup>&</sup>lt;sup>19</sup> Only by setting up  $*meh_2$ -is with  $*-h_2$ - can we account for the Oscan form, which would otherwise have to be taken from  $*mag_2$  (a desperate remedy; cf. Walde-Hofmann (1954: 14)) or from an analogical preform of the type  $*m_2$ --is. The corresponding positive was  $*meh_2$ -ro-, which underlies OIr. már, mór and MW mawr. A further connection with Gmc.  $*m\bar{e}ra$ - 'renown' (cf. Go. merjan 'proclaim', OHG māri 'glorious', etc.) and Gk.  $-\mu\omega\rho\sigma\varsigma$  (in  $\epsilon\gamma\chi\epsilon\sigma\iota\mu\omega\rho\sigma\varsigma$  'spearfamed'(?), etc.) is both formally and semantically problematic.

being equal, it would be desirable to dispense with  $*meh_2$ -ios altogether and to seek an explanation for  $m\bar{a}(a)$  on the basis of the structurally predictable  $*meh_2$ -is.

Such an explanation is in fact available. We can capture the obvious parallelism of *lia*, sia and  $m\dot{a}(a)$  by treating them as neuters in \*-is secondarily recharacterized by the productive Insular Celtic ending \*-A. The proximate preforms of *lia* and *sia*, in my view, were not \**lēs* and \**sēs* but  $*l\bar{e}s$ -A and  $*s\bar{e}s$ -A;  $m\dot{a}(a)$ , as a form of the same type, is best taken from \*mais-A, i.e. \*meh<sub>2</sub>-is followed by the ending of comparatives like \*let-A and \*treks-A. From a morphological point of view it is extremely common for opaque or hypershort forms to be redundantly resuffixed in this way; the process has already been met with in OIr. móu, móa and máo (cf. above) and has a striking extra-Celtic parallel in OHG (Alemannic) mēriro, mēroro 'greater', representing the inherited comparative mēro  $(< *maiz\bar{o}^n < *meh_2 - is)$  followed by the productive ending  $-iro / -\bar{o}ro^{20}$ . The phonological development of \*les-A and \*ses-A to disyllabic lia and sia would have been completely regular, as shown by the superlative liam (< \*lesamos). In the same way, the change of \*mais-A to máa is guaranteed by the superlative máam, which goes back to \*maisamos (cf. Osc. maimas) via the intermediate stages \*maiha $\mu as$  and \*mai $a\mu as^{21}$ . An advantage of this analysis is that it eliminates the need to account for the disyllabic readings of lia and sia by analogy. The Middle Welsh forms \*llwy, hwy and moe neither help nor hurt the case for \*-A, since final syllables were completely lost in Brittonic. There is, in fact, no way to determine whether the enlargement of \*les, \*ses and \*mais to \*les-A, \*sēs-A and \*mais-A was common to both branches of Insular Celtic or a development specific to pre-Irish.

None of this directly explains the origin of \*-A itself. But the possibility of deriving of  $m\dot{a}(a)$  from \*mais-A is nevertheless important, for it removes the only evidence for \*-jos as a third variant of the comparative suffix in Common Celtic. The natural inference is that \*-X, the morpheme initially generalized in place of \*- $y\bar{v}s < *-i\bar{v}s$  in the comparative of \*litano-, \*treksno- and other Caland adjectives, was \*-is itself. Let us therefore speculate that at the period in the prehistory of Insular Celtic when comparatives ceased to be declined, certain adjectives of quantity ('much'), size ('long', 'wide', 'thick', 'large', by extension also 'strong', 'young'), and spatial position ('near', 'high', 'low'), along with a few others commonly employed as adverbs', selected the neuter in \*-is as their invariant form<sup>22</sup>. In the resulting system, the great mass of regular comparatives in \*-yūs, originally masculine, contrasted with about a dozen old neuters:

\*īssis 'lower' \*letis 'wider' \*lēs 'more' \*mais 'larger' \*messis 'worse' \*nezdis 'nearer' \*ouksis 'higher' \*remis'thicker' \*sēs 'longer' \*sāssis 'easier' \*treksis 'stronger' \*yewis 'younger, smaller'

These forms were subsequently affected by two further developments – the replacement of postconsonantal (i.e., fully syllabic) \*-*is* by the ending we have written with the symbol \*-*A*; and the later extension of \*-*A* to the three monosyllabic forms  $*l\bar{e}s$ ,  $*s\bar{e}s$  and \*mais. The former process, which was the basic one, must now be considered in detail.

Evidence for the prehistory of \*-A comes from an unlikely source. It was seen above that the Italo-Celtic superlative suffix \*-isamo- is represented in Continental Celtic by place names of the type Gaul. Odfordun and Celtib. (haplologized) Uxama, both probably meaning 'highest'. Other such forms are attested in both languages, e.g., Gaul. Rigisamo, Belisama, Celtib. Bletisama, Segisama, all of uncertain meaning. Taken as a whole, the Continental Celtic evidence accords very well with the facts of Irish and Welsh, with one important exception. The superlative of \*litano-'wide' is twice attested in the Celtiberian city name Letaisama (in the native script 1-e-Ta-i-ś-a-m-a), the modern Ledesma (cf. Untermann 1975:

<sup>&</sup>lt;sup>20</sup> Cf. also OPr. sen stawīdsmu adder muisieson grīkans 'mit solcher oder grösseren Sünden'. As seen by Stang (1966: 268), the form muisieson 'greater' is probably to be interpreted as a recharacterized form of \*māis, itself in turn a development of \*mais with analogical  $*-\bar{a}$ .

<sup>&</sup>lt;sup>21</sup> So Cowgill (p. 136). Another example of the loss of secondary \*-i- in an original sequence of the form \*-*VisV*- is furnished by 1sg. con acca 'I saw', 3sg. accae < \*- $k^{vois-a}$ , \*- $k^{vois-e}$ . Note also inna n-, the gen. pl. of the definite article, which despite Thurneysen (1946: 295) is surely to be taken from a preform \*sindoisan, with the PIE pronominal ending \*-oisōm (cf. Ved. -esām, etc.). Only when preceded by a stressed vowel and followed by a weak final syllable was \*-i-preserved, as in nom. gen. dat. acc. sg. gai 'spear' < \*gaisas, -i, -i, -an; contrast acc. pl. gáu < \*gaisās, with retained final syllable and loss of \*-i-.

<sup>&</sup>lt;sup>22</sup> Note that OIr. óa 'younger' may also mean 'less'. OIr. messa and MW haws do not fit into any of the above semantic categories; they may have acquired "short" comparatives through the influence of their haplologized superlatives, which resembled those of \*treks-, \*ouks-, \*iss- and \*nets- (< \*nezd-).

A. 68). Schmoll (1959: 45) is mistaken in claiming that Letaisama is merely a defective spelling for \*Letisama. The Celtiberian writing system has a well-attested syllabic sign for the sequence -ti- / -di-, and nothing would have been simpler than to write l-e-Ti-s-a-m-a had this been the correct form. It is virtually certain that the diphthong -ai- is genuine, and that the replacement of \*letisamo- by \*letaisamo- was an actual historical change in the evolution of Celtiberian.

There are basically two ways that the new form \*letaisamo- could have come into being -a) through the analogical spread of the anteconsonantal full-grade \*leta- < \*pleth<sub>2</sub>- at the expense of the antevocalic full-grade \*let-(cf. Cowgill, p. 149, fn. 41); and b) through the influence of the semantically related superlative \*maisamo- < \*meh<sub>2</sub>-ismmo-. The relative merits of these two approaches - we shall call them scenarios a) and b) - will be considered below. For the moment it is more important to note a separate but related linguistic fact, namely, that whatever the mechanism by which \*letaisamo- supplanted \*letisamo- in the superlative, it is practically certain that this change would have been accompanied by a corresponding replacement of *\*letis* by *\*letais* in the comparative. This is clear under scenario a): if \*letaisamo- arose from \*letisamo- through the simple substitution of \*leta- for \*let-, there would have been no reason for the disyllabic root-form not to penetrate into the comparative as well. But even if the -ai- of \*letaisamo- was taken over from \*maisamo- (scenario b)), \*letis would almost inevitably have come under strong pressure to assimilate to the comparative \*mais. A specific factor favoring the change to \*letais would have been the overshort, undifferentiated character of \*-is as a comparative marker. Owing in part to its homophony with the nom. sg. of *i*-stem nouns and non-comparative adjectives, \*-*is* was wholly or partly replaced by morphemes of the structure \*-Vis in a number of different IE languages, including Baltic (OPr. -ais) and Germanic (\*- $\bar{o}z$  (Go. -os) < \*- $\bar{o}(j)iz$ <sup>23</sup>. Indeed, it is probably best to think of the contamination of \*letisamo- and \*maisamo-, if scenario b) is correct, as having started in the comparative, with *\*letis* first changing to *\*letais* under the influence of \*mais, and the pattern \*mais: \*maisamo- then triggering the creation of the new \*letaisamo-.

The comparative of *\*litano-* in Celtiberian was thus in all likelihood *\*letais.* This discovery is important, because the remodeling of *\*-is* to *\*-ais*, however it occurred, could just as easily have taken place in Common Celtic as in Celtiberian proper; and if *\*letais* could in principle have been Common Celtic, it could also have been inherited into Insular Celtic. We must therefore consider how such a form would have been treated in

Brittonic and Goidelic. For Brittonic the answer is simple: \*letais, like \*letis, would probably have lost its ending and yielded MW llet, the attested form. It is impossible, however, to be sure about the behavior of \*-ais in Old Irish. In absolute auslaut \*-ai evidently went to \*- $\overline{i}$  before disappearing, as can be seen from the dat. sg. and nom.-acc. du. of  $\bar{a}$ -stems (cf. dat. sg. túaith 'populo' < \*'āi (< dat. \*- $eh_2$ -ei) or \*-ai (< loc. \*- $eh_2$ -i), nom.-acc. du. túaith 'duo populi' < \*-ai (< \*- $eh_2$ - $ih_1$ )), and above all from the feminine numeral di 'duae', likewise  $< *-ai < *-eh_2-ih_1^{24}$ . But it is not clear that \*-ais would necessarily have undergone the corresponding change to pre-Ir. \*-is and OIr. -i. The possibility of an entirely different treatment is suggested by the behavior of the phonologically parallel endings \*-oi and \*-ois. Simple \*-oi clearly gave pre-Ir. \*-i, as in nom. pl. fir 'uiri' < \*wiroi, while \*-ois seems to have yielded \*- $\bar{o}s$  (Ogam -OS; cf. Thurneysen, p. 192), whence -o, -a, in the genitive singular of *i*-stems (cf. súlo, -a, gen. sg. of súil 'eye'). To be sure, the change of \*-ois to -o is not universally accepted; according to a common alternative interpretation (favored, e.g., by Lewis-Pedersen (1937: 172)), the o of súlo was borrowed from the u-stems, where the genitive singular in -o goes back to \*-ous. Against this view, however, is the fact that the i- and u-declensions had little if anything in common at the pre-Ogam linguistic stage when the transfer of  $*-\bar{o}s$  from the *u*-stems to the *i*-stems would have to have taken place<sup>25</sup>. There is nothing inherently implausible about the sound change \*-ois > \*- $\bar{o}s$ ; it simply asserts that the diphthong \*oi lost its final glide and compensatorily lengthened its first element in closed final syllables. Acceptance of the \*-ois > \*- $\bar{o}s$  rule would allow us to make a prediction about the treatment of \*-ais in Old Irish: with loss of the glide and compensatory lengthening, \*-ais would have yielded \*-ās, whence OIr. -a. \*letais, in short, would have given letha.

The sequence \*-ais thus emerges – somewhat surprisingly, perhaps – as a candidate for \*-A. The question that must now be asked is whether our hypothetical \**letais*, a form posited for Celtiberian but potentially referable to Common Celtic, was unique, or whether it is legitimate to go further

<sup>&</sup>lt;sup>23</sup> Similarly, Slavic (OCS) has  $-\check{e}i$ ,  $-\check{e}i\check{s} - \langle *-\bar{e}(\check{i})is$ - beside the simpler -i,  $-i\check{s} - \langle *-\check{i}\rangle is$ -.

<sup>&</sup>lt;sup>24</sup> So far as we can tell, \*-*ai* gave \*- $\bar{e}$  in Brittonic. The Middle Welsh counterpart of OIr. *di* 'duae' is *dwy*, which can only go back to a secondarily stressed form of \* $d\bar{e}$ , itself the unstressed reflex of inherited \*d(w)ai. The direct reflex of stressed \*d(w)ai, of course, would have been \**doe*.

<sup>&</sup>lt;sup>25</sup> The apparent parallel of the Sanskrit *i*-stem loc. sg. in -au, an obvious borrowing from the *u*-stems, is misleading. The Indo-Iranian endings were \*- $\bar{a}i$  and \*- $\bar{a}u$ , both of which had a sandhi variant \*- $\bar{a}$  before consonants. The partial convergence of the *i*- and *u*-stem forms was crucial: when -au began to replace \*- $\bar{a}$ before consonants in the *u*-stems, speakers could easily misinterpret the process as one of replacing  $-\bar{a}$  by -au in both declensions. The language of the Rigveda preserves  $-\bar{a}$  only in *i*-stems.

and set up \*treksais, \*messais, \*yowais, etc. to account for the remaining Insular Celtic forms. Under scenario a), the first of our two theoretically possible mechanisms for explaining the diphthong \*-ai-, the reconstruction of a general comparative type in \*-ais would necessitate a cumbersome extra hypothesis: we would have to assume two analogical processes, one that substituted the anteconsonantal root shape \*leta- for \*let- in \*letis. and another that mechanically replaced the anit suffix \* is by the set suffix \*-ais in forms like \*treksis and \*messis. Scenario a), however, is suspect in any case. It is easy to conceive of the spread of \*leta- in purely schematic terms, but extraordinarily difficult to think of a specific locus from which an allomorph of this shape could plausibly have invaded the comparative and/or superlative<sup>26</sup>. Scenario b) is altogether preferable, both because it provides an inherently more plausible explanation of \*letais itself, and because it allows us to posit \*letais, \*treksais and \*messais as outputs of one and the same change. Let us therefore hypothesize that at a stage of Common Celtic following the fixation of \*letis, \*treksis, \*messis, etc. as invariant comparatives, postconsonantal \*-is was everywhere replaced by \*-ais under the influence of \*mais. The contamination process would have been facilitated by the fact that the synchronic analysis of \*mais (: positive  $m\bar{a}$ -ro-) after the loss of laryngeals would probably have been m-ais rather than \*ma-is, just as the synchronic analysis of \*les 'more' and \*ses 'longer' (: positive \*sī-ro-) would almost certainly have been \*l-ēs and \*s-ēs, respectively<sup>27</sup>. The sequence \*-ais, as the characteristic termination of the comparative form par excellence, would thus have been well positioned to encroach upon the domain of the undercharacterized \*-is. Similar replacements can be cited from other languages; compare the creation, under less favorable circumstances, of Homeric repelor 'worse' on the model of apelor 'better', or (in the same semantic sphere as the Celtic forms) Attic inscriptional  $\partial \lambda \varepsilon (\zeta \omega \nu 'smaller' on the model of <math>\mu \varepsilon (\zeta \omega \nu (< *meg(h_2) - i \bar{o}s) 'larger'. A$ formally parallel but independent case in Celtic is perhaps to be seen in the problematic Old Irish form (h)ire 'longer, further', which can be thought of as an old comparative adverb  $*\bar{i}ris$  (<  $*p\bar{e}r-is$ ?), altered to  $*\bar{i}r\bar{e}s$  under the influence of the nearly synonymous  $*s\bar{e}s^{28}$ .

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These observations amount to the rudiments of a new theory, which may be summarized as follows. The contrast between the types siniu, ardu and letha, tressa originated in Common Celtic. The vast majority of Common Celtic adjectives selected the originally masculine ending  $*-y\bar{u}s < v\bar{v}$ \*-ios as their invariant comparative suffix, but about a dozen Caland adjectives, probably owing to their frequent use as adverbs of degree. instead generalized the neuter ending \*-is. This morpheme did not survive as such, but was replaced by the \*-ais of \*mais 'larger, more' within the common period. In Continental Celtic our only evidence for \*-ais as a comparative suffix comes from Celtiberian, where \*letais and other unattested forms of the same type evidently induced the replacement of \*-isamo- by \*-aisamo- in the corresponding superlatives. This development did not extend to the haplologized superlatives in \*-(s) amo-; we find \*letaisamo- (cf. Letaiśama) for \*letisamo-, but not \*\*ouksaisamo- for \*ouksamo- (Celtib. Uxama). Insular Celtic offers no evidence for \*-aisamo-. which is therefore probably best regarded as a dialectal innovation specific to Celtiberian<sup>29</sup>. But Goidelic and Brittonic inherited and maintained the comparative suffix \*-ais, eventually even extending its use to recharacterize the three monosyllabic forms \*mais, \*les and \*ses. The creation of \*maisais, \*lesais and \*sesais is impossible to fix chronologically; it must, however, have been later than Common Celtic, since the creation of Celtib. \*letaisamo- from \*letais could only have been modeled on the pattern \*mais (not \*maisais): \*maisamo. The sequence \*-ais (the \*-A of our preliminary reconstructions) was regularly lost in Brittonic forms of the type MW llet. trech, etc.; in Old Irish it gave -a, whence the type letha, tressa and the originally disyllabic lia, sia and máa. The form nessa 'nearer', for expected \*nedda < \*nezdais, is an obvious analogical formation on the model of the superlative nessam < \*netsamos < \*nezdisamos.

That not every step in the above account can be independently proved or documented is self-evident. The pivotal forms for our theory are OIr.  $m\dot{a}(a)$  and Celtib. Letaisama. The former, when correctly analyzed as \*mais-A, establishes \*mais for Common Celtic and eliminates the evidence for a Celtic neuter comparative in \*-jos; the latter shows that at least one Continental Celtic language had a comparative in \*-ais corresponding to

<sup>&</sup>lt;sup>28</sup> The positive \**litano*-, with its zero-grade root vocalism, would hardly have been a good starting point for the propagation of the full-grade variant \**leta*-. A better source would have been Cowgill's masculine comparative \**letayūs* – if, despite appearances, laryngeals had vocalized before \*-i-.

<sup>&</sup>lt;sup>27</sup> Or  $\overline{*i}$ -eis and \*s-eis, if the monophthongization of \*ei to  $*\overline{e}$  had not yet taken place.

<sup>&</sup>lt;sup>28</sup> That *ire* was synchronically felt to be a comparative is clear from the recharacterized form *irea* or *ireiu* (cf. Thurneysen, p. 237) and the superlative *hirem*. For the root etymology compare OHG *furiro* 'more eminent, weightier' (< \*'more in front'); the derivational basis of the Celtic form was perhaps an

adverb akin to Hitt. *pēran* 'in front (of)'. Thurneysen's opinion notwithstanding, it is most unlikely that the -e of *ire* goes back to \*-*ios*.

<sup>&</sup>lt;sup>29</sup> Nevertheless, the possibility of an Insular Celtic \*-*aisamo*- cannot be absolutely excluded. In Irish this sequence would presumably have first given \*-*aam*, whence -*am* by syncope; an inherited \**yewaisamo*- 'youngest' would thus have yielded the attested *óam* (cf. note 6). In Brittonic, it is not out of the question that \**yewaisamo*- and \**letaisamo*- would have given MW *ieu(h)af* and *llettaf* directly, but some combination of sound change and analogy would probably have produced these forms in any case.

the Insular Celtic type in \*-A. The rest is educated guesswork. There is no direct evidence for projecting Celtib. \*letais back to Common Celtic, or for assuming a whole series of such forms; our decision to treat the replacement of \*-is by \*-ais as a Common Celtic process was obviously inspired by the prospect of taking \*letais as the source of OIr. letha and MW llet. It is the phonology of the last step that presents the greatest difficulties. We are not well informed about what \*-ais would have given in Old Irish; the near-parallels of \*-ai, which went to \*-i before giving - $\emptyset$ , and \*-ois, which gave \*- $\delta s$  and -o, point in opposite directions. But if the proposed change of \*-ais to -a cannot be independently demonstrated, neither can it be refuted. The costs of assuming an otherwise unverified sound law are real enough, but they are more than offset, in the present case, by the advantages of obtaining a unified explanation for lia, sia and má(a), a principled interpretation of Letaisama, and a simpler morphological analysis of the comparatives in \*-A than any of the available alternatives.

## Appendix: a note on the equative

The history of the Goidelic and Brittonic equative provides an interesting further illustration of the special role played by the Caland adjectives, and by the word \*māro- in particular, in the evolution of the Insular Celtic system of comparison. The basic facts are well known<sup>30</sup>. The attested equative constructions are based on a deadjectival abstract noun which was reinterpreted as a special form of the corresponding adjective. A phrase like OIr. fer as déinithir Coin Culainn 'a man (who is) as swift as Cú Chulainn' reflects an earlier syntagma of the type 'a man who is with/of swiftness like unto C.C.'; the use of the accusative after déinithir (: dian 'swift') is historically of a piece with the accusative rection of amail 'like, as'. The link between equatives and abstract nouns is synchronically palpable in Brittonic, where, e.g., a form like MW cochet 'as red as' (: coch 'red') is still freely employable as a noun with the meaning '(exceeding) redness'. Comparison of MW, MBr. -(h)et with OIr. -ithir makes it clear that the productive suffix for making "equative nouns" was originally \*-iset- followed by an indeterminate vowel; the Irish forms have added a palatalized -r.

A suffix of the form \*-iseto-, \*-isetā or \*-iseti- cannot have been inherited from Proto-Indo-European. A morpheme boundary must once have stood after the \*-s-: \*-is- can only be the zero-grade of the comparative morpheme, while \*-eto- (vel sim.) represents the abstract-forming suffix proper. Insular Celtic preforms like \*seniseto- 'older-ness, very old-ness' are analogical in origin. Their creation was doubtless triggered by the Caland adjectives in root-final \*-s-, which regularly formed deradical abstracts of the type \*treks-eto- 'strength' and \*ouks-eto- 'height'. The synchronic association of \*treks- and \*ouks- with the comparative and superlative probably led to the evolution of a distinctive nuance ('great strength', 'great height') in these words. The resulting pattern was then generalized: since \*trekseto- and \*oukseto- appeared to be made from the (haplologized) superlatives \*treksamo- and \*ouksamo- by substituting \*-eto- for \*-amo-, new forms in \*-iseto- were supplied to superlatives of the regular type in \*-isamo-. The proportion was \*treksamo-: \*trekseto-:: \*senisamo-: X, where X was solved as \*seniseto-. A close structural parallel is provided by the rare neuter nt-stem sinet 'old age' < \*senisant, an obvious creation on the basis of nouns like treisset 'strength' < \*treksant<sup>31</sup>.

The source of the -r in OIr. déinithir and sinithir was seen in principle over forty years ago by Bergin (1946). \*-iseto- is by far the commonest device for forming equatives in the Insular Celtic languages, but it is by no means the only one. In Old Irish the equative of \* $m\bar{a}ro$ - 'large' is  $m\dot{o}ir <$ \*mārī, a case form - the genitive, perhaps - of the substantivized neuter \*māro- (OIr. mór) '(large) size, amount'<sup>32</sup>. A similar form, first recognized as old by Bergin, is reimir < \*remri (BDD<sup>2</sup>), probably based on the corresponding substantivization of \*remro- (OIr. remor) 'thick'. In addition to these two equatives in simple -r, Irish inherited a third -lir 'as many as', descriptively the equative of il 'many', but historically a palatalizing case form of ler 'great number'. The influence of móir, reimir and lir (or  $m\bar{a}r\bar{i}$ ,  $remr\bar{i}$  and  $r\bar{i}r\bar{i}$ ) evidently triggered the extension of  $r(r\bar{i})$  to every other equative in the language. First to undergo the change, perhaps, was leithir 'as wide as', built according to the proportion compy. \*rema: equat. reimir :: compy. letha: equat. X. Another early creation was sithir 'as long as', properly a case form of the noun sith (= MW hyt) 'length' with added  $-r^{33}$ . The final step, assisted by the presence of the surface sequence -thir (or \*-trī) in leithir and sithir (or \*letrī and \*sitrī), was the spread of the innovation to the general type in \*-(i)seto-. Whether the actual change was one of \*-tī to \*-trī, \*-ith to -ithir, or something in between, the result was the establishment of the familiar sinithir, tresithir, etc., to which were eventually added regularized lethithir and sithithir. Like

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<sup>&</sup>lt;sup>30</sup> See, e.g., the account given by Thurneysen, p. 237.

<sup>&</sup>lt;sup>31</sup> Cf. Thurneysen, p. 167. Also attested are *lethet* 'breadth' and *remet* 'thickness' < \**letant*, \**remant*, with \**-ant* < \**-nt*.

<sup>&</sup>lt;sup>32</sup> Here as in the adjective proper, - $\dot{o}$ - was substituted for - $\dot{a}$ - under the influence of the comparative  $m\dot{o}$ . In principle, the case form of the equative noun could also have been a descriptive instrumental in  $*-\bar{\imath} < *-i-h_I$ , the so-called "cvi-formation" of Vedic Sanskrit (cf. Schindler (1980)).

 $<sup>^{33}</sup>$  The linguistic value of *leithir* and *sithir* (both also  $BDD^2$ ) is correctly upheld by Bergin *contra* Thurneysen (p. 235). The absence of raising in *reimir* and *leithir* is no doubt analogical.

the propagation of -a < \*-ais in the comparative, the spread of  $-r < *-r\bar{\imath}$  in the equative was determined by a small nucleus of conspicuous but highly irregular forms.

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