British *-ā́u̯- and *-āg-, and the Celtic words for 'sun'[1]

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1. Introduction

Jackson's *Language and History in Early Britain* (Jackson 1953) is still the essential handbook for British historical phonology, but given its vast scope, not all of its conclusions have withstood the test of time. One of these is the development of the sequence *-ā́u̯- before a vowel under the prehistoric penultimate British stress. It is claimed by Jackson (1953, 371. 373 f.) that this was identical to that of stressed *-óu̯-, normally giving MW -eu, MBret. -ou and MCorn. -ow, but sometimes developing to -o in Middle Welsh. More recently, Schrijver (2007, 310 fn. 9; 2011, 26) has stated, on the basis of the development of Latin *clāuis* 'key' or *clāuus* 'nail' to MW *clo* 'lock, bolt', that the reflex of stressed *-ā́u̯- was preserved in Welsh as MW -o while falling together with the reflex of stressed *-óu̯- in Cornish and Breton. Although it will be concluded here that Schrijver is correct, further work is required, since neither he nor Jackson collects and discusses all the evidence which is required to be sure of the development posited by Schrijver. Furthermore, Jackson puts forward several forms as evidence for his development of *-ā́u̯-, and it is necessary to explain why these are not in fact counter-evidence to Schrijver's rule.

In order to understand the evidence for stressed *-ā́u̯-, it will also be necessary to look at the reflexes of pretonic *-āu̯-, and also of *-āg-, which is normally assumed to have developed in the same way as *-āu̯-. However, it will be shown that this is not the case, and that *-āg- and *-āu̯- in fact developed quite differently in British Celtic.

A correct understanding of the development of *-ā́u̯- further allows us to assess possible etymologies of the word for 'sun' in the Brittonic languages, and to place them correctly in their Celtic and Indo-European context.

2. Pretonic *-āu̯- and *-ou̯-

It will be seen in what follows that the reflex of pretonic *-āu̯- is important in our discussion of stressed *-ā́u̯-; it will therefore be discussed here before moving on to the question of stressed *-ā́u̯-. According to Jackson (1953, 384 f.), pretonic as well as stressed *-āu̯- and *-ou̯- fell together in British Celtic, both giving MW -eu-. However, pretonic *-ou̯- did not in fact give MW -eu-, and it may be that neither did *-āu̯-. Pretonic *-ou̯- resulted in MBret. -ou-, ModBret. -aou-, MCorn. -ow- (e.g. MBret. louen, MCorn. low-en 'merry, jovial, happy' < *lou̯éno-). In Welsh it gave MW and ModW -aw- or -u- as in *lou̯éno- > MW llawen 'merry, jovial, happy', *kou̯ánnV- (or *kuu̯ánnV-) > MW cuan 'owl' (MBret. couhenn; Schrijver 1995, 333 ff.).[2] The evidence for pretonic *-āu̯- is very slender. Jackson, along with Pedersen (1909, 62) and Lewis / Pedersen (1962, 12), supposes that MW breuan 'hand-mill, quern, millstone' < *brāu̯ónV- < PIE *gʷrāu̯onV- (cf. Skt. grávan 'rock used to press soma') shows the regular result in Welsh of this sequence. However, this is his sole example;[3] it will be suggested below (6., p. 206 ff.) that the Modern Breton form breo may come regularly from the original nominative singular *brā́u̯ū < PIE *gʷrāu̯ō, via a British sound change. If this is the case, the sequence -eu- in MW breuan may reflect the spread of the vocalism appropriate to the nominative through the rest of the paradigm, rather than the regular result of pretonic *-āu̯-.[4]

There seem to be no clear-cut examples of pretonic *-āu̯- in Cornish or Breton at all, and I have found only two other possible examples in Welsh.

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[2] I intend to discuss these developments in greater detail elsewhere. In Gaulish too *-ou̯- could become *-au̯-, cf. the personal names *Lauenus* and *Cauanos*. That Cornish and Breton preserved the original vocalism is shown by MW *llawer*, MCorn. *lower* 'many' beside OIr. *roar*, *loor*, *lour* 'enough, sufficient', all from *ro-u̯er-o- (Schrijver 1995, 336).

[3] Pedersen and Lewis / Pedersen also mention MW *heul*, supposedly from *sāu̯eli̯o-, which is, however, too uncertain to be included; see below (7., p. 208 ff.) for further discussion.

[4] When Uhlich (1995, 37 fn. 140) talks of *breuan* reflecting a 'quasi-tautosyllabic' reflex of *-āu̯-, he is presumably thinking of a similar influence of the original nominative singular, which after apocope would have tautosyllabic *-ɔ́u̯- < *-āu̯- in *brɔ́u̯ versus heterosyllabic *brɔ.u̯ón-.

The first is ModW *breuad* 'graveworm', *breuog* 'graveworm, toad', which might come from **brāu̯-V́-*, from the root **gʷerh₃-* 'devour' (LIV², 211 f.) found in Greek βιβρώσκω 'eat' (thus Joseph 1982, 33). But Schrijver (1995, 181 f. 341) connects them instead with MW *breu* 'brittle, fragile, worn away' < **bʰrus-o-*. Uhlich (1995, 37 fn. 140) suggests that MW *crowyn* 'shed where animals are kept, sty' shows the regular result of pretonic **-āu̯-* and that the variants *crywyn* and *crewyn* are back-formations. However, as noted below (4., p. 202 f.), there is no good reason to prefer a reconstruction **krā́u̯o-* to **krúu̯o-* or **króu̯o-* for MW *creu* 'pigsty', from which *crowyn* is derived. The alternative forms *crewyn* or *crywyn* could be the regular result of **krou̯ı̯no-* (by internal *i*-affection) or **kruu̯ı̯no-* respectively, and *crowyn* would be secondary. It must be admitted that the catalyst for the analogical creation of *crowyn* is not clear, and *crywyn* and *crewyn* are only found in later Modern Welsh sources. Nonetheless, to argue that *crowyn* demonstrates the regular reflex of **-āu̯-* when the form itself is the only evidence for the presence of **-āu̯-* is extremely circular.

The reflexes of pretonic **-āg-* are also pertinent here, because Jackson (1953, 373 f. 442 ff.) argues that **-āg-* gives the same result as **-āu̯-* in both stressed and pretonic positions. The unconditioned reflex of pretonic **-āg-* certainly seems to be MW *-eu-*, as shown by MW *breuant* 'windpipe, throat' < **brāgántV-* (cf. OIr. *brágae* 'neck, throat, gullet') and *deuaf* 'I come' < **dāgámi* < **to-agami* ← **to-agō* (Jackson 1953, 443; Schumacher 2004, 189 ff.). In Breton and Cornish the result was unrounding to *-e-*, with subsequent raising in hiatus: OBret. *Brehant* (in a place name), ModBret. *briant*, OCorn. *briansen*, MCorn. *bryangen* < **brāgántV-*, ModBret. *eost*, *eoust* 'August, harvest' < Lat. **āgústus* (Jackson 1967, 284; Schrijver 1995, 180). In the case of Old (West) British POUOIS, ModW *Powys* < Lat. *Pāgḗnsēs*, the development was instead to *-ow-*. This may be due to the effect of the preceding labial consonant (Sims-Williams 2003, 226 fn. 1418), or may reflect a change **pɔ̄γḗses* > **pou̯úis* > **pouís*, with loss of **-u̯-* before a rounded vowel (Prof. Schrijver, pers. comm.).

However, as demonstrated below (5., p. 203 ff.), we cannot assume that the reflexes of **-āu̯-* and **-āg-* are necessarily identical in Brittonic. The regular reflex of pretonic **-āu̯-* in British must remain open in the light of the lack of good evidence. It will be tentatively suggested below that pretonic **-āu̯-* did in fact give the same result as pretonic **-ou̯-*, but even if this is accepted it does not strongly support a similar change in tonic syllables against evidence to the contrary.

3. Stressed *-óu̯- and *-ā́u̯-

Proto-Indo-European *-eu̯-, *-ou̯- and *-uu̯- before a vowel in a British stressed syllable fell together as *-óu̯-. Its further development is demonstrated by the following good examples: the plural suffix *-eu̯es > *-óu̯es gave OW -ou, MW -eu, ModW -au, OBret. -ou, MBret. -ou, -aou, ModBret. -où,[5] MCorn. -ow (cf. Gaulish -oues in the theonym *Lugoues* pl. 'Lugs'); MW *cigleu* '(s)he heard' comes from *k̂V-k̂lóu̯e (cf. OIr. -cúalae); and *teu̯e > *tóu̯e gave MW *teu*, ModW *tau* 'yours' (cf. OIr. *taí*, Skt. *táva*). The Latin loan word *Ióuis* > MW *ieu*, MBret. *iou*, ModBret. *yaou*, MCorn. *yow* 'Thursday' shows the same development. For further discussion of these forms and for other, less reliable, examples, see Schrijver (1995, 328 ff.). According to Jackson (1953, 371. 373 ff.), stressed *-ā́u̯- (which also came from PIE *-ōu̯-) "fell together with -óu̯-". Subsequent to this falling together, and after British apocope of final vowels, there was another, solely Welsh, development: "occasionally final Pr[imitive]W -ou seems to have been reduced to -o" (Jackson 1953, 379).

It is a concomitant of the hypothesis of the falling together of stressed *-ā́u̯- and *-óu̯- that they should subsequently undergo exactly the same developments. In the case of Jackson's 'occasional reduction' of *-ou̯ to -o in Welsh, therefore, we should expect that original *-óu̯- and *-ā́u̯- both show some cases of the development to OW -ou, MW -eu, ModW -au, and some cases of the 'reduction' to -o. This is precisely what we do not find, since all certain examples of *-óu̯- give MW -eu, as shown above.

On the other hand, if Schrijver (1997, 310 fn. 9; 2011, 26) is correct, then all the examples of Welsh -o should come from *-ā́u̯-. According to Schrijver, after the regular development to *-ɔ̄u̯-, the vowel was then shortened in this environment to *-ɔu̯-. The long vowel *-ɔ̄- developed into MW -aw-, MBret. -eu-, and MCorn. /ø/ (represented by a range of spellings including -u-, -e-, -eu-), as in PIE *bʰrā́tēr > MW *brawd*, MBret. *breuzr* 'brother', *lā́mā > MCorn. *luf* etc. 'hand'. However, short *-ɔ- gave -o- in all three Brittonic languages, as shown by PIE *mātrVkʸī > *mɔ̄drV́b > *mɔdrV́b > MW *modryb*, MBret. *mozreb*, OCorn. *modereb* 'mother-in-law', in which *-ɔ̄- was shortened to *-ɔ- in a pretonic closed syllable (Schrijver 1995, 195 ff. 252 f.). In South West British (Breton and Cornish) *-ɔ̄u̯- fell together with the reflex of *-óu̯-, but it remained separate in Welsh, giving OW -ou,

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[5] The subsequent difference between (secondarily) unstressed Breton -où in the plural and stressed -aou is not important here (Jackson 1967, 262).

MW and ModW -o.[6] As already noted, Schrijver posits this development on the basis of MW, ModW *clo*, OBret., MBret. *clou*, ModBret. *klav*[7] 'lock, bolt' from Lat. *clāuis* and/or *clāuus* 'nail', but he does not put forward any other evidence.[8] This particular word may be a loan word from Latin, although it is also possible that it is inherited: the same preform gives Ionic Greek κληΐς 'key', from a Proto-Indo-European root *$kleh_2u$- (Schrijver 1991, 175. 298 ff.). Even if MW *clo* etc. reflect a borrowing rather than an inheritance, it will be shown that in this case they underwent the same development as inherited *-$\acute{\bar{a}}u$-. But it cannot be assumed that borrowed and inherited forms will always show the same developments.

The following words consist of all of the evidence found for inherited *-$\acute{\bar{a}}u$-; they are mainly taken from Pedersen (1909, 63) and Jackson (1953, pass.). MW *gno*, MBret. *gnou* 'manifest' come from PCelt. *$gn\acute{\bar{a}}$-uo- from a root *$\hat{g}neh_3$- 'know' (LIV[2], 168 ff.). They may reflect either *$\hat{g}n̥h_3$-uo- or *$\hat{g}neh_3$-uo-, as argued for Lat. *(g)nāuus* 'zealous, energetic' and ON *knár* 'hardy, vigorous' by Schrijver (1991, 298. 299 ff.). The Old Welsh form is probably found in the name *Iudnou/Iudnov* from the *Book of Llan Daf*, in charters dated to around AD 585, 620–625 and 860 by Davies (1979, 93 ff. 104 f. 107. 176).[9] The word is also found in Old Breton in names like *Carantnou*.

MW, ModW *glo*, OBret. *glou*, MBret. *glou*, ModBret. *glaou*, MCorn. *glow* 'charcoal' come from PCelt. *$gl\acute{\bar{a}}$-uo- < PIE *$g^hl̥h_{(3)}$-uo- or from PCelt. *$gl\bar{o}uo$- < PIE *g^hleh_3-uo- or *$g^hloh_{(3)}$-uo-. They are cognate with Germanic words such as OS *glōian*, OHG *gluoen* 'to burn', OE *glowan* 'to glow' < *$g^hl\bar{o}$-ie/o-, OHG *gluot* 'glowing coal' < *$g^hl\bar{o}$-d^hV-, and perhaps also Gk. χλωρός 'greenish yellow' < *$g^hl\bar{o}$-ro-, and therefore reflect a root *$g^hleh_{(3)}$-

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[6]   The fact that the reflexes of *-$\acute{\bar{a}}u$- and *-$\acute{o}u$- were both spelled *-ou* in Old Welsh does not mean that they were the same sound; cf. OW *iu* /iu/ in *pan-iu* 'when is' = MW *yw* beside *liu* /ʎiu/ = MW *lliw* 'colour, complexion' (Schrijver 2011, 23. 24).

[7]   For expected *klaou*. Whether or not this is attested is unclear, but cf. ModBret. *klaouier* 'needle case' (Jackson 1967, 266).

[8]   Schrijver (2011, 26) says: "[i]n view of this etymology, PBr. *$\bar{a}w$ > *$ɔu$ may be reconstructed for all forms which show a MW *o* corresponding to a MB and MCo. *ou*, such as OW *tnou, tonou* (LL) > MW *tyno*, MB *tnou, tnaou* 'dale', MW *glo*, MB *glou*, *glaou* 'coal', MW *athro*, MB *autrou* 'teacher, sir'". But he does not actually argue for the development on the basis of these forms.

[9]   MW *Iudno* may be from *Iudnou*, but it would also be the regular result of *Iudnoe* < *-$gn\bar{a}uj\bar{a}$ (Schrijver 1995, 299 f.), also found in the *Llan Daf* charters at LL 175 and 186; cf. OW *henoid, henoeth* > ModW *heno* 'tonight' (Morris Jones 1913, 113).

(IEW, 430; Zair 2012, 98). IEW (433) in fact reconstructs a different root *gʰleu̯- (more correctly *gʰleu̯H-) for MW glo, along with Gk. χλόος 'green-ish-yellow, light green colour', χλόη 'first shoot of plants, young verdure' and Gothic glaggwō 'exact', ON glǫggr 'clear, plain, accurate'. But the semantic connection between MW glo and the Germanic words for 'burn, glow', makes a preform *glā́u̯o- far more likely.

The precise etymological background of MW, ModW gro, OCorn. grou, MCorn. grow 'gravel'[10] is somewhat obscure (it is discussed at greater length in Zair forthc., in which I claim that it is related to Lat. glārea 'gravel'). However, it must go back to an original *grā́u̯ā which is also found in several modern Romance languages, e.g. Fr. grève 'sand, beach', Venet. grava, Catal., Prov., Arag. grava. Since the Romance forms must come from *grău̯ā and the Celtic ones cannot come from *grău̯ā > MW †graw, *grā́u̯ā is the only possible preform.[11]

These three forms, along with MW clo, suggest that the regular result of stressed *-ā́u̯- was MW, ModW -o. Another pertinent form is ModW tyno, MBret. tnou, tnaou 'valley'. I am not aware of a published etymology of this word, but an anonymous reviewer suggests to me that it comes from *tnā́u̯o- < PIE *tn̥h₂-u̯o- 'strait, passage', from the root *tenh₂- found in OIr. tanae 'tender, thin', Gk. ταναός 'thin' (cf. Wodtko et al. 2008, 694 ff.). This seems to me extremely plausible. This word is important because its earliest attestations in Welsh are two forms in the Book of Llan Daf, which are spelled tnou and tonou at LL 166 and 204(a). These charters are dated to around AD 595 and 748 respectively by Davies (1979, 106. 116). The forms therefore provide our best evidence for the reflex of *-ā́u̯- being spelled -ou in Old Welsh.

A last form with Middle and Modern Welsh -o is somewhat more problematic. This is MW, ModW athro 'teacher', pl. athrawon (OCorn. altrou,

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[10] ModBret. groa, gro 'sand, beach' for expected ˣgraou is surprising. Dr Jørgensen tells me that gro is a ghost-word and that groa is borrowed from Old Western French groie (OFr. groe) 'gravel, flat terrain made of gravel or sand' < *grău̯icā, a derivative of *grăvā (Baldinger 1974–1995, 1440).

[11] It is often assumed that Romance *grău̯ā is borrowed from Gaulish (e.g. Meyer-Lübke 1968, 328; Delamarre 2003, 183). If that were correct, it is possible that the original Gaulish form could have been *grau̯ā < *grou̯ā (cf. Gaul. Lauenus beside MBret. louen 'merry'). But derivations from this word are found in the South of Italy, where Gaulish influence would not be expected, which led Campanile (1976, 133 f.) to consider it a non-Indo-European substrate word. If, as I argue, the same root is also found in Lat. glārea, this also points to a long vowel in the root.

MCorn *altrow*, pl. *altrowon*, MBret. *autrou*, pl. *autro(u)nez*).[12] The final *-o* suggests at first sight an original *-ā́u̯-*, and indeed the traditional etymology is *altrā́u̯ū* from *altro-au̯ō* 'foster-uncle' with vowel contraction (Morris Jones 1913, 108. 261). The first element is formed from the root found in ModW *alu* 'bear offspring', the second is the *n*-stem attested in ModW *ewythr* 'uncle' < *au̯én-ter-*, Lat. *auunculus* 'maternal uncle' < PIE *au̯on-k̂o-lo-*.[13] However, this is difficult to square with the plural; if MW *-eu-* is the regular result of pretonic *-āu̯-* as supposed by Jackson, then *altrāu̯ónes* ought to have given †*athreuon*,[14] as in *breuan* < *brāu̯ónV-*. As an anonymous reviewer points out to me, a possible explanation might be that the treatment of pretonic *-āu̯-* was different in *altrāu̯ónes* and MW *breuan* < *brāu̯ónV-*, either because the words have a different number of syllables, or because a morpheme boundary was still present in the original compound *altrāu̯ónes*. But as noted above (2., p. 195 f.), the evidence for pretonic *-āu̯-* is very uncertain, and MW *breuan* may well have carried over its vocalism from the original nominative *brā́u̯ū*; this is discussed further below (6., p. 207).

This leaves the possibility open that *athrawon* shows the regular result of pretonic *-āu̯-*. If so, it would appear that pretonic *-āu̯-* does indeed give the same result as pretonic *-ou̯-*, as supposed by Jackson, although Jackson was wrong about the actual result of *-ou̯-* (which, it will be remembered, can give ModW *-aw-* as in MW *llawen* < *lou̯éno-*). This might be a straightforward case of pretonic *-āu̯-* and *-ou̯-* falling together at a relatively early stage, or it might reflect a later change: for example, it may be that in pretonic position *-ɔ- < *-ɔ̄- before *-u̯-* according to Schrijver's rule fell together with the reflex of Proto-Brit. *-ou̯-* before it gave *-aw-* in Welsh. The Cornish plural *altrowon*, without the characteristic Welsh change, also fits in with the falling together of *-āu̯-* with *-ou̯-*, although it could also have been remodelled on the basis of the singular *altrow*.

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[12] MBret. *autro(u)nez* has the productive plural ending *-ez* added to the original plural found in Welsh and Cornish.

[13] A problem for this reconstruction is the fact that, according to Schaffner (2006, 35), *au̯ō < *h₂euh₂-on-* without further derivation only ever means 'grandfather', never 'uncle'. However, as will be seen from the following discussion, *altrāu̯ō > *altrā́u̯ū* is the most likely reconstruction for phonological reasons, whatever the precise etymology turns out to be. I am grateful to Dr Schaffner for sending me a copy of his article.

[14] Strictly †*athreuan*, with *-u̯o- > *-u̯a-* (Schrijver 1995, 110 ff.), but the resulting *-an* was no doubt replaced by the regular plural ending *-on*.

Alternative reconstructions for *athrawon* are **altrou̯ónes* or **altrau̯ónes*. The former of these is etymologically unlikely; the second is, however, reconstructed by Stüber (1998, 109 f.), following a suggestion by Schumacher, as the result of **altr-áu̯ō*, with elision of the first vowel in **altro-au̯ō* rather than contraction. The singular **altr-au̯ō* would not have given *athro* regularly, because **altrau̯ō > *altráu̯ū > *altráu̯ī* would give †*ethreu* by *i*-affection. Stüber therefore explains the form as created by analogy on the plural, with undoing of *i*-affection. However, the proposed analogical pattern that plural *-aw-on* corresponds to singular *-o* depends on the assumption that either **-óu̯-* or **-áu̯-* could give MW *-o*. If **-óu̯-* had given MW *-o*, then the pattern *athro* : *athrawon* could have been built on the basis of a pattern *-o* : *-aw-* < **-ou̯-* (since pretonic **-ou̯-* could give Welsh *-aw-*). But we have seen that **-óu̯-* never gave MW *-o*, only *-eu*. There is also no evidence that **-áu̯-* ever gave *-o* (cf. ModW *naw* 'nine' < **náu̯an* < **neu̯n̥*).[15] Consequently, it is most likely that *athro* and *athrawon* reflect **altrāu̯ō > *altrā́u̯ū*, **altrāu̯ónes* respectively.

4. Counterevidence to **-ā́u̯- > MW *-o*

A form which is often presented as evidence for **-ā́u̯- > MW *-eu* is MW *geu*, ModW *gau* 'falsehood, lie', which is reconstructed by Jackson (1953, 373) as **gā́u̯ā*. The Brittonic cognates are OCorn. *gou* in *gouhoc* (:: *mendax*), MCorn. *gow*, MBret. *gou*, ModBret. *gaou* 'falsehood'. Uhlich (1995, 37 fn. 137; with earlier literature) notes that this word can just as easily come from **góu̯ā* (and also from **gúu̯ā*), but in fact it almost certainly must come from one of these, and not from **gā́u̯ā*, on the basis of OIr. *gáu* 'falsehood', whose gen. sg. *gue* (Ml. 31b12; Thes. I, 69) would be regular from **gou̯ii̯ās*, **guu̯ii̯ās* or **gau̯ii̯ās*, but not from **gāu̯ii̯ās*, which would have given †*gaue* or †*goe*.[16] Although Thurneysen (1975, 44) considers *-u-* a possible reflex of **-āu̯-* before a vowel retained after apocope, this is not the case as is shown by *naue > noe*, gen. sg. of OIr. *nau* 'boat' (Uhlich 1995, 17).

The etymology of MW *geu* etc. is uncertain. IEW (397. 414) compares Lat. *haud* 'not' < **ghā̆u̯idom*. If the connection is correct, which is doubtful, (**gheu̯-* >) **ghou̯-* could provide both the Celtic and the Latin forms, since

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[15] As an anonymous reviewer points out, the treatment of stressed **-áu̯-* in a monosyllable after apocope may have been different from its treatment in a disyllable. This is certainly a possibility, but there is no other evidence for such a difference.

[16] I am grateful to an anonymous reviewer for drawing my attention to this point.

*-oṷ- could give Latin -au- by Thurneysen-Havet's law (Meiser 1998, 85; Vine 2006). Alternatively, Pedersen (1909–1913, 55; followed by Wagner 1970, 40 f.)[17] connects the Celtic words with Arm. *kow* 'dung' (for the semantics cf. English 'bullshit'). This might allow a reconstruction *góṷā (Pedersen wrongly reconstructs *góṷsos, for which see Uhlich 1995, 37 fn. 137), but *kow* probably belongs with a series of words from a root $*g^u eh_1 u$-, scil. Skt. *gūthaḥ* 'dirt', MHG *quāt* 'dirt', OE *cwead* 'dirt', Russ. *govnó* 'dung, mud' (IEW, 484; Zair 2012, 227). Since $*g^u$- gives PCelt. *b- (cf. probably MW *baw* 'dirt, filth, mud' < PIE $*g^u h_1 u$-o-), MW *geu* etc. do not belong here. Given the uncertainty over its etymology, MW *geu* can hardly be used as evidence.[18]

Another piece of evidence used by Jackson for *-ā́ṷ- > MW -eu is OW *dou*, MW *deu*, ModW *dau*, OBret. *dou*, *dau*, MBret. *dou*, *daou*, ModBret. *daou*, MCorn. *dow*, *dew*[19] 'two', which he derives from *dṷā́ṷ (cf. Skt. *dváu*). However, Cowgill (1985, 20 ff.) has shown that the Celtic forms in fact go back to *dúṷo, and are cognate with Lat. *duo* 'two'.

Yet another form which has been supposed to include the sequence *-ā́ṷ- is MW *creu*, ModW *crau* 'sty, hovel, pigsty', OBret. *crou*, MBret. *crou*, *craou*, ModBret. *kraou*, Late Corn. *crow* 'shed, hut, sty, hovel, cot'. This has been reconstructed as *krā́ṷo-, for example by Pinault (1961, 605. 606), followed by Greene (1983, 3 ff.). But OIr. *cró* 'enclosure' shows that this cannot be right, because *krāṷū would not give dat. sg. *crú* (Corm Y 306), as is shown by OIr. *bráu*, *brao*, *bró* 'quern' < *braṷū (Uhlich 1995, 36). It follows that MW *creu* must come from *króṷo- or *krúṷo-. According to Pinault, the basic meaning of these words is 'anything circular' (thus e.g. MIr. *cró* 'eye of a needle'), and he consequently dismisses an etymological connection with OCS *kryti* 'cover, hide' < *krū-ịe/o-, *krovъ 'roof' < *kroṷH-o-, Lithuanian *kráuju* 'pile up, store' < *kreṷH-ịe/o-, which suggest a root *kreṷH- (IEW, 616; LIV², 371). Instead he connects MW *creu* etc. with MIr. *cruind*, MW *crwn* 'round' < *krundi-. Even if this is correct, and even if it weren't contradicted by the Irish evidence, there is nothing about these forms

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[17] I am grateful to Prof. Liam Breatnach for drawing the latter reference to my attention.

[18] Prof. Schrijver suggests to me that it may be derived from the root $*ĝ^h eṷH$- (originally $*ĝ^h eHu$-, according to Prof. Schrijver) found in Skt. *hávate* 'calls', *hávīman-* 'invocation' (LIV², 180 f.), via a meaning 'invoke false gods' or 'curse'. An anonymous reviewer suggests that it may be from a root $*ĝ^h eṷ$- otherwise found in the nasal present Ved. *hnav-/hnu-* 'lie'.

[19] Expected *dow* is found only in composition (Schrijver 1995, 331 fn. 1).

which would lead to us to reconstruct *krā̃u̯o- rather than *krúu̯o- or *króu̯o-. The etymology and morphological analysis of *cruind* are very unclear: the comparison with forms like Lat. *curuus*, Gk. κυρτός 'curved' is uninformative anyway, because they are also difficult to explain (de Vaan 2008, 158). The wider connections implied by IEW (935 ff.) are too variable semantically and phonologically to be taken seriously.[20] Despite the semantic objections raised by Pinault, I prefer to connect MW *creu* etc. to OCS *kryti* and reconstruct *kruH-o- or *krou̯H-o-.

5. The reflexes of *-ā́g- and *-ā́u̯-

Jackson (1953, 373. 442 f.) supports his proposed development of *-ā́u̯- with the evidence of stressed *-ā́g-, which he assumes gave exactly the same result: thus Lat. *pā́gus* 'village' gave MW *peu*, ModW *pau*, OBret. *pou*, OCorn. *pou*, MCorn. *pow* 'country', Lat. *fā́gus* 'beech' gave OBret. *Fou-, -fou* (in place names), ModBret. *faou* 'beech', and *upo-pro-āgeti > *u̯o-rā́get gave MW *goreu* '(s)he did'.

However, it by no means follows that we should always use the development of *-Vg- as evidence for that of *-Vu̯- sequences, even though *-Vg- in some circumstances developed at some point into *-Vu̯-. For example, *-águ- did give the same result as *-áu̯- (e.g. ModW *naw*, ModBret. *nav* 'nine' < *náu̯an, ModW *llaw* 'small' < *lágus, ModBret. *mav* 'agile, active; happy' < *mágu-). But *-úg(u)- (e.g. Lat. *iúgum* or PCelt. *i̯úgo- > MW *ieu*, ModBret. *yev* 'yoke') did not give exactly the same result as *-úu̯- (*du̯u̯o > MW *deu*, ModBret. *daou* 'two').

Any decision on whether the reflexes of *-ā́g- and *-ā́u̯- are the same must depend on the evidence for inherited *-ā́u̯-, which, as we have seen, gave MW, ModW -o. It may seem strange that stressed *-ā́g- should give the same reflex as *-óu̯- rather than *-ā́u̯-, but that is what the evidence suggests. In fact, there may be two different reflexes of stressed *-ā́g-. Despite the doubts of Jackson, MW *daw*, MBret. *deu*, MCorn. *due* '(s)he comes' < *dā́g-et < *to-ageti (Schumacher 2004, 189 ff.) suggests that inherited *-ā- developed to *-ɔ̄- as usual before *-g-, and gave the same results in the Brittonic languages as *-ɔ̄- in any other environment. MW *goreu* can probably not be used as evidence of the regular reflex of inherited *-ā́g-, because it is etymologically very uncertain. Jackson derives it from *u̯o-rā́get < *upo-pro-āgeti

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[20]   For a possible etymology see Balles 2010, 24.

(cf. Lewis / Pedersen 1961, 336), from the same root as MW *a* 'goes' < **age/o-*. But its Breton counterpart, MBret. *geure, gueureu*[21] 'did', shows the usual development of long **-ā-* rather than the development to *-ou* expected by Jackson and seen in *fā́gus* > OBret. *-fou*, ModBret. *faou*. Schumacher (2004, 662 f.) instead derives MW *goreu*, MBret. *geure* from British **u̯or-u̯ā́get* < **u̯or-u̯āgeti*, with the same root as OIr. *fáig* 'wove, plaited, composed' (**u̯eg-*; LIV², 662). He explains the development to MW *-eu*, MBret. *-e* as reflecting a special reflex of **-āg-* after **-u̯-* also found in MW *gweun*, MBret. *gueun* 'moor, marshland' < **u̯ā́gno-*.

There seem to be two possible reasons for the different reflexes of **-ā́g-*. Either the Latin words developed differently from the inherited British words, perhaps because *-ā-* before a *-g-* in British Latin was pronounced more closely to the reflex of inherited **-o-* before *-u̯-* than to **-ɔ̄-* < inherited **-ā-*. Or, and perhaps more likely, **-ā́g-* > *-ɔ̄γ-* only developed to **-ɔ̄u̯-* when followed by a **-u-*, as in Lat. *pā́gus* 'village' and *fā́gus*. In other cases of **-ā́gV-* > **-ɔ̄γ-*, the **-γ-* was lost without reflex as normal (as in ModW *llu*, ModBret. *lu* 'troop' < **slou̯gos*, cf. OIr. *slóg*) and post apocope **-ɔ́* developed regularly to MW *-aw*, MBret. *-eu, -e*, MCorn. *-ue* etc. This development would fit in with other developments of **-V́g-* in stressed syllables, which usually only gave **-V́u̯-* when followed by **-u-* (Jackson 1953, 440 ff.).[22] Jackson's assumption that **-ā́g-* always gave **-ɔ́u̯-* regardless of the following vowel seems to be supported by the development of pretonic **-āg-* to Welsh *-eu-, -ow-* in *breuant* and *Powys*; but as we will see, Breton and Cornish do not show any sign of **-u̯-* in *briant* and *bryangen* respectively, and it probably developed only in Welsh as a hiatus filler.[23] If this explanation is correct MW *ieu*, ModBret. *yev* 'yoke' must indeed be borrowed from Latin *iúgum* rather than inherited from **i̯úgo-*, since they also show a development of **-γ-* > **-u̯-*.[24]

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[21] Expected *-e* in a secondarily unstressed syllable has become *-eu* by assimilation to *-eu-* in the previous syllable (Schrijver 1995, 209 ff.). Other spelling variants include *geureu, guré, gueure* etc.

[22] It would also make the development of **-γ-* > **-u̯-* parallel to that of **-s-* > **-h-*, the development of which into a glide intervocalically is governed only by the following, not preceding, vowel (Schrijver 1995, 384 f.).

[23] The same development of **-u̯-* as a hiatus filler did not occur in **troget-* > ModW *troed* 'foot', in which the adjacent vowels formed a diphthong (Jackson 1953, 445).

[24] And British Latin, at least at the time of the borrowings of *fāgus* and *pāgus*, must have retained the *-u-* in the final syllable, which became *-o-* in late and vulgar Latin (Väänänen 1981, 36 f.). But Brittonic borrowings from Latin usually show **-u-* rather than

The sequence *-āgu- > *-ɔ̄γu- presumably did develop to *-ɔ̄u̯u-, in which case ModBret. *eost*, *eoust* comes from *ɔ̄u̯úst < *ɔ̄γúst < *āgústus, with the loss of *-u̯- before a rounded vowel as seen in OBret. *Salamun* 'Solomon' [salaμun] > early MBret. *Salaguun* [salawun] > ModBret. *Salaun* (Jackson 1967, 600 f.).[25] Although *ɔ̄u̯úst > ModBret. *eost* gave the same result as *brɔ̄γántV- > *brɔ̄ă̯ntV > OBret. *Brehant*, MBret. *briant*,[26] we can tell that the latter never developed an intervocalic *-u̯-, because *-u̯- is not lost before *-a- (cf. *i̯uu̯ánko- > MBret. *youanc* 'young').

The different developments of *-ā́u̯- and *-ā́gu- can now be explained with regard to their relative chronology. Original *-ā́u̯- > *-ɔ̄́u̯- underwent shortening to *-ɔ́u̯-, as proposed by Schrijver, prior to the change of *-ā́gu- > *-ɔ̄́γu- to *-ɔ̄́u̯u-. The resulting *-ɔ́u̯- < *-ā́u̯- and *-ɔ̄́u̯- < *-ā́gu- fell together in Breton and Cornish with the reflex of Proto-Brit. *-óu̯- and gave MBret. -*ou*, MCorn. -*ow*. In Welsh, however, they remained separate, only *-ɔ̄́u̯- < *-ā́gu- falling together with the reflex of *-óu̯- to give OW -*ou*, MW -*eu*, while *-ɔ́u̯- < *-ā́u̯- gave OW -*ou*, MW -*o*. In pretonic syllables, the distinction between original *-āu̯- and *-āg- may have been maintained by all the Brittonic languages. In Welsh, *-āu̯- > *-ɔ̄u̯- > *-ɔu̯- seems to have fallen together with *-ou̯- to give -*aw*- (*altrāu̯ónes > MW *athrawon*, *lou̯énos > MW *llawen*); perhaps this had already occurred in Proto-British (*altrāu̯ónes > MCorn. *altrowon*). Proto-Brit. *-āg- > *-ɔ̄γ- lost the *-γ-; in South West British *-ɔ̄- was unrounded to -*e*- in hiatus, and subsequently raised to -*i*- (*brāgant- > OBret. *Brehant*, ModBret. *briant*, MCorn. *bryangen*). In Welsh *-ɔ̄- in hiatus developed to *-ou̯- and fell together with the reflex of *-óu̯- in originally stressed syllables (*brāgántV- > MW *breuant*), except before a rounded vowel (*pāgḗnsēs > *pou̯úis > ModW *Powys*).

The evidence presented above shows that Schrijver's position is correct: the regular result of *-ā́u̯- > *-ɔ̄́u̯- > *-ɔ́u̯- in British stressed syllables was the same as that of *-óu̯- in Cornish and Breton (OCorn. -*ou*, MCorn. -*ow*, OBret., MBret. -*ou*, ModBret. -*aou*). In Welsh, however, they remained distinct, *-óu̯- giving OW -*ou*, MW -*eu*, ModW -*au*, while *-ā́u̯- > *-ɔ̄́u̯- > *-ɔ́u̯-

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*-o-, at least in non-final syllables; cf. the first syllable of Lat. *superbus* > ModW *syberw*.

[25] Original *-u̯- was also lost in the Old South West British sequences *-Vu̯i-, *-Vu̯e̜-and *-Vu̯ö-, which gave -*V.u/o*- in Breton, e.g. *au̯ontīr > *eu̯öntr > ModBret. *eontr* 'uncle' (Jørgensen 2006, 127 ff.). OBret. *euonoc* 'foamy'; cf. MBret. *eon* 'foam' < *ou̯ino- suggests that the intervening stage was *-Vu̯u-, which explains the loss of *-u̯-.

[26] The raising in Middle Breton presumably occurred only before -*a*-.

gave OW *-ou*, MW, ModW *-o*. It should be noted that the development of
-ā́g- was quite different: except before *-u-*, *-γ-* < *-g-* was lost, and re-
maining *-ɔ̄* developed to MW *-aw*, MBret. *-eu*, *-e*, MCorn. *-ue* etc. as usual.
Before *-u-*, *-ā́g-* fell together with the reflex of *-óṷ-* and *-úṷ-* to give
MW *-eu*, MBret. *-ou*, MCorn. *-ow*.

6. Another reflex of *-ā́ṷ-*

Knowing the usual results of *-ā́ṷ-* allows us to approach an interesting vari-
ation in Breton. Here, beside expected OBret. *brou*, MBret. *brou* and Mod-
Bret. *braou* (Île d'Ouessant) 'hand-mill', and OCorn. *brou* (:: *mola*), we find
also OBret. *Breu* (in a place name), MBret. *breau* and ModBret. *breo*. These
go back to **brɔ̄́ṷī* < **brā́ṷū* < **gᵘrāṷɔ̄* (cf. OIr. *bráu* 'quern', Skt. *grā́van*
'rock used to press *soma*'). Another example of this reflex of *-ā́ṷ-* is Early
ModBret. *néau*, ModBret. *neo*, *nev*, *néff* 'trough', which probably goes back
to **nā́ṷī* (cf. MW, ModW *noe* 'kneading trough, bowl' < **nāṷi̯ā*, Lat. *nāuis*
'ship').

   Schrijver (2011, 26) explains the variant forms as being due to final *i*-
affection, an idea already raised by Thurneysen (1910, 13 fn. 1). Final *i*-
affection involved the raising and fronting of short vowels in the syllable be-
fore British *-ī* and *-i̯-* in final syllables, for example **ṷrakɔ̄* > **ṷrákū* >
*ṷrákī > MW *gwreic*, ModBret. *grek*, MCorn. *gurek* 'woman'. On the face
of it, this explanation is extremely implausible, since *i*-affection does not
normally apply to long vowels (Jackson 1953, 374). However, as already
discussed, Schrijver posits a shortening of *-ɔ̄-* before *-ṷ-*, which would
therefore permit *i*-affection. Furthermore, his proposal has the advantage of
explaining the similar results of the similar forms **brɔ̄́ṷī* and **nɔ̄́ṷī* in a uni-
fied way which can also, as we shall see below (7., p. 208 ff.), be easily used
to explain the otherwise problematic forms MW *heul*, MBret. *heaul* 'sun',
which probably come from something like **hɔ̄́ṷīl* < **sāṷōl*.

   Jackson's (1967, 283 ff.) explanation for the *-eau/-ev* forms is that they
reflect the retention as a long vowel and subsequent unrounding in South
West British of *-ø̄-* < PBrit. *-ɔ̄-* < *-ā-* by dissimilation before *-ṷ-*, beside
the regular reflex of *-āṷ-* > *-ɔ̄ṷ-* (> *-ɔṷ-*) > MBret. *-ou*. The spelling of
OCorn. *brou* is not reliable for telling which of these reflexes occurred in
Cornish. Jackson's explanation has the advantage of explaining the alterna-
tive Breton forms, but the existence of two different reflexes of the same
sound in the same environment in the same word is very difficult to justify.
In addition, the supposition of a purely Breton (and perhaps Cornish) reten-

tion of *-ɔ̄- < *-ā- does not explain the vowel of MW *heul* 'sun', which seems to show the same development. Altogether, Jackson's explanation is rather implausible.

An analogical explanation might be possible. The original plural of MBret. *brou* < *brāṷī* will have been *brāṷónes* (replaced in Modern Breton by *breier*). If it is not correct that unstressed *-āṷ- > *-ɔ̄ṷ- > *-ɔṷ- fell together with *-oṷ- as proposed above (3., p. 197 ff.), it is possible that the regular result of *brāṷónes* would be MBret. *breuan*. The existence of the *breau* type variants in Breton could then be explained by back-formation from the plural. It is just possible that the same explanation could apply to *néau* < *nā́ṷī*, the nominative plural of which ought to have been *nā́ṷiās*. In Welsh, the oblique stem *nā́ṷiā- developed to *noe*, possibly by way of *nɔ̄́ṷiā- > *nɔ̄́iā- > *nɔ̄́ẹ̄ā- > *nɔ́e* (Schrijver 1995, 300). The same development in Breton might have given *neue*, if analogous to ModBret. *leue* 'calf', perhaps from PCelt. *lāpego-* (Schrijver 1995, 309 f.).[27] Levelling across singular and plural might have produced *néau*. However, this is extremely speculative.

Dr Jørgensen has put forward (pers. comm.) another possibility for the Breton forms in *-eau/-ev*. He suggests that ModBret. *néau* may be a borrowing from Old French *nef* 'boat, ship; nave; vessel, cup', and that *breau* may possibly have been influenced by ModBret. *brev* 'broken; break, fracture'. This seems feasible, and it even explains the competing forms of *brou/breau*. However, yet another explanation must then be sought for MW *heul*, ModBret. *heaul*, and Occam's razor suggests that a single phonological rule applying to a single phonetic environment is more likely than three separate developments.

None of the alternative explanations is as successful as Schrijver's in explaining the Breton forms in *-eau/-ev*. However, Schrijver's account does not address the question of the variation in the Breton forms of *brou/breau*: if *breau* is the direct result of *brā́ṷī*, where does *brou* come from? It might be possible to explain them on the basis of the plural forms: MW *breuan*, derived from the oblique stem *brāṷónV-*, seems to have generalised the vocalism of the nominative singular *brā́ṷī*; Breton may have done the reverse, with singular forms derived from the (unattested) original plural *brāṷónes* competing with the original singular *breau* < *brā́ṷī*. The same removal of *i*-affection must have occurred in all of the Brittonic languages in MW *athro*,

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[27]   A development to *nui* is also possible, since *āṷio-* gave MBret. *uy, vy*, ModBret. *vi* 'egg' (Schrijver 1995, 299): the distinction between *-āṷio-* and *-āṷiā-* may have been retained only in Welsh.

MBret. *autrou*, OCorn. *altrow* < * *altrɔ́u̯ī* < * *altrā́u̯ū* < *altrāu̯ō*, but there might be a relic of the original form in the Haut-Vannetais dialect of Breton, where the word appears as *eutru*, in which the initial vowel seems to have undergone secondary internal *i*-affection, caused by the original *i*-affected vowel in the following syllable.[28]

7. The Brittonic words for 'sun'

The foregoing in-depth examination of the regular result of British *-ā́u̯-, in addition to being valuable for its own sake, also allows us to address the vexed question of the Brittonic words for 'sun', which are OW *houl*, MW *heul*, ModW *haul*, OCorn. *heuul*, MCorn. *houl*,[29] OBret. *houl*, MBret. *heaul*, *heol*, ModBret. *heol*. Jackson's (1953, 284) reconstruction *sāu̯eli̯os* makes these exact cognates of Homeric Greek ἠέλιος 'sun', but is otherwise problematic. Since the regular development of this preform after *i*-affection and apocope would probably be to something like ModW †*heuyl*, it is necessary to assume an irregular early syncope of *sāu̯eli̯os* to *sā́u̯li̯os*. The syncope must have occurred prior to the British Celtic development of penultimate stress, which would otherwise have protected the stressed vowel from loss, as in the regular, later, British syncope. It can therefore be shown to be very early in the development of British (Schrijver 1995, 16 ff.). This sort of syncope does seem to have occurred, but only in one other word: *kau̯aro- > *káu̯ro- > MW *caur*, ModW *cawr* 'giant' (cf. the Gaulish personal name Καυαρος, *Cauarillus*, OIr. *coär* 'warrior'). In addition to this rather shaky assumption, the development of the diphthong is of course a problem. For Jackson, the development of the Middle Welsh reflex *-eu-* from *-ā́u̯- in a stressed syllable in the form *sā́u̯li̯os* is regular, but we have seen that *-ā́u̯- normally gives OW *-ou*, MW, ModW *-o*. We would therefore expect *sā́u̯li̯os* to give MW †*hol*, or †*houl* if we assume that the loss of final *-u* between Old and Middle Welsh only occurred in absolute final position. Jackson's explanation for the Breton development, by way of an unexpected retention and fronting of *-ɔ̄- is also problematic, as we have seen. Whatever the ex-

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[28]   Earlier, non-affected, *autrou* and *autru* are found in the Vannetais Christmas Hymns (Jackson 1967, 253), some of which were transferred from Leon-Treger-Kerneo Breton. Consequently, *autrou* and *autru* probably reflect the LTK forms (Prof. Schrijver and Dr. Jørgensen, pers. comm.). The final *-u* in Vannetais is quite unexpected; could it be that Vannetais, like Welsh, preserved a different reflex of *-ā́u̯-?

[29]   MCorn. *heul* is apparently a ghost word (Jackson 1967, 284).

planation, it must also apply to OCorn. *heuul*, although Jackson suggests that this may in fact be Old Welsh rather than Old Cornish.

Taking all this into account, it seems unlikely that Jackson's reconstruction is correct. If MW *breuan* is the regular result of *brāu̯ónes*, it might seem possible to argue that *-ā- before *-u̯- had already begun to change at a very early stage, so that *sāu̯eli̯os* had become something like *sə́u̯eli̯os*, whence, after the early syncope and after apocope, *sə́u̯l* might give the attested forms. But it has been argued above that there is a different result of pretonic *-āu̯-. Even if the development to *-eu-* is correct, it seems clear that it is determined by the position of the accent (since *-ā́u̯- gave W *-o*), and this only adopted its penultimate position after the posited early syncope had already taken place.

A more promising explanation is that *-ā́u̯- developed differently before a consonant from before a vowel, as argued by Hamp (1974–76b, 78 f.). His derivation of the words for 'sun', although different from Jackson's, is profoundly unlikely. He reconstructs an original paradigm with a nominative *sāu̯el* and oblique *sūl-* or *sāu̯l̥-*, the oblique stem then being remodelled to *sā́u̯l-* after the nominative. There is no other evidence for such a remodelling, although Hamp suggests that MBret. *breau* is to be explained as a conflation of nom. sg. *brāu̯ō > *brā́u̯ī* and remodelled oblique *brā́u̯nV-*; the remodelling in this case happening only in South West British, since MW *breuan* attests to the original oblique *brāu̯ónV-*. This explanation remains merely hypothetical, but the idea that MW *heul*, MBret. *heaul* demonstrate a pre-consonantal reflex of *-ā́u̯- is a possibility, and is worth bearing in mind.

Two partial parallels for such a development are possible, although both would reflect *-Vu̯- from *-Vg- rather than inherited *-Vu̯-, and both are uncertain. The first is the development of *u̯ā́gnā > *u̯ɔ́ɣnɔ̄ to OW *guoun*, MW *gweun*, MCorn. *goen*, *gon*, MBret. *gueun*, ModBret. *geun* 'moorland, heath', by way of *u̯ɔ́u̯nɔ̄ according to Hamp (1974–76a). Since *-ɔ́u̯- before an original vowel gives MW *-eu*, MCorn. *-ow*, MBret. *-ou*, this clearly shows a different reflex before a consonant. However, as already noted above (5., p. 204), Schumacher (2004, 662 f.) considers the conditioning factor for this development of *-āg- to have been the preceding *-u̯- rather than the following consonant, so MW *gweun* etc. may not strictly be a parallel. The same goes for MW *peullawr* 'writing tablets' < Lat. *pugillā́rēs*, where MW *-eu-* is taken by Schrijver (1995, 341; 2011, 25) as the pre-consonantal alternant of the reflex of *-uu̯- < *-ugV-* by comparison with the prevocalic alternant *-yw-* in MW *Llywarch* < *lugu-márkos*. But this variation is very late, since OW *Loumarch* shows that the diphthong only became prevocalic after *-u̯u̯-* be-

came -*u̯*- between Old and Middle Welsh. It is also assumed by Schrijver that *pugillā́rēs > *puɣillɔ́r would develop to *puu̯illɔ́r, whence by syncope *puu̯llɔ́r. However, it has been argued above (5., p. 204 f.) that *-ɣ- would develop to *-u̯- in British only before *-u-. Otherwise the intervocalic loss of *-ɣ- between high vowels or vowels of different quality may have occurred only after syncope (Jackson 1953, 469 f. 654 ff.; Sims-Williams 2003, 115 ff. 132 f. 220 ff. 257). If this is the case, then MW *peullawr* actually comes from *puɣllɔ́r rather than *puu̯llɔ́r, and therefore reflects a different sequence from MW *Llywarch* < *lu̯u̯márχ.

Since neither Jackson nor Hamp's attempts at deriving the Celtic forms for 'sun' seem to work, we must look at alternative possibilities. It makes sense to start by considering the likely paradigm of the word for 'sun' that Proto-Celtic might have inherited from Proto-Indo-European. The word for 'sun' was apparently a 'heteroclitic' stem in which the stem-final consonant varied according to what part of the paradigm it was in, as shown by forms such as Lat. *sōl* beside OHG *sunno* 'sun' (Wodtko et al. 2008, 606 ff.). Although no other such *l/n*-stem is attested, it is reasonable to assume that the paradigm was formed in the same way as the parallel *r/n*-stems, which were elucidated by Schindler (1975). In the singular, therefore, the Proto-Indo-European word for 'sun' ought to have had an acrostatic paradigm, with nominative and accusative *soh₂-u̯ḷ. This is probably the origin of Lat. *sōl*, which would come regularly via *sōu̯ol (thus Ringe 2006, 277). The original genitive, standing in for the rest of the oblique forms of the singular, ought to have been *seh₂-u̯n-es, but the weak stems of acrostatic nouns tended to be remodelled, with zero grade in the root, and full grade suffix. Thus was created a genitive *sh₂-u̯en-s. This is probably ultimately the origin of forms like Skt. *suvar* 'sun, light, heaven' < *suu̯el: the final *-l* of the nominative was spread throughout the paradigm, and the stem was further remodelled to *suh₂-el- on the basis of the collective oblique stem *suh₂l- < *sh₂-ul- which resulted from the regular metathesis of laryngeals in *CHIC-sequences (Mayrhofer 1986, 175).

The holodynamic collective will have had a nominative and accusative PIE *seh₂-u̯ōl, while the genitive was *sh₂u-n-es. It is from the oblique stem of the collective that forms like Skt. *sūryaḥ*, *sūraḥ* 'sun' < *suh₂l- are derived, via generalisation of *-l- and laryngeal metathesis. The meaning of the collective must originally have been something like '(rays of) sun, sunshine'.

For OW *houl*, MW *heul*, OCorn. *heuul*, OBret. *houl* etc., either nom., acc. sg. *soh₂-u̯ḷ or the collective nom., acc. *seh₂-u̯ōl are plausible starting

points.[30] The former would give PCelt. *sāu̯al > Brit. *hɔ́u̯al. Apocope would then remove the vowel in the final syllable, but the *-l would probably not be lost, since its fellow liquid *-r was not lost in absolute final position in the Brittonic languages (cf. Lat. -ātor > *-ɔtr > MW -awdyr; Schrijver 1995, 366 ff.). The resulting *hɔ́u̯l might perhaps then give the attested forms, if after apocope *-ɔ́u̯- < *-ā́u̯- before a consonant developed differently from word-final *-ɔ́u̯ < *-ā́u̯. If Dr Jørgensen were right that other Breton examples of -eau- < *-ā́u̯- are to be explained as borrowings or analogical, this would be the only plausible explanation.

If, however, we accept Schrijver's explanation of the Breton forms as being due to i-affection, a likely preform which would provide the right environment is available if we start from the collective form *seh₂-u̯ōl > PCelt. *sāu̯ūl > Brit. *hɔ́u̯īl.[31] If we derive MW heul, MBret. heaul, ModBret. heol from this *hɔ́u̯īl, it is striking that the development of the sequence *-ā́u̯-, in this case in both Welsh and Breton, is similar to that of OBret. Breu, MBret. breau, ModBret. breo < *brāu̯ī and ModBret. neo, nev < *nāu̯ī. Since these developments are otherwise unexpected and difficult to explain, and since they can be plausibly restricted to a single shared environment, it seems sensible to appeal to Occam's razor and to explain them in the same way. Schrijver's proposal that *-ā́u̯- > *-ɔ́u̯- > *-ɔ́u̯- was subject to final i-affection by *-ī-, and that this resulted in MW -eu-, ModW -au-, OBret. -eu-, MBret. -eau-, ModBret. -eo-/-ev-, therefore seems quite plausible. That Old (brou) and Middle Cornish (houl) do not show this change[32] does not mean that it did not occur, but only that the resulting sound could be written in Cornish with -ou-; cf. MCorn. nowyth as well as newyth beside ModW newydd, ModBret. nevez 'new' < *nöu̯iđ < *nou̯ii̯o-.

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[30]   The resulting preforms *sāu̯ūl and *sāu̯al have already been suggested by Jørgensen (2006, 126 fn.6).

[31]   Dr Stefan Schumacher has informed me that he prefers to reconstruct a masculine nominative singular *sāu̯ōl < *seh₂-u̯ōl < *seh₂-u̯ol-s, also of the holodynamic type, as demonstrated by Hitt. te-e-kan 'earth' < PIE *dʰeĝʰōm, gen. sg. tak-na-a-aš < *dʰĝʰm-es. I am informed by an anonymous reviewer that Jochem Schindler (in class) also derived Lat. sōl from an animate holodynamic *seh₂-u̯ol-s in the sense of 'personified son, i.e. sun god'. Since both reconstructions give the same Proto-Celtic form, it is of little importance which is right. I prefer to reconstruct a neuter paradigm because the acrostatic *soh₂-u̯l̥ > *sōu̯ol which is appropriate to a neuter l/n-stem would certainly give Lat. sōl, while the expected outcome of *seh₂-u̯ōl > *sāu̯ōl is less certain (Meiser 1998, 88); however, the masculine gender of Lat. sōl is obviously an argument in favour of Schindler's reconstruction.

[32]   But perhaps it is found in heuul, if this is really Old Cornish rather than Old Welsh.

8. Conclusion

The foregoing discussion has shown that the evidence does not support Jackson's statement that stressed *-ā́u̯- and *-óu̯- fell together in British Celtic. Rather, Schrijver's observation is correct: although they gave the same result in Breton and Cornish (MBret. -ou, MCorn. -ow), in Welsh they still remain distinct: *-óu̯- became MW -eu while *-ā́u̯- > *-ɔ̄́u̯- > *-ɔ́u̯- gave MW -o. The examination of the evidence has also allowed us to make some conclusions about unstressed *-āu̯-, which probably fell together with *-ou̯- in British; and about the reflexes of *-āg-, which remained largely distinct from *-āu̯-, giving MW -eu-, MBret. -e-/-i-, MCorn. -y- when pretonic, and probably developed into *-ɔ̄- when stressed, with the regular developments to MW -aw, MBret. -eu, -e, MCorn. -ue etc. Perhaps only when followed by *-u- did *-ā́g- develop differently, falling together with the reflexes of original *-óu̯- to give MW -eu, MBret. -ou, MCorn. -ow, rather than with *-ā́u̯-.

This understanding of the reflexes of *-ā́u̯- allows us to assess possible preforms for MW *heul*, MBret. *heaul*, MCorn. *houl* 'sun': neither the South-West British nor the Welsh forms reflect the normal development of stressed *-ā́u̯-, as claimed by Jackson. For this and other reasons a preform *sāu̯eli̯o- is unlikely. An alternative reconstruction *sāu̯ōl > *hɔ̄́u̯īl, based on an expected paradigmatic form, is more plausible. It is suggested, again following Schrijver, that the Brittonic reflexes of this form may be due to i-affection of *-ɔ́u̯- < *-ɔ̄́u̯- < *-ā́u̯- which also seems to have operated in the case of MBret. *breau* < *brā́u̯ī (indirectly attested in MW *breuan*) and ModBret. *nev* < *nā́u̯ī.

Appendix: Other Celtic words for 'sun'

This section is not related to the reflexes of *-āu̯-, but may be of interest in the context of the words for 'sun' discussed above. In addition to MW *heul* etc. < *seh₂-u̯ōl (?), there are at least two other Celtic words derived from the same paradigm. One of these is OIr. *súil* 'eye' < *sūli-, which is generally agreed to have developed semantically from 'sun' via a meaning 'eye of the sky' (Vendryes et al., S-201-2; West 2007, 198 f.). It can be easily derived from the oblique collective stem *sh₂-un-, with generalisation of *-l- from the nominative and accusative and metathesis of the laryngeal to give *suh₂l-, just as with Skt. *sūraḥ*.

More interesting is MW, ModW *huan* < *suu̯ánV-, which can be both an adjective 'shining, bright, sunny', and a noun 'sun, sunlight'. The ultimate

preform must be *suh₂eno-; I suggest that this reflects the original Proto-Indo-European endingless collective locative *sh₂u̯-en. We have already seen that in the rest of the oblique stem *sh₂un-, a rule of laryngeal metathesis produced a form of the shape *suh₂n-. Given the extreme allomorphy which now pervaded the paradigm, it is not surprising that the inherited locative *sh₂u̯-en was remodelled very early in Proto-Celtic, giving *suh₂-en, which matched the other oblique cases much better.

The locative of the collective would of course have meant 'in the sun (-shine)'. It was possible in Indo-European to derive adjectives from old locatives by the addition of the thematic vowel, which would give *suh₂en-o- '(being) in the sun'.[33] Formally this would give Proto-Celtic *su̯u̯ano-, and the meaning 'shining, bright, sunny' is very easy to derive from the meaning 'in the sun(shine)'. Once the adjective came to have the broader meaning 'shining, bright', it is easy to see how it could be substantivised as 'shining, bright thing', of which 'sunlight' is of course the best example.

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[33] For a similar derivation from an old locative, cf. Lat. *uesper*, Gk. ἕσπερος '(pertaining to) evening' < *u̯esper-o- (Katz 2000).

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