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<tr>
<th><strong>Title</strong></th>
<th>The origins of the preterite of the Old Irish copula and substantive verb: an overview and new ideas</th>
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</thead>
<tbody>
<tr>
<td><strong>Author(s)</strong></td>
<td>Bisagni, Jacopo</td>
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<td><strong>Publication Date</strong></td>
<td>2012-12</td>
</tr>
<tr>
<td><strong>Publisher</strong></td>
<td>University of Wales Press</td>
</tr>
<tr>
<td><strong>Link to publisher's version</strong></td>
<td><a href="http://www.uwp.co.uk/journal/journal-of-celtic-linguistics/">http://www.uwp.co.uk/journal/journal-of-celtic-linguistics/</a></td>
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<td><strong>Item record</strong></td>
<td><a href="http://hdl.handle.net/10379/7070">http://hdl.handle.net/10379/7070</a></td>
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THE ORIGINS OF THE PRETERITE OF THE OLD IRISH COPULA AND SUBSTANTIVE VERB: AN OVERVIEW AND NEW IDEAS

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As is well known, Old Irish presents a distinction between an unstressed copula (cop.) and a stressed substantive verb (subst. vb.), whose general function is to indicate, in Thurneysen’s words, ‘existence, presence, being in a certain condition’ (GOI §774). As far as the present indicative is concerned, the paradigm of the cop. is based on the PIE root *h₁es- (LIV 241–2), while the forms of the subst. vb. are ultimately reflexes of PIE *steh₂- (LIV 590–2).

All other tenses and moods of both cop. and subst. vb. are formed from a different root, conventionally noted as PIE *bʰweh₂- (LIV 98–101). It is more or less general consensus that, ‘apart from the suppletive (non-consuetudinal) pres. ind., the Irish differentiation of copula from substantive verb forms grew out of phonetic divergences conditioned by the respective absence and presence of stress’ (McCone 1991: 88).

Due to the obvious prominence of the verb ‘to be’ in any language’s verbal system, the OIr. cop. and subst. vb. have often attracted the attention of scholars. Nevertheless, the results achieved by modern scholarship tend to be scattered in a relatively large series of publications, so that, as a result, we still lack an up-to-date,

1 A short version of this paper was presented on the 21st of November 2009 at the Tionól of the Dublin Institute for Advanced Studies, where I could benefit from comments and observations by Liam Breatnach, Aaron Griffith, Kim McCone, David Stifter and Jürgen Uhlich. I also wish to thank Graham Isaac for discussing with me many relevant points, as well as Michael Clarke, Pádraig Moran and Mark Stansbury, who provided useful suggestions. Of course, I alone am responsible for all the views expressed in this article, as well as for all remaining errors.

2 A typologically comparable situation can be found, for instance, in the Spanish distinction between cop. ser (< Lat. esse) and subst. vb. estar (< Lat. stāre). Note also that in a number of constructions (for which cf. GOI §780) the forms of the pres. indic. of the OIr. subst. vb. are supplied by the PIE root *wel- (‘to see’; LIV 675).

3 The present indicative of the so-called ‘consuetudinal verb’ (GOI §784) is also based on this PIE root. The notation *bʰweh₂- adopted in LIV, with -h₂-, is probably misleading, cf. Jasanoff (1997: 173, n. 2): ‘the root-final laryngeal is sometimes mistakenly identified as *h₂ on the strength of Lat. -bam, -bās, -bat’. The e-grade ablaut is also probably wrong, cf. n. 11 below.
comprehensive account of this system’s diachronic development (probably also because of the persistence of substantially diverging opinions among scholars).

The present article aims at being an initial small step towards the fulfilment of this desideratum. I will limit myself to an investigation of the origins of the preterite (or more generally ‘past tense’ in the case of the OIr. copula, which lacks a preterite/imperfect distinction), with particular reference to 3sg. forms, since the significant progress made by scholars on this particular topic allows us to produce a sufficiently exhaustive and yet reasonably synthetic treatment: the most important analyses which have appeared in print so far shall be here reviewed and discussed, and some new ideas and observations shall be proposed.

First of all, the Old Irish paradigms are as follows (like in GOI, a turned period is here used when the following syllable bears the stress, the whole word beginning with a proclitic element; the symbol \(^{(1)}\) indicates that the form in question is followed by lenition):\(^4\)

<table>
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<tr>
<th>STRESS</th>
<th>SUBSTANTIVE VERB</th>
<th>UNSTRESSED ROOT</th>
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<tbody>
<tr>
<td>1sg.</td>
<td>((-)bá)</td>
<td>(-ba)</td>
</tr>
<tr>
<td>2sg.</td>
<td>((-)bá)(^5)</td>
<td>(-ba)</td>
</tr>
<tr>
<td>3sg.</td>
<td>((-)boí, (-)bui, (-)baí)(^6)</td>
<td>(-bae)</td>
</tr>
<tr>
<td>3sg. rel.</td>
<td>(boíe)</td>
<td>–</td>
</tr>
<tr>
<td>impersonal</td>
<td>(bothae, both)</td>
<td>(-bad)</td>
</tr>
<tr>
<td>1pl.</td>
<td>((-)bámmar)</td>
<td>(-bammar)</td>
</tr>
<tr>
<td>1pl. rel.</td>
<td>[not attested]</td>
<td>–</td>
</tr>
<tr>
<td>2pl.</td>
<td>((-)baïd [probably baïd])</td>
<td>(-baïd)</td>
</tr>
<tr>
<td>3pl.</td>
<td>((-)bátar)</td>
<td>(-batar)</td>
</tr>
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</table>

\(^4\) These paradigms are based on GOI §§789, 810–2; McConne (2005: 42–3); Stifter (2006: 218–9); I have mainly, but not exclusively, taken into account forms attested in the OIr. glosses. For extensive collections of attestations, see especially Strachan (1899–1902: 14–6 [subst. vb.], 33–7 [cop.]); DIL A-468.61–82 [subst. vb.], I-317.27–321.3 [cop.].

\(^5\) The 2sg. does not occur in the OIr. glosses, but later attestations are recorded in Strachan (1899–1902: 61).

\(^6\) This spelling is found in MI. 93c3 (\(robuí\)). The spelling fluctuation between \(boí\) and \(buí\) is trivial, as pointed out, e.g., in Schrijver (2007: 362, n. 12).

\(^7\) This spelling is found only once in the OIr. glosses, in Acr. 68 (cf. Strachan 1899–1902: 15; ibid.: 61, ‘In the third singular the spellings \(báí, buí\), which later become common, are only just beginning’).
Attempts to elucidate the origin of these forms have generally focused on the crucial 3rd person singular of both subst. vb. and cop. Yet, although many different PIE, PC and Pfr. pre-forms have been posited by scholars, I believe that none of the explanatory models proposed so far manages to generate coherently all the historical forms. In particular, although on the one hand there seems to be almost complete agreement that the immediate pre-form of boí must be, on phonological grounds, Pfr. *bowe (how to get to *bowe, and how to define this form’s grammatical nature, are, of course, completely different matters), on the other hand no analysis known to me from the scientific literature is able to account satisfactorily and in sufficient detail for the striking difference of vocalism between subst. vb. (~)boí and cop. abs. ba, conj. -bol-bu. 

One of the earliest suggestions on the origin of boí is Pedersen’s proposal to derive this form from an unreduplicated perfect *b³ôwe (Ped. ii, 379); this idea was mentioned, albeit with some scepticism, by Thurneysen (GOI §789), who suggested also an alternative form *b³owe. Pedersen’s reconstruction of *b³ôwe, with long root vowel, is part of his explanation of ā-preterites such as OIr. -ráith or MW gwarawt, which he derived from PIE ā-grade formations (cf. also Ped. i, 182). The ā-preterite,

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8 The 1sg. and 2sg. basa must of course be analysed historically as ba-sa; in these forms, however, ‘the emphasizing particle -sa has fused with the verb and is no longer felt as a particle’ (GOI §811; cf. also GOI §404).

9 Thurneysen’s tentative suggestion was accepted in LEIA B-47, where it is stated that ‘le prét. boí de *bhowe est un type de parfait qui répond au gall. bu (de *bhow-, apocopé)’.
however, has recently been satisfactorily explained as a Celtic (probably IC) innovatory formation essentially restricted to primary verbs with roots having the shape CeT/-Cem- (C = any consonant; T = any plosive consonant; cf. McCon 1994: §29.6), so that there is neither reason nor need for positing a form like *bʰöwe. As was pointed out by Kim McCon (1991: 126), Thurneysen’s *bʰowe is equally unsatisfactory, due to the existence of ‘incontrovertible evidence that the PIE perfect of *bʰuH- was reduplicated, e.g. 3sg. OInd. babháva, Av. buuáua, Gk. πέφυκα, 3pl. OInd. babhávur, Av. bābuvarə, Osc. fufens, Umbr. fut. perf. fefure’.¹⁰

The first article entirely dedicated to the origin of OIr. boí, written by Jay Jasanoff, saw the light many years after Pedersen’s and Thurneysen’s conjectures, in 1988. In that contribution, the author argued that a non-ablauting PIE perfect 3sg. *bʰe-bʰuH-e¹¹ would have given ‘pre-Insular Celtic *bebwe’ (Jasanoff 1988: 302); this form, in turn, would have produced *bewe through dissimilation or through an ad hoc change *-bw- > *-w- in word-internal position (Jasanoff 1988: 303), eventually generating the desired outcome *bewe > boí by regular sound change.¹² I will return to this and other proposals involving a reduplicated perfect later in the present article. For the moment, it will suffice to say that in 1991 Kim McCon (who does not seem to have been aware of Jasanoff’s 1988 article, or at least he did not mention it) rejected the possibility of deriving PIr. *bewe from a perfect *be-buw-e or *be-bow-e < PIE *bʰe-bʰ(o)uH-e, on the basis of the fact that the dissimilatory loss of -b- would ‘have to be placed at least as far back as Insular Celtic’ (i.e. ‘before the early Proto- or Insular Celtic changes of prevocalic uw and ew to ow’), a dating which he deemed ‘uncomfortably early’ (McCon 1991: 126–7).

In his search for ‘a less contrived unreduplicated alternative’ (ibid.), McCon eventually proposed to derive boí from a non-ablauting PIE athematic root aorist *(e)bʰuH-t > PC *bů-t, subsequently thematised (presumably in PC) to *buw-e-t (cf.

¹⁰ For the overall implausibility of both *bʰöwe and *bʰowe also from a wider comparative point of view, cf. Jasanoff (1988: 301).


¹² Notice that *bu(b)we was accepted as pre-form of both boí and ba in Schrijver (1997: 45).
PIE *(e)h₁lewΔ₄-t >> PC *lud-e-t > OIr. luid ‘went’, with generalised zero-grade from 3pl. PIE *(e)h₁lewΔ₄-ent >> PC *lud-ont). This *buwet would have then undergone the ‘Celtic change αw > ow before a vowel other than i’, giving *bowet. Finally, the pre-apocope loss of -t in PFr. (through -t > -Θ > -h > -Θ, cf. McCone 1982: 24–5 and McCone 1994: §§5.3, 8.2) would have generated the desired form *bowe, this being subsequently reinterpreted as a suffixless preterite on the basis of an equation with forms such as PFr. *ke₂xe₅ane < PC *kekan-e (McCone 1991: 131–3; cf. also McCone 1994: §29.7, where the same idea is essentially restated in a more synthetic form).

McCone’s theory was afterwards described as ‘unlikely’ by Jasanoff (1997: 179, n. 16), who argued, in particular, that ‘there is at best uncertain evidence that Proto-Celtic *-uwe- would have given -owe- in Irish’. Indeed, he questioned McCone’s (1991: 132; 1994: §3.9) derivation of OIr. oac, MW ieuanc (‘young’) and Gaul. iouinc- (in Gallo-Latin iouincus, iouincillus etc.; cf. Delamarre 2003: 191–2) from *yowankos < *yuwan< *h₂yu- Hn-ko-s, claiming that, since PIE *Hi-Hnk-eti (probably *h₂i-h₂nk-eti)13 > *īnketi > OIr. ·icc ‘reaches’, the correct Celtic outcome of *h₂yu- Hn-ko-s should be *yünk > *yunkos. I believe that this specific counter-argument cannot be upheld. First, PC *īnketi(i) (or, for that matter, *inketi(i)) would have given OIr. **-éic, not ·icc, as proved by PC *linkweṭi > PFr. *līģʷweθ(i) > OIr. léicid ‘leaves’ (cf. Schrijver 1993: 41, 43–4; McCone 1994: §23.5; KPV 455). Second, pace O’Shea (2007: 138–140), who favours a derivation of OIr. ·icc from *inketi << înegti14 < PIE *h₂i-h₂nk-ti, no real obstacle prevents us from accepting Peter Schrijver’s (1993: 39–42) reconstruction ·icc < *ink- < *enk- < *enkk- < *ænkk- < PFr. *ænkk- < *annk- << PC *annek- < PIE *h₂m-n-ék- (or perhaps rather *h₂n-né-k-?). 15 Accordingly, it is still quite possible (although not, strictly speaking, necessary; cf. Lindeman 1993: 76) that *yuwan< *h₂yu- Hn-ko-s (according to the syllabification *h₂yu.Hn.kos), as well as that *-uwe- > *-owe-. True, this sound

13 Notice that LIV (282) posits a reduplicated athematic present *h₂i-h₂nk-ti, rather than the reduplicated thematic formation reconstructed by Jasanoff.

14 The form *inketi reflects the generalisation of the zero-grade stem (from the PIE weak stem *h₂i-h₂nk-) as well as the quasi-Osthoff shortening *ink > *ink (cf. McCone 1994: §4.8).

15 In addition to the uncontroversial generalisation of the zero-grade stem *annk- < PIE *h₂m-n-ék- (cf. previous note), Schrijver argues for a PFr. rule according to which *ann(t/k) > *ēnn(t/k) > *ann(t/k) > *enn(t/k), unlike *ant / ank > *ēnt / ânk > *âd / âg > OIr. <ēt / éc>.
change has very little support and is essentially *ad hoc*, but there does not seem to be much solid counter-evidence either.

In fact, there are better reasons for rejecting McCone’s *(e)bʰuH-ᵽ > *bowet. Now, as we have seen, there is no doubt that this form allows us to obtain boí without difficulty, according to the following development: (PC?) *bowet > Plr. *boweθ > *boweh > *bowe > *bowᵽ > *boy > OIr. boí (cf. McCone 1994: §10.2).

The unstressed form of the root -bae can also be easily explained, by means of the well-established development *-owᵽ > *-øy > *-ě > OIr. -e in unstressed syllables (McCone 1994: § 10.2; McCone 1996: 132).

Although not explicitly recognised by McCone, this same sound change also enables us to derive the 3sg. abs. form of the copula, that is *ba*, from unstressed *bowë(t): Plr. *bowe (unstressed) > *bowᵽ > *boy > *bœ > EOIr. *be (as implicit from Schrijver 1997: 45) vs Plr. *bposé > OIr. boî. EOIr. *be would have then unproblematically evolved to *ba due to the retraction of e to a in proclisis (McCone 1996: 135).16 Interestingly enough, the seventh-century Cambrai Homily (hereafter Camb.) consistently shows *ba*, never *be (e.g. Thes ii, 246.16, 246.18, 246.19). However, in the paper ‘On the transmission of the Cambrai Homily’, presented on the 20th of November 2009 at the Tionól of the Dublin Institute for Advanced Studies, Jürgen Uhlich argued for the existence of what he called a ‘middleman’, that is an Irish scribe who copied the text of the Homily at some stage between its composition

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16 The possibility of deriving *ba* from the same pre-form which underlies boí has the welcome effect of getting rid of some old ideas concerning the origins of the former. In particular, this form, 3sg. of both pres. subj. and pret. of the copula, has been occasionally explained as if deriving from an old optative, a view most clearly stated by Watkins (1963: 11): ‘The proclitic preterite (and subjunctive) *ba* of the copula is etymologically the optative of the same verb of which the stressed preterite of the substantive verb boí is etymologically the perfect: IE *bhew-*. This view was more or less reaffirmed by Watkins in a later publication, where he further pointed out that *ba* took its past tense connotation through a functional transfer ‘from modal to imperfect [...] and not the other way around, with Thurneysen (OIGr. 488)’ (Watkins 1969: 150–1; the passage of Thurneysen’s grammar here mentioned by Watkins is §804: ‘The absolute 3 sg. *ba [...] and the conjunct by-form -bo, -bu appear to be forms of the preterite (§810) which were used in a modal sense (§813) and so came to be classed as present subjunctive forms’). In fact, as McConé puts it, ‘the existence of quite different vocalisms in the subj. (be-) and pret. (bā(‐), 3sg. boî) of the substantive verb create a strong supposition that the identity of both in the copula is secondary and due mainly to the well-known early OIr. change e > a in proclisis’ (McCone 1991: 89).
in the 7th century and the date of the continental manuscript where it is found (AD 763–790). In Uhlich’s view, this intermediary copyist was responsible for a number of orthographical modernisations, among which we may now count *ba in place of expected *be.

Also reasonably satisfactory is McCone’s interpretation of 1sg. and 2sg. ba(-sa) (cop.) / bá (subst. vb.) as due to a specifically Irish and relatively late (post-apocope) analogy with ‘unstressed -a / stressed -á in those persons of all OIr. vowel-final suffixless pret. stems’ (McCone 1991: 133); similar analogical processes are equally plausible for the plural forms (cf. ibid.).

The most serious difficulty with McCone’s 1991 ‘bowet theory’ is that it fails to provide a convincing and sufficiently detailed explanation for the crucial 3sg. conj. of the copula, -bo / -bu. This form, according to McCone (ibid.), ‘may reflect precociously apocopated *bow < *bowe’, but this is essentially a restatement of GOI §789. ‘It is not certain that the conjunct 3sg. of the copula -bo […] represents a shortening of boí. It could also go back to *-bou (*bow’), with early loss of the ending, thus corresponding to Welsh bu’. Now, while there is basically no doubt that -bo must derive from unstressed *bow, the problem is precisely how to obtain *bow out of *bowet. Theoretically, the -e of *bowe should have been lost after the loss of *-h < *-t, but before the palatalisation by final ‘palatal shwa’ through which -w- > -w’. (McCone 1996: 117, 131). This, of course, is most unlikely, as well as inexplicable: the Irish apocope followed the palatalisation, while positing an ad hoc earlier loss of the final vowel of Plr. *bowe would be arbitrary and completely unsatisfactory.

Recently, McCone (2006: 151) restated his derivation of boí from a thematised root aorist, albeit in a milder formulation (alternative derivations from a perfect proposed by other scholars do not seem to be entirely ruled out here). Several details of this reconstructions are different from the 1991 version of the theory: ‘(-)boí <

17 Jasanoff (1997: 174, n. 3) compares the ‘-a-forms’ of the OIr. subst. vb. with the Latin imperfect auxiliary -bam, -bás, -bat, and derives them from a Plr. stem *b(w)ā- ‘which can only go back to a virtual PIE *bhuH-eh2-, with an element *-eh2- of controversial origin’. On the whole, McCone’s analogical argument seems preferable, as it does not rely on any dubious ‘element of controversial origin’ and does not disrupt the paradigmatic unity, while Jasanoff’s model forces us to view the inflection of the pret. of subst. vb./cop. as originating from a suspiciously unusual mixture of stems and tense formations.

18 In McCone (1991: 133), the reference to GOI 283 is a misprint: the correct page number is 483.
*bowe < *buw-e(d) replacing *būd < PIE *bʰuH-t through secondary thematisation from the 3pl.’ (ibid.). First, *būd < PIE *bʰuH-t implies acceptance of the (possibly already PIE) neutralisation of the difference between postvocalic -t, -d and -ð in word auslaut, all being realised as [d] (cf. e.g. Schrijver 1994: 151–2; KPV 115–6; McCone 2006: 102; for a possible realisation of this sound as [ð] already in PC, cf. McCone 1996: 85–7; McCone 2006: 173). Second, *bowe < *buw-e(d) implies that the secondary ending -t was in fact lost as part of the general loss of inherited postvocalic [-d] (or [-ð]), probably to be ascribed to IC (cf. McCone 2006: 102, 173–4). Yet, attributing *bowe to IC rather than Pfr. merely displaces the problem of the early apocope of -e necessary to get *bow > OIr. -bo. When and how was -e lost?

I believe that a solution to this puzzle can be found by relying on a recent article by Graham Isaac (2007), concerning the origins of the Irish absolute/conjunct flexion: while substantially agreeing with McCone’s ‘derivational principle’,19 in this contribution Isaac (2007: 49) conjectures ‘a difference in the detail of exactly how that principle operated’.

Almost every theory on the development of the abs./conj. system (McCone’s being no exception) relies on a by now well-established early apocope of -i20 which was responsible for creating the set of verbal forms that eventually generated the Irish conjunct flexion (e.g. *bereti > *beret > OIr. -beir through regular sound change). The central point of McCone’s model is that the absolute forms derived from a generalisation in sentence-initial position of forms which were not affected by the apocope due to the presence of an enclitic element (placed in second position, in agreement with Wackernagel’s Law) ‘protecting’ the -i (e.g. *bereti-E >> *bereti > OIr. beirid; E = any enclitic element).

As pointed out by Isaac (2007: 50), the main problem with this otherwise convincing explanation is that ‘there is nothing in the theory to explain why [the] pattern […] *bereti-E should have been taken as a model for initial verbal forms

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19 The most complete and up-to-date version of McCone’s theory on the origins of the absolute/conjunct flexion can be found in McCone (2006: 97–175).

20 This apocope and its significance for the development of the abs./conj. distinction were first revealed by W. Cowgill (1975: 56–8); cf. also, e.g., Schrijver (1994: 158–65); McCone (2006: 106). P. Sims-Williams (1999; 2007: 344–5) argued for a late date of the apocope of -i, which in his opinion would have ‘occurred independently in British and Irish’ (Sims-Williams 2007: 345), but his argument has been convincingly dismissed by Jürgen Uhlich in his above-mentioned DIAS Tionóil paper.
without enclitic’. At this point, Isaac’s new conjecture involves a well-known rule of PIE syntax (one of the few on which most scholars seem to agree), according to which the accentuation of a verb (in a main clause) was directly related to its position in the sentence, along with the following pattern: non-sentence-initial unmarked position = unaccented vs sentence-initial marked (‘emphatic’) position = accented (cf. e.g. Meier-Brügger 2003: 245). Isaac (2007: 51–2) has shown that the above-mentioned early apocope of -i was in fact an apocope of all front vowels affecting only unstressed words: as a result, the abs./conj. distinction arose out of the fact that only non-initial – therefore unstressed – verbs lost their final -i. This can be schematised as follows (Isaac 2007: 57; # = sentence-boundary):

#*béreti(-E) ...# > #*béreti(-E) ...# > OIr. abs. beirid

#… *bereti (…)# > #… *beret (…)# > OIr. conj. -beir

Apparently, then, we could posit the following derivation for the 3sg. conj. of the copula: *bow < unstressed *bowe < *bowet (that is *[bowed] or *[bowed]). However, the relative chronology of the sound changes involved here makes this development impossible to believe.

Pace Mecone (1996: 100–1; 2006: 102), who ascribed the early apocope of -i to IC, considerable evidence exists showing that Gaulish was also affected by Isaac’s apocope of front vowels in unstressed words. Isaac himself (2007: 53–4) mentions Gaul. in ‘in’ vs Celtiberian eni, etic < *eti-kʷe, as well as rosmertia-c < *o-kʷe vs Celtiberian nekue, -kue, Lepontic pe. To these, we may tentatively add Gaulish verbal forms such as senit (pres. indic. 3sg.?), neat (pres. indic. 3sg.?), senant (pres. indic. 3pl.), bisslet (fut. 3sg.), petidsonit (fut. 3pl.) vs dugilontiLo (=

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21 For a different theory on the formation of the absolute / conjunct dichotomy also involving the continuation of PIE prosodic patterns, cf. Koch (1987).

22 Evidence in favour of apocope in Gaulish is also discussed in De Hoz (1997: 110, 114) and Schrijver (2007: 360–5; Schrijver argues however for completely different conditions under which the apocope of *-i would have taken place, namely after *s and voiceless stops only, cf. Schrijver 1994: 159–65).

23 RIG L-98 (Larzac, 1. 2a1); cf. Delamarre (2003: 270). A different interpretation of this form can be found in Lejeune et al. (1985: 59, 77).


\textit{dugi\textsc{yon}ti\textsc{-yo}; pres. indic. 3pl. + enclitic relative particle -yo ‘protecting’ the -i), \textit{esi} (sentence-initial verb), \textit{buet\textsc{id}} (possibly \textit{bueti-(i)d}, subj. 3sg. + suffixed pronoun/particle).}\textsuperscript{30}

On the one hand, the various verbal forms cited here seem to suggest that Gaulish may have presented a purely positional variation of verbal endings deriving from PIE primary endings (perhaps similar, in some way, to an incipient abs./conj. distinction?), following the principles described above:

(a) sentence-initial verb = stressed → non-apocopated endings (e.g. \textit{esi});

(b) verb + E → non-apocopated endings (E ‘protecting’ the -\textit{i}; e.g. \textit{dugi\textsc{Ionti\textsc{Io}}});

(c) sentence-internal (or -final) verb = unstressed → apocopated endings (e.g. \textit{se\textsc{nant}}).

On the other hand, it must be recognised that our understanding of Gaulish texts is still too limited (especially as far as verbs are concerned) to allow us to draw any

\textsuperscript{26} RIG L-100 (Chamalières, l. 11); cf. Delamarre (2003: 76); Lambert (2003: 160); Schrijver (2007: 363).

\textsuperscript{27} RIG L-98 (Larzac, l. 2b9); cf. Lejeune et al. (1985: 79); Delamarre (2003: 249).

\textsuperscript{28} RIG L-13 (Alise-Sainte-Reine); cf. Delamarre (2003: 153–4); Lambert (2003: 101). Cf. also RIG L-100 (Chamalières, l. 8) \textit{tonc\textsc{siontio\textsc{tio}}} (fut. 3pl. + rel. part.).

\textsuperscript{29} RIG L-98 (Larzac, l. 1a9); cf. Lejeune et al. (1985: 50); Delamarre (2003: 167). Different interpretations in Lejeune et al. (1985: 71) and Lambert (2003: 169).

\textsuperscript{30} RIG L-66 (Plat de Lezoux, l. 6: \textit{<deuurbu\textsc{etid}> possibly = de-uur-bueti-(i)d} and RIG L-100 (Chamalières, ll. 8–9). The form \textit{buet\textsc{id}} is analysed by Lambert as \textit{buet-id}, cf. RIG II-2: 279 (‘Dans l’hypothèse Lambert, on comprendra l’élément \textit{-id} suffixé à \textit{buet}, comme ayant valeur à la fois apodotique (en rapport avec gr. \textit{δέ}, Schrijver 1997, p. 177) et pronominale’); Delamarre (2003: 93–4); Lambert (2003: 64, 148, 159). However, it seems more likely that the -\textit{i} of the verb would have been protected by the presence of the enclitic element (cf. \textit{dugi\textsc{onti\textsc{lo}} above), which should therefore be analysed as -\textsc{d} or -\textsc{id} (with loss of \textit{i}- by haplology; cf. McCone 1991: 118–20). The sentence-initial form \textit{bu\textsc{eti}}, unaffected by apocope, might indeed be found in the ‘Plomb de Lezoux’ (RIG L-101), but the reading is uncertain, cf. RIG II-2: 281–2; Delamarre (2003: 93); Lambert (2003: 175). In the sentence-medial form \textit{bu\textsc{ed}}, to be found in RIG L-98 (Larzac, l. 2b2, \textit{<niti\textsc{nccobu\textsc{ed}} >}, the \textit{tau Gallicum} is often interpreted as standing for -\textit{ts}, i.e. ending -\textit{t} (apocopated from -\textit{ti}) + -\textit{s} < -\textit{se} ‘particule de phrase’, cf. Lejeune \textit{et al.} (1985: 80); RIG II-2: 266; Lambert (2003: 173). This analysis would contradict the principle according to which enclitic particles protected the -\textit{i} from apocope. We cannot exclude, however, that the \textit{tau} simply represents here a non-phonemic dental fricative resulting from an incipient lenition process (i.e. \textit{bu\textsc{ed}}\textsuperscript{=} /b\textsc{ued}/ = [b\textsc{ued}] or [b\textsc{ued}]), in the light of spellings such as RIG L-100 (Chamalières, l. 3) \textit{\textsc{ed\textsc{ic}}} (probably = \textit{etic} < *\textit{eti-k`e}}, cf. Delamarre 2003: 167; for different interpretations, cf. RIG II-2: 276; Lambert 2003: 156) or RIG L-119 (Saint-Révérien) \textit{gn\textsc{atha} ‘girl’ (= /gn\textsc{ata}/ = [g\textsc{na\textsc{ta}/ or [g\textsc{na\textsc{da}}])}.
secure far-reaching conclusion. In particular, two objections to the position advocated here may be mentioned, along with possible solutions:

(1) If it is really a perfect 3sg. meaning ‘has offered’ or ‘has placed’, then the well-attested sentence-medial form dede (<δεδε>, e.g. RIG G-27, G-203; cf. Delamarre 2003: 138–9) is unexpected (why not apocopated *ded?). Yet, while dealing with the lack of abs./conj. distinction in the OIr. suffixless preterite (< PIE perfect), Isaac (2007: 57) indirectly provides a possible key to this Gaulish problem; he suggests that, since apocope would have affected only the pret. 3sg. and (possibly) the 2pl., generating isolated abs./conj. pairs in those persons, ‘isolation could have had the effect of analogically cancelling out the apocope in this case’.31

(2) The sentence-internal pres. indic. 1sg. im(m)i ‘I am’ (RIG G-13, L-120) is embarrassing, as we would rather expect apocopated *im (cf. De Hoz 1997: 110). A conjectural solution may nevertheless be suggested. Several ‘hyper-characterised’ (possibly emphatic?) 1sg. forms are attested in Gaulish, presenting the thematic ending <-u> (= -ū < PIE *-ō) plus a further characterising 1sg. element <-mi / -mI> (this being either the athematic ending -mi < PIE *-mi or a suffixed 1sg. personal pronoun mī < PIE *mē; cf. Lambert 2003: 64; Mc Cone 1991: 119).32 The apparently high frequency of forms such as these may have contributed to cancel the apocope (or even to re-introduce a final -i) in the case of the 1sg. athematic ending -mi in sentence-internal or sentence-final verbs (stressed sentence-initial verbs would not have been affected by the apocope anyway).33

31 We may add that Gaul. dede is almost certainly the result of an analogical process (whose effects are visible in Transalpine Gaulish and Insular Celtic) replacing the older, etymological form documented in Lepontic <ΤΕΤΥ> = /dedū < PC *dedū < PIE *dē-dōh₁-e or *dē-doh₃-e (cf. Mc Cone 1994: §29.5; KP V 73; Mc Cone 2006: 152).

32 Cf. e.g. RIG L-93 (Tuile de Châteaubleau, l. 1) nemnaliǔmi ‘I celebrate’? (cf. RIG II-2: 240); RIG L-100 (Chamalières, l. 1) uediliǔmi ‘I pray’; ibid. (l. 10) pissliǔmi ‘I (will) see’? (cf. Mc Cone 1991: 120; Lambert 2003: 160). These hyper-characterised forms can be contrasted with simple thematic delgu ‘I contain’ in RIG L-50 (Banassac).

33 A more speculative explanation can also be tentatively proposed: this apocope might have been an isogloss synchronically restricted to those GIC dialects which later generated IC, as well as to the Gaulish dialects of central and northern Gaul, to the exclusion of southern Gaul. The most secure attestation of Gaul. immi is RIG G-13, a Gallo-Greek graffito inscribed on a vase found at Les Pennes-Mirabeau (Bouches-du-Rhône): it is important to notice that the use of the Greek alphabet represents a strong indication of the fact that the inscription was executed in loco, or at least somewhere in the
In any case, there seems to be more than enough evidence that Gaulish was indeed affected by the early apocope of front vowels in unstressed words, which should therefore be attributed to the GIC phase.\(^{34}\)

Now, in order to obtain \*bow from Mc Cone’s \*bowet, the loss of the ending \(-t\) (\(= [d]\) or \([ð]\)) and the apocope need to have taken place precisely in that order. Indeed, Mc Cone (2006: 174) posited a relative chronology (1) \(*-ð > \text{-Ø}\), (2) apocope,\(^{35}\) describing it as an ‘unproblematical assumption’.

Yet, Mc Cone (2006: 173–4) himself ascribed the loss of \([-ð]\) to the IC phase, and not earlier.\(^{36}\) Since, as we have just seen, apocope is most likely to have occurred at a chronological stage earlier than IC, Mc Cone’s relative chronology is not tenable. Not

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Narbonnensis. True, the other example of \(imi\) is contained in \(RIG\ L\-120\), an inscription written on a loom weight found in Sens (in central-northern France); the significance of this form, however, is diminished by its being inscribed on a very small, easily transportable object \(imi\), moreover, has alternatively been interpreted as a 1sg. possessive or as the dat. of a 1sg. personal pronoun; cf. Lejeune 1976–1977: 102; \(RIG\ II\-2\): 333). A more serious obstacle to this guess is represented by the form \(petame\) ‘I ask’ (< \(*peta-mi?)\) to be found at l. 3 of the Tuile de Châteaubleau (\(RIG\ L\-93\)), also located in central-northern France. Admittedly, however, this text is still poorly understood. As a final point, notice that the form \(dede\) discussed above is also exclusively found in Gallo-Greek inscriptions from southern Gaul.

\(^{34}\) For the concept of ‘Gallo-Insular Celtic’ cf. Mc Cone (2006: 277).

\(^{35}\) Of course, in his formulation of this chronology Mc Cone only refers to the apocope of \(-i\) (unlike Isaac, whose version of the apocope involves all front vowels), in the context of a broader discussion about the internal subdivisions of the Celtic linguistic family, not dealing with the forms of cop. and subst. verb.

\(^{36}\) Cf. Mc Cone (2006: 173): ‘the evidence currently available suggests that a voiced dental stop \(-d\) or rather fricative \(-ð\) still survived in Gaulish \(id\) [3sg. neut. pron.] and that the subsequent developments to \(*eð\) and \(*e […]\) can be traced no further back than Insular Celtic’. In particular, the IC morphophonematisation of lenition is the \textit{terminus ante quem} for \(-ð > \text{-Ø}\), ‘in view of the fact that the infixed pronoun of the 3sgn. (< \(*eð\)) causes lenition in OIr.’ (Schrijver 1997: 56). A Gaulish loss of \(-d\) is advocated in Schrijver (2007: 357–60), but the evidence still looks tenuous (cf. the discussion in Mc Cone 2003: 175–6); moreover, I do not see why this alleged loss of \(-d\) in Gaulish, even if proven, could not be considered as a later development, independent from the analogous IC phenomenon (a similar loss occurred, after all, in the history of Latin as well, albeit only after long vowels, cf. Sihler 1995: 228). Moreover, for a sound criticism of Schrijver’s contention that \(*-i\) and \(*-e\) would have merged in \textit{auslaut} in Old Irish and Gaulish prior to apocope (Schrijver 2007: 360–5) – a development which, through a series of passages that cannot be discussed here, leads Schrijver (2007: 366–9) to place the loss of \(-d\) before the early apocope – see now Stifter (2008: 283–5). I wish to thank Dr Stifter for drawing my attention to Schrijver’s article and for providing me with a copy of his own review.
conclusive either is the argument that this chronology ‘has the welcome consequence of solving the problem of OIr. proclitic neut. na ‘any’ at a stroke by positing *nek*ið > *nek*i > *nek* in Insular Celtic, whence *neχ* > *ne h- > OIr. na [‘any’]’ (McCone 2006: 174; cf. also McCone 2003: 174–8). Of course, the simple fact that this analysis appears to work out does not mean that it is the only one possible; moreover, this explanation of the origin of OIr. na should not be considered as a proof in favour of the above-mentioned chronology (and of course I am not suggesting that McCone did so), as in that case the argument’s circularity would be evident.

Indeed, an alternative solution for OIr. na may be suggested. First of all, McCone (2006: 172) suggests that, while the vocalism of the stressed counterpart of na, that is ní ‘anything’, was ‘due to the influence of aní (neut. article a n- plus deictic -í)’ (as originally suggested by Thurneysen, cf. GOI §491), on the contrary proclitic na preserved ‘the original vocalism’, directly deriving from *ne. However, if we now try and implement in this model some of the conclusions reached in the foregoing discussion, things appear quite different.

If, for argument’s sake, we apply to the nom./acc. sg. neut. McCone’s relative chronology and the independently established apocope ‘à la Isaac’ (i.e., affecting final palatal vowels in unstressed words), this is the result:

<table>
<thead>
<tr>
<th>PC</th>
<th>GIC</th>
<th>IC</th>
<th>Plr.</th>
<th>EOIr.</th>
<th>OIr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>nék</em>ið</td>
<td><em>nék</em>ið</td>
<td><em>nék</em>i</td>
<td><em>n´éχ</em>i</td>
<td>**n´éχ*i</td>
<td>**neich</td>
</tr>
<tr>
<td><em>nek</em>ið</td>
<td><em>nek</em>ið</td>
<td><em>nek</em></td>
<td><em>n´éχ</em></td>
<td>*n´e</td>
<td>na</td>
</tr>
</tbody>
</table>

As we can see, **neich is not the OIr. stressed form (i.e. ní, which anyway is obtained by McCone through analogical influence from aní, cf. above). As for the unstressed form, Camb. (Thes ii, 245.34, 246.7) already presents na, not *ne. Admittedly, however, the aforementioned intermediary copyist posited by Uhlich may have been responsible for this modernisation, and similar considerations also apply to the nom. sg. masculine of the indefinite pronoun, where the EOIr. unstressed form *n´ech is apparently contradicted by Camb. nach (Thes ii, 246.7; cf. also proclitic cach at Thes ii, 244.23, 246.21, 247.4, rather than *cech < Plr. *k´č*< ah) < PC *k*ek*< os):

<table>
<thead>
<tr>
<th>PC</th>
<th>GIC</th>
<th>IC</th>
<th>Plr.</th>
<th>EOIr.</th>
<th>OIr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>nék</em>os</td>
<td><em>nék</em>os</td>
<td><em>nék</em>oh</td>
<td><em>n´éχ</em>oh</td>
<td>nech</td>
<td>nech</td>
</tr>
<tr>
<td><em>nek</em>os</td>
<td><em>nek</em>os</td>
<td><em>nek</em>oh</td>
<td><em>n´éχ</em>oh</td>
<td>*n´ech</td>
<td>nach</td>
</tr>
</tbody>
</table>
If, at this point, we try to invert McCone’s chronology by positing (1) GIC apocope and (2) IC *-ð > -Ø, this is what happens in the nom./acc. sg. neut.:

<table>
<thead>
<tr>
<th>PC</th>
<th>GIC</th>
<th>IC</th>
<th>PIr.</th>
<th>EOIr.</th>
<th>OIr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>*nékʷið</td>
<td>&gt;</td>
<td>*nékʷið</td>
<td>&gt;</td>
<td>*nékʰi &gt; *n´ɛχʷˈi &gt; *n´ɛχ´ &gt; **neich</td>
<td></td>
</tr>
<tr>
<td>*nekʰið</td>
<td>&gt;</td>
<td>*nekʰið</td>
<td>&gt;</td>
<td>*nekʰi &gt; *n´ɛχʷˈi &gt; *n´ɛχ´ &gt; **nach</td>
<td></td>
</tr>
</tbody>
</table>

Admittedly, in this case, both the stressed and the unstressed form do not correspond to OIr. ní / na. However, let us now compare these results with the development of the gen. sg. masc./neut.:

<table>
<thead>
<tr>
<th>PC</th>
<th>GIC</th>
<th>IC</th>
<th>PIr.</th>
<th>EOIr.</th>
<th>OIr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>*nékʷi</td>
<td>&gt;</td>
<td>*nékʰi</td>
<td>&gt;</td>
<td>*nékʰi &gt; *n´ɛχʷˈi &gt; *n´ɛχ´ &gt; neich</td>
<td></td>
</tr>
<tr>
<td>*nekʰi</td>
<td>&gt;</td>
<td>*nekʰi</td>
<td>&gt;</td>
<td>*nekʰi &gt; *n´ɛχʷˈi &gt; *n´ɛχ´ &gt; nach</td>
<td></td>
</tr>
</tbody>
</table>

This derivation shows that nom./acc. sg. neut. and gen. sg. masc./neut. of both stressed and unstressed form would have become identical already in pre-apocope PIr. through coincidental convergence. This rather confusing situation would have put considerable pressure on the system to create a new, better characterised and less ambiguous set of forms.

Since, as we have seen, McCone is in any case willing to accept analogical influence of aní on the stressed nom./acc. sg. neut., it does seem possible that both stressed *n´ɛχʷˈi and unstressed *n´ɛχʷˈi (or any later development thereof) were replaced, at some stage between PIr. and EOIr., by entirely new, analogical forms based on the increasingly common combination of article + deictic particle -í (cf. Gk. ὁ-δί, οὐτοσ-ί etc.; cf. Sihler 1995: 386, 389), that is stressed *ní and unstressed *ni.

Of course, at this point the problem is that while the former gives (or in fact is) the expected OIr. form ní, the latter’s outcome is not na. This issue could be solved by positing a fairly straightforward analogical development *ni >> na based on the proportion [masc. nech : masc. nach] = [neut. ní : neut. X], where X = na. Indeed, that strong analogical processes were in operation in this area of the pronominal system is shown by the existence of various innovatory ‘hybrid’ by-forms such as nanní and anní (cf. GOI §489.b).

Although this argument does not disprove McCone’s derivation of OIr. na from IC *nekʰ < *nekʰi < *nekʰið, it shows nonetheless that his analysis is not the only one possible. In fact, since good independent evidence exists in favour of a relative chronology placing the loss of -ð after Isaac’s apocope (the opposite being, on the
contrary, nothing more than an ‘assumption’, as recognised in McCone 2006: 174), it seems at least preferable to adopt a different explanatory model for ní / na (which, for that matter, may or may not be the one suggested here).

A very similar reasoning can be applied to another form which McCone (2003: 178) explained by relying on his aforementioned relative chronology, that is the OIr. nom./acc. sg. neuter aill ‘other’ (vs masc./fem. aile). First of all, McCone posited an IC (or earlier) analogical reshaping of inherited *aly-od to *aly-id on the basis of *nek”-id (now presumably re-writable respectively as *aly-ið and *nek”ið); next, *alyið would have evolved to *alyi and then *aly (due to IC loss of *-ð first, and then to the early apocope of *-i). This *aly would have then undergone assimilation to *aL’, in accordance with the assimilatory pattern -l’y- > -l’l’- which had been previously posited by McCone (1997: 311; cf. Gaul. allos < *alyos?) on the basis of Uhlich’s (1993: 353–6) derivation of OIr. búachaill < *bókolyos < PIE *gʼou-k(w)ol-yo-, this form being one out of several cases of failed anaptyxis -CyV- > -CiV- in Irish. Although on the one hand McCone’s reconstruction is plausible, on the other hand it is not necessarily the right explanation. Indeed, I do not see why OIr. aill could not be obtained through the following development: (G)IC *alyohd > (G)IC *alyið > IC *alyi > Pfr. *al’yi > *al’ai (assimilation) > *aL’i > *aL’ (Irish apocope) > OIr. aill, cf. IC *bókolyos > Pfr. *bóχol’yah > *bóχol’ah > *bóχoL’ah > EOIr. *bóχoL’ > OIr. búachaill.

37 In McCone (2003: 176) the only reasons for preferring a relative chronology (1) -ð > -ð, (2) -i > -ð, are said to be its ‘success’ in obtaining OIr. na out of *nek’ið and ‘the lack of a viable alternative’. The present discussion shows that neither argument is conclusive.

38 Notice that in McCone (2003: 178) the pre-form *aL’ is presented as ‘IC *aL’”: this implies an ad hoc Insular Celtic palatalisation which should have preceded the – presumably also IC – assimilation of -l’y- to -l’l’-; if so, then these developments would have nothing to do with Uhlich’s much later failed anaptyxis in Irish. This formulation, therefore, seems to be in contradiction with McCone’s 1997 version of the theory, where the process -ly- > -l’y- > -l’l’ was apparently (i.e. not explicitly) attributed to Prehistoric Irish. The latter analysis seems more convincing to me, being directly supported by the (pre-)history of OIr. búachaill.

39 McCone (2003: 178) further argued that, while ‘IC *aL’ [...] would yield OIr. aill directly, it seems unlikely that an isolated palatal liquid would have survived long enough to become part of a much later general opposition between palatal and non-palatal phonemes in the Primitive Irish consonant system’; he therefore suggests that IC *aL’ first became *aL, this being later remodelled to *aL’ ‘once aL’ with a palatal / had arisen throughout the remainder of the paradigm (OIr. aile etc.).’ This argument does not
The foregoing discussion shows that the OIr. conjunct form of the copula -bo cannot derive from McCone’s *bowet: since the evidence rather points to the relative chronology (1) Isaac’s GIC apocope, (2) IC -ð > IC -Ø, there is simply no way of obtaining the necessary ‘precociously apocopated *bow < bowe’ out of *bowet (= *[bowed] or *[bowed]).

Now that the PIE root aorist *(e)b₇H-t has been ruled out as the ultimate source of (-)boí, -bae, ba and -bo, we should turn our attention to the obvious alternative, i.e. the PIE non-ablauting reduplicated perfect surfacing in forms such as Vedic babhū́va, Greek πέφυκε, Umbrian jefure (3pl. fut. perf.) etc.

As we have seen above, Jasanoff (1988: 302–3) initially proposed to derive OIr. boí from PIE *b₇h-e-b₇H-e through PC *bebwe > *bewe > Plr. *bowe. In a later contribution (Jasanoff 1997: 180–183), however, Jasanoff recognised the difficulties inherent in positing ‘an early Celtic (i.e. pre-lenition) sound law which converted intervocalic *-bw- to *-w-’; he proposed instead to consider the dissimilation *b₇h...b₇w... > *b₇h...w... as a a ‘sporadic change’ which he ascribed to PIE itself. The resulting Late PIE *b₇we ‘would have developed normally to *bewe in Celtic’ (and later to *bowe), while the highly irregular alternation of *b₇ew- (in 3sg./pl.) and *b₇e₇b₇uw- (in the other persons) would have been solved in Greek, Germanic, Italic and Indo-Iranian by reintroducing the reduplicated stem into the 3sg. (and presumably 3pl. as well). Due to its highly idiosyncratic and essentially ad hoc nature, it is very difficult (or impossible) to either prove or disprove Jasanoff’s dissimilatory loss of *-b₇- in PIE. That said, it is not quite clear to me why Celtic, possessing a large number of reduplicated perfects, would have preserved irregular *bewe < PIE *b₇ew-e throughout its history, while Proto-Germanic, where strong preterites (< old PIE perfects) were gradually giving up their reduplication, restricting it to the fairly small group of so-called Class-VII verbs (cf. e.g. Jasanoff 2003: 16; Jasanoff 2007: 241–4), should have replaced inherited *b₇ew- with an analogical reduplicated stem. Since a form such as Old Icelandic bjó (pret. 3sg. of búa ‘to live, to dwell’) witnesses to the existence of a stem *beb₇- in Proto-Germanic, it is more straightforward to consider this reduplicated stem as a relic directly inherited from

apply to my reconstruction, as the relevant changes are here moved from the IC to the Plr. phase (see previous note).

More recently, Stefan Schumacher has provided a new, rather detailed discussion of the preterital forms of the OIr. subst. vb. in his KPV (251–4). First of all, he argues that IC *bowe cannot be the pre-form of MW and OB bu, on the basis of PIE *tewe > *towe > MW dy, not **du. Then, he proceeds to look for a pre-form which could have generated both the Goidelic and the Brittonic forms, individuating a good candidate in IC 3sg. *bu-b-e (= *[buβe]). This form is obtained by Schumacher through the following passages:

1) as starting point, a non-ablauting reduplicated perfect *b\textsuperscript{h}e-b\textsuperscript{h}úH-e is accepted as the ultimate PIE pre-form;

2) the resulting PC form *be-b(u)w-e later developed into *bu-b(u)w-e due to a well-known change of the reduplicating vowel from e to u when u was present in the verbal root (cf. McCon 1994: §29.4; KPV 63);

3) IC *bu-b(u)w-e was then ‘shortened’ (‘verkürzt’, KPV 252) to *bu-b-e, possibly due to analogy with the perfect of roots in *-eyH- (cf., e.g., OIr. glenaid, from the PIE root *gleyH-, whose pret. 3sg. is (-)gíuil < PIr. *giyle < IC *gi-gl-e << PC *ge-gloy-e);\textsuperscript{40}

4) finally, the Brittonic forms developed regularly from IC *bube (realised as *[buβe], and synchronically no longer analysed as a reduplicated form), while OIr. boí derived from *bube through *buwe > *buw’í > *buw’ > *buy. Indeed, the plausibility of the development *[buβe] > *buwe, due to a PIr. dissimilation *b\textsuperscript{V}βV > *b\textsuperscript{V}vV, is supported by cases such as OIr. bí (pret. 3sg. of benaid) < *biy < *biw’í < PIr. *bibe (= *[biβe]) << PC *be-boy-e < PIE *b\textsuperscript{h}e-b\textsuperscript{h}oy-e (cf. McCon 1991: 125; EIV 53, §VI.2.3; KPV 231, 250), or du·fóbi (fut. 3sg. of do·fuiben) < *-biy < *-biw’í < *-bibih < PIR. *-bibíss << IC *-bi-bí-se-ti < PC (unstressed) *bi-bí-se-ti < PIE *b\textsuperscript{h}i-b\textsuperscript{h}iH-se-ti (cf. EIV 46, §V.4).\textsuperscript{41} As for *buy > OIr. boí, this development too results unproblematic, in view of the fact that the diphthongs /uy/ and /oy/ had most likely

\textsuperscript{40}For more details on Schumacher’s ‘shortening’, cf. KPV 73–4.

\textsuperscript{41}McCon has recently described Schumacher’s derivation of boí from *bub(u)we as being based on ‘reasonably plausible, if ad hoc, sound change’ (McCon 2006: 151; this judgement actually concerns both Jasanoff’s and Schumacher’s theories). Interestingly, a similar kind of dissimilation was posited by McCon himself (1991: 124) in his derivation of bieid, bia (fut. 3sg. of the substantive verb) from *biwäset(i) < *bibwäseti << PC *bibäseti < PIE *b\textsuperscript{h}i-b\textsuperscript{h}uH-se-ti.

Now, Schumacher’s first point on the impossibility of obtaining the Brittonic forms directly out of a pre-form *bowe is invalidated by the fact that both MW bu and OB bu could in fact be the regular outcome of (originally sentence-internal or -final, and therefore unstressed) *bow, form showing the effect of Isaac’s apocope (GIC #*bówe ...# > IC ‘absolute’ bowe / GIC ...*bowe (...)# > IC ‘conjunct’ *bow), according to the development *bow > *bō > bu (cf. LHEB 305–307, 321, 373 n. 2; Simon Evans 1964: 138).

Despite this, I believe that Schumacher’s model must still be preferred (albeit with some adjustments), simply because it is the only one capable of providing a satisfactory explanation for all the historical forms, including the difference of vocalism between the abs. and conj. 3sg. of the Irish copula.

If we try to implement Isaac’s apocope in Schumacher’s model, at the same time applying to it the conditions of accentuation inherited from PIE (initial verb = stressed / non-initial verb = unstressed), this is the situation we obtain for PC / GIC / early IC:

A: PC #*béb(u)we43 ...# > GIC #*béb(u)we ...# > IC #*búb(u)we ...#

B: PC ...*beb(u)we (...)# > GIC ...*bebu (...)# > IC ...*bubu (...)#

Schumacher’s IC *bu-b-e *[buβe] is the outcome of A *búb(u)we, but B (i.e. IC *bubu *[buβu]) may have been preserved as a positional variant of A, according to the above-mentioned pattern which eventually generated the OIr. abs./conj. dichotomy. As posited above, the intervocalic sound [-β-] was subsequently lost in the prehistory of Irish through the dissimilation *bVβV > *bVwV. This process can be represented as follows:

42 Notice that, while the apocope *bowe > *bow reflects the conditions of GIC accentuation inherited from PIE, the later development *bow > *bō > bu depends on the mutated conditions of Brittonic accentuation, where verbal forms are tonic. This eliminates the apparent contradiction (pointed out by Schumacher in KPV 252) between *bowe > MW bu and PIE *tewe > MW dy ‘your’, the latter being unstressed in Brittonic, whereby PC *tewe > IC/Proto-Brittonic *tew > *tow > *tō > *tō (LHEB 339) > MW dy, unlike PC *téwe > IC/Proto-Brittonic *téwe > *tówe > MW teu ‘yours’ (LHEB 656–7). I wish to thank Dr Graham Isaac for discussing the Brittonic forms with me, providing many useful suggestions.

43 Note that intervocalic -b- may have been realised as [β] already in PC, following McCone (1996: 84–7); McCone (2006: 173–4).
<table>
<thead>
<tr>
<th>I (IC₁)</th>
<th>II (IC₂)</th>
<th>III (PIr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: #<em>búb(u)we...# &gt; #</em>[búße] ...# &gt; #*búwe ...#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: #... *bubu (...)# &gt; #... *[buβu] (...) &gt; #... *búwu (...)#</td>
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The creation of a functional distinction between an unstressed copula and a stressed substantive verb is generally considered as an Irish innovation: we can then reasonably assume that new preterital forms of the copula were obtained at this point through detonicisation of III A and III B.

Since OIr. absolute forms generally derived from ‘type A’, while the conjunct flexion developed from ‘type B’, a new unstressed version of A *búwe gave OIr. absolute ba (through PIr. *buwe > *buwe > *bůwe > *bůwe > EOlr. *be > OIr. ba), whereas the conjunct form -bo / -bu was the outcome of B *-buwu, according to the regular development *-buwu > *-bů > -bu, -bo.

Eventually, the neutralisation of the opposition abs./conj. in the OIr. suffixless preterite (cf. McConé 2006: 148–63; Isaac 2007: 57–8) led to the existence of only one stressed form of subst. vb., that is abs. boa / conj. ·boí, with generalisation of the

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44 Of course, while it is necessary to attribute the preservation of the originary PIE stress pattern to GIC (this being a pre-requisite of Isaac’s apocope; cf. Isaac 2007: 58), no such claim can be made for IC, let alone PIr. (where all verbal forms were probably tonic). The accentuation here adopted for IC₁ and IC₂ is therefore purely hypothetical (indeed, verbal forms may have become fully stressed in all positions already in IC), while both A and B can more confidently be considered as tonic in the third phase (PIr.).

45 The presence of this full-blown distinction in Irish should not be confused with the atonic condition of the present indicative of the verb ‘to be’ (< PIE *h₁es₂) in IC (cf. McConé 1994: §4.2, §23.3; McConé 2006: 65).

46 This process may have begun in the present indicative, where stressed forms deriving from PIE*steh₂- acquired the specific function of substantive verb, while the old unstressed forms of the verb ‘to be’ (< PIE *h₁es₂-), inherited from IC, specialised as copula (as pointed out in note 2 above, Romance offers an illuminating typological parallel). The presence of 3sg. taw (< PIE *steh₂-) in the MW paradigm of the verb ‘to be’ (cf. Simon Evans 1964: 136) suggests, in fact, that the process of differentiation may have been incipient in already in IC, although we cannot exclude the possibility that this is the result of an independent development, or of an areal convergence later than the IC phase proper. The lack of a formal distinction between cop. and subst. vb. in Middle Welsh, as well as the existence of constructions such as MW yssî ‘there is’ or yssym ‘there is to me = I have’ (vs OIr. táthum; cf. Simon Evans 1964: 142; Schrijver 1997: 172–6; McConé 2006: 15), suggest that forms deriving from PIE *h₁es₂- could still function as cop. or subst. vb. in IC.

47 The spelling fluctuation between -bo and -bu is meaningless, being due to the ‘neutralisation of the distinction between high back /u/ and mid back /o/ in proclisis’ (McConé 1996: 135).
stressed outcome of A *búwe to all positions. The same, however, did not happen in the copula, probably because of its increasingly separate grammatical status, while the very high frequency of occurrence of these forms in speech may have also contributed to the preservation of the petrified morphological distinction between ba and -bo.

To conclude, the foregoing discussion makes it clear that a PIE non-ablauting reduplicated perfect *bʰe-bʰúH-e is the most likely ancestor of the 3sg. forms of both cop. and subst. vb. (the other persons, as we have seen, were satisfactorily accounted for by McCone as relatively recent analogical formations; cf. p. 7 above). As a consequence, laid and do·cer are all that remains in Old Irish of Indo-European root aorists (cf. McCone 1994: §29.7; McCone 2006: 148–9).

Moreover, the neutralisation of the absolute/conjunct distinction in the suffixless preterite can be considered as the safest terminus ante quem for the Plr. differentiation between subst. vb. and cop. in the preterite. If such differentiation had taken place any time later, the type-B form *-buwu necessary to obtain the 3sg. conj. of the cop. would have disappeared without leaving any trace.

**ABBREVIATIONS**

abs. = absolute flexion  
conj. = conjunct flexion  
cop. = copula  
Gaul. = Gaulish  
GIC = Gallo-Insular Celtic  
IC = Insular Celtic

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48 As pointed out above (pp. 1–2), the OIr. preterite and the so-called past tense of the copula were not overlapping categories, the latter functioning as both imperfect and preterite proper.  
49 As a passing point, we may note that this conclusion casts a thick shadow of doubt over the view according to which some ‘archaic’ Old Irish texts would preserve undifferentiated forms of the verb ‘to be’ (cf. Binchy 1952: 46, n. 1; Greene 1977: 31; against this view, cf. Lindeman 1989: 172–3). The best-known examples can be found in the poem concluding the saga of Fergus mac Léti (ed. Binchy 1952) and in Amrae Coluimb Chille (ed. Clancy and Márkus 1995: 104–5; see esp. II, 3–6, IV, 2, VI, 13–9). I believe that all these alleged ‘archaisms’ can be explained otherwise, as I hope to be able to show in a future publication.
(E)OIr. = (Early) Old Irish
OB = Old Breton
PC = Proto-Celtic
PIE = Proto-Indo-European
PIr. = Primitive Irish
subst. verb = substantive verb
MW = Middle Welsh

REFERENCES


