The Brittonic Subjunctive and Future

The origin of the subjunctive in Middle Welsh (MW), Cornish (Co.) and Middle Breton (Mbr.) remains one of the enduring mysteries of Celtic comparative grammar. The paradigms are given by Lewis and Pedersen (1937:286) as follows:

<table>
<thead>
<tr>
<th></th>
<th>MW</th>
<th>Co.</th>
<th>MBr.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>'may love'</td>
<td>'may be able'</td>
<td>'may be able'</td>
</tr>
<tr>
<td>sg. 1</td>
<td>car(b)wyf</td>
<td>gyllfyf</td>
<td>guliif</td>
</tr>
<tr>
<td>2</td>
<td>car(b)ych</td>
<td>gyllly</td>
<td>gullly</td>
</tr>
<tr>
<td>3</td>
<td>car(b)o</td>
<td>gallo</td>
<td>gallo</td>
</tr>
<tr>
<td>pl. 1</td>
<td>car(b)om</td>
<td>gylllyn</td>
<td>guelhomp (-imp)</td>
</tr>
<tr>
<td>2</td>
<td>car(b)och</td>
<td>gallough</td>
<td>guelhert</td>
</tr>
<tr>
<td>3</td>
<td>car(b)ont</td>
<td>gallons</td>
<td>galhint (-ont)</td>
</tr>
</tbody>
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It is generally agreed that these forms go back to a Common Brittonic subjunctive with a suffix of the structure *-V_rV_r. The evidence for *-V_r, which surfaces as -h- in Middle Welsh and Middle Breton and occasionally causes profection in Cornish, is unambiguous and uncontroversial. *-V_r, which is everywhere syncopated, can in principle have been any short syllable nucleus; morphological considerations suggest that it may have been *-a-, which serves as a union vowel in other environments in Celtic. Two possible sources have been proposed for *-V_r. Watkins (1962:145 ff), following Thurneysen (1884:270), sets up *-d-, the mood sign traditionally assumed for the Old Irish (OIr.) á-subjunctive (type 3 sg. berad, bera 'may carry, ferai'). This hypothesis could conceivably account for the Cornish and Middle

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1 The restriction of -h- to the 1-3 pl. and the impersonal (e.g., lauarher 'will be said') in Middle Breton is doubtless secondary.
Breton endings with o-vocalism, particularly those of the plural. It cannot, however, explain the Cornish and Breton 1 sg. and 2 sg. (C. -yf, -yi; MBR. -if, -yi; cf. MW -(hi)chu), and it is fatally compromised by the fact that PCelt. *-a- regularly gives -aw-, and not *-a-, in Middle Welsh. It is thus better to accept Morris Jones' view (1913:339), recently revived and extended by McConc (1991:100 ff.), that the stem-final vowel of the Brittonic subjunctive was the PIE thematic vowel *-e-/o-/a-. As demonstrated by McConc, the o-vocalism of the 1 pl. and 3 pl. in Welsh and Breton, and of the 3 pl. in Cornish, is most simply taken from PCelt. *-so-, while the paradigmatically isolated MBR. 2 pl. in -het points to *-seve (vel sim.), with e-color of the thematic vowel. The Co. and MBR. 2 sg. in -y suggests a preform in *-sisi, regularly developed from earlier *-sesi. Particularly attractive is McConc's derivation of the Co. 1 sg. in -yf and MBR. 1 sg. in -if from a thematic preform in *-sümü (i.e., *-só + *-mi). As will appear shortly, this ending is attested in Middle Welsh as well.

The productive mark of the subjunctive in Brittonic was thus probably a sequence *-aseo/-, with reflexes that were later modified by analogical developments of various kinds. Some of these secondary changes, especially those relating to the creation of the general Brittonic 3 sg. in -(hi)u, will be discussed in detail below. Of more immediate interest, however, is the question of the origin of *-ase/o/- and its relationship to the formation of the subjunctive in the other Insular Celtic language, Old Irish.

Old Irish builds its subjunctives in two main ways. The á-subjunctive, mentioned above, is characterized by a pre-Irish suffix *-a-, which is added to the present stem in weak verbs (e.g., *marwó- 'kill', subj. marwó-; *seu- 'see', subj. *seu-; *fóra- 'very', subj. *fóra-), and is the underlying root in strong verbs (e.g., *béré 'stay', subj. béré; *rió 'bend', subj. *rió). A Brittonic reflex of the á-subjunctive is often seen in the isolated MW 3 sg. el *- *peileit, which patterns synchronically as the subjunctive of the suppletive verb 'to go' (1 sg. indic. af < *agam). Outside Celtic, the á-subjunctive is usually identified with the Latin present subjunctive in -á- and its Osco-Umbrian counterpart (cf. Lat. ferat, faciat, Osc. faktat, etc.); significantly, inItalic as in Old Irish, this formation shows signs of having originally been built directly to the verbal root (cf. archaic Lat. aduenat, atinat, etc. beside aduente, attingere, etc.). The historical position of the mood sign *-a- is disputed. Since the influential work of Trubetzkoy (1926) and Benvé- niste (1951), it has been the common opinion that the á-subjunctive was an Italo-Celtic replacement of the PIE thematic optative in *-oi(h)-, no trace of which survives in either Celtic or Italic. From a formal point of view the "á-optative" seems to have originated as a preterite of the PIE "short-vowel" subjunctive, incorporating a tense sign otherwise attested in the á-preterite of Bálta-Ástelvic and Tocharian (cf. Jasannoff (1983:75 ff.)).

The other major subjunctive type in Old Irish is the s-subjunctive. Unlike the á-subjunctive, which is freely formed to weak verbs, the s-subjunctive is confined to the subset of strong verbs with roots ending in an obstruent. The inflectional pattern is for the most part thematic (cf., e.g., 1 sg. conj. -dias 'I may go' < *taessu < *(e)teigh-só; -gius 'I may pray' < *gessu < *ghedh-s-só; 1 pl. -tiasam, -gessam; 3 pl. -tiasat, -gessat); the 3 sg., however, is athematic (cf. conj. -té, -gé (absol. tés, géis) < *tess(i), *gess(i) < *(e)teigh-s-s-t(i) *ghedh-s-s-t(i)). This "mixed" paradigm, which recurs in two other categories, the s-preterite (type 1 sg. conj. -gabas 'I took' < *gabass(i), 3 sg. -gab < *gabass(i) < *-s-ti) and the s-future (gigius 'I will pray' < *gi-gess, 3 sg. -gig < *gig-es-s(i) < *-s-ti), is clearly secondary. The comparative evidence shows that the s-preterite was originally athematic, like the s-aorist elsewhere in IE; the s-future was originally thematic, like its only exact cognate outside Celtic, the Indo-Iranian desiderative. The shared inflection of the three Old Irish sigmatic categories is the result of mutual contamination, the thematic : athematic contrast having in effect been eliminated. In principle, nothing can be concluded about the pre-Irish paradigm of the s-subjunctive from its...
inflection alone. Nevertheless, there are strong indications that the s-subjunctive was originally thematic, and that its specific PIE source was the subjunctive of the s-aorist. The few survivals of the s-subjunctive in Middle Welsh, notably the 3 sg. forms gwares 'may help' (< *wroset- (< *wred-s-), ryres 'may run' (< *roes-set, (dy-)luch 'may bring' (< *(dy-)luecesset and gwnech 'may make' (< *wrekset (< *wresg-s-), are, pace Evans (1964:128), unequivocally thematic. Even in Old Irish, an originally thematic 3 sg. can be inferred from the fact that roots ending in a velar invariably show the presumptive treatment of the *ks- cluster, contrasting with the praesential treatment observable in the preterite (cf. subj. ar-tė 'may arise' (< *reg-s(e)-) vs. pret. ar-reicht < *reg-s-t, subj. arrė 'may slay' (< *org-s(e)-) vs. pret. arrt < *org-s-t, etc.; similarly MW pret. gweith 'made' (< *wreth < *wregh-s-t beside subj. gwnech).8 There is thus an exact formal and functional match between the s-subjunctive and the Vedic Sanskrit s-aorist subjunctive (cf., e.g., 3 sg. vāksar 'may convey', nēsāt 'may lead', yōksar 'may sacrifice'). The historical identity of the two categories is underscored by the parallelism between the irregular Old Irish imperative type ar-tē 'arise!' (< *reg-s-t), which is confined to root which form s-subjunctives, and the Vedic 's-imperatives' of the type vāksi, nēṣi, yāksi, etc., which appear to represent haploglossed 2 sg. subjunctives in *s-esi.9

To be sure, no aspect of this account has gone unquestioned. In particular, the long-standard view that a- and s-subjunctives represent historically unrelated formations was dramatically challenged in an important 1977 article by H. Rix. Rejecting the traditional comparison of the s-subjunctive with the system of the sigmatic aorist, Rix identified the s- of the Celtic forms with the "desiderative" *s- of the Greek future (e.g., δέχομαι 'I will show', γνῶσω 'I will write'), the Vedic future (vāksāyati 'will say') and desiderative (cikāsati 'wishes to understand'), and related formations elsewhere. To appreciate the significance of this proposal it is important to realize that the two PIE s-morphemes were not completely homophonic. The *s- of the desiderative/future, unlike that of the aorist, required the interposition of a laryngeal when added to roots ending in a liquid, nasal or glide; cf.,

e.g., Ved. fut. kārisyati 'will do', desid. cikārsati (< *kṣṛ- < *kṛ-Hs-), OIr. fut. céilid, -céla 'will hide' (< *kλāsaisi < *kλ- < *κλ-<Hs-) and Gk. fut. revēs 'I will stretch' (< *e-ho), the last of which identifies the laryngeal in question as *h-. The desiderative suffix can accordingly be reconstructed, at least formu-laitly, as *h(i)j-s-10 According to Rix it was this sequence, and not the bare *s- of the s-aorist, that was added to roots to form the s-subjunctive. Roots ending in a liquid or nasal made subjunctives in *s-(hj)s- in exactly the same way as roots ending in an aorist, but with the important difference that the laryngeal was here vocalized, as in Greek and Sanskrit. Preform of the type *bher- + *hj-se/o- and *kēl- + *hj-se/o- thus gave *berase/o- and *kelase/o-, respectively, which developed regularly to pre-Irish *bera- and *kelā-. In Rix's view, the outward resemblance of the Old Irish a-subjunctive to the a-subjunctives of Italian is purely accidental.

Rix's theory of the Old Irish subjunctive has the very real merits of referring the a- and s-subjunctives to a single source, and of providing a principled explanation for their distribution. These advantages, however, are dearly bought. No rationale is given for why the alleged desideratives *gheidh(hj)se/o- and *kēl-hj-se/o- should have developed into subjunctives, while the corresponding reduplicated stems *gheidh(hj)se/o- (> pre-OIr. *gigess-) and *kēl(hj)se/o- (> pre-OIr. *kikēla- > *kēlā-), which were desideratives as well, became futures. By abandoning the equation of the s-subjunctive type ar-tē with the Vedic s-aorist subjunctive type vōksar, Rix also abandons the possibility of comparing imperfectives of the type ar-rei̊ with Vedic s- imperatives of the type vāksi. Phonologically, the derivation of pre-OIr. *a- from *ase/o- is impeccable, but a 3 sg. in *ase-t will not account for the monosyllabicity of MW el, which must be differently explained. And finally - an obvious but compelling point - the claim that OIr. -bera and Lat. feret are entirely unrelated simply flies in the face of common sense. It is not surprising that, as McConne reports (92), "Rix's theory about the origins of the Old Irish a-subjunctive and the lack of a connection between it and the Italian a-subjunctive does not seem to have met with even partial acceptance."

Indeed, the hypothesis of a unitary source for the a- and s-subjunctives would require no further attention if McConne himself had not

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8 So too McConne (72 ff.); otherwise Watkins (1962:143 f.).
9 Cf. Jasanoff (1986). Other forms like ar-tē include cómdor 'id.', fàir 'come!' (*unk-si), top 'choose!' (< *yeur-si), no-maín 'protect me!' (< *neug-si) and fàir 'help!' (< *rēt-si). The haploglossy of the 2 sg. s-aorist subjunctive to -s was described for Indo-Iranian by Szemerényi (1966), who did not, however, recognize the PIE character of the process.
10 It is immaterial to the present discussion whether the parenthesized *h- was originally extracted from roots in *h-Rh, e.g., *ghnī- 'be born', *terh- 'bear') or - likelier in my opinion - simply constituted an unanalyzable part of the desiderative morpheme.
made a memorably valiant effort (92 ff.) to salvage it. McCone’s own theory of the Celtic subjunctive accepts the phonological, but not the morphological, premises of Rix’s analysis. His proposed synthesis reverses to the standard view of the s-subjunctive as a reflex of the PIE s-aorist subjunctive. But McCone goes beyond the standard view in attempting to derive the d-subjunctive from the s-aorist subjunctive as well. Specifically, he claims that laryngeal-final roots like *melt- ‘grind’, which developed s-aorist subjunctives of the type *melase/o- by regular sound change (< *mele-t-se-/s-), became the basis for the analogical extension of *ase/o- to anit roots like *ber- (subj. *berase/o- for *berse/o-) and *kel- (subj. *kelase/o- for *kelse/o-). This scenario has certain advantages over Rix’s theory. By taking the s-subjunctive from the PIE s-aorist subjunctive rather than from the desiderative/ future, McCone is able to retain the at-rā : vākṣi equation and to account for the functional difference between *gess- < *g’edh-s (subj.) and *gigess- < *g’hi-g’edh-s (fut.). In addition, he notes the striking fact, apparently overlooked by Rix, that the reconstruction *ase/o-, though motivated by considerations internal to Old Irish, is precisely the suffix-form needed to explain the subjunctive in Brittonic.

For all its superficial appeal, however, McCone’s theory is no more satisfactory than Rix’s. It has two of the same shortcomings: like Rix, McCone treats the Italic and Celtic a-subjunctives as completely separate formations and leaves the phonology of MW el unexplained. Moreover, by rejecting the morpheme-shape *(h)i-j-’, McCone is forced to replace Rix’s phonologically-based account of the distribution of the a- and s-subjunctives with a far less compelling morphological explanation. These difficulties, as we shall see, are not easily surmounted.

Rix and McCone both take a properly cautious position vis-a-vis the Italo-Celtic controversy. The comparative evidence, however, leaves no doubt that the thematic optative in *(h)i-j- was a remarkably stable formation in the dialectal history of the IE family, with clear traces preserved in all the older IE languages except Anatolian, Italic and Celtic. Given the other well-known innovations common to Italic and Celtic, such as the superlatives in *(h)i-samo- and the third person middle endings in *(h)i-tro,12 it would be perverse to consider the shared elimination of *(h)i-j- a coincidence. But if the loss of *(h)i-j- was a common, or at least mutually conditioned, development, then the morpheme which replaced it must have been a common creation as well. And the only morpheme that could possibly have played this role in pre-Italic and pre-Celtic was the *(h)- that Rix and McCone deny.13

Properly noting that the MW 3 sg. in -(h)io is analogical, McCone argues (101) that the anomalous 3 sg. subj. el is the regular reflex of a preform *(h)eset.14 This does not appear to be correct. Although there are still substantial gaps in our knowledge of Brittonic phonology, it is clear that PIE and PCelt. intervocalic *(h)- became *(h)- at a very early date in Brittonic. Normally this *(h)- was lost, the resulting hiatus being filled, at least after front vowels, by the glide *(h)- (cf. MW 2 sg. wy[h] (you are) < *(h)i < *(h)i < *(h)i, chuvar ‘sister’ < *(h)i- < *(h)i- > *(h)i-. *(h)- was apparently retained, however, in certain morphological categories, notably including the subjunctive itself (carho, etc.), the superlative in -(h)af (e.g., MW hynhaf ‘oldest’ < *(h)enasam (Oir. sinem); cf. equative hynhet < *(h)eniset-) and the second member of nominal compounds (e.g., MW dyffrynt (with prove-

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12 Setting up endings of this offers the only rational way to explain Oscan-Umbrian -(h)et and Old Irish non-synchronizing -(h)tar; the other IE languages with an *(h)-middle” have only *(h)-er. The 3 pl. in *(h)etare presents a problem through the contamination of *(h)et/er/ and *(h)-er, though not in the sense imagined by Kuryłowicz (1964:64 ff.). My own early attempt to derive the Italic and Celtic forms, along with Tocharian -(h)aut, from *(h)et (Jasanoff (1977)) is no longer tenable in the wake of Yoshida’s discovery of *hut (Yoshida (1991)) that the *-i of Hitt. -(h)et is an Anatolian innovation.

13 McCone seems to suggest (104) that given the phonological disagreement between Italic *(h)- and Brittonic *(h)-, it is a priori likely that Old Irish goes back to *(h)- rather than to *(h)-. This would certainly be true if opting for *(h)- in Irish required us to assume that *(h)- was created twice, once in pre-Irish and once in Irish. But since Italic and Celtic are known to have made innovations in common, the choice is really between a scenario that places the creation of the d-subjunctive in the Italic period, and another that places it in the period of "italo-Celtar", whatever exactly we understand by this term. There is no general, abstract principle that can settle the question; we simply have to determine which approach yields the simpler, less ad hoc account of all the facts.

14 Here and throughout, I follow a version of Cowgill’s theory (cf. Cowgill (1975)) of the absolute and conjunct endings in Insular Celtic. The reconstruction *(h)et thus denotes an apocopated form of *(h)et, with the PIE primary ending: the notation *(h)et, *(h)et, etc. indicates that the *-i in parentheses was apocopated in conjunct forms.

15 The derivation of oed from *(h)et, originally due to Pedersen (1909:179), still offers, in my view, the only credible way to explain this form.
tion) 'valley', lit. 'water-way' < *dubro-sento-). Despite occasional efforts to bring secondary stress phenomena to bear on the problem, these cases cannot be explained in purely phonological terms. All are analogical, the result of a morphological re-substitution of *s-e for *h-under the pressure of related forms. Thus, the *ase/o- of the subjunctive regularly gave *ahe/o early Brittonic, but this did not go on to yield *ahe/o and *a-o (?), as might have been expected. Instead, it was analogically restored to its earlier form *ase/o under the influence of the 'true' s-subjectives in *C(0)-sé/O- (type ry-res, dách, etc.). Eventually, the reconstituted suffix *ase/o- we may write *as,e/o- — was converted to a new and relatively stable *ah,e/o- ('*ah,e/o-') by a second *s-e- *h-rule, probably at the same time as the change of *s-e to *h-in initial position. These developments were not confined to the subjunctive. In the superlative, *-isamos first yielded *-thamos, which became *-tisamos and then *-hotamos (> MW haf) under the influence of forms like *treksamos 'strongest' (MW trechaf) and *rouksamos 'highest' (MW ochaf). In compounds, constituents of the type *sento- (*dubro-sento-) acquired a secondary *s-ent-o- (*sntsento- > *shtento- > *hent-o- > *hent) from the corresponding free-standing forms. An obvious typological parallel is provided by the *s-e of the sigmatic aorist in Greek, which first developed to *h-in intervocalic position (*elh-s-m > *eltho) and was then restored under the influence of forms of the type δεκταρ, ετρακo, etc.19

If this account of the retention of *h- is correct, McCone's 3 sg. conjunct *elaset ought regularly to have developed via phonological *elahet and analogical *elas-et to pre-Brittonic *elah-ed. The corresponding 3 pl. absolute would have been *elahonti; with the assignment of the Common Brittonic penultimate stress these two forms would have been realized as *elah-ed and *elahonti, parallel to regular 3sg. *karah-ed 'may love' and 3 pl. *karahonti. McCone claims that *elah-ed and *karah-ed (he writes *karah-ed) would have become *elah and *karah ed by syncope, whence *elh (> elh) and *karh (> *car) by final syllable loss. Syncope, however, cannot have affected the stressed *a- of the 3 sg. conjunct; *a- was elided elsewhere in the subjunctive paradigm because the non-3 sg. forms, being of absolute origin, were accentuated on the thematic vowel. The development of 3 pl. *karahonti to carhoti was thus completely regular, as was that, e.g., of 1 sg. *karah,tu(t) (< *karasitum) to *kerih (cf. Co. -if, Mbr. -if), later remodeled to carhovf. But *elah-ed and *karah-ed could only have yielded *elah and *karah, which would in turn probably have given MW *ela and *cara. Neither form is attested, nor is there any early evidence for an analogically remade *elho, parallel to Common Brittonic analogical *karho for *karah (see below). The only way to maintain McCone's derivation of el from a subjunctive in *ase/o- would be to assume that P Celt, *elaset, after becoming *elahet by normal sound change, inexplicably failed to substitute *s-e- for *h- and instead contracted to *elat in time to become el by final syllable loss. While there is no way to exclude this possibility in principle, it is completely ad hoc and incomparably less attractive than the standard derivation of el from an a-subjunctive *elat.

McCone's claim that subjunctives of the type *berase/o- arose under the influence of stems like *melase/o- (*melh,se/o-), where *a- was an inherited laryngeal reflex, presupposes that subjunctives like *melase/o- were once a common type in Proto-Celtic. This is a very doubtful assumption. The s-aorist was not yet a fully productive category in late PIE, and the evidence for such aorists built to roots of the structure TERI- (R = liquid or nas) is surprisingly poor. Thus, in Tocharian, probably the most conservative IE language after Anatol in its treatment of the s-aorist, there are no s-preterites (< s-aorist indicatives; type B sg. prksa 'asked') or s-presents (< s-aorist subjunctives; type B prksam 'asks') at all to laryngeal-final roots. Even in the language of the Rigveda, where the sigmatic aorist has undergone considerable elaboration, the number of TERI-roots that form reliably old s-aorist (i.e., is-aorist) indicatives is unimpressive, and of these only san- 'strive' has a subjunctive with the etymologically correct vocalism (3 sg. sanisat).18 Indeed, outside the 2 sg. and 3 sg. the is-aorist subjunctive is a virtually non-existent category in Vedic — a fact underscored by the complete absence of si-imperatives of the type sanisati. Closer to home, Latin restricts the s-perfect to roots ending in an obstruent. No s-root make s-perfects in Latin (cf. molō molēi, etc.); neither, in fact, do roots of the structure TERI- (cf. uēnt, pepult, 17 Thus, there are no class III preterites or class VIII presents in -ds- beside the normal forms in -e-. The few Toch. A presents in -ds- (e.g., wénéx 'I honor') are paleyly the replacements of presents in -dS- (cf. B wendshau 'I let'), and are for that reason assigned to class IX by Krause and Thomas (1960:210 f.).

18 Four other examples (2 sg. kánisat ('kap. 'enjoy'), 3 sg. kārisat ('kr- commemorat'), tārisat ('tar- overcome'), pārisat ('pr-anit) 'take across') have the lengthened grade of the indicative and are dubious secondary.
In Old Irish itself, the t-preterites (<s-aorist indicatives) of TERH-roots are modeled on those of TER-roots, so that the preterite of mel- (<mel-t < *mel-s-t) simply follows that of ber- (<ber-t < *ber-s-t). These facts highlight the major shortcoming of McConé’s account of the a-subjunctives vis-à-vis Rix’s. Rix’s theory generates the sequence *ase-o- after liquids and nasals automatically, taking advantage of the fact that the laryngeal of the desidivative suffix *-hjsel-o- was regularly vocalized after sonorants. McConé, by contrast, is obliged to explain the distribution of the a- and s-subjunctives analogically, tracing *ase-o- to a subclass of aorist subjunctives that may never have existed. In fact, however, neither Rix nor McConé really goes to the heart of the problem. It is not the association of TER- and TERH-roots with a-subjunctives that requires an explanation, but the fact that such roots fail to form s-subjunctives. This peculiarity can now be understood. The disinclination of TERH-roots to form s-aorists, and especially s-aorist subjunctives, was a PIE feature, which in Latin (cf. above) was extended to roots of the type *TERH.20 In Celtic the treatment of the inherited system was similar. Here TERH-roots, lacking inherited s-subjunctives, formed their subjunctives with the productive suffix *a-. In due course the pattern *TERH- subj. *TERH-a- was extended to TERH-roots as well, thus effectively establishing the rule that roots ending synchronically in a liquid or nasal form a-subjunctives.21 The opposite course was followed in the s-aorist indicative (t-preterite), where the pattern of TERH-roots was generalized to roots of the type *TERH.

It must be concluded, then, that the Italic and Celtic a-subjunctives are, as traditionally assumed, cognate formations; that the a-subjunctive survives unaltered in MW 3 sg. el; and that the distribution of the a- and s-subjunctives in Old Irish rests on an inherited distribution peculiarity of the s-aorist in PIE. The subjunctive in *ase-o- is an innovation proper to Brittonic.

The process that gave rise to the mood sign *ase-o- was in fact probably quite simple. Weak verbs, consisting chiefly of old presents

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19 The late and rare manus (monea ‘I remain’) is hardly a serious exception.
20 Only in the indicative, of course; there is no reflex of the s-aorist subjunctive in Latin.
21 Even before the regularization of the new pattern, of course, TERH-roots without inherited s-aorists, such as *men- ‘think’ (OIr. subj. menathar) and *gem- ‘come’ (Lat. -enent) would have formed a-subjunctives. In the system of Jasanoff (1983), the modal stems *men-a- and *gem-a- were originally preterites in *a- and *gem-a- built to the root aorist subjunctives *men-elo- and *gem-elo.

22 The model for this pattern probably came from the pre-Celtic presents in *-e- (later *-e) < *-ele-o-; which made their preterites and past participles in *-es-s (cf. MW pret. 3 sg. es) and *-es-o- (cf. MW imper. -es), respectively. Non-presentals in *-e- are also found in the second conjugation in Italic (cf. Lat. -ere: -av (<*-even) :: -aes (<*-eto); the starting point in both branches was probably a shared false segmentation of *-ele-o- as *-e-e-o-). There is thus no reason to trace Inisular Celtic *-es-s- to a class of s-aorists in *-hjs-o-; the few forms that might suggest such an analysis (e.g., MW dwel-s ‘swim’, imper. dwel) can as easily be regarded as back-formations from the corresponding past participles in *-at-o- (<*-hjs-o-).

23 Alternatively, the switch from *kar- (subj.) to *kardse-o- could have occurred without the intervening stage *karse-o-: speakers might simply have added *-se-o- directly to *kard-, the synchronic combining form of the present stem.
sion of this hypothesis is able to account for the basic Celtic dichotomy between -R- (se/o)- and -T- (se/o)- (p. 105). We have seen, however, that this is not the case; the rationale for the distribution of the two Celtic subjunctives is ultimately to be found in late PIE itself.

The subsequent development of the subjunctive in *-ase/o-* was for the most part perfectly regular. As noted above, the -h- of the Middle Welsh and Middle Breton forms is not the phonological continuation of original *-s-, but presupposes a secondary *-e- ("*-e-s-") which replaced the "correct" reflex of *-s- within the history of Brittonic. With the exception of the 3 sg., the entire Brittonic subjunctive paradigm rests on the ancient absolute inflection. The plural is generally unproblematic; minor details aside, MW I pl. car(h)om (cf. MBr. *homp) and 3 pl. car(h)ont (cf. Co. -ons) point to Common Brittonic *karasóm(e)s* and *karasón(e)i*, respectively.24 In the 2 pl., MW car(h)och and Co. gallough are patently secondary *-áis* MBr. guelhe *-asé(e)*, which preserves the original ending. Similarly, the MW 2 sg. ker(h)yych (cf. Co., MBr. *-y*) is, apart from its somewhat mysterious added -ch, regular for *karahfii < *-asisi < *-asesi.25 The only two forms that require extended attention are the MW 1 sg. in -h(y)wyn and the general Brittonic 3 sg. in *-ho.

The 1 sg. subj. in *-asúmi regularly gave Brittonic *-hú*, which is directly reflected in Cornish and Middle Breton. In Middle Welsh, however, the place of *kerhif* is occupied by car(h)ywyn, with an ending borrowed from bwyf, the 1 sg. subj. of the verb 'to be'. The origin of this form, and of the whole subjunctive paradigm of 'to be', is a matter of some importance. The old view that Insular Celtic retained a subjunctive stem *bá- < bwa- has been effectively demolished by MacCone (89, 115 ff.), who has shown that all the relevant Old Irish forms, including the 3 sg. and 3 pl. of both the substantive verb (3 sg. absol. beith, conj. beth, -br, 3 pl. beith, -bent) and the copula (3 sg. ba < be, 3 pl. bat < bet) are based on a historical stem *be-. McCone refers this *be-, along with the Gaulish 3 sg. bweit (Chamalères) to an earlier *bwe/o-, which he convincingly compares with the Vedic root aorist subjunctive bhavat, bhavat, etc. and the Latin future auxiliary -bo, -bis, -bit. It is thus a priori likely that the stem *bwe/o-

was inherited in the subjunctive of the verb 'to be' in Brittonic as well. To the extent that forms like MW 3 pl. bonit and 1 pl. bon are not simply analogical to car(h)ont and car(h)om, they are best referred directly to *b(h)omonti and *b(h)omonti.26

In the 1 sg., however, McConell's analysis breaks down. There is nothing inherently problematic about the Old Irish 1 sg. subj. beu (conj. beo), which, though not derivable from the predicted 1 sg. *bá- < *b(h)om, can straightforwardly be analyzed into *be + analogical -u. But MW bwyf cannot be taken from *bá- either, and a comparison of the two forms makes it clear that both must go back to an original *besú, remade in Brittonic to besúmi (besúmi > *besúmi (> *besúmi (> *besú-μ(i)). The reconstruction *besú is not altogether new. A 1 sg. of this shape was set up to account for OIr. beu, beo by Thurneysen (1946: 482)27 as part of an unsuccessful effort to derive the whole Irish subjunctive paradigm from a stem *besú/o-. Thurneysen took *besú/o-to be the subjunctive of PIE *h₂es- 'be' (cf. Ved. 3 sg. ásat(i), 3 pl. ásan; Lat. eró, -is) with the secondary prefixation of *-b-, as, e.g., in OHG bim 'I am' < *h₁- *esmi. Although the subjunctive as a whole cannot be explained in this way, the hypothesis of such a form for the 1 sg. is instantly appealing. Generalized in Insular Celtic as a substitute for the overshort *bá-, *besú took on a life of its own in Brittonic. In the context of *besú(m) as 1 sg., the 2 sg. *besi (i.e., *bési - *sí) was reinterpreted as a shortened or haploglotized variant of the full form *besisi, and was accordingly reconstituted as such. *besúmi and the new *besisi then jointly triggered the creation of an analogous 3 sg. *beseti, conj. *beset, which eventually became the source, via the intermediate stages *beset and *be₁i, of the Old Welsh 3 sg. subj. boi (cf. MW oedr < *esat). From *besi was also created an analogous 3 pl. *beint, the source of OBr. boint and MW 3 pl. bonit beside bonit. Whether the stem *besú-o- itself was ever extended to the plural is not now determinable.28

24 The Co. 1 pl. in -*ys* and MBr. 3 pl. in -*hint* show the vocalism of the corresponding 1 sg. forms (Co. -*ys*, MBr. -*s*). Brittonic *-hont* would regularly have given **(-h)wnt** in Middle Welsh by the normal sound laws; the analogical retention of the -o- is discussed by Rasmussen (1992: 49).

25 As noted above, the -h- of the Middle Welsh and Middle Breton forms is not the phonological continuation of original *-s-, but presupposes a secondary *-e- ("*-e-s-") which replaced the "correct" reflex of *-s- within the history of Brittonic.

26 I cannot follow Hamp (1980: 86, with note 4) in taking -ch from *-esdi via *-hesi.

27 The Common Brittonic plural forms of the subjunctive of 'to be' are in fact quite uncertain; see below.

28 The OW variant 3 sg. boit (MW *boet*) can be explained as a back-formation from *beint*, presumably influenced by the fact that a form *boi (MW *boet*) served as the 3 sg. counterpart to *beint (MW *boent*) 'sunto' in the imperative. No attempt can or will be made here to discuss the immensely complex system of the verb *be* as a whole, in which analogical and analogical changes have combined to produce an exceptionally confusing picture. It should not go unremarked, however, that just as the Middle Welsh dipthongal subjunctive forms in bwyf and boe appear to go back to *bwe/o-*, the dipthongal indicative forms wof (1 sg.)
The replacement of *-(h)jif by *(h)wif in Middle Welsh did not result in the complete elimination of the older ending. The 1 sg. forms bydīf ’I will be’ (BT 57.12) and kuynhīw ’I will lament’ (BBC 100.15) have future value, no doubt continuing an older modal sense. From a crosslinguistic point of view the evolution of subjunctives to futures is very common, as is well known from such examples as Lat. erō and Gk. ἔδοξαμ “I will eat”. In Middle Welsh, however, there was a very particular fact that favoured the assignment of future meaning to the discarded subjunctive ending *(h)jif, namely, the existence of the future tense as a vestigial but undeniable grammatical category of the language. The characteristic sign of the Middle Welsh future, which is otherwise confined to the third person, is -(h)aw-. Forms cited by Evans (1964:119 ff.) include 3 sg. gunahau < will make >, reddaω > will run >, lletau < will spread >, kymerau < will take >, parahau < will last >, bydhaω > will be >, gywthau < will drive >; 3 pl. cùñhaωt (OW) < will lament >, gynnauωnt < will make >, bydaωnt < will be >, pebyliωnt < will encamp >; persp. talhaω > will be paid >, fsfωr < will be put to flight >, dīaωau < will be avenged >, agorau < will be opened >, xscaraωau < will be separated >. These forms are not mere variants of the subjunctive, as once thought by Watkins (1962:153), nor is there any reason to believe with McConi (100) that they are old a-presents which have acquired an analogical -(h) - and taken on future meaning. The future in -(h)aw- is clearly an archaic category on the verge of disappearing; there is no way that it could have arisen within the history of Welsh itself. Despite the limited character of the evidence, therefore, we have no choice but to recognize the existence of a Common Brittonic future in *-asā-, the origin of which will be explored below.29 The corresponding 1 sg. in Middle Welsh must once have ended in *(h)wif; it was this ending that was replaced by *(h)jif when the latter was ousted by *(h)wif from its position in the subjunctive. A curiously exact parallel is provided by the Latin third conjugation future in -am-, -ēs-, -ēt-.

We are now in a position to consider the evolution of the 3 sg. subj. in *(h)o. As seen above, the pre-Brittonic 3 sg. conjunct *karθed (< *kardset) was accented on the *(h)- of the subjunctive suffix and consequently escaped the operation of the normal pretonic syncope rule. The essential problem thus becomes to explain how and why *(h)ed <

and (OW) hitt-coi (3 sg.) can be attractively taken from thematized preforms *esdīmf and *eset(i), respectively.

29 Possible further evidence for this category, polec McConi (ibid.), comes from the isolated Old Breton forms cribot ‘ubrat’, fleriot ‘redot’ and cospitiot ‘tiubaut’ (Lewis-Pedersen (1937:279)).

karθ, the expected reflex of *karθed, was remade to Common Brittonic *karθo. It is not hard to surmise what must have happened, at least in outline. Since every other ending in the subjunctive paradigm began with *(h)- (e.g., 1 sg. *(h)jéu < *asūmi, 3 sg. absol. *(h)-ed < *asāti 3 pl. *(h)ont < *asonti), *(h)- would very naturally have been inserted into *karθ, yielding the more tractable 3 sg. *karθ. This was followed, apparently, by the remodeling of *karθo to *karθo, with *(h)- taken from the 3 pl. in *(h)ont and 1 pl. in *(h)om. But it is not at all obvious why the *(h)- of *karθo should have been unable to hold its own, or why the vowel that replaced it was *(h)- rather than the *(h)- of the 3 sg. absolute (*karθed < *asāti), 2 pl. (*karθed < *asēt) and impersonal (*karθer (cf. MW carhar) < *(h)ēr). The reasons for the change of *karθa to *karθo can best be appreciated against the background of the history of the future in *-asā-. P-Celt. *(h)- became *(h)- (whence MW -aw-) by regular sound change in Brittonic, resulting in the creation of post-syncope future forms of the type 1 sg. *karθū < *karθāmi, 3 sg. absol. *karθō < *karθāt and 3 pl. *karθont < *karθant. Here too the 3 sg. conjunct form would have stood apart, since the regular reflex of *karθāt, like that of its subjunctive counterpart *karθēt, would have been *karθ. It is probably safe to assume that *(h)- (fut.), like *(h)- (subj.), would initially have been remade to *karθo. But it is also likely that the homophony of *karθa (fut.) and *karθa (subj.) would have led to the further replacement of *karθa (fut.) by *karθo, with generalization of the *(h)- that characterized every other form in the future paradigm. Once established in the future, *karθo would have provided a strong incentive for the replacement of *karθa by *karθo in the subjunctive. The subjunctive paradigm, it must be recalled, was a singularly disparate array, with no fewer than five different vowels in its seven active endings (*-a- in the 3 sg. conj., *(h)- in the 2 pl. and 3 sg. absol., *(h)- in the 1 pl. and 3 pl., *(h)- in the 2 sg., *(h)- in the 1 sg.). In the 1 pl. *(karθom) and 3 pl. *(karθont), the *(h)- of the subjunctive endings was synchronically interpretable as as shortened version of the *(h)- that appeared in the similarly structured 1 pl. *(karθom) and 3 pl. *(karθont) of the future. Favored by the morphological opacity of the subjunctive paradigm as a whole and by the isolation of the form *karθa in particular, the *(h)- pattern was extended to the 3 sg. via the proportion

fut. *karθont, *karθōm : subj. *karθont, *karθom :: fut. *karθō : subj. X, where X was solved as *karθo. It is unlikely that the 3 sg. absolute
form of the subjunctive was remade from *karhōd to *karhōd in the same way. The inconveniently close phonetic resemblance of the subjunctives *karhōd and *karhō to the futures *karhād and *karhā probably explains why only the conjunct form of the subjunctive (MW -(h)o), and only the absolute form of the future (MW -(h)awad), were preserved in the historical period.

In addition to the normal 3 sg. subjunctive in -(h)o, Middle Welsh shows competing forms in -(h)oe (creddoe ‘may believe’) and -hwy (gwellyth ‘may see’, rodwy ‘may give’, crenwy ‘may trust’, etc.), as well as a certain number of 3 pl. forms on -(h)ont and -(h)wyn (cf. Evans (1964:129)). Such forms are found in Old Breton as well (cf. Fleuriot (1964:305)). In the absence of a proper philological evaluation of the evidence, it is probably best to accept McConne’s judgment (101) that these variants reflect the influence of the verb ‘to be’ (3 sg. bosta → 3 sg. creddoe), with -oe subsequently giving -wy by a Middle Welsh sound law in polysyllabic words. Further research, however, may make it necessary to modify this conclusion.

It remains to consider the origin of the future in *æsæ-. Neither *aasæ- nor *aas- is explainable in PIE or Common Celtic terms; it is unlikely, for example, that a form like MW redda ‘will run’ goes back to an a-subjunctive based on an a-desiderative, or to an ancient subjunctive present based on a desiderative noun in *æx-x (type Ved. bhikṣa ‘hunger’). The most promising strategy, therefore, would be to look for related forms closer to home, especially in the verbal system of Old Irish. Here, in fact, there are two unexplained future formations, both with stems in *æ-æ-, that arouse suspicion—the future of the verb ‘to be’ (3 sg. bi, bield (subst. vb.), bid (cop.)) and the f-future of weak verbs (type móirtéa ‘mórfa), móirtéad (mórfaid) ‘will praise’).

The problem posed by OIr. bita, etc., lies not in the difficulty of finding a plausible source for the pre-Irish stem *bi(t)æ-, but in the difficulty of choosing from among a number of apparently viable alternatives. The most obvious comparison, reported somewhat differently by Thurneysen (482 f.), is with the Latin subjunctive flam, flas, etc. Certainly there can be no a priori objection to deriving -bita from a displaced a-subjunctive of the present *biletia; on the other hand, there is nothing especially archaic about Lat. flas- and no independent evidence that such a stem ever existed in Celtic. Another “subjunctive” analysis of -bte, the advantages of which will appear below, might start from an underlying stem *besæ-, i.e., a b-prefixed form of the “Italo-Celtic” modal and preterital stem *esæ- (> Lat. erat and MW oed). It is also possible, with appropriate analogical assumptions, to take -bita directly from an inherited future. McConne (124) sets up a stem *biwésæ-o- < *biwésæ-o-, which he explains as a transformation of the inherited desiderative *biwésæ-o-. A case could probably also be made for *biwésæ-o-, i.e., an unduplicated a-future *bi(-te)ø-o- with *-te/o- added from the future type *kiklésæ (< OIr. célld). The f-future is probably the least well-attested verbal formation of Old Irish. In many respects it recalls the originally peripheral b-future and b-imperfect of Latin, to which it has often been compared. At the most superficial level, the future sign *fæ- bears a striking phonetic resemblance—sometimes discounted but never denied—to the -be- of the Latin forms, and especially to the -be- of the imperfect. There is also a noteworthy distributional overlap: the f-future is largely restricted to weak, i.e., non-primary, verbs that lacked futures of desiderative origin, in the same way that the Latin future in -bo- though not the imperfect in -bam- is confined to the derivative conjugations in -a-, -e- and (optionally) -i-. A less obvious point of contact appears in the tendency of all weak verbs, including those in *æ-æ- (Thurneysen’s class A I), to show root-final palatalization before the tense sign, as, e.g., in 3 sg. móirtéa, móiritéad beside móra, mórfaid. As has been suggested elsewhere (cf. Jasanoff (1988:304 f., with note 18)), this feature probably had its starting point in A I verbs like anaid ‘stays’ and scaraid ‘separates’, which were originally strong and, as such, interposed an *-e- (> Celt. *-i-) between the root and the tense sign (cf. Lat. diu-cé-bam ‘I was leading’, etc.). A similar *-e- is inserted after the root in the periphrastic imperfect of Slavic (cf. OCS ved-e-axs.

30 The possibility apparently preferred by Thurneysen—that bita is simply the consuetudinal present of the substantive verb with secondary a-inflection—is much less plausible. There is no reason to believe that a language in which the future was as deeply entrenched as it was in Insular Celtic would have lacked a distinct future of the verb 'to be'.

31 To be sure, this stem is not attested with modal values in either Italic or Celtic. But the twofold function of the parallel stem *biulah- (< OIr. 1 sg. bi, bid ‘I was’, Lat. -bam, -bæs, etc.; Lat. pres. subj. flum, -as, etc.), together with the fact that *esæ- is manifestly based on the present subjunctive *ešte/o- (> Lat. eræ; cf. note 21), leaves little doubt that the absence of a modal *esæ- ‘may be’ is fortuitous or secondary.

32 Telling against McConne’s assumption of a replacement *æsæti → *æsæti is the failure of the parallel sequence *ætæ to become *ætæti in futures of the type OIr. 3 sg. *ætæ (not *æræ) < *ætæti(4).

33 Compare the review of the problem by McConne (176 ff.).
have been a simple matter for speakers to establish a proportion

*beset(i) 'may be' ; *besat(i) 'will be' ; *karaset(i) 'may love' ; X,

where X was solved as *karasat(i) 'will love'. The Brittonic future in

*asad- can thus be regarded as an analogical extension of the future of the verb 'to be'.

The hypothesis of an Insular Celtic *besat(i) 'will be' also affords an insight into the problem of the f-future. Let us suppose that Common Celtic inherited the same periphrastic construction as the one which underlies the Latin b-tenses. In effect, this is equivalent to the assumption that a verb like P Celt. *an- 'stay' formed its future—or a paraphrase of its future—by adding the appropriate forms of the verb 'to be' to the extended stem *an- ( < *an-). While it is impossible to be sure of the identity of the copular form in this construction, it is obvious that in Insular Celtic, at least, the stem

*besat- , which supplied the free-standing future of the verb 'to be', would have been a strong candidate. It is worth considering, therefore, how the hypothetical sequence *ant- besat(i) , literally, 'will be staying', would have been treated in Old Irish. After lenition, the change of internal *e- to *i- before *s-, and the change of medial *s- to *h-.

*antbesat(i) would have given pre-Irish *antfasat(i) . Under the normal sound laws this would in turn have given OIr. *ainbid (absol.) and *ainbea (conj.), with voiced *b- rather than the *f- of the actual forms *ainfida and *ainfa. But it must be remembered in this connection that periphrastic verbal forms, and especially long ones, are notoriously subject to "irregular" shortenings of various kinds. Familiar examples are quotable from the history of the Romance future (cf., e.g., Ital. canteremo 'we will sing' for *caneravemo, Fr. chanterons for *chanteravons); other cases include colloquial Eng. I'm gonna for I'm going to and the Lithuanian conditional, where forms like 1 pl. bëgtume 'we would run' rest on a periphrastic construction with an old optative of the verb 'to be' (bëgtumine). In the hypothetical 3 sg. *antfisat(i) , the *f- of the third syllable was a short high front vowel, prone to syncopate on typological grounds and situated in an open syllable between two long syllables. Moreover, in other futures of the same type the sequence *fis- would have constituted the fourth, or even the fifth, syllable of a still longer phonological word (e.g., *sofijërsisbatro, corresponding to OIr. *suddigfehar 'will put'). Under the circumstances it is tempting to speculate that the group *fis- was precociously syncopated to *fis- in pre-Irish, which in turn yielded *f- by assimilatory devoicing. *antfisat(i) would thus have developed
via *anβ'had(ī) and *anβ'sad(ī) to the regular f-future ainfīdī, -fēu.37

The assumption of an Insular Celtic future *besad- then, conveys
The assumption of an Insular Celtic future *besad-, then, confers
of advantages. First of all, it provides a direct explanation for the
the future of the verb 'to be' in Old Irish (éal, beid, etc.) and perhaps a
Old Irish (hac-bol). *besad- is not unique in this respect; in
reconstructing a stem *hildad-, for example, would account for hild (and
hild) just as easily. But *besad-, by also furnishing a coherent account
of the Brittonic future in *-asad- and the notoriously recalcitrant Old
Irish future in *-fas-, accomplishes a great deal more than any of its
potential rivals. Indeed, it permits a major enlargement in our
understanding of the Insular Celtic verbal system, the relevant portion of
which can now be displayed as follows:

<table>
<thead>
<tr>
<th>subjunctive</th>
<th>future</th>
</tr>
</thead>
<tbody>
<tr>
<td>strong verbs</td>
<td>strong futures in *-a(se, o)-</td>
</tr>
<tr>
<td>1) s-subj. (&lt; s-aor. subj.)</td>
<td>(&lt; desid.'s in *-h, se(o)-)</td>
</tr>
<tr>
<td>2) a-subj. (= Lat. a-subj.)</td>
<td></td>
</tr>
<tr>
<td>weak verbs</td>
<td>peripherastic future in</td>
</tr>
<tr>
<td>a-subj. (&lt; *-aíd-, *-eid-,</td>
<td>*-i-besad-, *-a-besad-</td>
</tr>
<tr>
<td>etc.)</td>
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</table>

This system was preserved with few alterations in Old Irish. In
Brittonic, however, both the subjunctive and the future were subject to
far-reaching changes:

1) In the subjunctive, the weak verbs with presents in *-ā-
remade their subjunctives in *-a- (< *-aíd-) to *-a(se, o)-. The
new sequence *-a(se, o)-, analogically shortened to *-ase(o)-,
subsequently spread at the expense of the s- and a-subjunctives,
leaving only a few relic forms like MW gwench,
gware, etc. and el. At the same time, the subjunctive of
the verb 'to be' was partly or wholly remade to *bes(e, o)-.

37 A scenario very close to this one was clearly considered by Thurman,
who rejected it as follows: "Nor are there any parallel instances which would
support the assumption that at an earlier period Irish had forms with *-besad(h)-,
whereas *besad-, and that -e- was synchronised before h from a had become silent,
so that βh gave f" (398). Our discussion here has sought to show that the stem
*besad- is independently well-motivated in Celtic, and that the proposed early
synecope in *-βh-, while unique in Irish, can be supported by abundant typological
parallels from other languages.

2) in the future, the pattern *bes(e, o)-: *besad-
induced the
analogue of a class of futures in *-asad- beside the
subjunctives in *-ase(o)-. The new forms in *-asad-
eventually
replaced the reduplicated strong futures and the phonetically
similar, but more unwieldy, peripherastic futures in *besad-

Thus, in virtually every case where the Irish and Brittonic systems
diverge, it is Brittonic which can be shown to have innovated.

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