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On the origin of the absolute vs. conjunct opposition in Insular Celtic

Abstract: Despite more than a century of research, the origin of the Insular Celtic double system of verbal inflection is still debated. In this paper, we defend the thesis that the set of absolute endings originated by the agglutination of a subject clitic to the verb form. This clitic marked the declarative (vs. relative) use of verbs, since its distribution was complementary to that of the relative marker *yo*. The present indicative as well as the preterite (in both the absolute and conjunct inflection) of one strong verb (*berid* 'bring') and one weak verb (*lécid* 'leave') are reconstructed according to this theory. For compound verb forms, the clitic ~ *yo* alternation can be posited as well. The cases in which the distribution of initial mutations on the verb stem after preverbs does not follow the diachronic phonological rules of Old Irish (that is, there is no lenition after preverbs originally ending in a vowel) are accounted for from a synchronic standpoint. This "anomalous" behaviour can be explained by positing that a functionally relevant (morphological) system of mutations had replaced the previous phonology-based system.

Keywords: absolute and conjunct inflection, subject clitics, declarative marker, relative marker, Insular Celtic

1 Introduction

The origin of the debate concerning Insular Celtic absolute vs. conjunct inflection dates back to Ebel's (1871) revision of Zeuss's *Grammatica Celtica* and is still an open matter. This opposition of verbal endings is attested in both the Goidelic and the Brythonic branch of Insular Celtic.

In Old Irish, absolute vs. conjunct endings are attested in the present, future and preterite indicative, as well as in the present subjunctive. On the whole, a non-compound verb takes absolute endings when occurring in sentence-initial position or when preceded by a set of conjunctions or the adverb *bés* 'perhaps'. Conversely, conjunct inflection occurs with all the compound verbal forms, with simple verbs following the preverbal particles *ro* and *no*, and with simple verbs

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following the so-called "conjunct particles" (Thurneysen 1946: 28).[1] In addition, a simple verb shows conjunct endings when in so-called Bergin's construction (i.e. when it follows a distinct constituent, mostly but not exclusively in clause-final position;[2] Bergin 1938). For an example of such an opposition, compare the absolute verbal ending of the simple verb *berid* 'brings' with the conjunct forms of the compounds *do·beir* 'gives', *as·beir* 'says', or of the same verb, e.g. *ní·beir* 'does not bring'.[3]

Relics of this system may be found also in Brythonic. A clear example is given by the Old Welsh proverb in (1):

(1) *chwaryit   mab noeth ny chware   mab newynawc*
    play.PRS.IND.3SG boy   naked NEG play.PRS.IND.3SG boy   hungry
    'a naked boy plays, a hungry boy does not play'   Cowgill 1975: 40

In this sentence, both the 3rd singular present indicative absolute form of 'to play' (*chwaryit*) and the 3rd singular present indicative conjunct form of the same verb (*chware*) occur.

A considerable number of scholars have endeavoured to explain this peculiarity of the Insular Celtic verbal system. One of the oldest hypotheses concerning the origin and the nature of this double set of endings was formulated by Windisch (1876), who postulated that absolute endings continue Proto-Indo-European primary endings, while conjunct endings continue Proto-Indo-European secondary endings. Therefore, the Old Irish absolute present forms *berid* (3rd singular, 'he/she/it brings') and *ber(a)it* (3rd plural, 'they bring') descend from primary **bhereti* and **bheronti*, respectively. Conversely, the Old Irish conjunct present forms *-beir* (3rd singular) and *-berat* (3rd plural) are from **bheret* and **bheront*, respectively.

Many authors agreed with Windisch (e.g. Zimmer 1890; Thurneysen 1909; Kuryłowicz 1964). Nonetheless, Windisch's hypothesis is questionable. Firstly, this morphological complication (i.e. the distinction between a set of absolute endings and a set of conjunct endings, inherited on the basis of primary vs. secondary

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1 That is, the negative particles (*ni*, *nicon*, *na*, *nad* [*nach*-], *nacon*, and their compounds, such as *ce-ni* 'though not' and *ma-ni* 'if not'), the interrogative particle *in*, prepositions combined with the relative particle *(s)a^N*, and the conjunctions *ara^N* 'in order that', *dia^N* 'if, when', and *co^N/con^N* 'so that'.

2 While many examples of this construction feature the simple verb in clause-final position, so that Thurneysen (1946: 327) only mentions this case, instances of V-second orders are not uncommon in some texts, see Koch 1991: 3–6 for references.

3 The symbol · is employed to mark the tonic syllable in deuterotonic verb forms (e.g. *do·beir* 'gives', where the tonic syllable is the second one). For absolute and conjunct paradigms see Tables 5, 6, 7 and 8.

Proto-Indo-European endings) appears to be functionally meaningless and should have required a massive analogical spread. Secondly, it is unclear why secondary endings came along with primary endings in the present indicative of Insular Celtic and why the former or the latter were chosen depending on the position of the verb in the clause.[4]

A second important current of thought concerning the origin of the absolute vs. conjunct opposition proposes an explanation for the two sets of endings that is based on the athematic ~ thematic Indo-European distinction. The first formulation of this hypothesis comes from Meillet (1907). A similar position is Kortlandt's (1979). Broadly speaking, Kortlandt, accepting Cowgill's (1975) reconstruction of *es (see below on the "particle theory"), aims at eliminating the difficulties in Cowgill's theory accounting for the absolute vs. conjunct opposition as reflecting (in part) the thematic and athematic inflexion of Proto-Indo-European. Nevertheless, as convincingly shown by Meid (1972) and Cowgill (1985), the amount of analogical levelling required by Kortlandt's theory makes it rather problematic.

A third major attempt at explaining the origins of the absolute vs. conjunct opposition is based on Thurneysen's remarks (1907; 1914). Thurneysen (1907) claimed that in Old Irish non-relative clauses proclitic preverbs originally ending in a vowel had an additional *-s- before the following element. Thurneysen (1914) further noted that this *s, if assumed to occur in second position in sentences beginning with simple verbs, could account for a number of absolute endings. For instance, the first singular present indicative absolute form *biru* can be explained on the basis of *berū-s. With compound verbs, such an element is infixed after the first preverb. This way of accounting for Insular Celtic absolute vs. conjunct inflection is called the "particle theory".

This theory was revived by Dillon (1947). In Dillon's view, however, the shape of the linguistic element *s is *-Vs-,[5] and more specifically *is. The nature of this element is pronominal. Subsequently, Boling (1972) "corrected" Dillon's hypothesis by replacing *(e)s with *(e)d. Boling prefers *(e)d to *(e)s claiming that it is difficult to identify a reasonable etymology for *(e)s, while *(e)d may be understood as showing the Indo-European neuter demonstrative *íd.[6] Thus, *ed would be a

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4 In other Indo-European languages a partial merger of the two sets of endings has occurred (e.g. Latin *sequātur* has the same primary ending *-tor as *sequitur*). However, even in cases in which primary and secondary endings occur in the same verbal paradigm, their distribution is not determined by the position of the verb in the clause.

5 Where "V" stands for vowel.

6 This demonstrative is preserved in the Vedic particle *íd*. In Vedic, the position of *íd* is strictly regulated: it occurs either between preverb and verb in compounds (e.g. *úd íd … ricyáté*), or immediately after a simple verb (e.g. *kárat íd*; Boling 1972).

particle, and not a pronoun, and it may be expected to be present in every verbal form, unless it is replaced by other particles (such as *yo, *kʷe or *de). Boling's (1972) hypothesis is summed up by the pattern shown in (2):

(2)   Simple verb: Verb + *ed + Pronoun;
        Compound verb: Preverb + *ed + Pronoun=Verb.

Unfortunately, similar patterns do not take into account complications such as initial mutations or phonological difficulties linked to the absence of a dental element in certain forms where, according to Boling's theory, it should be expected. For instance, in Old Irish the attested form with suffixed pronoun is *beirthi* 'carries him' and not *beirthid*, which would be expected on the basis of *bereti-d-en* (Cowgill 1975).[7]

        Given these considerations, Cowgill (1975) postulates that the shape of the element in question has to be reconstructed as *(e)s* (in this perspective, the form mentioned above, *beirthi*, regularly comes from *beretisen*). The main problem of Cowgill's theory is that an available etymology for the *es* particle is lacking. Cowgill denies that *es* is a fossilised 3rd singular masculine subject pronoun, and suggests that *es* might correspond to an apocopated enclitic form of the copula *est (< PIE *esti). It is however unknown how that form could have spread to all the indicative and subjunctive non-relative verb forms.

        This question is raised also by Schrijver (1994; 1997). In Middle Welsh, in a position which is similar to that where *es is reconstructed by Cowgill (that is, between pretonic preverb or negation and a following verb beginning with a vowel), Schrijver identifies a dental element (e.g. *ny-t erchis* 'he did not ask'). Thus, he proposes the Proto-Celtic form *et(i), a conjunction cognate with Latin *et*. The form *et(i) is functionally comparable to the conjunctions *de and *kʷe, which are employed in Old Irish in subordinate clauses.[8] Schrijver believes *et(i) might have been used as a marker for main clauses. The fact that, at a certain point, *et(i) became mandatorily employed in all main clauses is compared by Schrijver to the extension of Middle Welsh *a(c)* 'and', which appears in prose at the beginning of most sentences.[9]

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7 Boling tries to explain similar cases by hypothesising an early reduction rule which eliminates *(e)d before a 3rd singular object pronoun (masculine or neuter).

8 For instance, the conjunctions *de and *kʷe (Schrijver 1997: 131) survive in Old Irish in relative negative particles (*nád*, *nach*), and *de is preserved in relative clauses before so-called infixed pronouns (Class C).

9 It has to be stressed that Schrijver is not the only scholar who supports the so-called particle theory but proposes a different etymology for the particle in question. Another highly notable perspective, for instance, is provided by Sims-Williams (1984; 1998). According to him, the shape of the particle would be *ed, a form of the neuter pronoun.

The so-called particle theory has received recent support also within generative frameworks. Newton (2006; 2007) argues that verb-initial word order developed in pre-Old Irish due to a reanalysis of Verb Phrase fronting as V-to-C movement. For vP to be analysed as a C head, both the connective *eti* and the relative particle *ɨo* (i.e. *yo*), which were clause-typing particles that appeared in the C-position, must have changed their status from clitic to affix. In a similar vein, Eska (2012), accepting Schrijver's (1994; 1997) version of Cowgill's proposal, assumed that verb-initial configuration was derived through leftward movement of simple verbs to vP and then through Tense into the Topic Phrase. As a consequence of cliticisation and reanalysis of the particle *eti* as an affirmative particle, parallel to the relative particle *ɨo*, the fronted verb was drawn into the C-position. Although the thesis maintained in this paper cannot be considered a version of the "particle theory" and is not cast in a generative framework, it likewise assumes that the clitics which gave rise to absolute inflection were reanalysed as declarative markers, in complementary distribution with the relative clitics, and that both these clitics had become affixes in prehistoric phases of Insular Celtic languages (see Section 2).

In addition to all these positions on the origin of absolute vs. conjunct endings, McCone's (1979) perspective is of paramount interest. The bedrock of McCone's theory is C. Watkins' (1963) and Meid's (1963) simultaneous argument that, at an early stage, Proto-Indo-European had not yet developed the primary vs. secondary opposition, as there was only one set of endings, corresponding to the secondary endings in the later system. At this stage, an enclitic particle *i* (marking hic-et-nunc deixis) could be attached to those endings in present contexts. However, given that it had to follow the first element in the sentence because of Wackernagel's Law, this could happen only in the case of sentence-initial verbs. Most Indo-European languages then fused this *i* with the rest of the verb, giving a new set of endings in the present system. Nonetheless, this development was not shared by the precursor of the Celtic languages, which retained the opposition (positionally based) between initial forms with *i* and non-initial forms without *i* in the present system. Subsequently, this opposition spread beyond the present.

The possibility that the absolute vs. conjunct opposition could have been caused by the presence vs. absence of an *-i* has been challenged by many authors, since Celtic apocope would have caused this final *i* to drop (see Eska 2012). Nevertheless, in McCone's view this apocope took place when the (absolute) verb was not followed by one or more enclitics. On the contrary, when -i- was followed by an enclitic, it ceased to be a part of the verbal ending and acquired the status of a

glide linking enclitics to the verb.[10] Thus, it can be said that the bulk of McCone's hypothesis is that the absolute vs. conjunct opposition is due to the presence vs. absence of enclitics in association with simple clause-initial verbs or with verbs preceded by preverbs. McCone's theory can be summed up as in Table 1.

Table 1: McCone's theory concerning the origin of Insular Celtic double system of inflection. Adapted from Isaac (2007). P stands for "preverb", E stands for "enclitic".

	I. Proto-Celtic		II. Apocope		III.		IV. Old Irish
(a)	*bereti ...	>	*beret ...		*bereti ...	>	beirid
(b)	*bereti-E ...	>	*bereti-E ...	>	*bereti-E ...	>	beirthi
(c)	*P bereti ...	>	*P beret ...	>	*P beret ...	>	do·beir
(d)	*PE bereti ...	>	*PE beret ...	>	*PE beret ...	>	do·t·beir

Types (a–d) correspond to the Indo-European sentence types as reconstructed by McCone (that is, a: #.(E) ... V#; b: #V(E) ... #; c: #.(E) ... P(P$_2$)V#; d: #P(E) ... (P$_2$)V#). Old Irish forms which continue Indo-European type (d) are due to univerbation. The Old Irish form which replaces Indo-European type (c) is created analogically from (d) by infix deletion. In the end, concerning type (a), a new sentence-initial form is created to replace the sentence-final form. This happens in the same way as with compound verbs, that is, by infix deletion (#*bereti-E ... # > #*berti ... # > Old Irish #berid ... #). Nonetheless, in this case, according to Isaac (2007: 50), "there is nothing in the theory to explain why pattern (b) *bereti-E should have been taken as a model for initial verb forms without enclitic."

In Isaac's (2007) view, this impasse may be overcome by assuming that Insular Celtic sentence-initial absolute verbs reflect Proto-Indo-European sentence-initial tonic verbs, while Insular Celtic non-sentence-initial conjunct verbs reflect Proto-Indo-European non-sentence-initial clitic verbs. In this perspective, the apocope of final front vowels affected only atonic non-initial verb forms, so that there is no need to postulate the replacement of McCone's type (a) with type (b) (Table 1).

The last major position concerning the origin of the absolute vs. conjunct inflection that will be taken into account here has been proposed by Koch (1987), who endeavours to explain this peculiarity of the Insular Celtic verbal system on the basis of accent. The basic premise of Koch's theory is that "primitive" Celtic had an accentual system similar to that observable in Vedic Sanskrit, where a

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10 This glide was a useful means for interrupting difficult consonant clusters (e.g. *beret-i-snis 'brings us' vs. *berst-snis 'brought us'). For McCone, this is a good reason why this glide spread from the present to categories such as the s/t-preterite.

preverb in a main clause bears the accent and verbs are enclitics (except when they are in sentence-initial position).[11] In certain ways, Koch's hypothesis is similar to Isaac's (2007) theory, shown above, as, in his view also, Celtic absolute forms continue the Indo-European tonic simple verbs while conjunct forms continue the enclitic forms. Furthermore, for both Koch and Isaac (2007) the paradigmatic alternation between absolute and conjunct inflection is primarily caused by the apocope of the final short *-i of Indo-European primary endings in non-initial non-accented verbs. Nevertheless, the nature of this final *i is rather different in the two authors' views. On the one hand, Isaac (as McCone) considers this *i as a marker of hic-et-nunc deixis (see above); on the other hand, Koch believes that this final short *-i was inherited from Proto-Indo-European primary endings in non-initial non-accented verbs. Subsequently, the presence of *-i was interpreted as an auxiliary sign of the stylistically marked sentence-initial simple verb, so that final *-i could then have spread through the absolute system also to desinences that did not have it in Indo-European. When this happened, a new (mechanical) stress placement levelled the accentual differences, which used to distinguish marked sentence-initial simple verb forms from unmarked non-initial verb forms. As a consequence, in sentence-initial and non-initial verbs stressed in the same way, the marked/unmarked distinction was preserved by the absolute ending *-i.

In connection with Isaac's and Koch's hypotheses it should be noted that, although the view that clause-final verbal forms were unaccented while clause-initial forms were accented in Proto-Indo-European as in Vedic Sanskrit is widely held (see e.g. C. Watkins 1998), this dichotomy could be an innovation, as maintained by Klein (1992: 96).

The question of absolute vs. conjunct opposition has been studied also in relation to Brythonic. Nonetheless, in this branch of Insular Celtic the absolute vs. conjunct system seems to have survived as a relic only. According to Isaac (1996), in the *Book of Aneirin* absolute verb forms are attested only for the 3rd singular present indicative (3) and for the 3rd singular preterite (4):

(3) *perheit   y   wrhyt en wrvyd*
    last.PRS.3SG POSS.3SG.M valour in   long
    'his valour lasts long'   Isaac 1996: 354

(4) *kyrchessit   en avon*
    attack.PRET.3SG in   river
    'he attacked in the river'   Isaac 1996: 355

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11 It is worth noting that Morris Jones (1913) reconstructs the preforms of Welsh compounds verbs in this manner (e.g. the proverb *trenghit golut, ny threingk molut* 'wealth perishes, fame perishes not', would derive from **trankī-ti uò ..., né ttrankī-t mò ...*).

Preterite absolute forms occur in sentence-initial position in nearly all instances; present absolute forms, on the other hand, are embedded in a wider range of constructions, such as relative clauses (5), or following *ef* as a particle (6) or as a pronoun (7):

(5) *poet   gno en vn tyno treissyt*
be.SUBJ.PRS.3SG clear in any place overcome.PRS.IND.3SG
'may it be manifest in the place where it conquers'   Isaac 1996: 354

(6) *ef   gwenit   a dan dwrch trahawc vn riein a   morwyn a*
PTCL approach.PRS.IND.3SG below boar   arrogant any lady and maiden and
mynawc
lord
'any lady and maiden and lord approach the arrogant boar' Isaac 1996: 354

(7) *e m[i]t ef krennit   e   gatwaewawr*
in battle he brandish.PRS.IND.3SG POSS.3SG.M battle-spear
'in battle he brandishes his battle-spears'   Isaac 1996: 354

According to Isaac, compound verbs display conjunct endings in most cases. In the present indicative (3rd singular), the distribution of conjunct forms is consistent with the Old Irish data.[12] The same holds for preterite verb forms, even though, in certain contexts where absolute forms are expected (e.g. in sentence-initial position), conjunct forms are attested (e.g. *trenghis* [...] *bratwen* 'Bradwen perishes'). In Isaac's account this can be explained bearing in mind on the one hand that in Old Welsh the use and awareness of the absolute vs. conjunct system was declining, on the other hand that preterite absolute forms in *-it* and *-yt* are innovative.[13]

In addition to Isaac's analysis, Rodway (2002) examined the position of absolute forms in the work of early Gogynfeirdd. The vast majority of forms occurs in verb-initial sentences or in "nominativus pendens" constructions, hence it can be argued that normally absolute forms occur in verb-initial sentences (as in Old Irish). Compound verbs in Old Irish do not combine with absolute endings. However, at least in Middle Welsh this is not true (e.g. *rodyssit* 'gave'; Williams & Lynch 1994: 33.34–35, quoted in Rodway 2002: 72). In Rodway's view, it is necessary to distinguish between "obvious" compound verbs, with preverbs such as *ar-*, *cyf-*, *di-*, *dy-*,

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12 The only exception that Isaac underlines is the occurrence of conjunct forms in relative clauses (e.g. *penn gwyr tal being a dely* 'the chief of men, the end of the bench he deserves'). He believes, however, that in Welsh there were originally specific relative forms used in such constructions (independent of the absolute vs. conjunct opposition). After the loss of these forms, the absolute vs. conjunct alternation may have spread also to these contexts, with the particle *a* triggering conjunct inflection.

13 The forms in simple *-s* used to be the absolute forms, as in Old Irish (e.g. absolute *gabais* 'took' ~ conjunct *-gab*).

go- and *gor-*, and "unobvious" compound verbs (such as *rhoddi* 'to give'), which were probably considered simple verbs in Middle Welsh. If the unobvious compounds are considered similar to simple verbs, the absolute vs. conjunct system of Middle Welsh is entirely comparable to that of Old Irish.

Old Welsh shows three 3rd singular present indicative absolute endings, namely *-awd*, *-id* and *-yd* (Rodway 2013). The 3rd singular preterite absolute endings *-esid*, *-ysid*, *-esyd* and *-ysyd* are secondary developments obtained by adding *-id* (or *-yd*) to absolute *s*-preterite forms (e.g. *rodesit* 'gave' is from *rodes* [< *-e-s-ti*] + *-id*). Rodway highlights how almost all the cases of sentence-initial 3rd singular present indicative verbs bear absolute endings in Old and Middle Welsh. 3rd singular preterite verb forms, however, do not mirror this pattern, as conjunct forms were the norm even with simple verbs. This can lead one to conclude that the absolute vs. conjunct system deteriorated faster in the preterite than in the present indicative.

In Middle Welsh prose, all but one of the instances of absolute forms occur in collections of proverbs (MSS Peniarth 29 and Peniarth 17; Rodway 2013: 112–115). All the absolute forms occur in sentence-initial position. The only exception can be ascribed to a mechanical scribal error according to Rodway (2013: 113). Some of the proverbs can be older than the manuscripts in which they are contained (13th century). What is certain is that the adaptors or scribes of proverbs were able to correctly use the absolute forms at the same time at which the court poets did the same thing. Hence, differently from Isaac, Rodway does not believe that these examples of 12th- and 13th-century absolute forms reflect fossilised archaisms. Instead, the author claims that the absolute vs. conjunct system was likely to have remained functional (at least in a number of registers) for longer than hitherto recognised.

Despite all these hypotheses, there is no consensus among scholars concerning the origin of the Insular Celtic double system of inflection, although the particle theory has recently gained increasing popularity. In this article, we will explain the reasons why, in our view, this double system is due to an old subject clitic, which assimilated to the verb form and which used to have a functional value, that is, marking the declarative (vs. relative) use of a verb. When a verb was employed in a declarative clause, such a clitic was attached to the verb form or to the first preverb (Wackernagel's position); conversely, when a verb was employed in a relative clause, in the same position occurred the relative marker **yo*.[14]

Even if our hypothesis aims at accounting for a phenomenon attested in the verbal system of Insular Celtic, we will base our analysis mostly on Old Irish glosses. This is because considering Welsh entails a chronological issue, given that we do

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14 This line of reasoning is similar to the thread of Eska's (2012) argument, although it does not imply relocation of the clitic > affix.

not have Welsh prose texts coeval with the Old Irish glosses. Furthermore, in Irish the inflection system is synchronically more consistent than in Welsh, hence a detailed morphological reconstruction of verb forms can be performed on a wider base of linguistic data.

This article is organised as follows. In Section 2 we will present our theory concerning the origin of the Insular Celtic double system of verbal inflection. In Section 3 we will reconstruct the present indicative and preterite absolute vs. conjunct inflections of *berid* 'bring' and *lécid* 'leave' according to our proposal. In Section 4 we will consider the case of compound verbs showing patterns of initial mutation on the first phoneme of the verb stem that cannot be explained on the basis of inherited phonological patterns.

2 The origin of the absolute vs. conjunct opposition

One of the pioneers of the particle theory understood in broad terms is Pedersen (1909–1913). In his *Vergleichende Grammatik der keltischen Sprachen*, Pedersen suggested that absolute verb forms would result from enclitic subject pronouns affixed to (simple) verbs, so that *berid* 'he carries' descends from **bheret is*.[15] This hypothesis is firmly rejected by Thurneysen (1914: 29–30; 1946: 362–363), as "contradicted by the form of the endings themselves, which in no way resemble the Irish or the Indo-European personal pronouns" (1946: 363).

More than a century of research in Celtic as well as Indo-European linguistics gives us the opportunity to reconsider the entangled issue of the Insular Celtic double system of inflection and to conclude that perhaps Pedersen's hypothesis was not that unlikely in its general terms. Thurneysen himself recognises that theoretically Pedersen's hypothesis is solid: its problem is phonological in nature and not due to the fact that the added element is reconstructed as the subject of the verb.

The merger of a verb form with a pronominal person word is not implausible. In fact, from a typological perspective, the fluctuation of verbal inflection from the analytic pole (uninflected verb with a free pronoun) to the synthetic pole (fully

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15 The particle reconstructed as responsible for the Insular Celtic double inflection is generally thought to be uninflected. In this sense, Pedersen's hypothesis is slightly different, as in his view the subject pronoun is different from one person to another.

person-inflected verb) is one of the clearest cases of grammaticalisation (Roma 2000). Givón (1976) proposes a scheme to summarise this evolution, reported in (8):

(8) Topic shift (marked)   →   Neutral (reanalysed)
    The man, he came   *The man he-came*
    TOP   PRON   SBJ   AGR

According to Givón, an originally extra-clausal constituent, in a marked position, becomes part of the predication through a loss of markedness. As a consequence, a free pronoun becomes a clitic, which is strictly linked to the verb form (agreement marker).[16]

As far as Old Irish is concerned, however, the issue is made a little more complicated by the fact that Old Irish is a language that displays mandatory null subject pronouns, that is to say, a stressed subject pronoun cannot co-occur with an inflected verbal form (see Thurneysen 1946: §254; McCone 1987; 1994; Roma 2000). This is primarily proven by two facts. On the one hand, within the Glosses corpus, there is no subject pronoun even where it occurs in the Latin text to which the gloss is referred (Sornicola 1988 and 1989). On the other hand, subject pronouns and fully inflected verbs are mutually exclusive also in Modern Irish as well as in Brythonic (T. A. Watkins 1977).[17]

In our view, the subject clitic acquired a stable functional role, which was no longer that of marking the grammatical subject of a verb form. Rather, there was a phase, in prehistoric stages of Insular Celtic, in which such a subject clitic occurred attached to simple sentence-initial verb forms to mark a declarative use of verbs. In cases of compound verbs, this clitic occurred between the lexical preverb and the verb stem (deuterotonic forms), or between the conjunct particle and the lexical preverb (prototonic forms). Such a clitic was in alternation with the morpheme **yo*, which was the functional marker of the relative use of verbs. Thus, synchronically, in prehistoric stages of Insular Celtic the system we are trying to reconstruct can be summarised as in Table 2 (p. 304).

Clauses in which a pronominal (subject) element occurs attached to a verb form, as we are suggesting for prehistoric phases of Old Irish, are attested in Celtic and testify to the development of a series of nominative clitics, apparently

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16 More recently, Haspelmath (2013) sketched a new classification of bound person forms: the three-way distinction of free person words/clitics/affixes may be mapped onto the binary distinction "bound" (or INDEXES, that is, clitics and affixes) vs. "free" (or PRONOUNS, that is, non-clitic words) person forms. Remarkably, Griffith (2013) tries to apply Haspelmath's scheme to Insular Celtic.

17 It has to be stressed that in Ancient Indo-European languages a pronominal subject was generally expressed by the verbal ending. Nominative forms of the personal pronouns, however, could be added and assumed specific pragmatic values.

Table 2: Synchronic opposition between the declarative marker clitic and the relative marker **yo* in a reconstructed phase of Goidelic.

	Simple verbs	Compound verbs
DECLARATIVE	Verb + subj. clitic	Prev. + subj. clitic + Verb (deuterot.)
	Conj. ptc. + subj. clitic + Verb	Conj. ptc. + subj. clitic + Verb (protot.)
RELATIVE	Verb + **yo*	Prev. + **yo* + Verb (deuterot.)
		Conj. ptc. + **yo* + Verb (protot.)

lacking in Proto-Indo-European (see Sihler 1995: 370). Such a distribution can be noticed e.g. in the Gaulish text of Châteaubleau (Lambert 2000; 2003: 209–211). Within the Châteaubleau text, there are more than twenty verb forms, and some of them display a common morphological shape. Consider, for instance, the verb *nemnaliIumi* (line 1) 'I celebrate'. In Gaulish, the 1st singular thematic ending is generally reconstructed as *-ū* (< **ō*). According to Lambert (2000), *nemnaliIumi* is hence a verb characterised by a reinforcement of the subject by an affixed pronoun (namely, *-mi*, 1st sg.), and its ending has to be segmented as *-u-mi* (that is, 1st singular ending + emphasising affixed pronoun).[18]

   A further example is provided by the verb form *Iegumisini* (translated by Lambert as 'je dis cela'). In this case, the pronominal elements are more than one, as we have *-mi-* and *-sini*, so that the verb form can be segmented as *Ieg-u-mi-sini*. The first element is analysed by Lambert as a 1st singular subject intensifier *-mi-*, while the second one is analysed as either an accusative or a dative feminine singular *-sini*.

   In *Iexs-tu-mi-sendi* (lines 9 and 11) probably a 2nd singular subject clitic *-tu-* precedes two pronominal clitics expressing indirect and direct object respectively (Lambert 2000: 96, 111). Note how according to our hypothesis the positioning of object enclitics after absolute forms in Old Irish (Thurneysen 1946: §429) would reflect a similar sequence (subject enclitic + object enclitic).

   The text of Chamalières (Lambert 2003: 152–161) also offers a few examples of similar verb forms worth mentioning. Let us consider *uediIu-mI* (line 1) and *pissIiu-mI* (line 10). Both *uediIu-mI* 'I invoke' and *pissIiu-mI* 'I see' show the same morphological shape of *nemnaliIumi* 'I celebrate': after the 1st singular personal ending *-u*, a 1st singular pronominal element is attached.[19]

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18 'Affixed pronoun' is a translation from Lambert's (2000: 78) "pronom affixe". Although Lambert labels these pronominal elements as affixes, from the foregoing and following discussion it is clear that we regard these as clitics at this stage. Lambert himself equates their use to the use of Old Irish emphatic particles, which are clearly clitics and not affixes (see below).

19 Lambert (2003: 156) also tentatively analyses *snIeddic* (line 3) as *snIes-ti-c*, that is a 2nd singular present subjunctive form (ending *-es*) + 2nd singular pronominal element (*-ti* < **tē*) + enclitic

In Lambert's view, these emphasising affixed pronouns would be parallel to the Old Irish "notae augentes", as they both serve the purpose of emphasising the subject of the verb.[20] Nevertheless, the Old Irish emphatic particles (-*se/-sa*, -*siu/-so/-su*, -*som*, -*si*, -*ni*, -*si*; Thurneysen 1946: §403) appear to be derived rather from the stem of the Proto-Indo-European demonstrative **so-* than from personal pronouns reconstructed forms, so that Lambert's comparison between Gaulish pronominal elements attached to verbs and the Old Irish "notae augentes" clearly holds on a functional level.

These Gaulish clitic pronouns, instead, are certainly closer in form to Proto-Indo-European (and Insular Celtic) personal pronouns (e.g. Gaulish -*mi* ~ Old Irish *mé* ~ Old Welsh *mi*), probably representing enclitic nominative pronouns. According to McCone (1994: §33.2), Celtic lost the distinction between nominative and accusative forms of the 1st and 2nd person stressed pronouns.[21] Accusative forms prevailed in the case of the 1st singular (PIE nominative **egoH* ~ PIE accusative stressed **mé*; e.g. Old Irish stressed *mé*), 1st plural (PIE nominative **wei* ~ PIE accusative stressed **n̥smé*, clitic **nes/nos*; e.g. Old Irish stressed *sní*) and 2nd plural pronouns (PIE nominative **yūs* ~ PIE accusative stressed **usmé*, clitic **wes/wos*; e.g. Old Irish stressed *sí/sib*).[22] On the contrary, the Old Irish 2nd singular personal pronoun is based on the Proto-Indo-European nominative form (PIE nominative **tŭ* ~ PIE accusative stressed **t(w)é*; e.g. Old Irish stressed *tú*). Hence, as far as e.g. the 1st singular personal pronoun is concerned, the Old Irish stressed form *mé* derives from Proto-Indo-European accusative stressed **mé*, while its infixed counterpart derives from Proto-Indo-European accusative enclitic **me* (PIE **me* > OI infixed -*m^L*-).

This paradigm encroachment also holds for Gaulish. The 1st singular pronominal form -*mi* discussed above can descend straightforwardly from cliticisation of

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coordination marker (-*c*). If so, that would be an instance of a 2nd singular subject(?) clitic stemming from an accusative form, which, as noted by an anonymous reviewer, is apparently contradicted by the form -*tu*- in *Iexs-tu-mi-sendi* (Châteaubleau, lines 9 and 11, see above). The alternative analysis of *snIeddic* as 1st plural object pronoun *sní* + conjunction *eddic* is on the other hand crucial in Katz's (1998) reconstruction of the Proto-Celtic 1st plural stressed accusative pronoun as **sne/*snē*.

20 "Le gaulois renforce assez souvent l'idée du sujet par un pronom affixe, comme les langues celtiques insulaires avec les «particules emphatiques personnelles» de l'irlandais, et les pronoms apposés en brittonique" (Lambert 2000: 78).

21 See also Matasović 2009.

22 Reconstructions of PIE pronouns follow Sihler 1995 and Szemerényi 1989; see below Section 3, Table 4.

the Proto-Indo-European accusative form *$m\bar{e}$ > *$m\bar{\imath}$.[23] The same thing seems valid for the 2nd singular pronominal element -*tu* (< PIE nominative *$t\breve{u}$ and not < PIE accusative *$t\bar{e}$). We therefore assume that Gaulish and Insular Celtic subject clitics reflected a similar paradigm, based on a development which is also attested for stressed pronouns and is probably not unrelated to the development of subject clitics we assume occurred at some stage in Celtic.

In this perspective, the hypothesis which views the absolute vs. conjunct opposition in Insular Celtic as based on agglutinated subject clitics seems to find relevant support in the Gaulish data. This pronominal element, in Insular Celtic, perhaps due to word-order change, lost its syntactic, morphological, semantic and pragmatic autonomy, shifting from clitic to affix status, and became part of the verb form used in declarative sentences.

In alternation to such clitics, the particle *yo* functionally marked verb forms in relative clauses. It is commonly accepted by scholars that from a reconstructive point of view Old Irish relative endings contain an enclitic relative particle *-*yo* (e.g. **karont-yo* > *cartae* 'who love (3rd pl.)'). The behaviour of *-*yo* in Old Irish relative verb forms mirrors that of other enclitic particles, that is to say, *-*yo* is affixed to simple verbs and stands between the preverb and the verb in compounds (this surfaces as lenition after the first preverb when compound verbs are employed in relative clauses).

According to the most widely accepted view (Thurneysen 1946: §509; Lambert 2003: 103), a similar relative verb form is attested also in Gaulish (9):

(9) (*gobedbi*)   *dugiIontiIo*   *vcvetin   in alisiIa*
      blacksmiths.DAT serve.PRS.IND.3PL.REL Ucuetis.ACC in Alesia
      'To[?] blacksmiths who serve Ucuetis in Alesia'

                                        Alise-Sainte-Reine; Lambert 2003: 100–103

The verb form *dugiIontiIo* shows the above-mentioned relative particle *-*yo* clearly attached to an inflected verb form (3rd plural ending).

A further example comes from the inscription of Chamalières (Lambert 2003: 152–161), where the verb form *toncsiI-ont-Io* is attested. From a morphological perspective this form is not problematic, as it closely resembles the form *dugi-IontiIo* attested in Alise-Sainte-Reine. Syntactically, however, *toncsiI-ont-Io* has been highly debated, as it does not occur in a typical subordinate context, which is where we would expect a relative verb form to occur (*etic secoui toncnaman toncsiIontIo*). For the moment, we confine ourselves to stressing how the particle

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23 See also Lambert 2003: 154. This is confirmed by Matasović (2009: 270), who states that the original 1st singular nominative form *$(h_1)e\acute{g}h_2om$ (cf. Latin *ego*, Ancient Greek ἐγώ, ἐγών) left no traces in Celtic and was replaced by the accusative form.

-yo seems to co-reference the demonstrative *se-*. This issue will be recalled in greater detail below.

Decisive evidence going in the same direction is offered by Celtiberian. The form *iomui* in the Botorrita bronze, line 7, has been invariably recognised as an inflected form of the stem **yo-* (Eska 1989: 69; Meid 1994: 7–28; MLH: 4, 570).[24] Such a stem is attested also in the nominative singular masculine *ios* (line 10), in the accusative singular masculine *iom* (lines 5, 7) and in the accusative plural feminine *ias* (line 8; Eska 1989: 67–69; Meid 1994: 7–28; MLH: 4, 570–571). Thus, **yo-* seems rather indisputably a relative marker in Celtic.

The use of a pronominal (subject) element in a way similar to that described in Table 2 (that is, in order to mark the affirmative/declarative/non-relative value of a sentence) is not unparalleled in the Celtic languages. Consider, for example, the case of the Middle Welsh affirmative particle *ef* in (10):

(10) *Ef dyfu   dreic   llu*
      PTCL come.PRT.3SG dragon.SG host.SG
      'The dragon of the host came'   RBH 1419.11

As clearly stated by D. S. Evans (1964: 172), "this [i.e. *ef*] is the form of the personal pronoun 3rd sing. masc. employed as a particle." The value of *ef* however is not that of a 3rd singular masculine personal pronoun anymore, as it functions rather as a preverbal particle marking the declarative value of a sentence. Remarkably, *ef* does not only occur before 3rd singular verbs, but also before other personal verbal forms, as in (11):

(11) *Ef gwneif   beird byt   yn llawen*
      PTCL make.PRS.IND.1SG bard.PL world.SG PTCL merry
      'I will make the bards of the world merry'   BT 63.22

In example (11), *ef* clearly precedes a 1st singular verb (*gwneif* 'I will make'). This functionalisation of *ef* as a declarative marker shown by Welsh gives a supporting typological parallel to the hypothesis formulated above for Irish absolute verb forms. As shown by Willis (2007: 435), the particles *fe* and *mi* in Modern Welsh both encode affirmative polarity, are not found in negative or interrogative clauses and are limited to main clauses, alternating with subordinating complementisers in subordinate clauses. According to Willis (2007: 468), their grammaticalisation proceeded in two steps, (i) the reanalysis of an expletive 3rd singular pronoun as an affirmative complementiser, and (ii) the reanalysis of all preverbal subject pronouns as affirmative main-clause agreeing complementisers. This reanalysis is crucially linked to word order, since pronominal subjects are reanalysed when they

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24 Transliterations are given as per MLH: 4.

occur in a non-canonical position (i.e. preverbal position in Welsh; Willis 2007: 476). In a similar way, it may be assumed that postverbal pronominal clitics such as those attested in Gaulish could be reanalysed as affirmative clause markers at a stage when the basic word order was not (yet) VS, along the lines put forward by Willis for Bavarian dialects which have developed agreeing complementisers (2007: 476).

A further parallel between the Middle and Modern Welsh development and the prehistoric development we are assuming concerns the avoidance of overt postverbal pronominal subjects co-occurring with affirmative complementisers in Early Modern Welsh, when null subjects are on the other hand increasingly avoided in other contexts (Willis 2007: 463): a similar distribution could lie behind the complementary distribution of person-inflected verbal forms and subject pronouns in Old Irish.

Turning now to the relative marker *yo-, it is likely that originally *yo- was not a relative marker, but rather an inflected anaphoric pronoun. Subsequently, *yo developed the relative meaning that is well attested in both Continental and Insular Celtic.[25]

Support for this hypothesis comes from other Indo-European languages. According to C. Watkins (1998), Vedic yá- (parallel to Avestan ya-) is employed to form relative pronouns (e.g. yás, yā́, yád, etc.) and comes from the stem *yo-. As Holland (1991) underlines, such relative pronouns occur co-referenced with an anaphorically connected element in the resumptive clause as in (12):

(12) *yáś   cikéta   sá   sukrátur*
      REL.NOM.SG.M know.PERF.3SG DEM.NOM.SG.M wise
      'The one who knows is wise'   RV 5.65.1

In sentence (12), the relative form *yás* shows a cataphoric relation with the demonstrative *sá*.

Greek also offers comparable data, since the stem *yo- has also developed relative function from the original demonstrative meaning (Frisk 1960–1972: 2, s.v. ὅς, ἥ, ὅ; Palmer 1980: 287).

A further piece of evidence worth noting is given by Balto-Slavic adjectives: the linguistic element suffixed to indefinite "short" forms in order to form their definite "long" counterpart is thought to derive from the same stem *yo- (Lyons 1999: 82). Here *yo- seems to have maintained its original anaphoric meaning.

The evidence offered by data provided from these Indo-European languages may lead us to conclude that originally the stem *yo- was anaphoric, rather than

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25 Such a development (that is, anaphoric > relative) is attested in other languages. See Romaine 1984 for Germanic languages.

relative. In some languages (Celtic, Vedic and Greek), this element developed relative meaning.

In our view, it is hence likely that, in prehistoric phases of Insular Celtic, verbs allowed a clitic pronominal element to be enclitic to simple verbs or to preverbs, being inserted between preverb and verb stem. This pronominal element was originally either deictic or anaphoric in nature. In the first case, the verb form was usually employed in main (declarative) clauses. In the second case, the verb form was mostly employed in dependent (relative) clauses, as the anaphoric clitic referred back to an antecedent expression. Given this use, this linguistic element became a marker of relative constructions. On the other hand, the deictic clitic (that is, the subject clitic) became a marker of declarative clauses. Hence the deictic ~ anaphoric opposition acquired the functional value of marking declarative ~ relative verb forms, since the two different types of clitics were in complementary distribution.

Therefore, given the rather fixed position in which they occurred, these pronominal elements became part of the verb form. Nevertheless, it is likely that the relative clitic was already an invariable form when the subject clitics were still part of a full paradigm. When the clitics became affixes in prehistoric phases of Insular Celtic languages, the set of original personal endings gave rise on the one hand to the set of declarative endings (Verb + deictic clitic; Prev. + deictic clitic + Verb) and on the other hand to the relative verbal forms (Verb + [*anaphoric > relative] *yo; Prev. + *yo + Verb). Thus, the generally reconstructed two-part verbal system of Insular Celtic (that is, absolute vs. conjunct inflection) became a three-part verbal system, in which from an original set of verbal endings (preserved in conjunct endings) both absolute and relative endings arose for functional reasons. These evolutions are summarised in Table 3 (p. 310).

Up to this point we have dealt only with Phase 1 and Phase 2 in Table 3, which can confidently be ascribed to the prehistory of both Insular branches. The last development that needs to be taken into account is Phase 3, which led the system to the attested phases of Old Irish and was possibly shared by Brythonic. Whether the distinction absolute vs. conjunct in Brythonic was ever as extensive as in Goidelic cannot be ascertained (Rodway 2013: 89). As discussed in Section 1, Old and Middle Welsh show the relics of a similar system. Nevertheless, absolute endings, as opposed to conjunct ones, are only attested for 3rd person singular (active and passive) forms. This limitation is reminiscent of the restrictions on the occurrence of suffixed pronouns in Old Irish (Thurneysen 1946: 270; Breatnach 1977) and is perhaps not insignificant. Assuming that these are both retentions, they are still in want of a convincing explanation. According to Breatnach (1977) and Eska (2003), the loss of most verbal forms with suffixed objects in Old Irish is due to the ambiguity among forms arising as a result of phonological change. For 1st and 2nd

Table 3: Rise of absolute vs. relative and absolute vs. conjunct endings. (NM) stands for non-mutation, the expected outcome after non-nasal consonants, and (M) stands for initial mutation (i.e. lenition or nasalisation), the expected outcome after a vowel or a nasal, respectively.[26]

	Context of occurrence	Simple verbs	Compound verbs
Phase 1 (deictic vs. anaphoric pronouns)	Declarative	V + deictic	P + deictic + V
	Relative	V + anaphoric (*yo*)	P + anaphoric (*yo*) + V
Phase 2 (declarative vs. relative functional opposition)	Declarative	V + declarative clitic	P + declarative clitic + V
	Relative	V + relative (*yo*)	P + relative (*yo*) + V
Phase 3 (absolute vs. relative/absolute vs. conjunct endings)	Declarative	V (absolute)	P + $^{(NM)}$V (conjunct)
	Relative	V (relative)	P + $^{(M)}$V (conjunct)

person forms, though, Eska (2003: 32) assumes that their abandonment is rather related to the fact that their personal subject exponent "is not obvious beside the personal object affixes." Nevertheless, it is unclear why forms such as ****birīnn* 'you bring us' or ****beirthēnn* 'you (pl.) bring us', the expected outcome of the absolute forms with suffixed pronouns in Eska's account, could not be preserved and simply analysed as *biri* + *nn* or *beirthe* + *nn*. If the order subject enclitic + object enclitic is old, as the Gaulish example in Section 1 would suggest, and if our hypothesis is correct, the eventual loss of most combinations of person-inflected forms and suffixed object pronouns could on the other hand be explained as due to earlier affixation of subject clitics, with non-syllabic subject clitics generalised for 1st and 2nd person forms but not 3rd person forms, according to the reconstruction of subject clitics given in Section 3. Welsh would have preserved absolute forms where Old Irish preserved (absolute forms with) object enclitics for similar reasons.

Concentrating now on the whole system of Old Irish, we must therefore in the first place justify the (attested) absolute endings of simple verbs on phonological grounds, via a form-by-form reconstruction of verb form + subject clitic. In the second place, we have to take into deeper consideration compound verbs, scrutinising the morphophonological implications of the insertion of either a subject clitic or relative *yo* between preverb and verb. These issues will be investigated in the next sections.

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26 Whether relative nasalisation is old or due to a later analogical development is in dispute (see Ó hUiginn 1986), but this issue does not crucially affect the overall diachronic picture.

3 Reconstruction of *berid* 'bring' and *lécid* 'leave'

A first question that has to be answered before delving into the reconstruction[27] of Old Irish verbs according to our theory concerns which verb forms are to be considered for such an analysis. For reasons of space, we will analyse the absolute and conjunct verb forms of the present indicative and preterite of one "strong" verb and one "weak" verb only, *berid* 'bring' and *lécid* 'leave' respectively.

We will not offer a form-by-form reconstruction of relative verb forms. Synthetic relative verb forms are attested only for the 3rd persons and 1st plural of the present and future indicative as well as the present subjunctive of simple verbs (e.g. pres. ind. 3rd sg. non-relative *caraid* 'loves' vs. pres. ind. 3rd sg. relative *caras* 'that loves').[28] For all the other verbal persons the empty preverb *no-* is prefixed to the verb, the first phoneme of which undergoes initial mutation (e.g. pres. ind. 2nd sg. non-relative *carai* 'you love' vs. pres. ind. 2nd sg. relative *no·charai* 'that you love' with lenition of the first phoneme of the verb stem). It is unclear why only 3rd persons and 1st plural synthetic relative forms survived. Nonetheless, as mentioned in the previous section, what is commonly accepted by scholars is that such verb forms derive from an enclitic particle *-*yo* attached to the verbal ending in simple verbs (e.g. *karont-yo > *cartae* 'who love (3rd pl.)'), although the form that lies behind 3rd sg. *-as/-es* is not firmly established.[29] Since the role of the particle seems to be unquestionable and since the hypothesis we are sustaining does not substantially differ from other explanations at the phonological level as far as relative endings are concerned, a phonologically detailed reconstruction of all the relative persons will be omitted here. The only aspect of this system of relative marking we want to further emphasise is that relative endings belong to the absolute paradigm only, that is, special conjunct relative beside non-relative endings do not exist (in the case of compound verbs the relative marker is always initial mutation). This seems to support our hypothesis that a clear-cut separation occurs between conjunct endings on the one hand, and absolute and relative endings on the other.

A further (crucial) problem that has to be faced in reconstructing verbal paradigms according to our theory is which form of the subject clitics should

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27 The Old Irish phonological system on which we will base the reconstructions below is the one outlined by McCone (1994).

28 Although scarcely documented, synthetic relative verb forms are attested also for preterite paradigms (e.g. *luide* 'that went' 3rd sg.).

29 See Schrijver 1994: 168–177 for discussion. McCone (1994: §34.2) suggests an analogical development due to the influence of the relative form of the copula.

be supposed to have been originally attached to the verb. We admit that this is the most problematic issue as far as our theory is concerned, given the lack of decisive evidence. However, by comparing several series of personal pronouns, we will attempt to reach a certain degree of plausibility in reconstructing subject clitics, that is, pronominal elements that were already reduced forms with reduced phonetic body and morphosyntactic autonomy. We assume that these nominative pronominal clitics were a Celtic innovation, already attested in Gaulish (see Section 2).

In reconstructing the shape of these subject clitics, we establish a comparison between personal pronouns reconstructed for Proto-Indo-European,[30] for Proto-Celtic,[31] stressed forms of Old Irish personal pronouns, Old Irish Class A infixed pronouns and accusative suffixed pronouns as part of inflected prepositions, as reconstructed by McCone (1994). Original Proto-Indo-European 1st person and 2nd plural nominative pronouns were not directly inherited in Celtic, as accusative forms prevailed (see column PC "Proto-Celtic"). Therefore, in Table 4, 1st person and 2nd plural nominative PIE pronouns are replaced by their accusative counterparts. Note that reconstructed forms are taken over from other sources, in an attempt to avoid circularity as far as possible.

Table 4: Comparison between PIE reconstructed forms of stressed pronouns (with 1st persons and 2nd plural accusative forms), Proto-Celtic (PC) forms of personal pronouns, OI stressed pronouns, OI Class A infixed pronouns and OI reconstructed forms of pronouns suffixed to prepositions governing the accusative.

Person	PIE	PC	OI stressed	OI clitic A	OI suffixed
1st sg.	*m-mé	*mī/*me	mé	m^L/mm^L	*-mu
2nd sg.	*tŭ	*tū/*tu	tú	t^L	*-tu
3rd sg. m.			é/hé	a^N/^{N}	*-em
3rd sg. f.			sí	s^N/s	*-siyam
3rd sg. n.			ed/hed	a^L/^{L}	*-ed
1st pl.	*n̥smé	*snīs	sní	n/nn	*-nnos
2nd pl.	*usmé[32]	*swīs	sí/sib	b	*-swes
3rd pl.			é/hé	s^N/s	*-sūs

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30 We will follow Szemerényi (1989) and Sihler (1995).

31 From Matasović 2009.

32 Katz (1998) has made the case that the pronominal suffixes *-mé and *-u̯é (*-we) distinguished 1st and 2nd person forms respectively, and not singular and plural. The reconstructed PIE 1st and

The phonological shape of the 1st singular clitic was likely *m(V)*,[33] as this reconstruction seems to find relevant support in both the forms reconstructed for Proto-Indo-European and Proto-Celtic 1st singular (accusative) pronoun (*m-mé* and *mī/*me*). Old Irish attested forms are also consistent with this formula. A similar reasoning seems valid also for the 2nd singular clitic, so that its phonetic shape can be reconstructed as *t(V)*.

Original Proto-Indo-European as well as Proto-Celtic 3rd singular pronominal forms are problematic to reconstruct, since demonstratives were mostly employed. In Old Irish, we have a 3rd singular masculine form *é/hé*, a feminine form *sí* and a neuter form *ed/hed*. The relevant enclitic pronoun we need to reconstruct here is probably masculine: considering that the 3rd singular masculine form corresponds to the 3rd plural (common gender) form, perhaps 3rd person clitics have a common origin. According to Lewis & Pedersen (1974: §358), the Old Irish stressed pronoun *hé* goes back to an inherited form *is*. Therefore, even if the clitic we are proposing was a reduced form, we will consider *is* the base form for our reconstructions.

The reconstruction of 1st and 2nd plural clitics is also not straightforward. It has already been mentioned that the Old Irish stressed form *sní* does not come from the Proto-Indo-European 1st plural nominative pronoun, but from an accusative pronominal form *n̥smé*, which was continued by Proto-Celtic *snīs*. In a similar way, the 2nd plural pronoun has to be reconstructed on the basis of the accusative form *usmé*. Also in agreement with this hypothesis are Lewis & Pedersen's reconstructions (1974: §357).[34] As for the 2nd plural pronoun, a rather similar form is reconstructed by Matasović (2009) for Proto-Celtic (that is, *swīs*),[35] even if its proposed origin is different: PIE *we* with an analogical prefixed *s-* (perhaps influenced by the demonstrative/3rd singular and plural pronoun stem *so-*). Katz (1998), on the other hand, deems that the Proto-Celtic plural forms were *snī* and *swī* and that the initial *s-* in the 2nd plural form is part of the original PIE form *us-wé*, whence the Celtic form is derived through aphaeresis. Despite the disagreement on this point, we can confidently hypothesise that Common Celtic had two different

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2nd plural forms are therefore *n̥s-mé* and *us-u̯é* (*-wé*) respectively, beside clitic *nos* and *u̯os* (*wos*). The Celtic evidence is crucial.

33 Where "V" stands for vowel. The reduced phonetic shape of these clitic elements may however lead us to cast doubt on the realisation of the final vowel, at least as the clitics became affixes.

34 "1., 2. pl. The indep. forms may represent orig. non-nominative *snēs*, *swēs*" (Lewis & Pedersen 1974: 215).

35 These reconstructions (*swes* and *swīs*) are confirmed by Gaulish data, where the forms *sui* (< *swīs*) and *sue* (< *swes*) occur within the same inscription (Châteaubleau tile, lines 2–5; Lambert 2000; 2003: 210; Matasović 2009: 365). Katz (1998) suggests stressed *swḗ* > *swē* > *swī* and clitic *swĕ(s)* for Common Celtic.

pronominal forms: one of these (unstressed) was directly inherited from PIE, while the other (stressed) featured an initial *s-. The split among these forms is old,[36] but its relics emerge in more than one Celtic language (e.g. Old Welsh 2nd plural pronoun *huy* vs. Middle Welsh 2nd plural pronoun *chwi*, cp. Matasović 2009: 365; Middle Breton 2nd plural pronoun *hui/huy* vs. Modern Breton 2nd plural pronoun *c'houi*, Lewis & Pedersen 1974: §354). Hence, as the pronominal elements we are dealing with here are unstressed, we will reconstruct 1st and 2nd plural clitics going back to the form without initial *s-*. They are *n(V)* (< PIE *no-*) and *w(V)* (< PIE *we-*), respectively.

3.1 Reconstruction of the present paradigm of *berid*

In this subsection we will reconstruct the paradigm of the present indicative of the verb *berid*, reported in Table 5.

Table 5: Present indicative absolute and conjunct inflection of *berid* (active). From Thurneysen 1946: §558.

Person	Absolute inflection	Conjunct inflection
1st sg.	*biru*	*-biur*
2nd sg.	*biri*	*-bir*
3rd sg.	*berid/berith*	*-beir*
1st pl.	*berm(a)i*	*-beram*
2nd pl.	*berthe*	*-berid/-berith*
3rd pl.	*ber(a)it*	*-berat*

3.1.1 1st singular: *biru* (abs.) ~ *-biur* (conj.)

According to McCone (1994: §24.2), the 1st singular present indicative ending in Old Irish was originally based on thematic *-ū* (< *-ō*), except for verb classes that resisted thematisation. Hence, Proto-Indo-European *b^her-ō* may be supposed to have given *ber-ū*. At this stage, the subject clitic may have agglutinated to the verb, giving rise to the absolute vs. conjunct opposition.

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36 In different terms, this distinction between stressed vs. unstressed pronominal forms for 1st and 2nd persons plural is maintained also by McCone (1994: §33.2) and Katz (1998: 275, fn. 48).

1st singular conjunct *-biur* proceeds regularly from the inherited form **berū >
birŭ, the outcome of Old Irish vowel affection (McCone 1994: §6.2). In Old Irish
an epenthetic *u* was inserted after short *e, i* or *o* in a syllable preceding short final
u (**birŭ > *biurŭ*; McCone 1994: §6.4). After the apocope of final syllables **biuru*
becomes *-biur* (McCone 1994: §8.3).

For the reconstruction of 1st singular absolute *biru* a short premise is necessary.
Thurneysen (1946: 362) accounts for *biru* claiming that "some element, doubtless a
consonant, has been dropped after *-u*, earlier *-ū (< *ō).*" Conversely, McCone (1994:
§24.2) suggests that 1st singular absolute *biru* was analogically created on the
shape of paradigms in which the suffix **-ye/o-* was present.[37] In these paradigms,
the 1st singular verb form (e.g. *(-)gaibiu* 'I take') regularly comes from Proto-Indo-
European: *(-)gaibiu < *gav'iuyu < *gabiyū < *gʰabʰ-yō* (McCone 1994: §23.1). Similarly
to the opposition between 1st singular *gaibiu* and 2nd singular *gaibi* of these verbs,
in McCone's view thematic paradigms with a front vowel (*e, i, ē*) also created a
new 1st singular verb form *biru* opposed to the 2nd singular *biri*.

Nevertheless, according to our hypothesis, we expect the original 1st singular
absolute verb form to come from **berū* + 1st singular clitic **m(V)*. Therefore, **berū*
+ *mV* developed into **biruṽ* after lenition, vowel affection and apocope,[38] if a final
vowel was present; alternatively, if the clitic had lost a final vowel, since the *-ū* of
*birūn < *berūm was in the final syllable but not in auslaut position because of the
clitic, it was not shortened but was preserved and shortened only later (McCone
1994: §6.4 and 10.3). In either case, we expect the final consonant to have dropped
(*ṽ* possibly by denasalisation and coalescence) after *u/ū*.

In later Irish another 1st singular absolute is attested, *berim*. This form can
easily be based on the pattern of verbs preserving the athematic ending *-m* (palatal;
see McCone 1994: §24.2).

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37 The three main Proto-Indo-European thematic present stems were (a) a stem with full grade
of the root and suffix **-e/o-*; (b) a stem with zero grade or full grade of the root and suffix **-yé/ó-*;
and (c) a stem with zero grade of the root and suffix **-ské/ó-*. These stems are directly continued
in Old Irish, so that e.g. (a) OI *berid* 'carries' < CC (Common Celtic) **ber-e-ti* < PIE **bʰér-e-ti*; (b) OI
guidid 'prays' < CC **gʷed-ye-ti* < PIE **gʷʰedʰ-yé-ti*; (c) OI *-airc* 'asks' < CC **ar-ske-ti* < PIE **pr̥[k]-ské-ti*
(McCone 1994: §23.1).

38 Here and in the rest of the paper we disregard the palatalisation of initial consonants (McCone
1994: §7.3), which is irrelevant.

3.1.2 2nd singular: *biri* (abs.) ~ -*bir* (conj.)

The 2nd singular present indicative absolute and conjunct forms *biri* and -*bir* come from Proto-Indo-European *b^her-e-s(i)*. In McCone's view (1994: §24.1) no change occurred on the 2nd singular ending *-si* which was added to -*e/o*- in the thematic inflection. On the other hand, according to McCone (1994: §24.3), a short -*i* was added to the personal ending in Old Irish (as a glide) between the personal endings and enclitic pronouns. As a consequence, we will reconstruct all the personal endings without a final short -*i* in conjunct verb forms, with a final short -*i* in absolute forms.

For the 2nd singular conjunct form, from *b^her-e-s(i)* we may posit a form *beris* given that unstressed *e* before intervocalic -*s*- becomes *i* (-*es*- > -*is*-; McCone 1994: §4.4). Subsequently, *beris* > *berih* > *beri* (McCone 1994: §4.1); then *beri* > *bir'i* (McCone 1994: §6.2 and 7.2) and *bir'i* > -*bir* (McCone 1994: §8.3).

We expect 2nd singular absolute *biri* to derive from *biris(i)* + *t*. Therefore, *birisit* > *birihit* > *birīθ* (McCone 1994: §4.1, 5.2). Subsequently, *birīθ* > *biri* (with palatal *r*; McCone 1994: §5.3, 7.2 and 8.3).

3.1.3 3rd singular: *berid/berith* (abs.) ~ -*beir* (conj.)

The base verb form for the 3rd singular present indicative is *b^her-e-t(i)*. As seen for the 2nd singular, the 3rd singular ending *-ti* added to -*e/o*- in the thematic inflection was inherited without any change (McCone 1994: §24.1).

The 3rd singular conjunct form -*beir* regularly descends from *ber-e-t* (< *b^her-e-t(i)*). We can posit *beret* > *bereθ* > *ber'*, i.e. -*beir* (McCone 1994: §5.3, 7.2 and 8.3).

We expect the 3rd singular absolute *berid* to come from *beret(i)* + *is*. Because of lenition, -*t*- > -*θ*- (*bereθis*; McCone 1994: §5.2). We may then postulate the evolution of *bereθis* into *ber'eθ'is* (McCone 1994: §7.2). After apocope and merging of the internal unstressed vowels *a*, *e*, *i* and *o* into the indistinct central vowel /ə/ (McCone 1994: §8.3 and 10.6), *ber'eθ'is* > *ber'əθ'*. Then, *ber'əθ'* > *berid* (-*ð*), due to the regular sonorisation of word-final dental fricatives (*θ* > *ð*) after unstressed vowel (McCone 1994: §10.1) and to the regular spelling of /ə/ between palatal consonants (McCone 1994: §10.6).

3.1.4 1st plural: *bermai* (abs.) ~ -*beram* (conj.)

The 1st plural present indicative regularly descends from *b^her-o-mos*, where no change occurred on the 1st plural ending *-mos* that was added to -*e/o*- in the

thematic inflection. On the basis of **beromos*, the 1st plural conjunct verb form *-beram* can easily be derived: **beromos* > **berovŏh* > **berovŏ* (McCone 1994: §4.1) and **berovŏ* > **beroṽ* (McCone 1994: §8.3). The attested *-beram* can be derived via **berəm* (McCone 1994: §10.6; with final /ṽ/ according to §24.2).

For the reconstruction of the 1st plural absolute *bermai* a certain amount of analogical levelling has to be assumed. We expect *bermai* to derive from the reconstructed verb form **beromos(i)* + **n(V)*. If the vowel of the clitic had been lost, we can reconstruct a form closer to the outcome: we may expect **beromosin* > **berovŏhin* (McCone 1994: §4.1) and, subsequently, **berovŏin* > **berovĩn* > **berṽ'ī*, through palatalisation, apocope and syncope (McCone 1994: §7.2, 8.1, 8.2 and 9.3; §10.3 for **oi > ī*). Then we can posit **berṽ'ī* > **berṽi* through depalatalisation of the cluster and shortening of the unstressed vowel (McCone 1994: §9.6 and 10.3; Eska 2012: 56). The passage from **berṽi* to attested *berm(a)i* (with internal /m/ according to McCone 1994: §24.2) may be explained as due to analogical levelling, under the influence of the copula according to McCone (1994: §24.2), that is through an extension of the athematic ending, where the absence of the thematic vowel would have prevented lenition of the personal ending initial consonant. Nevertheless, a clitic *-n* with no vowel poses some problems for the reconstruction of the 1st plural absolute form of *lécid* (see below Section 3.3).

3.1.5 2nd plural: *berthe* (abs.) ~ *-berid* (conj.)

The 2nd plural present indicative form comes from the inherited stem **bʰer* + the 2nd plural thematic ending **-e-te* (**bʰer-e-te*). In McCone's view (1994: §24.1), the ending **-e-te* evolved into **-e-tes* because of the influence of 1st plural **-o-mos*. According to Cowgill (1985: 113), followed by Eska (2012: 56), on the other hand, **-tes*, like Latin *-tis*, is the old dual ending. Be that as it may, the 2nd plural conjunct *-berid* comes directly from **beretes*. We expect **beretes* > **bereteh* > **berete* (McCone 1994: §4.1) and **berete* > **ber'eθ'e* (McCone 1994: §5.2 and 7.2). Then, **ber'eθ'e* > **ber'eθ'* (McCone 1994: §8.3) and **ber'eθ'* > **ber'əθ'* > *-berid* (with palatal /r/ and /ð/; McCone 1994: §10.6 and 10.1).

The 2nd plural absolute *berthe* is scarcely attested. According to Thurneysen (1946: §563), even if the ending in *-the* rarely occurs in the present indicative, on the basis of subjunctive and future forms the Old Irish form *berthe* is not in doubt. We expect *berthe* to derive from **beretesi* + **w(V)*. After *-i-*, either *-w-* disappeared (Thurneysen 1946: §204), so that **beretesiwV* > **beretesiV* > **beretehiV* > **bereθei* > **ber'eθ'ei* (McCone 1994: §4.1, 5.2 and 7.2), or, before a front vowel, it was palatalised, and *w' > y* (McCone 1994: §10.2), thereby giving again **ber'eθ'ei*. In the end, **ber'eθ'ei* > **ber'θ'ei* (syncope; McCone 1994: §9.3), from which the attested *berthe*.

3.1.6 3rd plural: *berait* (abs.) ~ *-berat* (conj.)

The 3rd plural inherited present indicative form is *bʰer-o-nt(i)*, with *bʰer* + 3rd plural thematic ending *-o-nt(i)*. The attested 3rd plural conjunct form *-berat* directly continues the inherited form. In Goidelic, a nasal consonant was dropped before a voiceless plosive, which was voiced (McCone 1994: §5.4). According to McCone (1994: §5.4), this occurred through nasalisation of the previous vowel, which then lost its nasalisation, voicing the following voiceless plosive (*-ont-* > *-ōt-* > *-ot-* /od/). The development of a nasal vowel, however, is an unnecessary intermediate stage for the voicing of plosives after nasals (J. J. Ohala & M. Ohala 1993: 231).[39] Thus, *beront* > *berot* /berod/. Then, *berot* > *berət* > *-berat* (McCone 1994: §10.6).

The 3rd plural absolute form *berait* comes from *beront(i)* + *is*. At first, *berontis* > *berontih* (McCone 1994: §4.1). Then, *berontih* underwent the same evolution *-ont-* > *-ot-* /od/ described for the conjunct form (McCone 1994: §5.4). Then, *berotih* > *berot'* (McCone 1994: §7.2, 8.2 and 8.3). At this stage, we expect *berot'* > *berət'* > attested *ber(a)it*, with a final palatal /d/ (McCone 1994: §10.6).[40]

3.2 Reconstruction of the preterite paradigm of *berid*

In this subsection we will reconstruct the paradigm of the preterite of the verb *berid*, reported in Table 6.

Table 6: Preterite absolute and conjunct inflection of *berid* (active). From Thurneysen 1946: §684 and McCone 1994: §29.3.

Person	Absolute inflection	Conjunct inflection
1st sg.	–	*-biurt*
2nd sg.	*birti*	*-birt*
3rd sg.	*birt*	*-bert*
1st pl.	–	*-bertam(m)ar* (< suffixless preterite)
2nd pl.	–	– (enclitic: *-ru-bartid*)
3rd pl.	–	*-ber(ta)tar* (< suffixless preterite)

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39 We owe this reference to an anonymous referee.

40 *berot* > *-berat* since *-o-* > /ə/ > *-a-* between non-palatalised consonants. In the absolute form the presence of enclitic *is* accounts for *-o-* > /ə/ > *-(a)i-* since *-o-* > /ə/ occurs between a non-palatalised and a palatalised consonant (McCone 1994: §10.6).

In general, *t*-preterite verb forms come from the inherited verbal stem + *t* + ending. In the case of *berid*, hence, we have *ber + *t* + ending. It seems nowadays clear that the radical vowel of the *t*-preterite was *-ĭ-*, and not *-e-*, as C. Watkins believed (**bʰēr-* > **bīr-* > **bĭr-*; see McCone 1994: §29.3).[41]

The reconstruction of the *t*-preterite of *berid* is entangled. On the one hand, only four absolute forms are attested (that is, the 2nd singular *birti*, the 3rd singular *birt*, the 3rd singular relative *berte* and the 3rd plural relative *bertar/bertatar*). On the other, the conjunct inflection seems regular only in the singular.

1st plural conjunct *-m(m)ar* and 3rd plural conjunct *-tar* are modelled on the suffixless preterite (McCone 1994: §29.3). Since the suffixless preterite does not display the absolute vs. conjunct opposition, the reconstruction of these verb forms is irrelevant in the framework of our hypothesis.[42] In addition to that, the 2nd plural conjunct stressed verb form is not attested (we have only the enclitic form *-ru-bartid*). For these reasons, the verb forms we will endeavour to reconstruct here are the 2nd and 3rd singular conjunct and absolute.

3.2.1 2nd singular: *birti* (abs.) ~ *-birt* (conj.)

The 2nd singular conjunct *-birt* derives quite directly from *bir + *t* + 2nd singular ending: **birtis(i)* > *birtih > *birti (McCone 1994: §4.1, 8.2) and *birti > attested *-birt* (McCone 1994: §8.3).

For 2nd singular absolute *birti*, we may reconstruct a proto-form **birtisit(V)* on the basis of *bir + *t* + 2nd singular ending + 2nd singular clitic **t(V)*. Then, *birtisit > *birtihit > *birtīθ > **bir't'īh* > *birti* (McCone 1994: §4.1, 5.2, 5.3, 7.2 and 8.3).

3.2.2 3rd singular: *birt* (abs.) ~ *-bert* (conj.)

The reconstruction of the form behind 3rd singular conjunct *-bert* is problematic on the basis of phonology only. We would expect *bir + *t* + ending *-i* to evolve into *birt after apocope. Nonetheless, the attested form is *-bert*. In McCone's view

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41 This holds *a fortiori* if the *t*-preterite is not traced back to an *s*-aorist formation, as held by McCone, following C. Watkins, but to lengthened-grade imperfects of so-called Narten presents (and is therefore cognate with long-vowel preterites in other IE languages), as held by Jasanoff (2012).

42 A 3rd plural *t*-preterite conjunct verb form ending in *-at* is attested in the Milan glosses (*asin·ru-bartat* 'they said it'; Ml.: 131ᵈ12). This ending can be found in the *s*-preterite, and derives from the Proto-Indo-European ending **-ont(i)*.

(1994: §29.3), this can be explained in two ways. On the one hand, it is possible to hypothesise that stressed radical *-i-* became *-e-* before a liquid + non-palatalised *t* (*bert-* < **birt-*).[43] On the other hand, more likely, the 3rd singular preterite conjunct is *-bert* and not *birt because of an analogical development.

Given the opposition between the 2nd singular and 3rd singular present indicative conjunct forms *-bir ~ -beir*, it is possible that, also within the preterite conjunct paradigm, 3rd singular *birt became *-bert* reflecting the same radical opposition with the 2nd singular form. Secondly, *-bert* may be due to the influence of verb forms such as *-recht* (e.g. *a·t·recht* 'raised (3rd sg.)'). Since *ī* did not evolve into *ĭ* before *-xt-*, for some verbs the *t*-preterite stem vowel was different from the present stem vowel both in length and in quality (e.g. *t*-preterite **rīx-t(-)* ~ present indicative **reg-e/o-*). This redundant differentiation was analogically levelled when the *t*-preterite **rīx-t(-)* became **rex-t(-)* on the basis of the pattern occurring with a different root vowel, such as **ax-t(-)* (*t*-preterite) ~ **ag-e/o-* (present indicative), or **or(x)-t(-)* (*t*-preterite) ~ **org-e/o-* (present indicative).[44]

The 3rd singular absolute *t*-preterite form *birt* comes from *bir + *t* + 3rd singular ending *-i* + 3rd singular clitic *is. We can posit *birtis > *birtih > *birti > *birt* (McCone 1994: §4.1, 8.2, 8.3).

3.3 Reconstruction of the present paradigm of *lécid*

In this subsection we will reconstruct the paradigm of the present indicative of the verb *lécid*, reported in Table 7.

Old Irish weak verbs are divided into two classes: one of them (the so-called AI class) shows the vowel **-ā-* in all the present indicative persons (e.g. *marbaid* 'kills'), while the other (AII) is based on an alternation between **-ī-* and **-iy-* (McCone 1994: §25.1).[45] *Lécid* belongs to the AII class. Hence, reconstructions of present indicative absolute and conjunct forms of *lécid* based on the alternation **-ī-* (2nd sg., 3rd sg., 2nd pl.) ~ **-iyū-/*-eyo-* < **-iyo-* (1st sg., 1st pl., 3rd pl.) will be provided.

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43 In this way other 3rd singular conjunct verb forms, such as *-sert* 'deployed' or *-celt* 'hid', could be accounted for as well.

44 **reg-e/o-* > OI *(at)·reig* 'raises'; **rex-t(-)* > OI *(at)·recht* 'raised (3rd sg.)'; **ag-e/o-* > OI *-aig* 'leads'; **ax-t(-)* > OI *-acht* 'led (3rd sg.)'; **org-e/o-* > OI *-oirg* 'kills'; **or(x)-t(-)* > OI *-ort* 'killed (3rd sg.)'. The long-vowel preterite hypothesis is compatible with this scenario (Jasanoff 2012: 132–133, fn. 23).

45 This alternation between **-ī-* and **-iy-/*-eyo-* is due to an original denominative or causative suffix **-eye/o-* (where **-eye* > *-ī-*; McCone 1994: §3.7).

Table 7: Present indicative absolute and conjunct inflection of *lécid* (active). From Thurneysen 1946: §556–557.

Person	Absolute inflection	Conjunct inflection
1st sg.	*léiciu/lécim*(*m*)	*-léiciu/-lécim(m)*
2nd sg.	*léci*	*-léci*
3rd sg.	*lécid*	*-léci*
1st pl.	*lécmi*	*-lécem*
2nd pl.	*lécthe*	*-lécid*
3rd pl.	*lécit*	*-lécet*

3.3.1 1st singular: *lé(i)ciu/lécim(m)* (abs.) ~ *-lé(i)ciu/-lécim(m)* (conj.)

The attested 1st singular present indicative conjunct form is *-lécim* (see Thurneysen 1946: §557). Nonetheless, it is likely that this is an analogical form, which replaced the original 1st singular conjunct verb form. Other verbs of the same AII class have a different conjunct form (e.g. 1st sg. *-ráidiu* 'I say'). Given the above-mentioned alternation between *-ī-* and *-iy-* within the paradigm of this class of verbs, it is possible to reconstruct a 1st singular conjunct form **lēg-iy-ū > *-lēgiuyu > *-lēg'iu* (*lé(i)ciu*; McCone 1994: §6.4).[46]

The 1st singular absolute form *léciu* would derive from **linkʷ-iy-ū* + 1st singular clitic **m(V)*. We may expect the verb form **linkʷ-iy-ūm* to give rise to **lēg'iūn*, whence (**lēg'iu*) *léiciu* (McCone 1994: §4.1, 7.2 and 8.2). Alternatively, **linkʷ-iy-ūm(V)* would have given rise to **lēg'iuṽ*, whence **lēg'iu* (see above on 1st singular absolute *biru*). Note that with AI weak verbs (e.g. *(-)marbaim* 'I kill') we expect the original ending to be lost and the *-imm* -/mʲ/ ending to be taken over through the analogical process described by McCone (1994: §24.2).[47]

3.3.2 2nd singular: *léci* (abs.) ~ *-léci* (conj.)

The 2nd singular conjunct form *-léci* derives from **linkʷ-ī-s(i)*, given the alternation between *-ī-* and *-iy-* and given the ending of Old Irish 2nd singular present indica-

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46 The stem had a long vowel **ē* throughout the paradigm, as well as *g* ⟨*c*⟩ < **-nkʷ-* (McCone 1994: §3.11, 5.4 and 23.5).

47 A similar analogical levelling is also required by Cowgill's particle theory (1975: 61; 1985: 114). Eska (2012) does not take up this issue. Sims-Williams (1984: 151) suggested that in the ending *-im(m)* an original 1st singular affixed pronoun had merged with the athematic ending.

tive *-s(i)* (reconstructed also for the 2nd singular forms of *berid*). Then **lēg'īs > lég'ī* (McCone 1994: §5.4, 7.2 and 8.3).

We expect the 2nd singular absolute form *léci* to derive from **linkʷ-ī-s(i)* + 2nd singular clitic. This subject clitic has been previously reconstructed as **t(V)*. Hence, *léci < *linkʷ-ī-si + *t*. We expect **linkʷisit > *linkʷihit > *lēgīθ > *lēg'īθ > lēg'i* (McCone 1994: §4.1, 5.2, 5.4, 7.2 and 8.3).

3.3.3 3rd singular: *lécid* (abs.) ~ *-léci* (conj.)

The 3rd singular conjunct verb form *-léci* derives regularly from **linkʷ-ī-t(i)* (McCone 1994: §4.1, 5.4, 7.2 and 8.3).

The 3rd singular absolute verb form *lécid* must derive from **linkʷ-ī-t(i)* + 3rd singular clitic **is*. We can posit **linkʷītis > *linkʷīθih > *lēgiθih > *lēg'iθ'ih > *lēg'iθ' > *lēg'əθ' lécid* (-/ð/; McCone 1994: §4.1, 5.2, 5.4, 7.2, 8.3, 10.1, 10.6).

3.3.4 1st plural: *lécmi* (abs.) ~ *-lécem* (conj.)

The 1st plural conjunct form *-lécem* derives from **linkʷ-iy-omos(i)* (see McCone 1994: §24.1 and 1st plural of *berid* above for an explanation of the ending). We expect **linkʷiyomos > *linkʷiyoṽoh > *lēgiyoṽo > *lēgeyoṽa > lēg'eyoṽ > *lēg'eṽ* after apocope and syncope (McCone 1994: §4.1, 5.3, 5.4, 5.7, 6.2, 7.2, 8.3, 9.3), then **lēg'əṽ -lécem* (McCone 1994: §10.6; with final /ṽ/ according to §24.2).

The expected 1st plural absolute form should stem from **linkʷ-iyo-mosi* + 1st plural clitic. If we posit a clitic **-n*, with loss of final vowel as assumed for *bermai* above, we expect, similarly to what has been posited for the conjunct form, **linkʷiyomosin > *linkʷiyoṽohin > *lēgiyoṽīn > *lēgeyoṽīn > *lēg'eyoṽ'īn > *lēg'eyoṽ'i > *lēg'yoṽ'i > *lēg'eṽ'i > *lēg'əṽ'i* (McCone 1994: §4.1, 5.4, 6.2, 10.3, 7.2, 8.1, 8.2, 9.3, 10.6; see also §25.1). The amount of analogical levelling to -/mⁱi/ is greater than what has been posited for the 1st plural of *berid* above, but still comparable to McCone's, since for AI verbs, with the suffix *ā*, the development would be similar to what posited for *berid*. According to McCone (1994: §24.2, 25.1), in fact, the 1st plural absolute ending of AII (W2) verbs was also taken over from AI (W1) verbs. It should be noted in this connection that this kind of analogy is not motivated by the need to create or maintain the contrast between the absolute and conjunct paradigms (see Schrijver 1997: 147 for criticism of this circular explanation).

A way out of this problem could be to assume that the verbal stem with the **-ī-* suffix was extended to the 1st plural at some stage. Therefore: absolute **linkʷīmosin > *linkʷīṽohin > *lēgiṽīn > *lēg'iṽ'īn > *lēg'iṽ'ī > *lēg'ṽ'ī > lécmi* (McCone 1994: §4.1,

5.4, 6.2, 10.3, 7.2, 8.2, 9.3, 10.6); conjunct *linkʷ-ī-mos* would give *lēg’ivŏh* > *lēg’iv̆* > *lēg’əṽ -lécem* (as above). A similar extension could also give the correct forms in the 3rd plural.[48]

3.3.5 2nd plural: *lécthe* (abs.) ~ *-lécid* (conj.)

The 2nd plural conjunct form *-lécid* derives from *linkʷ-ī-tes(i)* (McCone 1994: §24.1 and 25.1). We expect *linkʷites* > *linkʷiteh* > *lēgiθeh* > *lēg’iθ’e* (McCone 1994: §4.1, 5.2, 5.4, 7.2 and 8.2). In the end, *lēg’iθ’e* > *lēc’iθ’* (McCone 1994: §8.3) and *lēg’iθ’* > *lēg’əθ’ lécid* (-/ð/; McCone 1994: §10.1 and 10.6).

The 2nd plural absolute form *lécthe* comes from *linkʷ-ī-tes(i)* + 2nd plural clitic *w(V)*.[49] After *-i-*, either *-w-* disappeared (Thurneysen 1946: §204), so that *linkʷite-siw(V)* > *lēgitesi(V)*, or it was palatalised in this position, ultimately becoming *y* (McCone 1994: §10.2). Then, *linkʷitehi(wV)* > *linkʷiθehi(wV)* > *lēg’iθ’ei(w’)* > *lēg’iθ’ei(y)* > *lēc’θ’ei* (McCone 1994: §4.1, 5.2, 5.4, 7.2 and 9.3), which gives rise to the attested *lécthe*.

3.3.6 3rd plural: *lécit* (abs.) ~ *-lécet* (conj.)

The 3rd plural conjunct form *-lécet* comes from *linkʷ-iy-ont(i)* (McCone 1994: §24.1 and 25.1). At first, *linkʷiyont* > *lēgiyod* > *lēgeyod* > *lēg’ed* (McCone 1994: §5.4, 7.2, 9.3), with a palatalised *-g-* and a non-palatalised final consonant (McCone 1994: §25.1 and cf. the reconstruction of 3rd plural present indicative *berait* (abs.) ~ *-berat* (conj.) above). Then, *lēg’ed* > *lēg’əd* (⟨*lécet*⟩, attested).

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48 The phonological difficulties due to an extra syllable and to the lack of lenition of *-m-* in the paradigm of this class of verbs are not directly addressed either in Cowgill's (1975; 1985), Schrijver's (1994; 1997), or Eska's (2003; 2012) accounts, which would seem to imply that these authors assume stem levelling.

49 This reconstruction seems consistent with the 2nd plural Middle Welsh ending *-wch* (e.g. *kerwch* 'you love'). According to D. S. Evans (1964: §130), this ending contains the 2nd plural affixed pronoun *swēs* > *chwi*, which coalesced with the earlier ending *-t(e)* (cp. Old Irish 2nd plural conjunct ending *-ith*, *-id*), that is attested in a few early examples (e.g. *dywëyt*, ms. *dyweit* 'you declare', BT. 27.16; *erlynyt* 'you follow', BT. 27.17). The fact that the form of the 2nd plural pronoun which coalesced with the original ending goes back to *sw(V)* and not to *w(V)* is not of major concern, as the Middle Welsh ending *-wch* is a later form, analogically built when the only 2nd plural pronoun available in Welsh was the originally stressed *chwi* < *s-* + 2nd pl. (but see Matasović 2009: 365: M[iddle] W[elsh] *chwi* vs. O[ld] W[elsh] *hui*).

The 3rd plural absolute form *lécit* derives from **linkʷ-iy-ont(i)* + 3rd plural clitic **is*. Thus, **linkʷiyontis* > **linkʷiyontih* (McCone 1994: §4.1) and then the same evolutions discussed above for the conjunct form occur here, so that **linkʷiyontih* > **lēgiyodih* (McCone 1994: §5.4) and **lēgiyodih* > **lēg'eyod'i* > **lēg'ed'i*, with palatalised *-g-* and *-d-* (McCone 1994: §25.1 and cf. the reconstruction of 3rd plural present indicative *berait ~ -berat* above). Subsequently, **lēg'ed'i* > **lēg'ed'* > **lēg'əd'* (⟨*lécit*⟩; McCone 1994: §8.3, 10.6), since /ə/ was between palatalised consonants, as against the conjunct form.

3.4 Reconstruction of the preterite paradigm of *lécid*

In this sub-section we will reconstruct the paradigm of the preterite of the verb *lécid*, reported in Table 8.

Table 8: Preterite absolute and conjunct inflection of *lécid* (active). From Thurneysen 1946: §674.

Person	Absolute inflection	Conjunct inflection
1st sg.	–	*-lécius*
2nd sg.	–	*-lécis*
3rd sg.	*lécis*	*-léc*
1st pl.	–	*-lécsem*
2nd pl.	–	*-lécsid*
3rd pl.	*lécsit*	*-lécset*

AII verbs (such as *lécid*) show the so-called *s*-preterite. According to Thurneysen (1946: §672), the stem of the *s*-preterite is formed by adding *s* (< *ss*) to the final vowel of the stem (that is, *-ī-* in the case of *lécid*). As far as *lécid* is concerned, we will reconstruct only the 3rd persons, since these are the only forms displaying the absolute vs. conjunct opposition within the preterite paradigm. In addition, following the "composite paradigm of the attested forms" proposed by Thurneysen (1946: 417), we will try to reconstruct the *s*-preterite endings attested in other verbal paradigms. Thus, 1st singular *gabsu* 'I took' (from *gaibid*) and 2nd singular *sóers(a)i* 'you freed' (from *saeraid*) will be taken into account.

3.4.1 3rd singular: *lécis* (abs.) ~ *-léic* (conj.)

The 3rd singular preterite conjunct form *-léic* should derive from **link^w-ī-s(s)*. We expect **lēgīh > *lēg'i* (McCone 1994: §4.1, 5.4, 7.2 and 8.2); the *-i* ending is in fact attested for some AII verbs (Thurneysen 1946: §678), but according to Thurneysen (1946: §672), the usual loss of the ending in the conjunct form shows that forms with a short stem-final vowel had become predominant (therefore **lēgīh > *lēg'*). McCone (1994: §29.2) rather suggests that since the conjunct form was homophonous with the 3rd singular present form, it was substituted by the ending of AII verbs with a different stem in the present (i.e. original causatives). For the sake of our hypothesis this is irrelevant. For the other forms, either a long or a short vowel will give the same results.

The 3rd singular preterite absolute form *lécis* comes from **link^w-ī-s(s)* + clitic **is*. We can posit **link^{w}īs(s)is > *lēg'is(s)'i* (McCone 1994: §4.1, 5.4, 7.2 and 8.2) and then **lēg'is(s)'i > *lēg'is'* (⟨*lécis*⟩; McCone 1994: §8.3, 10.6; with unstressed *i* > /ə/ ⟨*i*⟩ between palatal consonants).

3.4.2 3rd plural: *lécsit* (abs.) ~ *-lécset* (conj.)

The 3rd plural preterite conjunct verb form *-lécset* derives from **link^w-ī-s(s)-ont(i)*. We can posit **link^{w}īs(s)ont > *lēgis(s)od* (McCone 1994: §5.4, 6.2). Then, **lēgis(s)od > *lēg'is(s)od > *lēg's(s)od* (McCone 1994: §7.2 and 9.3), then **lēg's(s)od > *lēc's(s)'əd -lécset* (with a palatal cluster, but a non-palatal final consonant; McCone 1994: §9.6 and 10.6).

The 3rd plural preterite absolute form *lécsit* comes from **link^w-ī-s(s)-ont(i)* + clitic **is*. Thus, **link^{w}īs(s)ontis > *link^{w}īs(s)ontih* (McCone 1994: §4.1). Then, as seen above, **link^{w}īs(s)ontih > *lēgis(s)odih > *lēg'is(s)od'i* (McCone 1994: §5.4, 6.2, 7.2 and 8.2), and **lēg'is(s)od'i > *lēg'is(s)od' > *lēg's(s)od'* (McCone 1994: §8.3 and 9.3). In the end, **lēg's(s)od' > *lēc's(s)'əd' lécsit* (attested; again with a palatal cluster, but with a palatal final consonant; McCone 1994: §9.6 and 10.6).

3.4.3 1st singular *gabsu*; 2nd singular *sóers(a)i*

The 1st singular *s*-preterite ending *-su* (*gabsu* 'I took') according to our hypothesis must derive from the *-s(s)-* preterite marker + the 1st singular personal ending **-ū* + the 1st singular clitic **m(V)*. Thus, **-sūm(V) > -suṽ* (McCone 1994: §4.1, 6.2, 8.3) > **-sū > -su*. The same outcome is expected if the clitic vowel had been lost earlier, since in that case *-ū-* was not shortened. 2nd singular *s*-preterite ending

-sai (*sóersai* 'you freed') derives from the *-s(s)-* preterite marker + the 2nd singular personal ending *-*es(i)* + the 2nd singular clitic *-*t(V)*. We can posit *-*sesit* > *-*sisit* (McCone 1994: §4.4) and *-*sisit* > *-*sihit* > *-*sīθ* (McCone 1994: §4.1). In the end, *-*sīθ* > *-si* (McCone 1994: §8.3) or *-s(a)i* (see Thurneysen 1946: §98) when *-s-* was depalatalised (McCone 1994: §9.6).

4 Compound verbs and "anomalous" patterns of initial mutation

In general, Old Irish conjunct inflection occurs with a pretonic part (first preverb or conjunct particle and possibly infixed pronoun) and a tonic part. The pretonic and the tonic part of the verb are connected by a close juncture; therefore, according to the diachronic phonological rules of Old Irish, we would expect the first phoneme of the tonic portion to be lenited when it occurred between vowels, that is, when the pretonic part of the verb ended in a vowel. Conversely, we would expect no mutation on the first consonant of the tonic portion of the verb form if the pretonic portion ended in a consonant.

For example, following Boling (1972), *fos·cíallathar* 'takes care of them' would come from **wo sus(s) kʷeislātor*, regularly without lenition of the first consonant of the tonic part of the verb. Nevertheless, Boling provides two examples which do not follow this rule (13–14):

(13) *fo·cíallathar* 'takes care of' < **wo=kʷeislātor*[50]

(14) *fom·chíallathar* 'takes care of me' < **wo + me=kʷeislātor*

In (13) the diachronically expected lenition of *-c-* is lacking. Conversely, in example (14) *-c-* is lenited, but *-m-* is not lenited, even if it originally occurred between vowels (**wo + me*).

Similar cases are well-known in the literature. For instance, Dillon (1947) recognises that there are some prepositions (occurring also as preverbs) originally ending in a vowel, which as prepositions lenite the following noun, but as preverbs do not lenite the initial of the verb, even if the diachronic phonological pattern is identical.

These anomalies of the phonological pattern of evolution of Old Irish initial mutations have been accounted for in several ways. Certain authors reconstruct a particle that was inserted in all compound verbs between preverb and verb. This

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50 Note that these are Boling's reconstructions (1972: 76).

is a logical explanation entailed by the above-described particle theory (see Section 1).[51] C. Watkins (1963) proposed that lenition would be prevented by a "zero particle" between preverb and verb. According to him, given that preverbs underwent univerbation with verbs at a late stage, they do not follow the phonological rules of lenition or truncation. McCone (1979) likewise connected these anomalous patterns of mutation with univerbation, but avoided the shortcomings of a single late univerbation process, which would also prevent lenition after pronominal infixes, by assuming that univerbation predates the loss of final consonants but that deuterotonic compound verbal forms with no infixes in initial position are a later development. If these verbal forms originated after the apocope of final consonants, the pretonic part of the verb would not have provided indication of the appropriate mutation for the beginning of the rest of the verb. Thus, the tonic portion would have remained in its neutral form, i.e. unlenited. Koch (1987) believed that all the phonological irregularities associated with the Old Irish verb can be explained on the basis of the position and nature of the accent in Proto-Celtic. Finally, Isaac (1993) claimed that it is the separate phrasing of first (e.g. the preverb) and second (e.g. the verb) constituents in the sentence that can explain the non-mutation of the second of these constituents. For a form such as *do·cuirethar* 'invites', for instance, even if *do* and *cuirethar* form a single lexical compound, the syntactic treatment separates the preverb from the rest of the verb, so that there is no mutation as there is no intraphrasal juncture.[52]

   Despite all these explanations, the issue of the patterns of initial mutations is still not clearly understood. Perhaps one of the problems is that most of the explanations briefly sketched above – with the exception of Isaac's (1993), which

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51 As alluded to above, the shape of this particle has been differently reconstructed: **s* < **est* (Thurneysen 1907), **is* (Dillon 1947), **ed* (Boling 1972), **es* (Cowgill 1975; 1985), **eti* (Schrijver 1994; 1997).

52 According to Isaac (1993), initial mutations operate only phrase-internally. As far as the verbal complex is concerned, when the mutation between preverb and infixed pronoun does not take place, it is because the juncture between them is not the strictly intraphrasal type, which is conducive to mutation. In a verb form such as *fo-mm·chain* 'sings to me', for example, while the infixed pronoun is in a clear syntactic and semantic relation with the verb, the same thing does not happen between the two constituents *fo* and *-mm-*. Thus, there is no mutation of the pronoun. The principle that segments compound verbs into P_1, which occupies the same position as conjunct particles, and V is the L(ight) C(onstituent) F(irst). Light constituents are non-branching. Note that LCF and Wackernagel's Law are seen as synchronic rules operating in Old Irish, so that separate phrasing of preverbs and verbs is allowed in a flat structure. The same separate phrasing applies to V + enclitic pronoun and conjunct particle + V, although they form a single phonological word. Rather than a similar configurational analysis, we will pursue here a morphological explanation; still, we may note that syntactic separation of semantically close units is shown by the separable verbs of some Germanic languages.

is based on syntactic configuration – rely exclusively on phonology. By contrast, a function-oriented explanation of the distribution of mutation/non-mutation between preverb and verb can help in addressing this apparently unpredictable behaviour.

We will therefore shift to a morphological explanation, taking into account the deuterotonic and prototonic forms of two compound verbs which are both based on the same root as *berid*, that is, *do·beir* 'give' and *as·beir* 'say'. One of these verbs shows a preverb ending in a vowel, while the other shows a preverb ending in a consonant.

As claimed above, if the two (deuterotonic) compound verbs *do·beir* and *as·beir* are considered, the latter would be regular (*as·beir* is composed of *as* and *beir*, with a phonologically regular non-mutation of -*b*-), while the former would be irregular (we would expect the internal -*b*- to be lenited).

Remarkably, however, in both *do·beir* and *as·beir* the first consonant of the verb stem (-*b*-) is non-mutated in declarative sentences. Conversely, when the two verb forms occur as relative verb forms, the same consonants undergo initial mutation.[53] This distribution occurs in spite of the phonological structure of the preverb, given that both with preverbs ending in a vowel and with preverbs ending in a consonant the first phoneme of the tonic portion of the verb form is non-mutated in declarative clauses, while it is mutated in relative clauses.

The initial mutation occurring on the first phoneme of the tonic portion of compound verbs in relative forms is diachronically motivated. The lenition occurring on the first phoneme of the tonic part of the verb form is due to *yo, which was inserted between preverb and verb, and caused the initial mutation, whatever the final phoneme of the preverb (see Section 2 above). As far as non-relative verb forms are concerned, it is tempting to believe that their lack of mutation is due to the same subject clitic that is responsible for the absolute vs. conjunct opposition

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53 The relative form of e.g. *do·beir* can display either lenition of -*b*- or nasalisation of -*b*-. Lenition is mandatory when the antecedent of the relativised verb form is the subject of the relative clause, while it is optional when the antecedent of the relativised verb form is the object. Nasalisation appears when the antecedent refers to the time at which the event of the relative clause takes place, when the antecedent designates the manner of the event of the relative clause, when the antecedent is the verbal noun of the relativised verb form, when the antecedent supplies the nominal predicate of the relative clause, (optionally) when the antecedent of the relativised verb form is the object of the relative clause, or when the antecedent specifies the source or cause of the action of the relative clause (Thurneysen 1946: §494–504). According to Ó hUiginn (1986), initial relative nasalisation (i.e. on simple verbs) is an old feature, possibly due to sandhi phenomena, whence it analogically spread to compound verbs mirroring the leniting relative clause pattern. If so, it may not directly concern the development of the system we are reconstructing.

in simple verbs (Preverb + clitic + Verb > Preverb + [(NM)]Verb.[conj.]). This hypothesis will be further scrutinised at the end of this section.

From a synchronic standpoint, for Old Irish compound verbs it is possible to sketch the following opposition (15):

(15) (NON-MUTATED) non-relative *do·beir* vs. (MUTATED) relative *do·beir*
(NON-MUTATED) non-relative *as·beir* vs. (MUTATED) relative *as·beir*

When object (infixed) pronouns were present, a different set of pronominal morphemes were used, the so-called Class C infixed pronouns, which involved a lenited initial consonant (Thurneysen 1946: 257–260). The sketch in (15) may therefore lead us to conclude that the Old Irish system of initial mutations in compound verbs was not based on a diachronic, phonologically motivated development, but rather was a morphologically relevant phenomenon (that is to say, the opposition non-mutated vs. mutated consonant conveyed grammatical distinctions). In a sense, it can be claimed that the morphological phenomenon of initial mutations "concealed" the phonological phenomenon of initial mutations, so that, from our perspective, we can observe only the results of a (synchronic) system in which the non-mutated consonant vs. mutated consonant opposition conveyed the distinction between a declarative (non-relative) vs. relative use of verbs, rather than the result of a (diachronic) system in which that opposition was based on the historical phonological rules of Old Irish.

The passage from phonology to morphology must not have been immediate, and a certain overlap between the two levels may reasonably be expected. This evolution can be summarised as in Table 9.

Table 9: The evolution of the system of initial mutations in Old Irish. "Prep-V" stands for preposition ending in a vowel, "Prep-C" stands for preposition ending in a consonant. The label "preposition" is valid for both prepositions and preverbs.

Phonologically determined mutations	Morphologically determined mutations
Prep-V → MUTATION	Relative verb form → MUTATION
Prep-C → NON-MUTATION	Non-relative verb form → NON-MUTATION
	⟶
fo chloich 'under a stone'	*fo·cheird* 'that puts'
a (< *as*) *bruidin* 'out of a hostel'	*fo·ceird* 'puts'

To better understand how this alternation between a non-mutated and a mutated verb form could have been based on morphology rather than on phonology, a comparison with the sonorisation of intervocalic alveolar fricatives in some Northern

varieties of Italian will be established (see Canepari 1979: 205–212 and Schmid 1999: 134–135, 147–148).

In these varieties, intervocalic alveolar fricatives are regularly voiced. For instance, the phonetic shape of *casa* 'house' is [ˈkaːza]. In fact [s] and [z] appear to be in complementary distribution: a word-initial alveolar fricative occurring before a vowel is always voiceless as in standard Italian (e.g. *sera* 'evening' [ˈseːra]). Nevertheless, when the intervocalic fricative is on the boundary of a morpheme, it can happen to be voiceless despite the phonological rules of these varieties (e.g. *buonasera* 'good evening' [ˌbwɔnaˈseːra], *risegnare* [riseˈɲaːre] 'to score again', with a clear boundary between the productive derivative prefix *ri-* and the verb stem in *segnare*). In this and similar cases, the voiceless alveolar fricative occurs on a morpheme boundary, which prevents the application of the word-internal phonetic rule. Remarkably, a word-initial alveolar fricative is never voiced after proclitics ending in a vowel (e.g. *la sera* 'the evening' [laˈseːra], *lo so* 'I know it' [loˈsɔ]), while an alveolar fricative at the beginning of an enclitic occurring after a word-final vowel is usually voiceless as in Standard Italian but may be voiced in some varieties (e.g. *cercasi* [ˈtʃɛrkasi] or [ˈtʃɛrkazi] 'is looked for/wanted'; Canepari (1979) mentions the latter form for Piedmont).

It has to be added that in some cases both the voiced and the voiceless alveolar fricative are admitted. For example the phonetic shape of the word *presidente* 'president' can either be [presiˈdente] or [preziˈdente]. It is likely that this alternation is directly due to the fact that the morpheme boundary may or may not be immediately perceived by speakers, since *pre-* can be recognised as a prefix but the form of the rest of the word *sidente* cannot be straightforwardly connected either to *sedere* 'to sit' or to *presiedere* 'to chair' (in fact this word is an old formation).

The behaviour of Old Irish prototonic forms might be consistent with the same scenario. On the one hand, the internal lenited *-b-* in *-tabair* can be explained on the basis of phonology (see *casa* 'house' [ˈkaːza]). On the other hand, the non-mutation vs. mutation of the first consonant of the verb stem in deuterotonic forms (e.g. *do·beir*) depends on the preservation of a morphological boundary (cp. *buonasera* 'good evening' [ˌbwɔnaˈseːra], *risegnare* [riseˈɲaːre] 'to score again', *presidente* 'president', either [presiˈdente] or [preziˈdente]).

The fact that originally the first consonant of the verb stem (as well as the first consonant of nouns) could be mutated after preverbs ending in a vowel can be easily proved. Indeed, the prototonic forms corresponding to deuterotonic non-mutated verb forms following preverbs originally ending in a vowel exhibit the expected mutations (e.g. *do·coid* 'went' vs. *ní·dechuid* 'did not go').

This distinction between deuterotonic and prototonic forms deserves to be analysed more carefully. Let us consider the 3rd singular present indicative deuterotonic form *do·beir* (/dəˈb⁽ʲ⁾erʲ/, with non-mutation of *-b-*) and the corresponding

prototonic form *-tabair* (/ˈtavərʲ/, with lenition of *-b-*). The internal *-b-* in *-tabair* is always lenited, with no difference due to the declarative vs. relative sentence in which this verb form occurs. This persistence of the phonologically expected mutation of *-b-* in prototonic verb forms can be explained by taking into account the boundary between the preverb *do* and the verb stem. In deuterotonic verb forms, the morphological boundary between preverb and verb is still clearly marked by stress, which in Old Irish is regularly on the first syllable, and in these forms on the verb's radical syllable. At this morphological boundary pronominal morphemes (infixes) can be inserted. On the contrary, in prototonic forms, this boundary is not recognisable anymore. In prototonic forms the relevant morpheme boundary is that between the form-initial conjunct particle and the verb, and that is where mutation in relative clauses can occur. For this reason, internal *-b-* in prototonic *-tabair* is always (phonologically regularly) lenited: since it does not occur on the relevant morpheme boundary, this consonant does not convey the relative vs. non-relative distinction.

The relevant morpheme boundary, in fact, can be determined on the basis of the stress of the verb form, bearing in mind that Gaelic has fixed stress on the first syllable of a word. The phoneme which can undergo initial mutation conveying the non-relative vs. relative distinction is always the initial phoneme of the stressed syllable.

A concluding remark concerns the origin of non-mutated deuterotonic forms such as *do·beir*. Given that the morphological non-mutated declarative vs. mutated relative opposition has concealed the original phonologically based opposition, it is quite problematic to understand the origin of the non-mutated forms in cases in which lenition would be predicted on the basis of phonology.

From a diachronic point of view, as briefly mentioned above, it is tempting to reconstruct the non-mutated verb forms according to our paradigm concerning the absolute vs. conjunct opposition. According to our theory, we would expect the subject clitic – which is responsible for the absolute vs. conjunct opposition in simple verbs – to be inserted after the first preverb in (declarative) compound verbs (Preverb + clitic + Verb > Preverb + $^{(NM)}$Verb.$^{conj.}$). By contrast, *yo would occupy the same position in relative compound verbs (Preverb + *yo + Verb > Preverb + $^{(M)}$Verb.$^{conj.}$).

A verbal pattern such as Preverb + clitic + Verb may elegantly explain the origin of unexpected non-mutation on the first phoneme of the verb stem after preverbs ending in a vowel. The same thing is valid for relative compound verb forms, where we expect the first consonant of the verb stem to undergo initial mutation due to the insertion of *yo, regardless of the final phoneme of the preverb.

This hypothesis seems plausible. The fact that the subject clitic left no traces except non-mutation within the verbal paradigm appears rather unproblematic.

It has to be remembered that according to our hypothesis such a clitic lost its morpho-syntactic independence at quite an early stage, being employed to mark the declarative use of verbs. Hence, presumably, once this grammatical value was upheld by non-mutation (and, in parallel, *yo* as a marker of relativisation left its place to lenition), the inserted clitic disappeared due to the phonological changes that affected the Old Irish system in prehistoric phases of the language. It is important to stress in this connection that while subject clitics became obligatory and eventually became affixes in Insular Celtic languages, pronominal object markers preserve clitic features even in Old Irish (non-obligatoriness, alternative positioning with respect to the verb, mutation-triggering in proclitic position). Therefore, we expect morphological levelling of the phonological effects of original subject clitics, but less so for object markers.

5 Conclusions

In this paper we have examined the issue of the origin of absolute vs. conjunct inflection. After a presentation of the previous literature (Section 1), we presented our own hypothesis (Section 2). In our view, a subject clitic is responsible for this peculiarity of the Insular Celtic verbal system. This originally pronominal clitic came to mark the declarative vs. relative use of a verb in complementary distribution with *yo* (so that declarative simple verbs < Verb + clitic; relative simple verbs < Verb + *yo*; declarative compound verbs < Preverb + clitic + Verb; relative compound verbs < Preverb + *yo* + Verb).

From a diachronic perspective, it is likely that verbs, in prehistoric phases of the Insular Celtic languages, used to "host" (originally as an enclitic, which later became an affix) either a deictic or an anaphoric pronoun (which then developed a relative meaning), depending on the syntax and illocutionary force of the clause (i.e. in main declarative clauses V + deictic, while in dependent relative clauses V + anaphoric/relative). This hypothesis relies also on data from Continental Celtic and could explain the incompatibility of person-inflected verb forms with subject pronouns in Old Irish.

Both the deictic and the anaphoric elements were reanalysed as clause markers, that is, the former became a declarative marker, the latter a relative marker. Given the Insular Celtic basic VSO word order, which forced these linguistic elements into a rather fixed position, they became part of verb forms, "detaching" the set of absolute as well as the set of relative endings from the set of (inherited) conjunct endings.

In Section 3 we have reconstructed the absolute vs. conjunct verb forms of the present indicative and the preterite indicative of the simple Old Irish verbs *berid* 'bring' and *lécid* 'leave' according to our theory. The phonological shapes of the subject clitics we reconstruct are: 1st sg. *m(V)*, 2nd sg. *t(V)*, 3rd sg. *is*, 1st pl. *n(V)*, 2nd pl. *w(V)* and 3rd pl. *is*.[54] All the phonetic developments which have been assumed to account for the attested forms, with a single exception (final *-uṽ* > *-u*), are based on McCone 1994, that is, a source which does not share our view. Recourse to analogy has been limited.

In the end, in Section 4 we considered the case of compound verbs. According to the diachronic phonological rules of Old Irish we would expect the first phoneme of the tonic portion of verbs to be lenited when occurring after a preverb ending in a vowel. Nevertheless, this diachronically expected pattern of mutation on the verb stem does not regularly take place. We accounted for the distribution of such patterns of mutation from a synchronic and functional standpoint (i.e. morphological and not phonological and diachronic).

In diachronic terms, according to our theory concerning the origin of the absolute vs. conjunct opposition, we posit the subject clitic responsible for the absolute vs. conjunct opposition in simple verbs to be inserted after the first preverb in (declarative) compound verbs (Wackernagel's position). On the other hand, *yo* would occupy the same position in relative compound verbs. This led to a synchronic functional system in which a compound verb form in a declarative clause bore non-mutation on the first phoneme of the stressed syllable, while a compound verb form in a relative clause bore mutation on the same phoneme.

Hence, in a sense, the morphological phenomenon of initial mutations "conceals" the phonological phenomenon of initial mutations, so that from our perspective we can observe only the results of a system in which the non-mutated consonant vs. mutated consonant opposition conveyed grammatical distinctions, rather than a system in which that opposition was based on the historical phonology of Old Irish.

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54 Where "V" stands for vowel and "C" stands for consonant.

Abbreviations

BT   J. Gwenogvryn Evans (1910). *The Book of Taliesin*. Llanbedrog.

Ml.   "The Milan glosses on the psalms" (1901–1903). In: *Thesaurus Palaeohibernicus. A Collection of Old Irish Glosses and Scholia Prose and Verse*. Ed. by Whitley Stokes & John Strachan. Vol. 1. Dublin: Dublin Institute for Advanced Studies, 7–483. Repub. in Aaron Griffith & David Stifter. *A dictionary of the Old-Irish glosses in the Milan Codex Ambrosianus C301 inf.* 2013. URL: http://www.univie.ac.at/indogermanistik/ milan_glosses.htm. Institut für Sprachwissenschaft, Universität Wien.

MLH   Jürgen Untermann & Dagmar S. Wodtko, eds. (1975–2000). *Monumenta linguarum Hispanicarum*. Vols 1–3 ed. by Jürgen Untermann; 4 by Jürgen Untermann (with Dagmar S. Wodtko); 5.1 by Dagmar S. Wodtko. 5 vols. Wiesbaden: Reichert.

Peniarth   Simon Rodway & Graham R. Isaac (2002). "A manuscript in the Peniarth collection". In: *Rhyddiaith Gymraeg o Lawysgrifau'r 13eg Ganrif. Testyn Cyflawn*. Aberystwyth: University of Wales Press.

RBH   J. Gwenogvryn Evans (1911). *The Poetry in the Red Book of Hergest*. Llanbedrog.

RV   Barend A. van Nooten & Gary B. Holland (1994). *Rig Veda. Metrically Restored Text with an Introduction and Notes*. Cambridge, MA: Harvard University Press.

Bibliography

Bergin, Osborn (1938). "The syntax of the verb in Old Irish". In: *Ériu* 12, 197–214.

Boling, Bruce D. (1972). "Some problems of the phonology and morphology of the Old Irish verb". In: *Ériu* 23, 73–101.

Breatnach, Liam (1977). "The suffixed pronouns in Early Irish". In: *Celtica* 12, 75–107.

Canepari, Luciano (1979). *Introduzione alla fonetica*. Torino: Einaudi.

Cowgill, Warren (1975). "The origins of the Insular Celtic conjunct and absolute verbal endings". In: *Flexion und Wortbildung*. Akten der V. Fachtagung der Indogermanischen Gesellschaft, Regensburg, 1.–4.9.1973. Ed. by Helmut Rix. Wiesbaden: Reichert, 40–70.

Cowgill, Warren (1985). "On the origin of the absolute and conjunct verbal inflection of Old Irish". In: *Grammatische Kategorien. Funktion und Geschichte*. Akten der VII. Fachtagung der Indogermanischen Gesellschaft, Berlin, 20.–25. Februar 1983. Ed. by Bernfried Schlerath. Wiesbaden: Reichert, 109–118.

Dillon, Miles (1947). "On the structure of the Celtic verb". In: *Language* 19, 252–255.

Ebel, Hermann W. (1871). *Grammatica Celtica*. Berlin: Weidmann.

Eska, Joseph F. (1989). *Towards an Interpretation of the Hispano-Celtic Inscription of Botorrita*. Innsbruck: Institut für Sprachwissenschaft.

Eska, Joseph F. (2003). "The distribution of the Old Irish personal object affixes and forward reconstruction". In: *Proceedings of the 14th Annual UCLA Indo-European Conference, Los Angeles, 8–9 November 2002*. Ed. by Karlene Jones-Bley et al. Washington: Institute for the Study of Man, 25–36.

Eska, Joseph F. (2012). "Absolute and conjunct, Cowgill and apocope". In: *The Indo-European Verb*. Proceedings of the Conference of the Society for Indo-European Studies, Los Angeles, 13–15 September 2010. Ed. by H. Craig Melchert. Wiesbaden: Reichert, 51–59.

Evans, D. Simon (1964). *A Grammar of Middle Welsh*. Dublin: Dublin Institute for Advanced Studies.

Frisk, Hjalmar (1960–1972). *Griechisches etymologisches Wörterbuch*. 3 vols. Heidelberg: Winter.

Givón, Talmy (1976). "Topic, pronoun and grammatical agreement". In: *Subject and Topic*. Ed. by Charles N. Li. New York: Academic Press, 151–188.

Griffith, Aaron (2013). "Applying Haspelmath's Argument Indexing to Old Irish and Middle Welsh pronominal marking". Paper presented at the Österreichische Linguistiktagung 2013, Salzburg, November 2013.

Haspelmath, Martin (2013). "Argument indexing. A conceptual framework for the syntactic status of bound person forms". In: *Languages Across Boundaries. Studies in Memory of Anna Siewierska*. Ed. by Dik Bakker & Martin Haspelmath. Berlin: de Gruyter, 197–225.

Holland, Gary B. (1991). "Definiteness and relativization in the Rigveda". In: *Sense and Syntax in Vedic*. Ed. by Joel P. Brereton & Stephanie W. Jamison. Leiden: Brill, 22–32.

Isaac, Graham R. (1993). "Issues in the reconstruction and analysis of Insular Celtic syntax and phonology". In: *Ériu* 44, 1–32.

Isaac, Graham R. (1996). *The Verb in the Book of Aneirin. Studies in Syntax, Morphology and Etymology*. Tübingen: Niemeyer.

Isaac, Graham R. (2007). "A new conjecture on the origins of absolute and conjunct flexion". In: *Ériu* 57, 49–60.

Jasanoff, Jay H. (2012). "Long-vowel preterites in Indo-European". In: *The Indo-European Verb*. Proceedings of the Conference of the Society for Indo-European Studies, Los Angeles, 13–15 September 2010. Ed. by H. Craig Melchert. Wiesbaden: Reichert, 127–135.

Katz, Joshua T. (1998). "Archaische keltische Personalpronomina aus indogermanischer Sicht". In: *Sprache und Kultur der Indogermanen*. Akten der X. Fachtagung der indogermanischen Gesellschaft. Innsbruck, 22.–28. September 1996. Ed. by Wolfgang Meid. Innsbruck: Institut für Sprachwissenschaft, 265–291.

Klein, Jared S. (1992). *On Verbal Accentuation in the Rigveda*. New Haven: American Oriental Society.

Koch, John T. (1987). "Prosody and the Old Celtic verbal complex". In: *Ériu* 38, 143–176.

Koch, John T. (1991). "On the prehistory of Brittonic syntax". In: *Studies in Brythonic Word Order*. Ed. by James Fife & Erich Poppe. Amsterdam & Philadelphia: Benjamins, 1–43.

Kortlandt, Frederik H. (1979). "The Old Irish absolute and conjunct endings and questions of relative chronology". In: *Ériu* 38, 35–53.

Kuryłowicz, Jerzy (1964). *The Inflectional Categories of Indo-European*. Heidelberg: Winter.

Lambert, Pierre-Yves (2000). "Le nouveau texte gaulois de Châteaubleau (Seine-et-Marne)". In: *Études Celtiques* 34, 71–116.

Lambert, Pierre-Yves (2003). *La langue gauloise. Description linguistique, commentaire d'inscriptions choisies*. Paris: Errance.

Lewis, Henry & Holger Pedersen (1974). *A Concise Comparative Celtic Grammar*. 3rd ed. Göttingen: Vandenhoeck & Ruprecht.

Lyons, Christopher (1999). *Definiteness*. Cambridge: Cambridge University Press.

Matasović, Ranko (2009). *Etymological Dictionary of Proto-Celtic*. Leiden & Boston: Brill.

McCone, Kim R. (1979). "Pretonic preverbs and the absolute verbal endings in Old Irish". In: *Ériu* 30, 1–34.

McCone, Kim R. (1987). *The Early Irish Verb*. Maynooth: An Sagart.

McCone, Kim R. (1994). "An tSean-Ghaeilge agus a Réamhstair". In: *Stair na Gaeilge*. Ed. by Kim R. McCone et al. Maigh Nuad: Roinn na Sean-Ghaeilge, Coláiste Phádraig, 61–219.

Meid, Wolfgang (1963). *Die indogermanischen Grundlagen der altirischen absoluten und konjunkten Verbalflexion*. Wiesbaden: Harrassowitz.

Meid, Wolfgang (1972). "On two points of Celtic morphology". In: *Études Celtiques* 13, 346–352.

Meid, Wolfgang (1994). *Celtiberian Inscriptions*. Budapest: Archaeolingua Alapítvány.

Meillet, Antoine (1907). "À propos de v. irl. beri". In: *Mémoires de la Société de Linguistique de Paris* 14, 412–415.

Morris Jones, John (1913). *A Welsh Grammar. Historical and Comparative*. Oxford: Clarendon.

Newton, Glenda E. (2006). *The Development and Loss of the Old Irish Double System of Verbal Inflection*. PhD thesis. University of Cambridge.

Newton, Glenda E. (2007). "The development of head movement. The rise of verb-initial word order in Old Irish". In: *Proceedings of ConSOLE XIV*. Ed. by Sylvia Blaho, Luis Vicente & Erik Schoorlemmer. Leiden: Leiden University, 239–258.

Ó hUiginn, Ruairí (1986). "The Old Irish nasalizing relative clause". In: *Ériu* 37, 33–89.

Ohala, John J. & Manjari Ohala (1993). "The phonetics of nasal phonology. Theorems and data". In: *Nasals, Nasalization and the Velum*. Ed. by Marie K. Huffman & Rena A. Krakow. San Diego: Academic Press, 225–249.

Palmer, Leonard R. (1980). *The Greek Language*. London & Boston: Faber & Faber.

Pedersen, Holger (1909–1913). *Vergleichende Grammatik der keltischen Sprachen*. 2 vols. Göttingen: Vandenhoeck & Ruprecht.

Rodway, Simon (2002). "Absolute forms in the poetry of the Gogynfeirdd. Functionally obsolete archaisms or working system?" In: *Journal of Celtic Linguistics* 7, 63–84.

Rodway, Simon (2013). *Dating Medieval Welsh Literature. Evidence from the Verbal System*. Aberystwyth: Cambrian Medieval Celtic Studies Publications.

Roma, Elisa (2000). "How subject pronouns spread in Irish. A diachronic study and synchronic account of the third person + pronoun pattern". In: *Ériu* 51, 107–157.

Romaine, Suzanne (1984). "Towards a typology of relative-clause formation strategies in Germanic". In: *Historical Syntax*. Ed. by Jacek Fisiak. Berlin: Mouton, 437–470.

Schmid, Stephan (1999). *Fonetica e fonologia dell'italiano*. Torino: Paravia.

Schrijver, Peter (1994). "The Celtic adverbs for 'against' and 'with' and the early apocope of *-i*". In: *Ériu* 45, 151–189.

Schrijver, Peter (1997). *Studies in the History of Celtic Pronouns and Particles*. Maynooth: Department of Old Irish.

Sihler, Andrew L. (1995). *New Comparative Grammar of Greek and Latin*. New York & Oxford: Oxford University Press.

Sims-Williams, Patrick (1984). "The double system of verbal inflection in Old Irish". In: *Transactions of the Philological Society* 82, 138–201.

Sims-Williams, Patrick (1998). "The Celtic languages". In: *The Indo-European Languages*. Ed. by Anna Giacalone Ramat & Paolo Ramat. London & New York: Routledge, 345–379.

Sornicola, Rosanna (1988). "Il relativo in irlandese antico. Una riconsiderazione". In: *Indogermanische Forschungen* 93, 124–166.

Sornicola, Rosanna (1989). "Il relativo in irlandese antico. Una riconsiderazione II". In: *Indogermanische Forschungen* 94, 234–271.

Szemerényi, Oswald J. L. (1989). *Einführung in die vergleichende Sprachwissenschaft*. 3rd ed. Darmstadt: Wissenschaftliche Buchgesellschaft.

Thurneysen, Rudolf (1907). "On certain initial changes in the Irish verb after preverbal particles". In: *Ériu* 3, 18–19.

Thurneysen, Rudolf (1909). *Handbuch des Alt-irischen*. Heidelberg: Winter.

Thurneysen, Rudolf (1914). Rev. of Pedersen 1909–1913: 2. In: *Indogermanische Forschungen Anzeiger* 33, 23–37.

Thurneysen, Rudolf (1946). *A Grammar of Old Irish*. Trans. by Daniel. A. Binchy & Osborn Bergin. Revised and enlarged edition with supplement. Dublin: Dublin Institute for Advanced Studies.

Watkins, Calvert (1963). "Preliminaries to a historical and comparative analysis of the syntax of the Old Irish verb". In: *Celtica* 6, 1–49.

Watkins, Calvert (1998). "Proto-Indo-European. Comparison and reconstruction". In: *The Indo-European Languages*. Ed. by Anna Giacalone Ramat & Paolo Ramat. London & New York: Routledge, 25–72.

Watkins, T. Arwyn (1977). "The Welsh personal pronoun". In: *Word* 28, 146–165.

Williams, J. E. Caerwyn & Peredur I. Lynch (1994). *Gwaith Meilyr Brydydd a'i Ddisgynyddion*. Cardiff: University of Wales Press.

Willis, David (2007). "Specifier-to-head reanalyses in the complementizer domain. Evidence from Welsh". In: *Transactions of the Philological Society* 105, 432–480.

Windisch, Ernst (1876). "Das irische *t*-praeteritum". In: *Beiträge zur vergleichenden Sprachforschung* 8, 442–470.

Zimmer, Heinrich (1890). "Keltische Studien 6–8". In: *Zeitschrift für vergleichende Sprachwissenschaft* 30, 1–292.