Universiteit
Leiden
The Netherlands

## On the Possible PIE Origin of the Old Irish Absolute and Conjunct Endings <br> Mudde, Anouk

## Citation

Mudde, A. (2021). On the Possible PIE Origin of the Old Irish Absolute and Conjunct Endings.
Version: Not Applicable (or Unknown)

License:
License to inclusion and publication of a Bachelor or Master thesis in the Leiden University Student Repository
Downloaded from: https://hdl.handle.net/1887/3212910

Note: To cite this publication please use the final published version (if applicable).

# On the Possible PIE Origin of the <br> Old Irish Absolute and 

Conjunct Endings
A.P.M.Mudde

## Master thesis

Study program: Research Master Linguistics
Student number: s1647016
Supervisor: Dr. P.S. van Sluis
Submission date: 30 June 2021

## "Eochair fessa foglaim"

-The key to knowledge is learning (Middle Irish proverb from the Leabhar Buidhe Leacáin)

## Introduction

Ever since the start of linguistic scholarship in Old Irish at the end of the nineteenth century, scholars have been puzzled by the existence of two different sets of verbal inflection in the language. These two sets, known as the absolute and conjunct endings, are used in morphological complementary distribution in a number of Old Irish tenses and moods inherited from Proto-Indo-European. This is curious, as apart from a few traces in the closely related Welsh, no Indo-European parallels exist for this dichotomy, whereas the Old Irish verbal system as a whole clearly has its basis in PIE. It thus seems that the use of absolute and conjunct endings is an innovation within the Celtic branch. The question that arises is how this innovation has come to be, and how we can connect it to Old Irish' status as a daughter language of Proto-Indo-European.

A century and a half have passed since the beginning of Old Irish studies, and still the origins of the absolute and conjunct inflections continue to be subject of debate. As of yet no consensus has been reached on the matter. That is not to say that efforts to trace back the origins of the absolute-conjunct distinction have not been made; on the contrary, over the years there have been ample publications on the matter, and a wide variety of ideas have been opted. None of these has however succeeded to convince a majority of Indo-Europeanists and Celtologists. This is not due to a lack of quality of these publications, but rather to the complexity of the problem, for which a straightforward clear-cut solution simply does not seem to suffice. There is no way to easily derive the absolute-conjunct distinction from PIE without the assumption of various analogical steps and oftentimes rather speculative sound laws, or else it would surely have been found by now.

Although there are almost as many ideas about the origin of the absolute and conjunct endings as there are scholars who have written about the problem, it is often possible to classify a publication under one of several main frameworks or theories. Within such a framework the main premises are always the same, although details about the exact developments still differ among authors. In this way, we can for instance speak of the primary-secondary theory, which tries to seek the origin of the absolute-conjunct distinction in the primary and secondary endings that we can reconstruct for PIE, which would somehow have been reshuffled in Irish; or of the particle theory, which postulates the existence of some kind of now-lost particle in pre-Old Irish responsible for the existence of two separate sets of endings.

In this thesis, I will look at the most important publications about the origins of the absolute-conjunct distinction within four different main theories concerned with the matter at hand. These can be summed up as follows; the primary-secondary theory, the athematic-thematic theory, the particle theory and the enclitic theory. A fifth rather popular theory, the prosodic theory - which attempts to explain the absolute-conjunct distinction through prosodic processes - will not be discussed here due to word limit constraints as well as this theory's relatively limited interface with the theories listed above. The order in which the theories are presented is based on the chronology of their respective first appearance in literature - the reason for which being that newer theories often arise through the desire to find a better alternative for already existing theories, and thus build on this earlier work in some way. By examining the publications on the absolute-conjunct problem, I hope to provide a clear overview of the essential arguments, premises, advantages and disadvantages that underlie each theory, in order to be able to make a substantiated argument about the probability of the scenario presented in each of them. This will naturally involve a close look at matters based in phonology, morphology and reconstruction of different proto-stages of Old Irish, as well as at the argumentation on a more abstract level, to see if for instance circular reasoning is used and to judge whether a certain theory is at all falsifiable.

Two principles that will play a key role in the assessment of the theories to be discussed are the regularity of sound law and analogy. The regularity of sound laws is a well-known principle that forms the foundation for the field of comparative linguistics as we know it today. It entails that if in a language a given sound undergoes a change in a particular phonological environment, every other occurrence of that sound in the same position will also undergo that change throughout the language. Sound laws operate without exception and are therefore falsifiable; if there is a form in which a proposed sound law can be shown to not have taken place, the sound law can no longer be upheld. This makes it an essential and powerful tool for reconstructing prehistoric stages of language. However, the historical or comparative linguist must also be aware of the existence of the linguistic process known as analogy. Contrary to sound laws, analogical processes operate on a morphological level and do not apply regularly in phonologically conditioned environments like sound laws do. Instead analogy can be used to restore synchronic regularity in a language whenever regularity had earlier been distorted by regular sound change. When analogy applies, however, cannot be predicted.

The contrary nature of sound law (regularly applied, but creating irregularity) and analogy (restoring regularity, but unpredictably applied) is known as Sturtevant's paradox. Sound laws and analogy thus interfere, which can sometimes blurry the picture for the comparative linguist. However, despite the unpredictable character of analogy, we can still work with it. In this we are helped by the six "laws of analogy" (although strictly speaking, these are tendencies rather than laws) as formulated by Kuryłowicz (1947). These tendencies, as well as the knowledge that analogy always requires a motive (such as restoration of regularity within a paradigm) and a model (e.g. the other forms in that paradigm that still are perceived as regular by speakers) can help us in deciding what is likely to have happened in a language's prehistory and what not. I intend to use these principles in this thesis when examining the scholarly literature of my selection on the absolute-conjunct distinction. As a consequence I will not be entertaining the possibility that the Old Irish absolute-conjunct distinction came about through language contact with an unidentified adstrate language, as the principles of regular sound change and falsification cannot be used to test this hypothesis. This language contact theory cannot of course be ruled out, but it should not be used until all other falsifiable possibilities have been explored and discarded, and as I hope to show in this thesis quite a number of PIE-based accounts on the creation of separate absolute and conjunct endings show enough promise that this is not the case.

The structure of this thesis is as follows. The first chapter will give a short description of the Old Irish absolute and conjunct inflections, as well as some other peculiarities of the language that have been connected to the double inflection in the language. Chapters 2 to 5 will each deal with one theory on the origins of the absolute-conjunct distinction, in the same order already listed above. In addition to the treatment of the literature of the relevant theory, each chapter will start off with a short general introduction and end with a short discussion of the literature discussed in that chapter. After the discussion of all the individual theories listed above, the final chapter of this thesis will contain a conclusion on the matter of absolute-conjunct endings in Old Irish. Here I will give my informed opinion on which scenario for the origins of the absolute and conjunct endings I find the most likely, by comparing and combining the individual assessments made in the previous chapters. Here, it will become clear that I believe the enclitic theory to be the most likely scenario to explain how the two sets of absolute and conjunct endings came to be in Old Irish.

## Table of contents

Introduction ..... 3
Chapter 1: Preliminaries ..... 7
1.1 The absolute and conjunct endings ..... 7
1.2 Verb-first word order, Bergin's position and tmesis ..... 8
1.3 Lack of lenition after preverbs ..... 9
1.4 Vendryes' position and infixed pronouns ..... 10
Chapter 2: The primary-secondary theory ..... 12
2.1 General ..... 12
2.2 The earliest accounts (Windisch, Zimmer, Thurneysen) ..... 12
2.3 Watkins (1963) ..... 14
2.4 Meid (1963) ..... 15
2.5 Criticism on the primary-secondary theory ..... 16
2.6 Discussion ..... 17
Chapter 3: The athematic-thematic theory ..... 19
3.1 General ..... 19
3.2 Meillet (1908a, 1908b) ..... 19
3.3 Borgström (1933) ..... 20
3.4 Kortlandt (1979) ..... 22
3.5 Discussion ..... 23
Chapter 4: The particle theory ..... 24
4.1 General ..... 24
4.2 The particle as copula ..... 24
4.2.1 Thurneysen (1907) ..... 24
4.2.2 $\operatorname{Kim}(2000,2002)$ ..... 25
4.3 The particle as suffixed subject pronoun ..... 25
4.3.1 Pedersen (1909-1913) ..... 25
4.3.2 Dillon (1943) ..... 27
4.3.3 Budassi \& Roma (2018) ..... 28
4.3.4 Discussion ..... 29
4.4 The particle as sentence connector ..... 30
4.4.1 Boling (1972) ..... 30
4.4.2 Cowgill (1975a, 1975b, 1985) ..... 31
4.4.3 Schrijver $(1994,1997)$ ..... 33
4.5 Discussion ..... 37
Chapter 5: The enclitic theory ..... 38
5.1 General ..... 38
5.2 McCone (1979, 1982) ..... 38
5.3 Sims-Williams (1984) ..... 41
5.4 McCone (2006) ..... 43
5.5 Discussion ..... 43
Chapter 6: Conclusions ..... 45
List of used abbreviations ..... 47
References ..... 48

## Chapter 1: Preliminaries

Before diving deeper into the literature on the Old Irish absolute-conjunct distinction, I believe it is necessary to give a short overview of the synchronic situation as we find it in the attested sources, as well as of some other peculiarities and specific characteristics. These include the Old Irish unmarked verb-initial word order (an anomaly from a PIE perspective), the lack of lenition after original vowelfinal prepositions in compound verbs (where it would be expected on the basis of the lenition we find in nouns after formally similar prepositions) and the placement of clitics within the verbal complex These features will be discussed in detail further on in this chapter, after a description of the absolute and conjunct endings themselves.

### 1.1 The absolute and conjunct endings

The Old Irish absolute and conjunct endings can be found being used in complementary distribution in the paradigms of the present indicative, the future, the present subjunctive and the preterite (the suffixless preterite being an exception). The simplest way to describe the distribution of the two sets of endings is that verbs receive absolute endings when they stand immediately at the beginning of the clause, and conjunct endings elsewhere. In practice, this means that conjunct inflection is added;

- when the verbal root is preceded by certain verbal particles, being the perfective particle roand the "dummy" particle no•;
- when the verbal root is preceded by a so-called conjunct particle (e.g. the negative particle ní and its derivatives);
- in the case of compound verbs, in which the verbal stem is preceded by a preposition (such as do•beir 'to give', cf. the simple verb beirid 'to carry' with the same verbal stem);
- when the verb is subject to Bergin's Law (Bergin 1938) or the verbal complex appears in tmesis, meaning that the verbal root stands in the middle or at the end of the clause (see Section 1.2 below).

The difference between the absolute and conjunct endings in the present indicative is illustrated in Table 1 below by the paradigms of the weak verb marbaid (W1) and the strong verb beirid 'to carry' (S1) ${ }^{1}$ :

| Absolute |  | Conjunct | Absolute | Conjunct |
| :--- | :--- | :--- | :--- | :--- |
| 1SG | marbu, marbaim | (ní)•marbu, (ní)•marbaim | biru | (ní)•biur |
| 2SG | marbai | (ní)•marbai | biri | (ní)•bir |
| 3SG | marbaid | (ní)•marbae | beirid | (ní)•beir |
| 1PL | marbmai | (ní)•marbam | bermai | (ní)•beram |
| 2PL | marbthae | (ní)•marbaid | berthae | (ní)•beirid |
| 3PL | marbait | (ní)•marbat | berait | (ní)•berat |

Table 1: The absolute and conjunct present forms of the verbs marnaid and beirid (GOI §558 Green 1995; eDIL 2019)

From Table 1, it immediately becomes clear that the endings of the absolute and the conjunct are formally rather distinct.

[^0]Something that must be discussed in relation to the absolute and conjunct inflections are the deuterotonic and prototonic forms of verbs. It frequently happens in Old Irish that a compound verb (which always has conjunct inflection) is preceded by a conjunct particle, such as the negation particle ni. 'not'. In that case a special form of the verb is used, namely the prototonic form. The prototonic form is thus called because the stress falls on the first syllable of the verb, as opposed to 'normal' compound verbs, where the accent falls on the second syllable and is hence called deuterotonic. Prototonic forms often look radically different from their deuterotonic counterparts. Compare for instance the deuterotonic form do•beir [do.'ber'] 's/he gives' with its prototonic counterpart (ni) tabair ['taßer'] 's/he does not give'. Important to note here is that both deuterotonic and prototonic compound verbs receive conjunct endings when inflected (GOI §38).

In the imperfect, the conditional, the past subjunctive, the imperative and the suffixless preterite there are no separate paradigms of absolute and conjunct inflection. Instead, one set of endings is used for all forms. For the imperfect, conditional and past subjunctive, these endings are the imperfect endings, which go back to Proto-Indo-European secondary endings. Verbs inflected for one of these three categories never appear as simple verbs; that is to say, if a simple verb is inflected in one of these three categories, the use of the "dummy" particle no• (so-called because it does not add any meaning to the verb and is strictly used for morpho-syntactic purposes) in front of the verb is obligatory, creating a compound verb of sorts for the occasion. From a synchronic point of view, it is thus not surprising that we do not find an absolute-conjunct distinction in these three tenses and moods. A more detailed description of the Old Irish imperfect, conditional and past subjunctive and their origins would fall outside the scope of this thesis, and as these three categories do not play a major role in the literature on the origins of the absolute-conjunct distinction, they will not come up in the remainder of this thesis.

Next to the imperfect, conditional and past subjunctive there is the imperative, which likewise only has one set of endings - the imperative endings. These endings are essentially identical to the conjunct endings of the present indicative. In the case of simple verbs, the paradigm of the imperative is therefore identical to the paradigm of the present indicative. If a compound verb is inflected as an imperative, the prototonic form of the verb is used instead of the deuterotonic form. If, however, the imperative verbal complex contains an infixed object pronoun (see Section 1.4 below), the imperative form is deuterotonic, with the infix immediately following the preverb. The imperative plays a role in some of the literature discussed in Chapter 4 and Chapter 5.

Finally, in the suffixless preterite an absolute-conjunct distinction is also lacking - except for the 3PL, which as we will see later on in Chapter 4 has been the subject of debate. The absence of separate absolute and conjunct endings in the suffixless preterite is surprising from a synchronic point of view, as we do find different sets in the $s$ - and $t$-preterites. This is probably in some way due to the fact that the origin of the $s$ - and $t$-preterites is historically not the same as the origin of the suffixless preterite, even though all preterites are synchronically treated as one category. It is generally agreed upon that the suffixless preterite continues the PIE perfect, whether the $s$ - and $t$-preterite go back to PIE aorist formations; a crucial difference for means of reconstruction of those stages of pre-Old Irish in which the absolute-conjunct distinction might have developed.

### 1.2 Verb-first word order, Bergin's position and tmesis

Old Irish is a strict verb-first language, and has continued to be verb-first even into Modern Irish still spoken today. In this respect, it is rather unique amongst PIE languages. There are several languages descendant from PIE in which the verb can sometimes appear at the beginning of the clause, but this is usually done to express markedness or to form an interrogative clause; it is rarely the standard
unmarked word order as it is in Irish ${ }^{2}$. Even if emphasis on another constituent than the verb needs to be expressed, Irish does not deviate from its verb-initial pattern. Instead, either the clitic -som or one of its variants is added to the constituent in question to express emphasis (GOI §475), or a special construction with a relative clause containing a form of the copula is used to bring the part that needs emphasis more to the front - although never to the first position of the clause, as the copula still adheres to verb-first word order in this construction.

As rigidly verb-first as Old Irish is, however, we still can find some attestations that deviate from the standard word order. In certain archaic poetry and prose, the verbal complex may turn up in medial or final position within the clause. This peculiarity was first described by Osborn Bergin (1938), and noninitial Old Irish verbs are therefore said to be in Bergin's position, or to adhere to Bergin's Law. This aberrant positioning of the verbal complex has often been addressed in connection to the absolute and conjunct endings, as these non-initial verbs strikingly show conjunct endings, even in simple verbs without a preceding conjunct particle ${ }^{3}$. In addition to Bergin's Law, we sometimes find a verbal complex that has been "pulled apart", i.e. where the preverb stands at the beginning of the clause, and the verbal root appears at the end. This phenomenon is referred to as tmesis. One could argue that tmesis does not represent non-verb-initial word order as part of the verbal complex is still in initial position, but it is odd from a synchronic perspective nevertheless, and therefore requires attention (GOI §513).

It has been the matter of some debate whether verbal complexes in Bergin's position or in tmesis represent an archaic feature of Old Irish or whether their aberrant position in the clause is artificial. After all, both phenomena are found within particular genres, such as poetry and legal texts. Legal texts in general are known to preserve archaic features that have been lost in regular everyday speech or prose. On the other hand we must be aware that especially in poetry artificial stylistic devices may be used to make the language fit the meter or rhyme. Especially with verbs in Bergin's position, we see that the sentence-final position of the verbal complex often leads to alliteration and therefore might only be placed clause-finally for aesthetic purposes. We must therefore be careful with generalizations of features that are found only in this type of text.

However, assuming that both tmesis and Bergin's Law are - at least in part - archaic features (as is indeed the generally accepted idea among scholars in the field), they might prove useful in reconstructing how Old Irish developed a strict verb-first word order from the relatively free word order that is reconstructed for PIE. We will see that the problem of word order, too, is often discussed in connection to the problem of absolute and conjunct endings. It is in fact a rather essential aspect of the discussion, as any theory on the origin of absolute and conjunct endings must also attempt to give an explanation for the fact that simple verbs at the end of the clause receive conjunct instead of absolute endings.

### 1.3 Lack of lenition after preverbs

The process of lenition of consonants following or in between (old) vowels is characteristic of Old Irish. This process became grammaticalized across word boundaries when old vowel-final endings got lost through apocope in prehistoric Irish, leaving lenition in the following consonant as its only trace. For
 the preposition ar <*are 'to' in the phrase ar chenn 'opposite' (lit. 'to the head') (Matasović 2009).

[^1]However, whenever a preverb originally ending in a vowel turns up in a compound verb, lenition is remarkably absent. The verb ar-cessi 'to pity' for instance contains the same element ar < are that we saw above, but the verbal root cessi is unaffected by the (original) preceding vowel (Meid 1963: 35). This lack of lenition is notably only found in deuterotonic forms of compounds: the prototonic form of ar-cessi is airchissi, with lenition of the velar stop as expected on the basis of the nominal system (eDIL 2019). This raises the question whether lenition was conditioned by prosody and accentuation in some cases, or whether it was blocked by some other special property of deuterotonic verb forms. We will see that one of the first mentions of a particle as it is reconstructed in what later became the particle theory stems from an attempt by Thurneysen (1907) to explain the lack of lenition after vowel-final preverbs (see Chapter 4), and the problem still plays an important role in the literature on the absolute and conjunct endings to this day. It is therefore necessary to be aware of it.

We do however need to keep in mind that in the attested Old Irish, lenition in (deuterotonic) compound verbs had become one of the markers of the relative verb, and the absence of lenition in non-relative verbs is therefore a grammatical marker of sorts, at least from a synchronic point of view. Thus we find for instance is hed in so no•chairigur 'This is what I reprimand' (GOI §495) ${ }^{4}$, with lenition in the verb cairigidir 'to rebuke, accuse, blame' (eDil 2019) (note that the use of no is obligatory here to mark the relative verb). This makes the matter even more complicated, as it would be too simple to claim that lack of lenition after preverbs is merely a product of restructuring of the verbal system in prehistoric Irish; restructuring and analogical processes might very well have played a role and potentially muddied the picture.

### 1.4 Vendryes' position and infixed pronouns

Another important aspect of Old Irish grammar is the placement of clitic elements in the clause. It was noted by Joseph Vendreyes (1911) that clitics were consistently placed after the first tonic unit of the clause (which in the case of Old Irish was, of course, always part of the verbal complex). The same phenomenon can be found in many other Indo-European languages, and is reconstructed for PIE as well, where this particular placement of clitics is known as Wackernagel's Law (Wackernagel 1892). For the present investigation it is important to know that clitic elements can break up the verbal complex in Old Irish. For example, the verb fris-oirg 'to molest, to offend' with inserted 1sG object clitic appears as fritamm•orgat ${ }^{5}$ 'they offend me' (GOI §409-418; eDIL 2019).

In the case of simple verbs, a clitic object pronoun can be added as a suffix, e.g. beirthi 's/he bears it' with added 3sG.MASC/NEUT object suffix -i to 3sG.PRES beirid (the second vowel in beirid is regularly lost through syncope). However, the use of object suffixes is in decline in Old Irish, and the more frequently used strategy to incorporate objects clitics in simple verbs is to infix with the help of the 'dummy' particle no, e.g. nom•gaib 'it takes me' from gaibid 'to take' (GOI §428-431; eDIL 2019).

There are three different sets of infixed object pronouns in Old Irish, known as the Class A, B and C infixed pronouns. Which one of these is used depends on whether the preceding element ends in a vowel or a consonant (in the case of Class A and B) or on syntactic criteria (in the case of Class C). The Class A infixed pronouns are simple consonants in most cases, e.g. 1sG -m(m)-, $2 \mathrm{sG}-t-$, etc. The Class B and C pronouns contain an additional dental element, e.g. Class B 1sG-dom-, 2sG -tan, Class C 1sG -dom, 2 sG -dat (GOI §415). The exact forms of the Old Irish infixed pronouns as well as the exact conditions for the use of each class are not relevant for the current thesis, but it is important to be

[^2]aware that the phenomenon of infixed object pronouns is widespread, and that these infixes are capable of "breaking up" the verbal complex. In Chapter 4 we will furthermore see that the dental element of the Class B infixed pronouns had been connected to the creation of the absolute and conjunct endings.

Now that the most important aspects of the problem have been described, it is time to look at the literature itself in more depth.

## Chapter 2: The primary-secondary theory

### 2.1 General

Once it was recognized that Old Irish had two sets of verbal endings, the first solution to be offered for this peculiar situation was that the absolute forms continued the PIE primary endings, and the conjunct forms the secondary endings. This idea was first published by Ernst Windisch in 1876 and was generally accepted by scholars of Old Irish for decades until other theories started emerging and gaining popularity at the beginning of the $20^{\text {th }}$ century. Even thereafter, the primary-secondary theory continued to be supported well into the second half of the $21^{\text {st }}$ century. As we will see, some scholars (e.g. Zimmer 1890, Watkins 1963) were so convinced by this idea of primary and secondary endings being used next to each other in Old Irish that they subsequently changed the reconstruction of PIE around it, claiming that Old Irish preserved in the absolute and conjunct inflection an archaic stage of the Proto-Indo-European verbal system that was elsewhere lost.

Although we will see that the idea that absolute and conjunct endings go back to PIE primary and secondary endings has eventually been abandoned by virtually all scholars of Old Irish (and, as I will hope to make clear in this chapter, for good reasons), it played an important role in the earliest discussions on the origins of the two inflections, and has been the leading theory for quite a long time.

### 2.2 The earliest accounts (Windisch, Zimmer, Thurneysen)

As already stated above, the first person to connect the Old Irish absolute and conjunct endings with the primary and secondary endings from Proto-Indo-European was Ernst Windisch in 1876, in an article about the Old Irish t-preterite. In this article, we find the following remark:

Ohne hier auf formen einzugehen (...), glaube ich behaupten zu dürfen, dass (...) der unterschied zwischen der conjuncten (in der composition üblichen) und der absoluten (beim verbum simplex üblichen) flexionsweise darin besteht, dass in letzterem falle die primären, in ersterem falle die secundären personalendungen vorlagen.
(Windisch 1876: 450)
To further support this claim, Windisch argues that in the 2 SG and the 3 sG , as well as in the 3 PL of the Old Irish present paradigm, the endings of the absolute corresponded to the endings found in the verbal paradigm of the present tense in Greek and Sanskrit, whereas the conjunct endings corresponded to the endings found in the imperfect in these languages. In addition to this Windisch saw a link between the use of secondary endings in combination with the augment in the Greek and Sanskrit past tense, and the use of conjunct endings in Old Irish after the preverbal particles ro- and no•, as well as after prepositions in compound verbs.

Unfortunately, however, Windisch in this article keeps the promise he makes in the first sentence in the quote above; he makes no attempt at providing any specific formal reconstruction that could underlie both the Greek and Sanskrit forms on the one hand and the Old Irish forms on the other. His idea is clearly based solely on apparent formal similarities without any systematic comparison, and although his observation turned out to be very influential, it is impossible to falsify Windisch' idea concerning the absolute and conjunct endings on the basis of this article alone. Nevertheless the idea stuck, no doubt because it was so seemingly straightforward and obvious, as the fact that there were two sets of verbal endings that could be reconstructed for PIE seemed to fit in so nicely with the two sets of endings in Old Irish that they had to be somehow related, despite the problems - both phonological and morphosyntactic - that presented themselves.

This was also the opinion of Heinrich Zimmer, who writes in his keltischen studien (1890: $161^{1}$ ) that he agrees with Windisch that the absolute endings had to go back to PIE primary endings, and the conjunct endings to PIE secondary endings. However, unlike Windisch, Zimmer acknowledges the fact that this posed some difficulties, and even deems that this theory cannot work if the classical reconstruction of PIE with primary endings for the present and secondary endings for the past tense is correct. He therefore proposed a new reconstruction of the PIE verb system, wherein primary endings were only used in the present tense when no prepositions or preverbal particles were preceding the verbal root. The secondary endings were employed elsewhere in the present tense, as well as in the past tense, the latter of which required the use of an augment. In all branches except Celtic, the use of primary endings then later became generalized in the present, making Celtic the only branch to preserve this feature of the Proto-Indo-European verbal system.

Although this is admittedly still more of an explanation than Windisch (1976) provides on how the otherwise non-present secondary endings supposedly came to be used in the Old Irish present, it is immediately clear that Zimmer's reconstruction is essentially a projection of the attested Old Irish situation back into PIE. There is no motivation for this reconstruction, apart from the desire to explain the Old Irish absolute and conjunct inflections; the classical reconstruction of primary endings in the present and secondary endings in the past is securely based on the verbal systems of multiple IndoEuropean languages, which all point to this reconstruction. Even in the Anatolian branch, which is often believed to have split off first of the PIE mother language, we can see that the primary-secondary distinction already worked this way (e.g. Kloekhorst 2008) - although we must keep in mind that this is knowledge that was not yet available at the time Zimmer's account of the Old Irish verb endings was published. Still, even if Zimmer's reconstruction had been supported by non-Celtic material, it still does not actually explain the origins of the absolute and conjunct endings; it merely places the problem back in time. The seemingly overly complicated existence of two sets of verbal endings within the same tense still requires a historical explanation, regardless of whether that situation first appeared in PIE or in Old Irish. In fact, what Zimmer has done is reverse the problem, as now it needs to be explained how his proposed archaic PIE situation was given up in favor of the distribution of primary and secondary endings as we find it in the non-Celtic Indo-European languages. Apart from the acknowledgement that there are problems with the semantic side of the reconstruction, Zimmer thus did not contribute much to the discussion started by Windisch. Like Windisch, Zimmer does furthermore not look into the formal side of the reconstruction in detail, and merely states the similarities of absolute and primary, conjunct and secondary endings.

Rudolf Thurneysen, a student of Zimmer's, would shed more light on some of the aspects of the problem mentioned above. Although in his grammar of Old Irish (1909; translated into English 1946) Thurneysen initially seems to follow in his teacher's footsteps by seeking the derivation of the conjunct endings from the PIE secondary endings, he also places some critical remarks: unlike both Windisch and Zimmer, who both derive the Old Irish verb forms from PIE without any in-depth discussion of the formal side, Thurneysen acknowledges that the pre-Old Irish apocope, in combination with the uncertainty of the exact reconstruction of the PIE verbal forms themselves, makes the reconstruction of the Old Irish verbal endings very difficult (GOI §559). This is not to say that Thurneysen makes no attempts at doing so. In his discussion of the present indicative active forms of the S1 verb beir 'to carry', Thurneysen gives the following reconstructions of the endings of the conjunct:

| Old Irish | Thurneysen's reconstruction for PIE |  |
| :--- | :--- | :--- |
| 1SG | •biur | ${ }^{*} b^{h}$ erō |
| 2SG | •bir | ${ }^{*} b^{h}$ eres |
| 3SG | •beir | ${ }^{*} b^{h}$ eret |
| 1PL | $\cdot$ beram | ${ }^{*} b^{h}$ eromo(C) |
| 2PL | •berid, -ith | ${ }^{*} b^{h}$ erete |
| 3PL | $\cdot$ berat | ${ }^{*} b^{h}$ eront |

Table 2: Thurneysen's PIE reconstructions of the Old Irish present conjunct forms
(GOI §§558-561)

These are essentially the secondary endings of PIE, with the exception of the 1sG, for which Thurneysen reconstructs a thematic primary ending. All the separate forms are discussed in terms of phonology, and in far greater detail than we have thus far seen.

Although Thurneysen thus accepts the idea that the conjunct endings formally are to be derived from the PIE secondary endings, he is far more hesitant in the reconstruction of the absolute endings as primary endings. He sees no problem for such a reconstruction for the 3sg (berith, -id < *bhereti) and 3PL (ber(a)it < *bheronti) (GOI §562), but other forms like the 1sG and 2PL pose more difficulty. For 2PL.ABS berthe Thurneysen reconstructs a form *bhertēs which would phonologically yield the Irish form, but he admits that no other IE language points to the reconstruction of a PIE 2 PL ending *-tēs (e.g. Gr. -te, Skt. -tha. For the 1sG biru he recognizes that there must have been a consonant following the vowel which shielded it from apocope, thus *bherōC (GOI §§561, 564).

It is here that Thurneysen actually starts moving into the direction of the particle theory, by mentioning Pedersen's (1913) reconstruction for the absolute endings, as well as adding his own modifications. Pedersen was one of the earliest scholars to reject the primary-secondary theory, as he remarks that the reconstruction of primary endings for the absolute and secondary endings for the conjunct endings might work for the 3sG, but that it presents itself with significant problems in all other forms of the paradigm. His own idea concerning the absolute and conjunct endings involving the reconstruction of subject clitics will be discussed in more detail in Chapter 4 below, where we will also see the influence he had on Thurneysen's later work.

### 2.3 Watkins (1963)

In a 1963 article, which deals mostly with the Old Irish verb-initial word order as well as with the question whether the Old Irish particle no- shares a common origin with Hittite nu, Calvert Watkins explicitly states that he is convinced that the absolute and conjunct endings continue the primary and secondary endings of PIE, based on the forms of the 3sG and 3PL:

|  | Old Irish |  | Watkins' reconstruction for PIE |
| ---: | :--- | :--- | :--- |
| 3SG.ABS | berid | $<{ }^{*} b^{h}$ ereti |  |
| 3PL.ABS | berait | $<{ }^{*} b^{h}$ eronti |  |
| 3SG.CONJ | •beir | $<{ }^{*} b^{h}$ eret |  |
| 3PL.CONJ | berat | $<{ }^{*} b^{h}$ eront |  |

Table 3: Watkins' PIE reconstruction for the Old Irish absolute and conjunct $3^{\text {rd }}$ person forms
(Watkins 1963: 42)

Despite the fact that, like Thurneysen (1946), Watkins admits that that the derivation of the other forms in the paradigm of the absolute runs into difficulties, he is entirely opposed to the reconstruction of Pedersen (1913; see also Chapter 4 below) of a now-lost subject suffix to explain the absolute endings. The lack of lenition after preverbs in forms such as do•beir or ar-cessi (see section 1.2 above), which according to Pedersen are the result of a now-lost infixed subject pronoun, is alternatively explained by Watkins as stemming from a relatively late univerbation of compound verbs, for which he believes tmesis to once have been the standard (see also Section 1.2).

For the explanation of why secondary endings ended up in the Old Irish present paradigm, Watkins like Zimmer assumes that the distribution of old primary and secondary endings as we find it in Old Irish actually represents an archaic feature of PIE, although Watkins does not equate the archaic PIE situation to the Old Irish situation like Zimmer does. Instead, he gives an alternative reconstruction in which in an early stage of PIE secondary endings could be used in both the present and the past tense, and in which the past tense could be distinguished from the present through the use of the augment. When speakers felt the need to explicitly express present tense, a clitic element *-i could be added to the verbal ending, effectively creating the later primary ending. According to Watkins the use of the hic-et-nunc clitic *-i was still optional in the oldest stages of the development of primary and secondary endings in PIE, and became obligatory only as a result of a later dialectal development, the outcome of which formed the ancestral verbal system for all IE languages - except for Celtic, of course, where the stage in which the *-i still expressed markedness was retained. The use of *-i would often coincide with clause-initial placement of the verb, as according to Watkins this position of the verb was still optional for expressing markedness. At a certain point, the ${ }^{*}-i$ would have become fully associated with verb-initial word order, and thus became an obligatory part of the ending, whereas the endings without *-i - formally identical to the classically reconstructed PIE secondary endings - continued to be used in the present tense in all non-initial positions.

This explanation is surely more satisfactory than the one given by Zimmer, but it still fails to explain a number of important points. It must be reiterated that the classically reconstructed distribution of primary and secondary endings is based on a large number of Indo-European languages, including the Anatolian languages which are believed to first have split off of the Proto-Indo-European mother language (note that, unlike for Zimmer, knowledge of Anatolian languages was available to Watkins). Furthermore, additional arguments supporting the idea that the verbal system of Old Irish is exceptionally archaic amongst the IE languages are missing in Watkins' theory. Although he does claim that the conjunct endings other than the 3sG and 3PL go back to "archaic secondary forms" (Watkins 1963: 42), this is more of an ad hoc assumption to explain the forms that otherwise difficult to reconstruct than a well-supported argument for the antiquity of the Celtic verbal system. Watkins reconstructs 1sG $\cdot$ biur $<^{*} b^{h}$ erō, 2sG $\cdot$ bir $<{ }^{*}$ bherī $<{ }^{*} b^{h}$ erei, 1PL $\cdot$ beram $<{ }^{*} b^{h}$ eromo, 2PL $\cdot$ beirid $<{ }^{*} b^{h}$ erete (p. 42). Especially in the singular, these reconstructed endings look more like thematic primary endings than athematic secondary ones (cf. Gr. фغ́pw, фغ́peıऽ ${ }^{6}$ ), which does not support Watkins' idea.

### 2.4 Meid (1963)

The vision of Wolfgang Meid as presented in his 1963 monograph on the origin of the absolute and conjunct endings is very similar to that of Watkins (1963) and published at around the same time as well. It is however more detailed and not at all identical to Watkins, and it is therefore deserving of its own section.

[^3]Meid like Watkins believes that the PIE secondary endings were at an early stage neutral in terms of tense and mood, and that for the earliest PIE we only have to reconstruct an injunctive; i.e. a verbal category that receives secondary endings but has no augment, which does not explicitly refer to either past or present tense. Such a form is attested in the earliest Indo-Iranian, although it is debated amongst Indo-Europeanists whether this form represents an inherited feature from PIE or an IndoIranian innovation. Meid, however, opts for the former scenario, and uses it to argue that - as secondary endings were in this scenario not necessarily confined to the past tense - it is possible to reconstruct PIE secondary endings for the conjunct endings found in the Old Irish present. In fact, in Meid's reconstruction the injunctive stands at the basis of both the absolute and the conjunct forms. According to Meid, in the prehistory of Old Irish particles could be added to the injunctive, and these particles could either be prefixed or suffixed. Essential to Meid's theory is that prefixes and suffixes could not co-occur within the same verbal form. Thus it was only possible for verbs without preverbs to add the hic-et-nunc clitic ${ }^{*}-i$ as a suffix, as it was incompatible with the prefixed nature of preverbs in compound forms. Forms with *-i suffixed to it would eventually develop into the absolute inflection, whereas verbs without *-i were continued in the conjunct inflection. After this division was established in the present, it then later spread to other categories like the aorist (which later developed into the Old Irish preterite) and the subjunctive.

Again like Watkins, Meid assumes that the development of primary and secondary endings as we find it in all other IE languages was a later dialectal feature of PIE that was shared by all branches except Celtic. Of course, the same criticisms concerning this scenario that were given in Section 2.3 above apply here as well. In addition to this there is the fact that Meid's theory relies on quite a number of additional assumptions. While it is true that in the attested Old Irish we only ever find infixed object pronouns in compound verbs while these can be suffixed to the verbal root in simple verbs, this does not automatically mean that this was the case in the prehistory of the language as well. This rather weakens Meid's account even more. On the other hand, Meid gives a better motivation for the retention of two sets of endings than Watkins does. Watkins proposed that two features that expressed markedness (i.e. verb-initial word order and ${ }^{*}-i$ ) were so often used simultaneously that they eventually merged and created a new inflection type that continued to exist next to the old type, even though it no longer expressed any markedness at that point. Meid's scenario, however, is that the absolute and conjunct endings are the phonological remnants of a more or less regular set of rules concerning affixing. Although it is still difficult (if at all possible) to get to the absolute endings from his - effectively - primary endings, I deem Meid's scenario the most likely candidate out of all the primarysecondary scenarios discussed in this chapter.

### 2.5 Criticism on the primary-secondary theory

As already stated above at the beginning of this chapter the primary-secondary theory has now been abandoned by most scholars, in favor of other theories on the absolute and conjunct endings. Through the years many scholars have expressed their criticism of the primary-secondary theory, using that criticism to show why their own ideas are superior. An early example of rejection of the primarysecondary theory can be found in Holger Pedersen's Vergleichende Grammatik der keltischen Sprachen (1909-1913). Here he explicitly states that while primary endings for the absolute and secondary endings for the conjunct endings might work for the 3sG, it poses considerable problems for all other forms of the paradigm ( $\S 602$ ), so that another solution to the problem might be preferable.

Another example of criticism regarding the primary-secondary theory can be found in Cowgill (1975a), who starts his influential article on the particle theory (to be discussed in detail in Chapter 4 below) with a thorough discussion of all shortcomings of the primary-secondary theory. According to Cowgill, the problem with the primary-secondary theory is essentially threefold. The first major problem with
the theory is what he calls the "analogic spread of a useless morphologic complication" (Cowgill 1975a: 41). Cowgill brings up the fact that we can see the absolute-conjunct distinction starting to disintegrate in later Middle and Modern Irish, as well as in Scottish Gaelic. This visible development would show that eliminating a distinction between absolute and conjunct endings is the direction analogy is expected to work in, rather than the other way around. According to Cowgill, this means that there must have been some sort of semantic motivation for the creation of the absolute-conjunct distinction in Old Irish, even if this can no longer be observed in the attested language.

Cowgill's second point of criticism regarding the primary-secondary theory is that it fails to give a satisfying explanation for the assumed presence of secondary endings in the Old Irish present tense, as well as for how it came to be that the choice between primary and secondary endings was determined on the basis of word order alone. Watkins' explanation that there was not yet a full-fledged primary-secondary distinction in the PIE from which Old Irish is descendent is not convincing to Cowgill, for many of the same reasons that have already been discussed above. Moreover, Cowgill argues that the presence of an absolute-conjunct distinction in the $\bar{a}$-subjunctive cannot be explained even through Watkins' reconstruction, as he traces this class of subjunctives back to the Proto-IndoEuropean optative. Even if Watkins is correct and endings both with and without deictic ${ }^{*}$-i could appear in the pre-Old Irish $s$-subjunctive, the presence of absolute and conjunct endings in the $\bar{a}$ subjunctive remains unexplained. Instead, we would expect a situation similar as we find it in the preterite, where an absolute-conjunct distinction is missing in the reduplicated preterite which can be traced back to the PIE perfect rather than the PIE aorist. The identification of the $\bar{\alpha}$-subjunctive with the PIE optative is far from undisputed, however, and no consensus concerning the origin of the $\bar{a}$ subjunctive has as of yet been established (see e.g. Darling 2019).

Cowgill's final objection to the primary-secondary theory is that there are significant phonological difficulties with deriving the attested Old Irish forms through primary and secondary endings for the absolute and conjunct endings, respectively. These problems especially apply to the absolute forms. This goes especially for the 1sG, for which the conjunct ending has to be derived from a (thematic) primary ending for a formally satisfying reconstruction, and the 2PL, for which Cowgill believes there was no difference between primary and the secondary endings in PIE. Additionally, Cowgill argues that the 2 sG .cons •bir must go back to primary *bheresi rather than secondary *bheres, as the latter form cannot account for the raising of ${ }^{*}-e-$ to $-i$ - (cf. DAT.SG tig 'house' ${ }^{*}$ *eges-i) and should therefore have yielded ${ }^{* *}$.ber. ${ }^{7}$

An additional point of criticism brought up by Cowgill against the primary-secondary theory, specifically as it was formulated by Zimmer (1890), can be found in a follow-up article from 1975(b). The observation that all verb forms in a then recently discovered Celtiberian inscription seem to have primary endings - regardless of their position in the clause - does not speak in favor Zimmer's reconstruction, in which primary endings in PIE and Celtic were only used with verbs in absolute initial position within the clause.

### 2.6 Discussion

I hope to have shown that it is for good reason that the primary-secondary theory is nowadays no longer supported. Although the explanations provided by Watkins (1963) and especially Meid (1963) on how both primary and secondary endings could have ended up in the Old Irish present paradigm

[^4]might be an improvement on the older account by Zimmer (1890), they remain, in my opinion, unsatisfactory, and this has been the opinion of many scholars as well (e.g. Cowgill 1975a). Apart from the Old Irish system (and perhaps the Old Welsh system, where a few remnants of absolute and conjunct endings can be found) there is no satisfactory motivation for the reconstruction of a stage in PIE in which primary endings were not yet fully-fledged. Moreover, I see no compelling reason to believe that Celtic somehow preserved this archaism, whereas in all other branches (including the archaic Anatolian branch) we find no traces of secondary endings being used in the present. Even within Celtic itself we find evidence for a classic distribution of primary and secondary endings (Cowgill 1975b). The injunctive of Indo-Iranian seems to be an exception to the classical PIE distribution of primary and secondary endings which might speak in favor of the reconstructions of Meid and Watkins, but in this branch too we normally find primary endings in the present and secondary endings in the past as well. The Indo-Iranian material too, then, does not point to an alternative reconstruction of PIE primary and secondary endings.

It is interesting to note that the reconstruction of a hic-et-nunc particle *-i that could freely be added to verb endings in the prehistory of Old Irish as argued for by Meid (1963) and Watkins (1963) actually shows considerable similarity to the idea underlying the particle theory, which will be discussed in detail in Chapter 4 below. However, the particle of the particle theory is traditionally reconstructed as *-(e)s, which is formally significantly different from *-i and allows for a far better derivation of the absolute and conjunct endings as we find them in our attestations than the hic-et-nunc particle does. The particle theory, and other theories as well, moreover have the advantage that the reconstruction of the PIE verbal system need not be altered for the sole benefit of the reconstruction of the Old Irish verbal system. All things considered, I think it is justified to be very critical of the primary-secondary theory.

## Chapter 3: The athematic-thematic theory

### 3.1 General

In Chapter 2 above, we have seen that many scholars have argued that the Old Irish absolute conjunction must go back to two different sets of endings available in PIE, namely the sets of the primary and secondary endings. In this chapter we will see that same idea underlying another theory: the athematic-thematic theory. It is well-known that there were two types of verbal inflection in Proto-Indo-European, being the athematic and the thematic type. Which one of the two inflections was used in a particular verb was lexically determined; a verb could be either athematic or thematic, and received its endings accordingly. Thus there was no semantic motivation for the use of either inflection, and this sets the athematic-thematic theory apart from the primary-secondary theory discussed above.

The athematic and thematic endings at first might seem like an unlikely starting point for the derivation of the Old Irish absolute and conjunct endings, as in PIE they do not co-occur within the same verbs as opposed to the primary and secondary endings. However, the athematic-thematic theory has a number of advantages over the primary-secondary theory, which was still generally accepted as the correct scenario at the time when Antoine Meillet first published his account of the athematicthematic theory in 1908. The most obvious of these advantages is that, unlike the primary and secondary endings, both athematic and thematic endings can be found in the present tense of IE languages - albeit not in the same verbs - and it is therefore not necessary to either assume a number of analogical steps to introduce past tense endings in the present, or to change the reconstruction of the distribution of primary and secondary endings in PIE. Of course, this still leaves the formal side of the theory to be discussed, as well as the proposed mechanisms through which both athematic and thematic endings could have ended up being used with the same verbal roots in Old Irish.

### 3.2 Meillet (1908a, 1908b)

As already mentioned above, the first scholar to explicitly suggest that the origin of the absoluteconjunct distinction must be sought in the difference between athematic and thematic verbs was Antoine Meillet in a short 1908(a) article. This article primarily deals with the reconstruction of the PIE them. PRES. 2 sG , and Meillet supports this reconstruction with Old Irish material. He argues that the Old Irish 2 sG absolute form beri cannot go back to PIE * $b^{h}$ eresi as suggested by proponents of the primarysecondary theory. The reason for this is that this reconstruction is in conflict with the reconstruction of the DAT.SG form nim 'heaven', for which Meillet assumes either a dative*nemes-ei or instrumental*nemes-i; he deems it unlikely that this form goes back to an endingless locative *nemes, as this would mean that the Old Irish dative would be based on the most uncharacterized form available. So, Meillet argues that as the word-final sequence *-es $V$ was lost entirely in nemes-V, it should have been lost entirely in bheresi as well, which means it would have yielded Old Irish**bir.

Instead of *bheresi, Meillet proposes that the correct reconstruction for beri is in fact *bhereisi, or perhaps *bhereis ; effectively the thematic form *bherei (which Meillet reconstructs for the 2sG.conJ -bir) with added (part of the) PIE athematic ending. The addition of an element of the athematic inflection to the thematic inflection is more frequently found among IE languages, e.g. Gr. 2sG фغ́peıs (Beekes \& De Vaan 2011), and Meillet uses the Old Irish material to further illustrate this phenomenon. In his 1908 article, no other forms outside the 2sG are discussed, however, and neither are the implications of a reconstruction of athematic and thematic endings for the Old Irish absolute and conjunct forms, respectively.

A more detailed version of Meillet's theory can be found in the second edition of his book Introduction a L'étude Comparative des Langues Indo-Européennes (1908b), published in the same year as the previously discussed article. In this book Meillet discusses the PIE reconstruction of the athematic and
thematic endings. He reconstructs different endings for the PIE primary athematic and thematic inflection for all three persons in the singular, contrary to the beliefs of many of his contemporaries who only reconstruct a different thematic ending for the 1sG. Meillet's reconstruction of the thematic endings are partly based on the Old Irish conjunct forms, which are cited as reflexes of these endings. However, the Old Irish absolute forms are not discussed here, and so the idea which he presented in his article (1908a) about the athematic-thematic origin of the Old Irish absolute and conjunct endings leaves much to be desired, including at least some sort of proposal of how athematic and thematic endings ended up the way they did in the Old Irish verbal system.

### 3.3 Borgström (1933)

Many of the questions on the development of the absolute and conjunct endings that were unanswered by Meillet are addressed by Carl Borgström in a 1933 article. Like Meillet, Borgström is convinced that the origin of the Old Irish absolute and conjunct endings can be found in the different sets of athematic and thematic endings of PIE. However, Borgström also rightly criticizes Meillet for not elaborating on how exactly this should have happened, and subsequently presents his own idea about the redistribution of athematic and thematic endings in pre-Old Irish, which is based on the position of pronominal clitics within the Old Irish verbal complex.

As has been stated in Chapter 1, affixed object pronouns in Old Irish are either infixed between the preposition and the verbal root in the case of compound verbs, or suffixed to the verbal root in the case of simple verbs. Although the latter practice is falling out of favor in the attested language - as we rarely find suffixed object pronouns outside the 3 sG - it is usually assumed that both infixing and suffixing were used for all persons according to the above described distribution at an earlier stage of the language, and Borgström takes this situation as a starting point. He begins his scenario at an early stage of pre-Old Irish in which there was not yet any difference between absolute and conjunct forms, apart from the fact that in the conjunct forms - being preceded by a preverb - clitic object pronouns where infixed, and the absolute forms clitic object pronouns were affixed. The athematic and thematic endings which Borgström reconstructs for the singular are largely taken over by Meillet (1908b) and are as follows (like Meillet he sees no evidence for separate thematic endings in the PIE plural):

Athematic PIE forms Thematic PIE forms

| 1SG | ${ }^{*} b^{h}$ inami | ${ }^{*} b^{h}$ erū |
| :--- | :--- | :--- |
| 2SG | ${ }^{*} b^{h}$ inasi | ${ }^{*} b^{h}$ erei |
| 3SG | ${ }^{*} b^{h}$ inati | ${ }^{*} b^{h}$ ere(t) |

Table 4: Meillet's reconstructions for the PIE athematic and thematic verbal endings in the singular (after Borgström 1933: 61)

Now for the absolute forms, Borgström assumes that in the athematic verbs the endings of the singular were able to preserve their "individuality", as he calls it, when a clitic pronoun followed, whereas that individuality was more liable to get lost due to sandhi developments in the thematic verbs. This apparently led to a preference of the sequence athematic ending=clitic object pronoun over thematic ending=clitic object pronoun. The former sequence was therefore analogically introduced in the absolute forms of thematic verbs, by adding athematic endings to the original thematic endings. These new long endings were eventually generalized for all thematic verb forms that stood in absolute position, even if no pronominal clitic was following. This thus created two different sets of endings for the thematic verbs: one for verbs in absolute, and one for verbs in conjunct position. At this point, the athematic verbs still only had one set of endings, however, being the original athematic ones. To create
symmetry between the athematic and thematic verbs, the thematic conjunct endings were subsequently introduced to the athematic verbs in conjunct position.

The above scenario accounts for the genesis of separate absolute and conjunct endings, but only in the singular. Like Meillet, Borgström only reconstructs different endings for athematic and thematic verbs in the singular, meaning that additional analogical steps are required to explain the difference between absolute and conjunct endings in the plural forms once it was established in the singular. This poses quite some difficulty. Because of its similarity with the singular endings, Borgström assumes that the (athematic) PIE 3pL ending is reflected in the Old Irish absolute 3PL: berait < *bheronti. An analogical shorter ending *-ont was created for the conjunct to level the distinction between absolute and conjunct endings throughout the paradigm: *bheronti >> *.bheront > 3PL.PRES.CONJ •berat. However, for the 1PL, Borgström assumes that it is the conjunct ending that reflects the original PIE ending (*bheromos > 1PL.PRES.CONJ beram), and that it was the absolute ending that was created analogically to it (*bheromos >> *bheromosi > 1PL.PRES.ABS bermai). Borgström thus now has us dealing with multiple analogical processes operating in two different directions, motivated by a desired outcome of a more complicated verbal system with two sets of endings instead of one. One could wonder if the reverse process, in which one set of endings was restored in the singular on the basis of the plural, is not a far more likely to be the result in the case of analogical levelling.

Despite the fact that the downfalls of the proposed analogical processes as described above in themselves are reason enough to be sceptical of Borgström's account, there is actually a far more fundamental flaw to it; namely, the phonological assumptions from which it departs. Borgström assumes that athematic endings were able to retain their so-called "individuality" when pronominal suffixes were added, while in the thematic endings this individuality was presumably lost. Borgström blames this on sandhi developments, but omits to elaborate on what kinds of developments these were and how they should be formulated, even in the most general terms. We can however assume that it concerns some kind of vowel contraction or elision, as Borgström claims that the retained individuality of the athematic endings when followed by a clitic pronoun was due to the fact that the endings contained a consonant, which would presumably be unaffected by such processes. However, if we go back to the endings which Borgström reconstructs for the thematic verbs, we see a long vowel in the 1sG, and a diphthong in the 2sG. Typologically speaking, long vowels and diphthongs are often more resistant to phonetic and phonological change than short vowels, and from a purely theoretical point of view we would thus expect the athematic endings to be more affected by sandhi than the thematic endings. Taking in the absence of any specifically formulated sound laws in Borgström's article, this surely is a valid point.

Borgström's argument that the consonantal part of the athematic endings would preserve their individuality when pronoun suffixes were added does furthermore not take into account the fact that there was apparently no problem with the thematic endings as regards to their individuality when no pronominal suffixes were added. One would think that if the consonantal part of the verbal ending was so important for its characterization, the thematic endings would surely have been replaced by athematic endings altogether, regardless of any added pronoun suffixes. Moreover, even if clitic pronouns radically changed the form of the thematic endings through sandhi developments, there was still a more obvious model available to analogically reshape the thematic endings than that of the athematic endings; namely, the endings of thematic compound verbs themselves, which would of course still be preserved in compound verbs.

A final point of discussion regarding Borgström's theory concerns an aspect that is understandably not discussed in the article; namely, Bergin's Law. Bergin's publication about non-initial Old Irish verbs was not published until 1938, 5 years after Borgström's 1933 article, and therefore we cannot criticize

Borgström for the omission of the discussion of conjunct endings appearing in simple sentence-final verbs. Nevertheless, it is clear that Bergin's findings are not compatible with Borgström's proposed developments. If all verbs in absolute position were analogically remodeled to the original athematic endings, yielding absolute endings, then why is this not what we find with simple verbs adhering to Bergin's Law? It is true that verbs in Bergin's position are rarely attested with a suffixed pronoun ${ }^{8}$, and one could therefore argue that these verbs would have resisted the analogical reshaping with athematic endings, especially because they may not have been grouped with the other absolute verbs as they were not standing in the first position of the sentence.

All these points taken together simply puts Borgström's theory at too much a disadvantage vis-à-vis other theories, which are not only better able to explain the conjunct endings of Bergin's verbs, but also require less complicated and unlikely analogical steps and are more explicit about the phonological developments that are proposed. I think this goes to show why the Meillet/Borgström scenario for the origin of the Old Irish absolute and conjunct endings has fallen out of favor, and is now indeed abandoned by virtually all.

### 3.4 Kortlandt (1979)

Another account of the origin of the absolute and conjunct endings that may be grouped within the athematic-thematic theory is the scenario set out by Frederik Kortlandt in an article first published in 1979. Although it partly continues the line of thought expressed by Meillet and Borgström discussed above, it is rather different from these theories in many respects. Kortlandt's theory has gained little support among other scholars, but it does contain a number of innovative ideas and it is often referred to in other literature. Therefore, discussion of this article is essential.

Like Borgström and Meillet, Kortlandt believes that the conjunct endings reflect PIE thematic endings, and that the absolute endings can be reconstructed as thematic endings with athematic endings added to them. However, Kortlandt also believes in the existence of a verbal particle *(e)s as reconstructed by Cowgill (1975) in his influential account of the particle theory (see Chapter 4 below). This particle was supposedly added to verbal endings under certain conditions, and responsible for the creation of the absolute endings. Essentially, what Kortlandt sets out to do in this article is to combine Cowgill's idea of a particle with Meillet's and Borgström's ideas about a athematic-thematic origin of the absolute and conjunct endings, to eliminate what he believes to be weak points in Cowgill's account. The most important shortcoming of Cowgill's 1975(a) article according to Kortlandt concerns phonology; Cowgill's theory relies heavily on an early apocope of *-i in conjunct verb forms, for which - Kortlandt rightly remarks - he gives no additional evidence. Kortlandt sets out to demonstrate that the word-final loss of *-i in the prehistory of Old Irish was not a separate stage of apocope, but that it rather was included in the later general apocope of final short vowels. Kortlandt spends a significant part of the article establishing a relative chronology of pre-lrish sound developments, both to show that no early apocope of ${ }^{*}$-i had taken place in the prehistory of Old Irish as well as to argue that in certain verbal classes, originally thematic and athematic verbs merged in some forms as a result of a shortening of long vowels in word-medial syllables. The latter development allows Kortlandt to reconstruct a morpho-phonological starting point for the redistribution of athematic and thematic endings. Such a starting point has advantages over the proposed analogic scenario by Borgström, of

[^5]which the weak points have already been discussed above. However, Kortlandt admits that it is still difficult to explain the forms of the plural. Unlike Meillet and Borgström, he reconstructs a separate thematic 3PL ending for Proto-Indo-European, namely ${ }^{*}-o$ (as opposed to athematic *-nti). No reflex of this ending is found in Old Irish, however, and Kortlandt explains this through a replacement of the original thematic ending with secondary ending *-ont, analogical to the 3sG for which he claims the primary and secondary thematic endings must have merged at an earlier stage. Kortlandt does not go into detail about the 1PL and 2PL, but as these forms pose problems in any theory, they are not really relevant for the assessment of his account.

Kortlandt's scenario has a more solid foundation than Borgström's. Having said that, it must be added that it relies heavily on a rather detailed relative chronology of sound developments, based on but a few examples, that in turn heavily rely on the reconstructions given for the example forms. Many sound developments reconstructed by Kortlandt in his article therefore run circular. Surely it would be more economical to accept early $i$-apocope, for which, as we will see in the next chapter, additional evidence has been brought up by various other scholars since Cowgill first published the idea in 1975 (e.g. McCone 1978). In any case, we must ask ourselves if the costs of Kortlandt's complicated relative chronology of pre-Irish sound laws outweigh the benefits of providing a limited morpho-phonological starting point for the athematic-thematic theory.

### 3.5 Discussion

In my opinion, the athematic-thematic theory has some clear advantages over the earlier primarysecondary theory which has been discussed in Chapter 2 above. Phonologically the absolute and conjunct endings of Old Irish are easier explained through (a combination of) the athematic and thematic endings than through the primary and secondary ones, and it is easier to imagine the former two sets of endings ending up in the same paradigm than the latter two. However, it is still necessary to assume quite a substantial number of analogic developments to get from the reconstructed stage to the attested language, and we have seen with Borgström (1933) that these proposed steps are often very ad hoc and operate in the opposite direction of what we would expect. Kortlandt's (1979) account improves on this as it works on the basis of regular phonological developments rather than of unspecified sandhi developments, but the foundation for these developments remains meagre, and moreover Kortlandt's theory, like the theories by Meillet (1908) and Borgström (1933), still fails to explain the phenomena of conjunct endings occurring in simple non-initial verbs, as well as the lack of lenition after preverbs originally ending in a vowel. This in and of itself is not reason enough to disregard the entire theory, but as we will see in the next chapters, there are theories which are able to better explain these phenomena. Therefore we cannot reject the athematic-thematic theory out of hand, but we have to keep in mind that other theories might be preferred over it in terms of costs and benefits.

## Chapter 4: The particle theory

### 4.1 General

In the following two chapters, I will discuss two theories that are in many respects very similar. Both of these theories have in the last few decades received great attention in the scholarly literature on the origin of the absolute and conjunct distinction. The first of these is the particle theory; the second is the enclitic theory, which will be discussed in detail in Chapter 5 below. Unlike the enclitic theory of which the first account was published in 1979, various variants of the particle theory have been present in the literature on the Old Irish absolute and conjunct endings ever since the beginning of the twentieth century. However, the theory has known a significant rise in popularity after the publication of an article by Warren Cowgill in 1975(a). In this article, Cowgill presumes the existence of a now-lost particle in the verbal system of pre-Old Irish. This particle was eventually lost as a result of sound developments, but left its trace in the verbal system, leading to the creation of the different sets of endings for the absolute and conjunct inflection. Cowgill himself hesitatingly proposes this particle to be some sort of sentence connector for non-relative clauses. However, as we will see, others have reconstructed the particle as a clitic pronoun, or as some form of the copula. All of these theories will be explained in more detail in below, but their variety nicely illustrates an important point that has been brought up by scholars opposing the particle theory; namely, that no etymology can be ascribed with certainty to the hypothetical particle in question; a fundamental flaw which according to these opponents renders it unworkable. We will see in the coming sections that various etymologies and formal reconstruction have nevertheless been proposed by scholars arguing in favor of the particle theory, and that others have argued that an uncertain etymology is an acceptable cost in view of all the phonological benefits the theory presents. Whether the lack of etymology - if there truly is a lack - is problematic or not will be discussed at the end of this chapter, but first let us take a look at Thurneysen (1907), who formulated an idea about the lack of lenition in verbal roots that became one of the fundamentals of the later particle theory proper.

### 4.2 The particle as copula

### 4.2.1 Thurneysen (1907)

As we have seen in Chapter 2 above, Thurneysen - a student of Zimmer - initially was a proponent of the primary-secondary theory that was the generally accepted as the solution for the difference between absolute and conjunct endings at the time. However, he also notes the synchronically unexpected lack of lenition after original vowel-final preverbal particles, and proposed a solution for that peculiar feature in a 1907 article. This solution was that preverbal particles, like the negation ní and the dummy particle no, had originally ended in a consonant ${ }^{*}$-s. This ${ }^{*}$-s was eventually lost in the prehistory of Old Irish, but not until after lenition had stopped operating, so that the *-s had blocked the lenition after preverbs ending in a vowel. About the origin of this element *-s Thurneysen is very tentative, but he does make two suggestions. The first of these is that this *-s was at first only present after the negative particle ní * nis, which was analogically reshaped from PIE *ne to the 3sG copula ní < *nis < PIE *non est, and later spread from the negative to other particles as well. The second suggestion is that a copula form *est was originally added to the 3sG preterite passive forms, from whence it spread throughout the verbal system. Both scenarios seem to be rather unlikely (as admitted by Thurneysen himself), as there seems to be no motivation for either analogical spread. However, the core idea that lack of lenition can be explained through the presence of some sort of consonantal element or particle laid the foundation for later formulations of the particle theory proper, and is still adhered to in the most recent accounts of the particle theory today.

### 4.2.2 Kim (2000, 2002)

Another more recent account in which a copular particle is reconstructed to explain the difference between absolute and conjunct endings can be found in an article by Ronald Kim from 2000 (revised version published in 2002). He proposes the existence of a particle *esti, not only for pre-Old Irish, but for pre-Old Welsh as well. Kim's phonological motivation for this reconstruction stems from the difference between the class A and class B infixed pronouns of Old Irish, which appear after preverbs ending in a (pre-Old Irish) vowel and consonant, respectively (see also Section 1.4). Assuming that *esti first became *-sti- in all environments for unclear reasons, Kim goes on to argue that this sequence would have had different outcomes, depending on whether the particle followed a vowel or a consonant. After a vowel, the outcome would have been zero, whereas following a consonant the particle would yield the dental consonant that is still visible in the class B infixed pronouns. What follows is a syntactic reconstruction of the Old Irish verbal system that lies beyond the scope of the current thesis. For phonological reasons alone, however, Kim's scenario is unlikely. The development of his proposed particle *Vst $>^{*} V s s>* V s>* V h>* * V \varnothing$ cannot be correct: the *-ss- in this case should have yielded unlenited -s- in the attested language. Additionally, the *-s- in *-st- would not have been lost after all consonants as Kim claims, and would in fact have been retained after most preverbs (see also Kortlandt 2007: 133-134). Moreover, perhaps the most important question - how *esti would fit with the endings of the absolute inflection - is not at all addressed by Kim in this article.

From both a semantic and phonological point of view, the reconstruction of a particle as an original form of the copula is far from convincing. We will therefore turn to another proposed etymology of the particle, which is an original function as a subject pronoun.

### 4.3 The particle as suffixed subject pronoun

From typology, we know that it is not at all uncommon for a language to develop synthetic verbal inflection from an original analytic sequence, i.e. an uninflected verb followed by a subject pronoun. It is thus not surprising that the hypothetical particle responsible for the creation of the absolute endings has often been reconstructed as an (original) pronominal form that came to be incorporated into the verbal ending.

### 4.3.1 Pedersen (1909-1913)

The first time that we actually find a reconstruction of a particle to account for the difference between absolute and conjunct endings is in Pedersen's Vergleichende Grammatik der keltischen Sprachen, more specifically in the second volume published in 1913. In his grammar Pedersen rejected the then generally accepted primary-secondary theory proper, and instead proposed that absolute forms originally were followed by subject clitics in pre-Old Irish, which would subsequently become incorporated into what would later be the absolute endings. Thus 3sG.ABs berid would come from *bhere-t-is, whereas 3sG.cons beir has to be reconstructed as suffixless *bhere-t (Pedersen 1913: §603).

Although Pedersen's idea might be perceived as revolutionary, it cannot entirely be separated from both the primary-secondary theory and the athematic-thematic theory discussed above. In fact, Pedersen incorporates a lot of elements from these two theories in his own theory. We can see in the reconstruction of the 3sG above that Pedersen reconstructs secondary endings for the conjunct form of the present tense, and he does this for the present tense conjunct forms of the 1PL, 2PL and 3pL as well. These forms therefore still receive part of their explanation from the primary-secondary theory. For the 1 sG and 2 sG , Pedersen assumes that in some originally athematic forms no subject suffix was added, as the inherited (athematic) endings of PIE would already resemble the appropriate subject


1913: §603). For the thematic verbs, Pedersen reconstructs a conjunct form with thematic endings: 1sG.cons Olr. •biur 'I carry' < *bherō. The absolute could then be formed with a newly created verb with added subject suffix (berim 'I carry' < *bherō me ${ }^{9}$ ) or through analogy with the athematic verbs. For the 2sG, Pedersen like Meillet (1908a) assumes that both the PIE athematic and the thematic ending are involved in the creation of the absolute and conjunct; thus 2SG.ABS biri << * $b^{h}$ ere-si, 2sG.CONJ. $\cdot$ bir < ${ }^{*} b^{h}$ er-ei (pace Meillet, who reconstructs ${ }^{*} b^{h}$ ereis(i) for the 2sG.ABS). The PIE distinction between athematic and thematic endings is thus fundamental for Pedersen's reconstruction of the 1sG and 2sG.

Pedersen's reconstruction of the Old Irish verbal system clearly contains aspects from all theories regarding the absolute and conjunct endings that were available at the time, with his own addition of reconstruction with subject suffixes for the absolute forms which could not otherwise be explained. Pedersen was no doubt most concerned with the explanation of the formal aspect of the absolute endings rather than with the explanation of how so many processes could all have come to play a role in the development of the absolute endings. Such an explanation, however, is still crucial. Above in Chapters 2 and 3, respectively, I have already explained the difficulties regarding the proposed analogical processes which underlie the reconstruction of secondary endings for the Old Irish present paradigm, as well as the problems underlying the reconstruction of a set of both athematic and thematic endings for any given uncompounded verb. Combining these different ideas into one theory naturally only adds to that difficulty. However, the main reason Pedersen's reconstruction is largely rejected is that the formal side of it does not actually work that well either. A major aspect of this has to do with the reconstruction of the clitic subject pronouns that were supposedly incorporated in the verbal endings. Pedersen reconstructs these as follows: $3 \mathrm{sG}{ }^{*}$ is, $1 \mathrm{PL}{ }^{*} n i, 2 \mathrm{PL}{ }^{*}$ wes, $3 \mathrm{PL}{ }^{*}$ ei or ${ }^{*}$ oi (Pedersen 1913: $\S \S 502,603)$. These reconstructions cannot phonologically explain the Old Irish absolute forms we find, nor do they bear much similarity to the pronouns usually reconstructed for Proto-Indo-European, as is rightly remarked by Thurneysen in his 1914 review of Pedersen's grammar and has been repeated many times since (e.g. Meid 1963: 33-35). Pedersen's reconstruction of 1PL.ABS *bherom-ni, for instance, is unlikely to have yielded attested bermi; the final *-i would have been lost through apocope (whether that be early apocope of ${ }^{*}-i$ or later general apocope). Another point of criticism is that Pedersen assumes that the fusion of original verbal ending and subject clitic came about at different times for different forms, as also criticized by Thurneysen (1914: 29). *berom ni would have fused at a rather late stage (a rather ad hoc explanation for the lack of apocope in this form) while the fusion in 2 PL *bhere-te wes would have taken place at a very early stage. So not only do we have to deal with different explanations for different forms of the absolute inflection, we also have to take into account the fact that these different forms for some reason would have been grammaticalized at different points in time. And so, while Pedersen's basic idea of enclitic subject pronouns being responsible for the formation of the absolute endings might be intriguing in theory, the details as presented in his account leave much to be desired. This was also the opinion of Thurneysen, who in the revised version of his Grammar of Old Irish (1946) can be seen tentatively moving in the direction of the particle theory. Although still skeptical about both the segmentation of Pedersen's reconstruction (as he notes a reconstruction * bhereti-s with primary ending would formally work just as well as Pedersen's *bheret-is, GOI §565) as well as about the reconstruction of the appropriate pronouns for the forms of the other persons, he does see merit in the reconstruction of a suffix of the form ${ }^{*}$ is or ${ }^{*}$ es for the absolute paradigm throughout. Such a reconstruction would, according to him, explain the final vowel in 1sG biru, for instance, as well as the lack of lenition after 3PL form like ber(a)it (GOI §565). Intriguing as it was, this idea of one single particle would be repeated

[^6]many times in the literature in the years to come, as we will see in the next section in the work of Dillon (1943).

### 4.3.2 Dillon (1943)

The particle theory as formulated by Cowgill (1975a, see Section 4.4 .2 below) was praised for the fact that it tried to solve multiple issues in the Old Irish verbal system in a single explanation, being the reconstruction of a particle. Cowgill's idea was in part based on a short article by Miles Dillon from 1943, in which the latter combined the above discussed ideas by Thurneysen (1907) concerning the lack of lenition after original vowel-final preverbs, and Pedersen (1913), concerning the reconstruction of a hypothetical element as the origin of the absolute-conjunct distinction. Dillon assumes that the lenition-blocking infixed particle *-s- as theorized by Thurneysen (1907) was in fact an enclitic subject pronoun, identical to the type Pedersen reconstructed as originally following absolute verb forms. This particle would have played the main role in the creation of the absolute endings, as well as be responsible for the lack of lenition in deuterotonic compound verbs. Unlike Pedersen, however, and in line with Thurneysen's revised opinion found in the 1946 version of his grammar, Dillon believes that there was only this one enclitic suffix pronoun involved in the creation of all the absolute endings, namely an original 3sG.MASc form that he reconstructs as *-(i)s-. This form would have been present in the prehistory of Old Irish after all simple verbs in initial position and in all persons, both singular and plural. It is important to note that whereas Pedersen had alternative explanations for the forms of the 1sG and 2sG which did not involve pronoun clitics, Dillon's reconstruction applies to these forms as well, making it more consistent in that sense than Pedersen's.

Dillon himself does not go into further detail about the phonological developments of his reconstruction, but instead refers to Thurneysen's 1914 review of Pedersen's grammar in which phonological aspects are worked out. Aspects that are taken into consideration in Dillon's article are the verb-initial word order of Old Irish, as well as the appearance of conjunct endings in verbs in Bergin's position, both phenomena of which, according to Dillon, can be explained through the reconstruction of a particle or clitic *-(i)s- as well. For the verb-initial word order Dillon argues that as enclitics were part of the verbal ending, and as according to Wackernagel's Law enclitics should take the second position in the clause, the verb was forced into initial position to be able to host the enclitic pronoun. If a verb somehow resisted moving to initial position in the clause, however, the enclitic pronoun could not be attached to the verb (the absence of clitic pronouns might be the reason the verb remained non-clause-initial in the first place), explaining why verbs adhering to Bergin's Law have conjunct endings instead of absolute ones.

It must be noted here that Dillon's reconstructions concerning word order is somewhat circular, as the only way in which enclitic subject pronouns could become incorporated into the verbal ending was if the verb was already occupying the first position of the clause to begin with; from an Indo-European perspective, there seems to be no need for a clitic to be hosted specifically by a verbal form. This problem could surely be accounted for in some way if extra steps were added to the beginning of this proposed development, but Dillon does not do so in this article. Moreover, if the Proto-Indo-European endings themselves had their origins in subject pronouns - as Dillon vaguely seems to suggest to have been the case, at least for the primary endings - we would expect verb-initial word order to be found more commonly among the other attested IE languages, as the same logic Dillon applies for the Old Irish word order would apply to the early PIE word order as well. Of course, the fusion of the uninflected verb with subject pronouns could have taken place in a stage of PIE so early that Wackernagel's Law did not yet apply, but such a possible solution is once again omitted by Dillon.

### 4.3.3 Budassi \& Roma (2018)

Although the reconstruction of one single particle responsible for the creation of the absolute endings has been the predominant one among proponents of the particle theory ever since the publication of Dillon's 1943 article just discussed, a fairly recent attempt to explain the Old Irish absolute-conjunct distinction by Marco Budassi and Elisa Roma (2018) actually returns to the idea opted by Pedersen. They believe that in pre-Old Irish verbs in absolute position were followed by the appropriate subject enclitic of that particular form, rather than by a single (pronominal) element that was the same throughout the paradigm, and that these enclitics were responsible for the creation of the different endings of the absolute and conjunct inflection.

An important part of Budassi \& Roma's motivation for this particular reconstruction is that it seems to have some parallels in Gaulish, a Celtic language related to Irish and Welsh that went extinct in the $6^{\text {th }}$ C. CE but is attested in a number of inscriptions. Some verbal forms in these Gaulish inscriptions can be analyzed as containing subject clitics, whereas these are absent (in other words: not obligatory) in other cases. These subject clitics could have been used to express emphasis of the subject in Gaulish, and Budassi \& Roma argue that a similar use of subject clitics might have been employed in a prehistoric stage of Old Irish. They then go on to argue that these original pronominal clitic elements could subsequently have shifted their meaning to express that the clause was declarative. They find a parallel for this process in Middle Welsh, where the element ef, originally a pronominal form, has become a particle of affirmation in the attested language (see also Evans 1964 §191). The need for a particle or clitic to express that a clause was declarative could have arisen as a way to create symmetry between declarative and relative clauses, as relative verbs were marked with a form of the clitic element ${ }^{*} y o$ - to express relativity ${ }^{10}$.

The subject clitics that Budassi \& Roma reconstruct are rather different from the ones reconstructed by Pedersen (1913), as can be seen in the table below:

|  |  | Reconstruction by Pedersen |
| :---: | :--- | :--- |$\quad$ Reconstruction by Budassi \& Roma

${ }^{\circ}$ Pedersen does not reconstruct clitic subject pronouns for the 1sG and 2sG ABS.
Table 5: The hypothetical pre-Old Irish clitic subject pronouns as reconstructed by Pedersen and Budassi \& Roma (Pedersen 1913 §§502, 603; Budassi \& Roma 2018: 314-318)

It must be noted that the reconstruction of the subject clitics by Budassi \& Roma is set in a later stage of the language than Pedersen's reconstruction. Whereas Pedersen assumed that the fusion of the original verbal endings and the subject clitic took place very early (at least in some cases like the 2 PL , see Section 4.3.1 above), Budassi \& Roma assume that the agglutination of the verbal endings and the

[^7]subject clitics in absolute verbs took place after the clitics independently went through a number of sound developments.

Phonological problems still remain, however. Thurneysen (1914) called out Pedersen for the use of the reconstruction *berom ni for the 1PL, which would not lead to the attested form. Budassi \& Roma likewise have problems with finding a good reconstruction for the absolute 1pl forms. For the thematic verbs, they reconstruct a proto-form *bhermosin with apocopated vowel. This form would according to them have yielded *berṽi (Budassi \& Roma 2018: 316-317) with lenited $/ \mathrm{m} /$, though lenition and subsequent loss of $/ \mathrm{s} /$, contraction of vowels and shortening of long word-final vowels. The attested berm(a)i with unlenited $/ \mathrm{m} /$ would then have been created analogically on the model of the copula form 1PL ammi. This seems reasonable. However, Budassi \& Roma themselves already admit that a clitic *-n(V) poses additional problems for the athematic verbs. Here, the outcome would be *lég'əõ̃'i (Budassi \& Roma 2018: 322), which is not as close to leicmi as *berṽi was to berm(a)i. However, again analogy is assumed, in which the ending -mi could have been taken over from other verb classes.

A discussion of all forms reconstructed by Budassi \& Roma would be too detailed to fit here, but suffice it to say that phonological difficulties are found in forms outside the 1PL as well. All these difficulties combined, it seems uneconomical to me to postulate the existence of more than one particle responsible for the absolute-conjunct distinction, if one assumes that said particles disappeared as a result of sound law. In this way the model proposed by Dillon (1943) is preferable. It must furthermore be noted that the synthetic verbal endings pre-OId Irish inherited from PIE already expressed number and person, which makes it difficult to believe that a new inflectional pattern was created on the basis of the (optional) addition of a subject pronoun that was superfluous in this respect.

### 4.3.4 Discussion

Although the incorporation of pronominal forms into verbal endings is typologically well-attested, one can wonder why such a process would have taken place in Old Irish, especially since the language already had synthetic verbal endings at its disposal. The addition and eventual incorporation of pronouns in the verbal system might have originally had emphatic value, but it seems unlikely that two different sets of verbal endings were created for the sole purpose of distinguishing between emphatic and non-emphatic semantics. What is more, although we know through typology that the shift from an analytic to a synthetic system is a rather typical one, the scenario set out by Pedersen (1913) actually starts with a development in the opposite direction, namely the move from a synthetic to a more analytic system, in which subject pronouns were extensively used. Admittedly, in the attested Old Irish it is in fact not possible to use subject pronouns after inflected verbal forms. This is changing in Modern Irish, but as in Modern Irish synthetic endings are on the decline, this is not surprising. The use of subject pronouns with synthetic endings is still prohibited, however (e.g. synthetic siúlaim 'I walk', analytic siúlann mé 'Id.', but **siúlaim mé). This intolerance of redundancy in expressing the subject could be a relic of the incorporation of subject pronouns into the verbal endings, but this is not necessarily so.

We have seen the formal difficulties that come up in the accounts of Pedersen (1913) and Budassi \& Roma (2018). A reconstruction like the one by Dillon (1943) with only one particle or enclitic element that was present in the paradigm throughout seems in that respect more likely from a phonological point of view. Even as in Dillon's account phonological difficulties remain, it requires less analogy and asynchrony than the scenarios set forth by both Pedersen and Budassi \& Roma. As pointed out by Dillon and Budassi \& Roma alike, any particle could not have been a subject pronoun at the stage it became part of the verbal endings; it must have had developed into another function prior, and Budassi \& Roma (2018) indeed mention a parallel for this in the particle ef in the related Middle Welsh.

### 4.4 The particle as sentence connector

The reconstruction of the particle as a sentence connector has already been foreshadowed in the previous section. In the articles discussed in the coming section, this idea is more prominently presented. Whereas Boling (1972) still reconstructs the particle as a reflex of a PIE form that was originally pronominal, we will see that Cowgill $(1975 a, 1975 b, 1985)$ and Schrijver $(1994,1997)$ let go of a pronominal derivation entirely, and that the latter author even reconstructs the particle as a "pure" sentence connector. Although the idea of a sentence connection particle is theoretically quite sound, it leaves the particle without a secure PIE reconstruction (but see Schrijver 1994 and 1997 discussed below). There must thus be compelling reasons for such a reconstruction. In this subsection I will examine the accounts of the hypothetical particle as a sentence connector, and see whether this criterion is met.

### 4.4.1 Boling (1972)

The account on the particle theory by Bruce Boling from 1972 sets out to demonstrate that the hypothetical particle responsible for the creation of two sets of verbal endings must be reconstructed as *-(e)d- rather than *-(i)s- or *-(e)s-, as we have seen in Thurneysen (1914) and Dillon (1943) respectively. This form of the particle would be a formal continuation of a PIE neuter pronominal form, that in Proto-Celtic acquired new meaning as a sentence connecting particle, parallel to the Sanskrit sentence connecting particles tad and yad, from PIE *to-d and ${ }^{*} y o-d$, respectively. This reconstruction has the advantage of having a PIE etymology, which some scholars critical of the particle theory argue is essential. Boling furthermore argues that it would be odd for a pronominal form of the 3sG.MASC to be added to other forms of the verb than the 3 sG , while a particle that was originally neuter was more neutral in that respect. Therefore, according to Boling, the reconstruction of a particle can therefore not have been ${ }^{*}$-(i)s- or ${ }^{*}$-(e)s-.

Although the absolute endings are discussed in detail in his article, Boling mainly focuses on the phenomenon of lack of lenition after (originally) vowel-final preverbal particles in compound verbs. He argues that lenition could only be prevented by a particle with the shape -VC-, to account for both the blocking of lenition as well as its later disappearance from the language. Boling follows Watkins (1963) in assuming that sentence connectors like relative *-yo-stood in second position within the chain of proclitic elements preceding the tonic verbal root. This would mean that the infixed object pronouns were also affected by the use of *-(e)d- in compound verbs, as they would follow the particle in the chain of pretonic elements preceding the verbal root. In fact, Boling uses his particle to explain some phonological peculiarities found in the infixed pronouns, such as the unlenited quality of the final $/ \mathrm{m} /$ and /t/ in the forms táithiumm 'I have (lit. 'There is to me')' and táithiut 'you (sg.) have (lit. 'There is to $\left.y^{\prime}{ }^{\prime}\right)^{\prime}$ )', respectively, as well as the dental element found in the class B infixed pronouns (see Section 1.4). For táithiumm, Boling reconstructs *tāti-ed-me, with assumed assimilation of ${ }^{* d}$ and ${ }^{*} m$, preventing the process of intervocalic lenition that would have applied in a particle-less reconstruction *tāti-me (Boling 1972: 81-82).

Boling places his reconstructed particle *-(e)d- among a series of other sentence-connecting particles that according to him existed in pre-Old Irish. Next to ${ }^{*}$-yo-, a relative particle with PIE etymology that is generally accepted to have been present in the prehistory of Old Irish, these particles are *-de- and ${ }^{*}-k^{\omega} e$-. The idea that the PIE sentence connectors *-de- and ${ }^{*}-k^{w} e$ - should be reconstructed for Old Irish comes from Watkins (1963), who additionally argued for a link between the Hittite conjunction $n u$ and the Old Irish "dummy particle" no. If Boling's and Watkins' reconstruction of these additional non-relative sentence connectors in pre-Old Irish is correct, it raises the question why we supposedly only find traces of *-(e)d-surviving in the absolute conjunction. Boling brings up the parallel of ProtoCeltic *-(e)d-with Sanskrit yad, the latter of which was used either directly after the preverb in the
case of compound verbs, or directly after the verb in case it was a simple verb. This does however not clarify why we find no trace of ${ }^{*}$-de- or ${ }^{*}-k^{w} e$ - in the absolute endings, whereas the presence of ${ }^{*}$-(e)dapparently set off the creation of a new inflectional paradigm. Boling does mention that he believes that ${ }^{*}$-ed-must have been neutral in meaning as compared to ${ }^{*}$-de- and ${ }^{*}-k^{w} e-$, which were all used in declarative sentences only, but fails to specify what specialized semantics should then be ascribed to the latter two sentence connectors. Watkins (1963: 10, 25-26) reconstructs ${ }^{*}-k^{w} e$ - as a sentence connector that linked two negative clauses together, based on the existence of the Old Irish form $n a(i) c h$, which could directly be compared to Latin neque. However, the Olr. clitic conjunction -ch, likewise a continuation of PIE ${ }^{*} k^{w} e$, is not confined to negative sentences (eDIL 2019), and neither is Latin clitic -que, as Watkins himself admits. On the original meaning of *-de- Watkins remains even more vague. We thus simply have to assume that in pre-Old Irish there were multiple sentenceconnecting elements, which were in complementary distribution, of which *-ed-apparently had rather general or "elsewhere" semantics, which allowed it to be generalized after simple clause-initial verbs. We will see this idea coming back later in the discussion of Schrijver $(1994,1997)$ in Section 4.4.3 below.

That there are no traces of the final *-d of his reconstructed particle *-ed-Boling explains through the loss of word-final consonants, that according to him took place before the close juncture between the pretonic part and the tonic verbal root. Boling is not the only one to reconstruct a final dental stop for the particle (e.g. Schrijver 1994, 1997, although he proposes a different chronology), but it does create some phonological problems, as not all scholars agree on Boling's view on loss of final consonants.

### 4.4.2 Cowgill (1975a, 1975b, 1985)

Warren Cowgill's 1975(a) article, based on his lecture at the 1973 Fachtagung der Indogermanischen Gesellschaft, is perhaps the most influential piece of literature written on the origins of the absolute and conjunct endings of the last half century. In the article the primary-secondary theory is completely refuted in favor of the particle theory, which subsequently took over as the most popular theory after the article's publication. Of course, as with any popular publication Cowgill's account was also met with opposition by those adhering to other theories on the origin of absolute and conjunct endings (e.g. Kortlandt 1979; McCone 1979; 1982; 2006). Either way, Cowgill's publication plays a pivotal role in the discussion on the absolute and conjunct endings and remains relevant to this day.

The first part of Cowgill's 1975(a) article is devoted to the identification and demonstration of the weak points of the primary-secondary theory, specifically as how it was presented by Watkins (1963). After rejecting the primary-secondary theory (as well as the athematic-thematic theory, for which Cowgill only refers to other authors who have pointed out the weaknesses of this scenario), Cowgill discusses the work of Thurneysen, Dillon and Boling. He generally agrees with Boling (1972) that one particle must be reconstructed to both explain the lack of lenition after preverbs and the form of the absolute endings, but he is critical of Boling's reconstruction *-(e)d-for this particle. In the previous section I already discussed Boling's reasoning for this particular reconstruction over a reconstruction *-(e)s-, for instance, as well as the phonological problems it entails. Cowgill rightly states that a reconstruction *-(e)s- would be able to explain the Old Irish forms without the need of additional, rather ad hoc sound developments regarding *- $d$ - as part of the particle, and that these phonological advantages outweigh the fact that *-(e)d-has such a clear PIE etymology.

So, even though he admits that he cannot give a PIE etymology for it, Cowgill assumes that the particle that was responsible for the creation of the absolute-conjunct distinction had the shape *-(e)s-. He then goes on to argue that the presence of this particle makes the reconstruction of secondary endings in the pre-Old Irish present paradigm unnecessary. Instead, Cowgill derives both the absolute and conjunct set of endings from the PIE primary endings, with the only difference being the addition of
the particle to the ending in the absolute forms. Through an early apocope of *-i, both the absolute and conjunct endings can phonologically be explained this way. It is here that Cowgill's account has received a lot of criticism, as his proposed $i$-apocope is only based on the verbal system. Early $i$-apocope is controversial to this day, but additional evidence for the development has since been presented by McCone (1978) and Schrijver (1994). We will see that $i$-apocope plays a pivotal role in the literature that will be discussed in the remainder of this thesis, and that the conditions under which it operates differ from author to author. The conditions which Cowgill formulates for $i$-apocope initially seem morphologically rather than phonologically based; he states that in the 3sG and 3PL conjunct forms the final *-i was lost early on, whether it was seemingly longer retained in forms like DAT.SG tig < *tegesi and $2 \mathrm{sG} \cdot$ bir < *bheresi, as the raising of the vowel (cf. NOM.SG tech 'house') would have to be the effect of the presence of a following high vowel. The endings of these two forms are derived from their protoforms by Cowgill through a development *-esi $>^{*}$-ehi $>^{*}-e i>{ }^{*}-\overline{\text { in }}$. The long ${ }^{*}-\bar{\jmath}$ of the final stage would have caused the raising before it subsequently got lost in a later apocope, eventually yielding the attested zero-ending (Cowgill 1975a: 57). However, Cowgill goes on to argue that if the loss of intervocalic *-s- was a relatively early development, his proposed $i$-apocope would not actually be conditioned morphologically; it would simply fail to apply in cases like the 2 sG because the final vowel was no longer *-i in these forms at the time of apocope, but rather *-ei or ${ }^{*}-\bar{i}$.

The absolute 2 SG and 2 PL forms are then used as an argument for the reconstruction of the particle with the form ${ }^{*}$-(e)s- rather than *-(i)s- (pace Dillon 1943). If 2 sG .ABS biri with final -i must be reconstructed through *bheresi-s > *bereï-h > beri, a reconstruction with *-is- for the 2 PL.ABS would have yielded *bhere-tes-is > *bere७eïh > ** beirthi instead of attested beirthe, which can be derived with *-es- through *bere७eëh < *bhere-tes-es ${ }^{11}$ (Cowgill 1975a: 58). Note that in Cowgill's relative chronology of developments *-(e)s-is crucially added before $i$-apocope, the latter of which he deems to be an Insular Celtic development, not related to the $i$-apocope proposed for the Italic branch oftentimes believed to be closely related to the Celtic branch.

Difficulties with Cowgill's theory remain with the reconstruction of 1PL.ABS berm(a)i. Cowgill reconstructs *bero-mos-es, which would be expected to yield **berm(a)e on the basis of the preterite passive form brethae < *britos-es. Berm(a)e is in fact an attested 1PL form, but only for the relative, and therefore not the outcome of *bero-mos-es. Cowgill's solution is to assume that "under still obscure conditions" (1975a: 60-61) the sequence *os-es could sometimes yield Old Irish -i, parallel to the sequence *ou-es found in the nominative plural of $u$-stems which sometimes yielded -e, sometimes $-i$. He admits that he does not know what to do with the relative form berm(a)e, however, and so the problem of the 1PL is not solved, at least not satisfactorily.

The lack of a distinction between absolute and conjunct endings in the suffixless preterite, with its PIE perfect origin, can according to Cowgill simply be explained through phonological developments. Rather than assuming that the lack of both primary and secondary endings in the PIE perfect excluded the suffixless preterite from developing absolute and conjunct endings - as we have seen has often been done, especially by proponents of the primary-secondary theory - Cowgill argues that the preOld Irish 1sG preterite forms of the verb teit 'to go' *luda-s and *luda (with and without the particle, respectively) would both have yielded the attested form (•)lod 'I went'. The same goes for 3sG (.)luid < *lude-s, */ude. The 2sG may then analogically have been reshaped to get identical endings for its absolute and conjunct forms, after the model of the rest of the singular. On the plural Cowgill remains a bit vague, but it seems he assumes an analogic development similar to the 2 sG to have taken place

[^8]here as well, erasing any potential difference between absolute and conjunct endings in the suffixless preterite.

Regarding the possible etymology of the particle *-(e)s-, Cowgill makes a few remarks. The main point is that the particle was apparently obligatory in non-relative sentences, and therefore probably was some type of sentence connector, at least at the time when the absolute endings were created. He also mentions that he is "reasonably sure" that the particle was not of pronominal origin, as was suggested by Boling (1972), and tentatively follows Thurneysen (1907; 1946) who proposed that the particle might be a clitic form of the copula. Like Thurneysen, however, Cowgill admits that he does not see how a copula might end up as an obligatory sentence connector.

In a follow-up article that was published in the same year as the Fachtagung paper (1975b) Cowgill addresses two additional points that were not discussed in his original paper. The first point concerns the discovery of a Celtiberian inscription, which further disproves Zimmer's already improbable reconstruction of the absolute and conjunct endings (see also Chapter 2) . The second point that Cowgill addresses in the paper concerns the Old Irish affirmative. Old Irish, like Modern Irish as it is still spoken today, has no words meaning 'yes' or 'no'. Instead, affirmation of a question can be expressed by repetition of the inflected verb. In Old Irish, these affirmative verb forms appear in their prototonic form in the case of a compound verb, and although Cowgill admits he knows of no examples of simple verbs in this context, he assumes that they would receive conjunct rather than absolute inflection in affirmative function. This situation in the affirmative verbs can easily be explained through the absence of the particle *-(e)s. Cowgill mentions the fact that the particle is absent in the imperative too, and that this in combination with the affirmative may point to "asservative" meaning of the particle, i.e. it was used to mark "statements of fact" (Cowgill 1975b: 32), which fits in with the description of a sentence-connecting particle.

In 1985, another paper by Cowgill on his reconstruction of the origins of the absolute-conjunct distinction was published. Here he goes into more detail about the phonological side of his reconstruction, giving the proto-forms for both the absolute and conjunct endings of verbs of different verb classes, as well as of the $s$ - and suffixless preterite, the $a$-subjunctive, and some deponent present forms. In addition to the phonological discussion, Cowgill also addresses the criticism of his particle theory as formulated by Kim McCone and Frederik Kortlandt. McCone (1979; 1982) does not accept Cowgill's reconstruction of a particle, although he does see the necessity to reconstruct an early apocope of *-i and relies on this development in his own theory. Kortlandt (1979) sees the merit of Cowgill's reconstructed particle, but does not think $i$-apocope should be reconstructed as a separate development from later general apocope (see also Section 3.4). Cowgill ends the article by giving a number of counterarguments against McCone's theory regarding the origin of the absolute and conjunct endings, which is the enclitic theory that will be discussed in detail in Chapter 5 below.

### 4.4.3 Schrijver $(1994,1997)$

One argument that has often been used to argue against the particle theory as formulated by Cowgill (1975) is that the crucial early apocope of ${ }^{*}-i$ is a sound law that was created solely based on the verbal system, and therefore seems rather ad hoc. In a 1994 article, Peter Schrijver sets out to demonstrate that evidence for an early $i$-apocope can be found outside the verbal system as well. A similar endeavor has previously been made by McCone (1978), who showed that the difference between short and long dative forms in Old Irish can be accounted for through early $i$-apocope. Schrijver adds to McCone's findings by arguing for traces of early $i$-apocope in two adverbial forms; fri 'against' and la (older le) 'with'. Through establishing a number of phonological elements that must have been present in these forms, such as a dental stop (to explain, for instance, the archaic 3pL prepositional pronoun lethu 'with them') as well as an element following this stop to prevent it from getting lost, followed by a process
of elimination, Schrijver ends up with the PIE reconstructions *urt-i and *pletH-i for fri and la, respectively. These could have been petrified locative forms of root nouns, similar to forms like PIE ${ }^{*} h_{2} m b h-i$ 'around' which underlies Gr. $\dot{\alpha} \mu \varphi i$ as well as Olr. imm (Beekes \& Van Beek 2010; Kroonen 2013; Matasović 2009).

Alternative reconstructions that derive fri and la from other PIE forms cannot be upheld according to Schrijver. Among these is a reconstruction of the prepositions as PIE endingless locatives. Not only are endingless locatives rare, Schrijver argues, the PIE reconstructions *urt and *pletH would not have yielded the attested Old Irish forms either. The form frith- that appears in compounds cannot be explained through PIE *urt, as word-final dental stops were neutralized in voice quality in PIE already, yielding PIE *urt > PC *urd > Olr. **frid-. In the case of *pleth, the final laryngeal would have been vocalized in this position, giving PC *pleta that in turn have become Old Irish **leth + lenition of following noun. Another possibility for the reconstruction of fri and la would be a form with a final element ${ }^{*}-s$, thus *urt-s and *pletH-s, but according to Schrijver these reconstructions likewise cause phonological problems and are morphologically unexpected forms (pace McCone 2006). Schrijver therefore argues that the only feasible reconstructions would be *urt-i and *pletH-i. These proto-forms would have lost the final ${ }^{*}-i$ through the $i$-apocope argued for by Cowgill and McCone. In the case of *pletH-i, this i-apocope would have preceded the loss of the laryngeal, which disappeared without trace; if it were the other way around, the laryngeal would have become vocalized in its word-final, post-consonantal position. The development of *urt-i>*urt > fri, and of *pletH-i > *plet > la would then be parallel to the supposed development of ${ }^{*} b^{h}$ ere-ti > * beret and, eventually, *beret > 3sG.cons -beir.

Next to documenting the positive evidence for early $i$-apocope, Schrijver also mentions the cases in which it seems early $i$-apocope did not take place. These include, for instance, the 1 sG.cons ending -imm (< *-ami) of the athematic verbs. If the *-i here was lost in early $i$-apocope, the phonetic regular outcome would have been ${ }^{*} k^{w}$ rinami $>{ }^{*} k^{w}$ rinam $>^{* *}$.cren with nasalization of the following word (Schrijver 1994: 161). Either this ending must be explained through analogy, or it has to be assumed that $i$-apocope somehow was absent in this form. Another case where $i$-apocope seems absent is the adverb inn-uraid 'last year'. The last part of this word is often reconstructed as *perut-i (cf. Gr. лع́puбı 'last year', Skt. parút 'id.'). As already noted by McCone (1978), if this form had undergone early iapocope preceding the later apocope, it would have turned up in the attested language as *perut > ${ }^{*}$ erut $>^{* *}$ (inn-)ur. Unlike in the case of the 1sg.cons ending, it is very unlikely that -uraid is the result of analogical reshaping, as it is an isolated form. This would mean that the form *perut-i cannot have undergone $i$-apocope. However, Schrijver follows McCone in assuming that inn-uraid is actually most likely to go back to an old accusative form, rather than a locative form with *-i. This would also explain the form of the article inn, which is the form for the accusative, rather than ind, the expected dative form of the article before a vowel. The reconstruction would then be PIE *perut-m > PC *ferut-en > Olr. -uraid, which works phonetically just as well as a proto-form *perut-i without i-apocope. This means that the form inn-uraid cannot be used to further define $i$-apocope. However, the 1sG.cons ending, as well as the prepositions imm 'around' < *imbi and ar 'before, for' < *ari, which cause lenition as opposed to fri and $l a$ and therefore seem to have retained their final vowel are taken by Schrijver as evidence of $i$-apocope not taking place in all positions. These cases, in addition to the material of the short and long dative forms collected by McCone (1978) let Schrijver conclude that $i$-apocope only took place after voiceless obstruents; whenever *-i followed a voiced consonant, it was not affected by early apocope.

This conclusion poses no great problems for the particle theory itself, as in the 3sG and the 3PL conjunct forms the ${ }^{*}-i$ would have followed voiceless obstruent ${ }^{*}-t-:$ *bhereti > *beret > beir. What is more,
with this new definition of $i$-apocope the 1 sG conjunct ending of athematic verbs can be explained without the need for additional analogical steps: ${ }^{*} k^{w}$ rinami $>$ (stage of early $i$-apocope) ${ }^{*} k^{w}$ rinami > (stage of general apocope) ${ }^{*} k^{w}$ rinam $>\cdot$ crenaim, rather than ${ }^{*} k^{w}$ rinami $>$ (stage of early $i$-apocope) ${ }^{*} k^{w}$ rinam > **.cren + nasalization (Schrijver 1994: 161) ${ }^{12}$.

Building up to his own reconstruction of the particle, Schrijver goes on to argue that as the loss of final *-s probably took place at the same time the new final *- $t$ that was the result of $i$-apocope (e.g. *beret $>$-beir). Schrijver argues that final ${ }^{*}$ - $t$ might have merged with final ${ }^{*}$-s, through an intermediary stage *-ts. The evidence for this is again taken from the prepositions fri and la. The 3sG.MASC/NEUT forms of the prepositional pronouns of fri and la are friss 'against him/it' and leiss 'with him/it', respectively. This puts them apart from other 3sG.MASC/NEUT forms of the prepositional pronouns, as their final -ss cannot be traditionally explained if all forms of the prepositional pronouns were built in the same manner. To illustrate this Schrijver mentions the 3sG.MASC/NEUT forms foir < *wor-e(n), airi < * $p$ )ari$e(n)$, ind $<*$ and- $e(n)$ among others. All these forms can be explained through a reconstruction preposition + pronoun ${ }^{*}-e(n)$. This does not work for friss and leiss, however. Schrijver solves this problem by assuming that the final *-t in *urt and *(p)let had become *-s prior to the general apocope. The form of preverbal friss• can be explained in the same way.

If pre-Old Irish *-t from older *-ti indeed became *-s, that opens up the possibility that the particle *(e)s as reconstructed by Cowgill (1975a) goes back to older *-eti. Schrijver argues that this reconstructing seems in line with the material from Middle Welsh and other Brythonic languages, where *- $t$ would not have become *-s. In Middle Welsh specifically, there are preverbal particles that turn up with a final -t before vowels: neut athoed 'had gone' vs. neu cheint 'I have sung' (Schrijver 1994: 182). If the Old Irish particle derives from a form *et(i), then this $-t$ in Middle Welsh might be a reflex of the same form, nicely lining up the Irish and Welsh material. What is more, *eti actually has a clear PIE etymology as a sentence connector, cf. Lat. et 'and', Gr. हैtı 'further, moreover', Skt. áti 'beyond, very', Goth. ib 'but, and' (Kroonen 2013; Matasović 2009). A reconstruction *eti of the hypothetical particle responsible for the creation of the absolute-conjunct distinction is therefore attractive both from a phonological and an etymological perspective.

However, Schrijver's reconstructions of fri and la and his proposed etymology of the particle are not without criticism. McCone (2006) especially has been very outspoken against it. Although as we will see in Chapter 5 below one of McCone's biggest objections against the particle theory is the lack of a secure etymology for the particle in question, he is not persuaded by Schrijver's reconstruction of the article as *eti. First of all, Schrijver's etymology requires a sound law that states that Insular Celtic final *-Vt became pre-Old Irish *-Vs, a development that must have taken place after $i$-apocope. Schrijver supports this sound law with the prepositions fri and la which he reconstructs as *writi and *leti, respectively. McCone however prefers the reconstruction *writ(s) and *let(s) for these forms, for which no sound law *-Vt > *-Vs is required. Without this bulk of evidence the sound law becomes rather ad hoc, and for this reason McCone rejects it.

In addition to his phonological objection to the reconstruction of *eti as the dichotomy-creating particle, McCone is furthermore unconvinced by the etymology itself. Although *eti has clear cognates in several branches of Indo-European, which all show similar sentence-connecting semantics, McCone points out that none of these forms are enclitic, even the ones that are attested in Gaulish (McCone 2006: 226; De Vaan 2008: 195). This was already acknowledged by Schrijver, who proposed that *eti might have become enclitic analogically after sentence-connecting clitics like ${ }^{*}$ de and ${ }^{*} k w e$, but

[^9]McCone finds this argument not particularly convincing either. He argues that a newly created sentence-connecting particle, that apparently stood in complementary distribution to *de and *kwe, would have been more likely to occupy a different slot in the clause than the one already taken by *de and *kwe. To illustrate this McCone mentions a parallel situation in Hittite, where "neutral" conjunction nu 'and' can occupy the very first slot of the clause, whereas the conjunctions -(y)a 'and, also' and -(m)a 'but, and' can only be used as clitics and thus take in the second position of the clause according to Wackernagel's Law (McCone 2006: 227; Kloekhorst 2008). The Hittite example does not necessarily imply that Schrijver's scenario is impossible, however. Surely there are costs of a ProtoCeltic particle reconstruction *eti, but this reconstruction comes with the advantage of a PIE etymology of the particle - the lack thereof being one of McCone biggest objections against earlier versions of the particle theory. One might think therefore that McCone would have a somewhat more mild attitude vis-à-vis Schrijver's $(1994,1997)$ reconstruction, but he remains unconvinced.

Some of McCone's earlier criticism on Schrijver's work can be found in Schrijver's 1997 book on Celtic pronouns and particles, in the chapter dedicated to further discussion of his reconstruction of the particle. In this chapter he lists the most important objections that have been brought up against the particle theory, including those expressed by McCone discussed above. These objections are primarily concerned with phonological matters. For instance, McCone mentioned that to give the attested forms from reconstructions with the particle a different elision pattern is needed than the one that is found in other forms. The form fa•ceird 'he finds him', for instance, must phonetically go back to *w(o)-enkerdet with elision of the *-o-, whereas in turn this reconstruction would go back to older *wo-(e)s-enkerdet with elision of the *-e- of the particle. However Schrijver remarks that elision and contraction patterns of pre-Old Irish vowels could very well differ between pretonic positions and stressed syllables. To illustrate this, Schrijver mentions the forms fácaib 'he leaves' < ${ }^{*}$ fo-ad-gaib, with contraction of ${ }^{*} o+{ }^{*} V$, next to fon 'under the' < *uo-sindon, with loss of both the initial ${ }^{*} s$ - and the following vowel ${ }^{*}-i$.

A number of similar phonological counterarguments are also dismissed by Schrijver. Among these is another point made by McCone on the basis of the 3PL of the suffixless preterite. As has been discussed in Chapter 1 as well as elsewhere in this thesis, the suffixless preterite does not have an absoluteconjunct distinction like the other preterites. However, when the 3pL stands in absolute position, the endings -(a)tir and -(a)tar both appear, whereas the ending of the 3PL in conjunct position is consistently -(a)tar. Cowgill (1975a: 64-65) argued that -(a)tir must be the phonetically regular 3PL ending, as it would reflect the presence of the particle *-(e)s after the original ending. McCone however argues that the ending -(a)tar must be the old 3pL absolute ending, as it is attested much earlier than the first case of -(a)tir. The latter ending might have been formed to distinguish the 3PL ending of the suffixless preterite from the identical relative ending -(a)tar. According to McCone, the 3PL of the deponent verbs could have formed the model for this analogical development. The matter is however complicated by the 3pL preterite form of the copula batir. Schrijver, following McCone, mentions that consonants that were part of proclitics like the copula were depalatalized at the end of the seventh century $C E$, which suggests that batir must have been formed analogically to another form. The 3pL ending of the suffixless preterite would seem a likely candidate for the 3pL preterite copula ending to be modelled after, but if -(a)tar was the older ending there as McCone claims, this could not have been possible. Again, the 3pL of the deponent verbs could have been the model here, but Schrijver deems this unlikely both on semantic and chronological grounds. He concludes that the 3pL of the suffixless preterite contains too many problems to be used as a compelling argument either in favor of or against the particle theory.

Other counterarguments are dismissed in a similar way. Either the material does not allow for any conclusive judgments regarding the particle theory, or the difficulties of explaining certain forms through the particle theory are not inherent to the particle theory, but are a result of gaps in the knowledge about pre-Irish sound developments in general. Schrijver furthermore argues that the argument that the etymology of the particle is unclear or cannot be ascribed to it with reasonable certainty can no longer be upheld. Even if he is wrong in tracing back the particle *-es- to *eti, the positions in the clause for which the particle is reconstructed seem to point to a function of a sentence connector of some sort.

At the end of the 1997 chapter, Schrijver mentions a few objections specifically against his reconstruction of the particle as *eti as expressed by Kortlandt. As we have seen in Chapter 3, Kortlandt is not convinced that a separate, earlier stage of $i$-apocope must be postulated for pre-Old Irish on the basis of forms like inn-uraid 'last year', which would make a reconstruction *eti impossible. However, Schrijver maintains that forms like inn-uraid cannot serve as a counterargument for $i$-apocope - as this form to all probability goes back to an accusative rather than a locative with ending *-i as he already argued in his 1994 article - and that other counterexamples of $i$-apocope can be refuted if it is assumed that final ${ }^{*}$-i was only lost after voiceless obstruents, and was retained elsewhere.

### 4.5 Discussion

The particle theory is attractive in that it solves multiple problems of the Old Irish verbal system with one explanation, and does not require extensive inter-paradigmatic analogy like previously discussed theories. Not only does it account for the difference between absolute and conjunct endings without the need of structural analogical reorganization of the verbal system - as is the case in both the primary-secondary theory and the athematic-thematic theory - it also is able to explain the lack of lenition in the verbal root following original vowel-final preverbs.

This is not to say that the particle theory is the perfect solution for the Old Irish absolute-conjunct distinction. A number of problems remain, including the derivation of relative 3 sG forms like beres and the 3pL of the suffixless preterite. In a more general sense there is the fact that although a particle of the shape *(e)s would be able to phonologically explain a substantive number of both absolute and conjunct verbal forms, it cannot be seen any more in the attested language, apart from alleged traces such as the absence of lenition in the verbal root preceded by original vowel-final preverbs. One would therefore like to have a secure etymology of the particle at least, and this has been one of the most prominent problems that the particle theory has been dealing with over the years. I do agree with Schrijver (1997) that the well-outlined syntactic positions in which the particle was supposedly present most likely point to a function of the particle as a sentence connector, even if no clear etymology is available. The reconstruction of the particle as *eti prior to $i$-apocope therefore seems very attractive (Schrijver 1994), but even if this etymology is incorrect, I think the advantages presented by the particle theory are considerable, especially when the theory is compared to the primary-secondary theory and the athematic-thematic theory by far.

## Chapter 5: The enclitic theory

### 5.1 General

In many aspects, the enclitic theory that will be discussed in this chapter is similar to the particle theory discussed above in Chapter 4. Like the particle theory, the enclitic theory does not directly derive the distinction between the Old Irish absolute and conjunct endings from a distinction reconstructed for the Proto-Indo-European verbal system - such as the distinction between primary and secondary endings. Instead, the enclitic theory seeks the starting point of the creation of the two sets of endings in the presence of certain linguistic elements in a prehistoric stage of pre-Old Irish. Furthermore, like the particle theory, the enclitic theory works under the assumption that an early apocope of ${ }^{*}$-i took place in the prehistory of Old Irish.

The first appearance of the enclitic theory in the literature was in a 1979 article by Kim McCone, which built on Cowgill's influential article wherein early $i$-apocope was first proposed. Although the enclitic theory is not as widely supported by different authors as the particle theory is, it has been amply discussed in the literature ever since it rose to attention over four decades ago. Together with the particle theory and the prosodic theory (the latter of which will not be discussed in this thesis: see Introduction) the enclitic theory is one of the current three main theories regarding the origins of the difference between the absolute and conjunct inflection.

Although the work of only two authors will be discussed in this chapter, it will become clear that the enclitic theory is not static and has been improved upon over the years, often in reaction to authors supporting the particle theory - we have seen in Chapter 4 that the particle theory has likewise been improved upon as a result of interaction with proponents of the enclitic theory. By far the most prominent defender of the enclitic theory is McCone, the one who founded it. Most of the discussed literature in this chapter will therefore be his work, starting with the article that first gave light to the enclitic theory.

### 5.2 McCone $(1979,1982)$

In 1978, Kim McCone published an article in which he uses Old Irish short dative forms of stems endings in a voiceless dental or velar to offer additional evidence for the early $i$-apocope as was proposed by Cowgill (1975a). Among the examples which he gives are DAT.SG oíntu (from NOM.SG oéntu 'oneness, unity') < *oinotūt < *oinotūti (McCone 1978: 35; eDIL 2019) and cathair (from NOM.sG cathair 'city') < *katerik < *kateriki (McCone 1978: 36; eDIL 2019). According to McCone $i$-apocope explains why these forms were endingless and subsequently yielded the short dative forms, as opposed to long dative forms like the later analogically created DAT.SG cathraig (eDil 2019).

With $i$-apocope more firmly established, McCone published a new theory concerning the origin of the different absolute and conjunct endings, in which $i$-apocope plays an important role, in a 1979 article. In this article McCone praises Cowgill's particle theory (1975a) for solving multiple problems within the Old Irish verbal system with the reconstruction of a single element. That being said, McCone is very critical of Cowgill's lack of a clear etymology of the reconstructed particle, and he is furthermore unconvinced by the proposed mechanisms through which the particle is assumed to have spread throughout the verbal system. Above all, McCone has phonological objections to its reconstruction (see also section 4.4.3 above). His own theory therefore assumes that there was not one particle with the shape ${ }^{*}(V)$ s that was responsible for the creation of separate absolute and conjunct endings, but rather that the distinction finds its origin in the use of enclitic particles within the verbal complex in general. As we will see below, this account requires quite extensive application of analogy to have taken place, arguably more than the particle theory does. However, it has the advantage over the
particle theory in that it sets out to show the interaction between the origin of the absolute and conjunct endings and the emergence of the aberrant VSO word order of Old Irish.

McCone bases himself on earlier work by Watkins (1963) (see also Section 2.3), who explained the aberrant verb-initial word order of Old Irish through a process he called "univerbation", in which the second part of a verbal complex that stood in tmesis was moved to the front of the clause. McCone himself expands on this idea. He assumes that at some point in the prehistory of Old Irish, enclitic elements - which in PIE could be attached to any element - became limited to appear only after part of the verbal complex. This is of course the situation as we find it in the attested Old Irish as well, where it is known as Vendryes' Restriction (Vendryes 1911), but the question is whether the verb-initial word order is responsible for this position of enclitic elements, or vice versa. McCone argues for the latter scenario using Bergin's Law (1938) as evidence, as no enclitics are found in clauses with verbal forms standing in Bergin's position ${ }^{13}$. The clause-final appearance of the verbal complex was incompatible with an enclitic that needed to occupy the second position in the clause, and this situation thus led to obligatory fronting of (part of) the verbal complex if any enclitic was present in the clause. This caused a change in the available positions the verb could be in in pre-Old Irish:

| Inherited verbal patterns from PIE |  | Without enclitic | With enclitic |
| :---: | :---: | :---: | :---: |
| *\#X(E)...V\# | > | *\#...V\# | *\#VE...\# |
| *\#V(E)...\# | $>$ | *\#V...\# | *\#VE...\# |
| *\#X(E)...P(P2)V\# | > | *\#...P( $\mathrm{P}_{2}$ ) V \# | *\#PE...( $\mathrm{P}_{2}$ ) V $\#$ |
| *\#P(E)...( $\mathrm{P}_{2}$ ) $\mathrm{V} \#$ | > | *\#P...( $\mathrm{P}_{2}$ ) V\# | *\#PE...(P2)V\# |
| *\#C(E)...(P)V\# | > | *\#C....(P)V\# | *\#CE...(P) V\# |

( $X=$ any element not part of the verbal complex, $E=$ enclitic, $V=$ verbal root, $P=$ preverb, $C=$ conjunct particle. \# indicates the beginning and the end of a clause)

Table 6: McCone's reconstruction of (pre-)Old Irish word order (after McCone 1979:13-15)
Whereas earlier the verbal complex - as well as any other constituent in the clause - could in all probability be fronted to express markedness like it was possible in PIE, in the new pre-Old Irish situation this was no longer possible. McCone assumes that this was when the use of cleft sentences to express markedness (see also Section 1.2) began to be employed instead. At this stage, too, Watkins' univerbation would have taken place, moving the entire verbal complex to the front in all cases where the verb was in tmesis. Through analogic pressure, verb-initial word order eventually became the standard, with some relics of older word order being reflected in Bergin's Law. In cases with *\#... $\mathrm{P}\left(\mathrm{P}_{2}\right) \mathrm{V} \#$ word order, a new deuterotonic form was created analogically to verbal complexes of the type *\#PE...( $\mathrm{P}_{2}$ ) V\# > \#PE( $\mathrm{P}_{2}$ )V and \#CE...(P)V\# > *CE(P)V\#. McCone assumes that these newly formed deuterotonic forms were a relatively late creation, following the loss of final consonants. After the loss of final consonants, lenition became a truly morphological rather than phonological process, as new vowel-final elements no longer caused lenition. McCone uses this proposed development to explain why we do not find lenition in deuterotonic compound verbs that contain an originally vowel-final preverb; their formation was simply too late to participate in lenition. This too would explain why lenition does turn up in the prototonic form; this formation was simply earlier, and old enough for lenition to apply to it.

[^10]The explanation regarding the origin of Old Irish absolute and conjunct endings is mostly confined to the 3sG in McCone's 1979 article, but through this form he is able to lay out his proposed mechanisms. Although McCone believes that 3sG.ABS beirid could phonologically be explained through *bereti, and 3sG.CONJ • beir through * beret, he firmly rejects the idea expressed by Watkins (1963) and Meid (1963), which entails that Celtic preserved some old stage of the PIE verbal system in which only one set of endings existed that could be extended by the hic-et-nunc particle *-i to overtly mark reference to the present tense (see also Chapter 2 above). Instead, McCone assumes that Celtic inherited the primary and secondary endings from PIE in the same way the other branches did. To get to the attested absolute and conjunct endings, then, McCone assumes that the first step was Cowgill's $i$-apocope, which got rid of the final ${ }^{*}-i$ in the present tense endings, except in those cases where the verb was followed by an enclitic of any kind. There was thus a form *beret-i-E next to a form * ${ }^{*}(C)(P)$ beret (without enclitic) for the 3 sG present tense. At some point the ${ }^{*}-i$ - in the forms like *beret-i-E was, according to McCone, no longer perceived as part of the verbal ending, but rather as some sort of "glide" that broke up the potential complex consonant cluster that could form after the addition of an enclitic to the verbal ending. This explanation would also account for the conjunct endings found in verbs in Bergin's position, as verbs could only appear in this position if no enclitics were present in the clause, and it was not in any case possible to add enclitics to any clause-final constituent.

According to McCone, in its capacity of a consonant cluster-breaker, ${ }^{*}-i$ - analogically spread to the preterite, which changed the original pair 3sG.PRET *berst-E : *berst to *berst-i-E : *berst. At this stage the situation in the preterite was symmetrical to that of the present, which could also have been a driving factor in this analogy. In the suffixless preterite, however, there is no absolute-conjunct distinction. McCone explains this through the PIE perfect origin of this category, which meant that the ending of the 3 sG did not end in ${ }^{*}-i$, but in ${ }^{*}$-e. This *-e was naturally not included in $i$-apocope, and as according to McCone this *-e- could function in the same glide-like manner that *-i- did, there was no need to analogically introduce ${ }^{*}-i$ - here.

As the final step, McCone argues that the presence of ${ }^{*}-i$ must have been generalized for all verbs that appeared in absolute clause-initial position, even if the form was not followed by an enclitic. This seems an acceptable analogical process, as there were both a clear model (the endings of absolute initial verbs followed by an enclitic element) and a motivation (the wish to have a clear distribution between the use of absolute and conjunct endings based on the position of the verbal root in the clause). It must be noted, however, that the particle theory has the advantage of not requiring analogical spread of the *-i endings, as all absolute initial verbs would already have these endings throughout due to the presence of the particle.

A more detailed account of the absolute and conjunct endings, looking at more aspects of the Old Irish verbal system than only the 3sG of the present and preterite, is given by McCone in a follow-up article from 1982. Here it becomes increasingly clear that McCone's enclitic theory relies heavily on analogy - although it does account for a large part of the Old Irish verbal system, including aspects of it that remain unexplained by the particle theory. Additionally, McCone argues here that the synchronically redundant absolute-conjunct distinction was not as prone to loss as it was suggested by others like Cowgill, even giving an example from Modern Connemara Irish. In this dialect, symmetry in the verbal system between the present and preterite 3pL of the verb 'to be' was created by analogically forming a new synthetic ending for the present in addition to the analytic construction that already existed there, rather than eliminating the synthetic ending of the preterite in favor of the preterite analytic construction (McCone 1982: 8). McCone uses this example to argue that there is no need for a particle with specified semantics to explain the existence of two sets of verbal endings next to each other. However, it is one thing to analogically create a new ending that can be used in free variation with the
old one, and quite another to restructure the entire verbal system resulting in two different sets of endings, the use of which was determined by the position of the verb in the clause. McCone's counterargument for the particle theory here thus falls short. Moreover, the use of ${ }^{*}-i$ - as a glide does not seem a very compelling reason for the massive spread it underwent, despite McCone's arguing for the opposite.

### 5.3 Sims-Williams (1984)

McCone's theory initially received a lot of criticism from other scholars of Old Irish, which mainly concerned the theory's complexity as well as its need for widespread analogy. Cowgill's particle theory published a few years earlier had been well-received, and many did not think the advantages that the enclitic theory had over the particle theory in proportion to the difficulties it presented. One exception to this is Patrick Sims-Williams, who in a 1984 article both defended and tried to improve on the enclitic theory, the basic underlying ideas of which he thought to be "(...) both brilliant and plausible." (SimsWilliams 1984: 146). Being as it may, we will see in the following that Sims-Williams' account in many aspects actually more resembles the particle theory than McCone's enclitic theory, and is more complicated than both. As the article was clearly written as a reaction to and in defense of McCone, however, it is fitting to discuss it in this chapter.

Sims-Williams agrees with both Cowgill (1975) and McCone (1979) that the Old Irish absolute forms can phonologically be explained if the ending contained a final element ${ }^{*}-i$, and that the conjunct forms can similarly be explained from forms with the same endings that were lacking the ${ }^{*}$-i. That this distinction between the presence and absence of final ${ }^{*}$-i should be explained from inner-Celtic developments rather than through an archaism of primary and secondary endings in PIE is likewise accepted by Sims-Williams. He does prefer the explanation by McCone (1978) for the 2sG.cons bir (< ${ }^{*}$ beris < *beres < *b${ }^{h}$ eresi) over the one by Cowgill (1975a) (•bir < *berī < *bereï < *berehi < *b${ }^{h}$ eresi), the former of which would allow for a more regular application of $i$-apocope throughout the paradigm than the latter. The 1sG.cons form benaim is explained by Sims-Williams as containing a 1sG pronoun, thus benaim < *binam $+m V$ rather than *binami > **.ben. The incorporation of the 1 sG pronoun in the athematic absolute ending would also account for the fact that the final $-m$ of this ending is unlenited, and that the emphatic particle of the 1 sG is $-s e$, -sa rather than ${ }^{* *}-m V$ to avoid confusion. Although neither of these additional reasons for this reconstruction of the 1 sG .cons are very compelling, this solution looks plausible.

In the explanation of the attested forms Sims-Williams does not initially go into the question of how *-i could have been retained in the absolute endings, while in the conjunct endings it was lost. Instead, following the phonological discussion, he sets out to explain the accent pattern of deuterotonic verbs. McCone (1979) explained this through a stage in prehistoric Irish where compound verbs originally stood in tmesis position (i.e. the type \#P(E)...( $\mathrm{P}_{2}$ )V\#) and both segments of the verbal complex were accented. When univerbation took place, the part $\mathrm{P}(\mathrm{E})$ lost its accent in favor of the part $\left(\mathrm{P}_{2}\right) \mathrm{V}$. SimsWilliams rejects this scenario, as it offers no explanation for those cases in which the clause contained no constituents outside of the verbal complex and tmesis was thus impossible. Rather than connecting the deuterotonic verb with the process of univerbation, Sims-Williams assumes that when pre-Old Irish developed stress on the initial syllable of words (which is the stress pattern found in prototonic forms), this process was blocked in the deuterotonic forms by the presence of clitic object infixes. Later on in the article, Sims-Williams explains the origin of absolute simple verbs and deuterotonic verbs through affix deletion: as in his scenario deuterotonic forms initially always contained infixed object pronouns, there would be no other way to get to deuterotonic forms without infixes as they are attested in Old Irish. In simple verbs the affix naturally was a suffix. It is here that Sims-Williams scenario starts to overlap with the particle theory. He assumes that in a number of absolute verb forms, the suffixed
pronoun shielded the *-i of the ending from $i$-apocope (although $i$-apocope is not explicitly mentioned by Sims-Williams, it is clear from his phonological discussion that he is a proponent of this sound law), leading to the attested form in e.g. 3sG * bereti-E > beirid. For other forms, such as the difficult 2PL and the 1SG already mentioned above, Sims-Williams argued that the suffixed object pronoun was retained and subsequently fused into the absolute ending, to avoid identity between the absolute and conjunct endings.

One might thus say that Sims-Williams argues for a variant of the particle theory in which the particle is an object pronoun. This is rather different from all the accounts of the particle theory that have previously been discussed in Chapter 4, and requires some additional explanation which Sims-Williams conveniently provides. According to him, in the prehistory of Old Irish the use of clitic object suffixes was proleptic and widespread, even though this type of use of object suffixes had been lost entirely by the time Old Irish was attested. Proleptic use of object clitics might seem redundant, but Sims-Williams points to the fact that at first it might have had an additional function, such as adding definiteness to the verb, for which he mentions the Semitic languages as an example.

As for the distribution of deuterotonic and prototonic verbs with regards to their position in the clause, this is explained by Sims-Williams through a desire of the speakers of Old Irish to avoid ambiguity with the imperative. Recall that imperatives are typically prototonic (with the exception of those cases when an infixed object pronoun is present; see Section 1.4). Use of deuterotonic forms in clause-initial position in the indicative would thus avoid ambiguity between indicative and imperative mood. The use of prototonic forms in responsives would, according to Sims-Williams, not have formed a problem, however, as the context of the preceding question was enough to rule out that the verb was an imperative in these cases. This contradicts the more usually accepted explanation which is essentially the reverse of Sims-Williams' scenario, i.e. that prototonic forms were used in the imperative to avoid ambiguity with the indicative mood. This latter scenario seems more intuitive, as the more marginal imperative seems unlikely to so drastically have changed the much more frequently used present indicative. Moreover, it is the imperative where we still find deuterotonic forms being used next to prototonic forms, specialized to the function of hosting infixes. It is not at all unconceivable and indeed far more probable that deuterotonic forms could at first have been used throughout in the imperative mood, and that the change to prototonic forms was motivated by the desire to have unambiguous imperative forms different from the far more extensively used present indicative ones, rather than the other way around.

All in all, I think Sims-Williams account creates more complexity than it solves. McCone's scenario might be complex and require extensive analogy, it is at least somewhat systematic, both in its presentation and in its diachronic reconstruction. Sims-Williams on the other hand explains some parts of the absolute-conjunct distinction through syntax, some through morphology, some through phonology, without systematically showing the interaction between them. Although it does offer new refreshing ideas, such as the "particle" of the particle theory being an suffixed object pronoun, none of these are very well-supported or preferable to other accounts that were already available. Moreover, an object pronoun particle creates problems for intransitive verbs, which only take a subject and no objects. There is furthermore virtually no evidence for the proleptic use of clitic object suffixes in the attested Old Irish, which makes this theory even more difficult to accept.

The last account of the enclitic theory that will be discussed in the chapter is McCone in a revised version. We will see that much criticism expressed by other scholars in reaction to McCone's earlier publications are addressed, and the origin of the absolute and conjunct endings is discussed in detail.

### 5.4 McCone (2006)

2006 saw the publication of McCone's monograph on the origins of the Insular Celtic verbal system. This book mostly focuses on Old Irish, but also tries to reconcile the findings with the verbal system of Old and Middle Welsh, while still looking at these languages from a Proto-Indo-European perspective. It also discusses much of the literature written in criticism of McCone's theory after its first publication in 1979, which among others includes the writings of Cowgill, Kortlandt, Sims-Williams and Schrijver which all have previously been discussed in this thesis.

McCone's theory regarding the origin of the absolute and conjunct endings remains essentially the same: enclitic elements, which had to occupy the second position in the clause due to Wackernagel's Law, shielded the final ${ }^{*}-i$ of the present endings of being apocopated in initial verbs. This *-i- then spread to the preterite as well after being reinterpreted as a consonant cluster-breaking element, and at some point the endings with retained ${ }^{*}$-i became generalized for all verbs that were unpreceded by any element, even if no enclitic element was following.

Sims-Williams' attempt to improve the enclitic theory is critically assessed and rejected by McCone, much for the same reasons which were already laid out in Section 5.3 above; Sims-Williams simply creates more problems than he solves. McCone is likewise not convinced by Kortlandt, as he relies on both the reconstruction of a particle *es as well as on a significant difference between athematic and thematic endings in Insular Celtic outside of the 1sG, both ideas of which are not accepted by McCone. Furthermore, McCone remains an outspoken proponent of Cowgill's proposed early apocope of *-i, which in turn is not accepted by Kortlandt. If this were not enough, McCone has great difficulty with the numerous analogical steps present in Kortlandt's explanation of the absolute and conjunct endings, which he calls "extraordinarily complicated" (McCone 2006: 133).

As for the criticism expressed by Cowgill, this is mainly focused on the way in which the position of the pre-Old Irish verb in the clause is reconstructed in this enclitic theory. McCone assumes that verbs could originally be clause-initial only when there was a clitic element present, as the clitic required to be attached to the verb and adhered to Wackernagel's Law. Normally - that is to say, when there were no clitic elements - the verb appeared at the end of the clause. Although this reconstruction has some benefits, Cowgill rightly points out that there is no evidence for the reconstruction of the pre-Old Irish word order in this, and as McCone's entire theory is more or less built on this reconstruction, it is not very secure. However, McCone believes his own theory is more steadily based than the particle theory with its unidentified etymology of the particle.

### 5.5 Discussion

In the above it has become clear that the enclitic theory in many respects is very similar to the particle theory, the difference being that in the particle theory the element responsible for the retention of *-i in the primary verbal endings was lost through phonological developments, whereas in the enclitic theory the endings with attached clitic *-i eventually spread to verbs in absolute initial position through analogy with forms that had. The advantage of analogical spread of the *-i endings (that would later become the absolute endings) is that this dismisses the enclitic theory from reconstructing a particular particle and finding its etymology. However, the theory is weaker vis-à-vis the particle theory on other fronts. Although both the particle theory and the enclitic theory need analogy for their respective scenarios to work, these analogical processes are required far more extensively in the enclitic theory. Moreover, the motivation for the analogy in question is, in my opinion, not always very convincing. For example: even if -i- in the capacity of a consonant cluster-breaking glide could have spread from the present tense to other parts of the verbal system, as McCone $(1979,1982,2006)$ proposes, one can wonder whether a glide that was purely present for phonetic purposes would have led to the creation
of a new set of verbal endings used in complementary distribution with the old endings. In the particle theory, the different endings of the absolute and conjunct inflections are the result of regular phonological developments; there is thus no need for such an analogical motivation. McCone's point that once the difference between absolute and conjunct endings was established there was no inherent need to simplify the system, even if there was no semantic difference, goes for the particle theory as well.

It could be perceived as telling that Sims-Williams' attempt to "fix" the flaws presented in McCone's earliest writings on the particle theory results in yet another variant of the particle theory, albeit a more complicated one than any the versions of the particle theory that were discussed in Chapter 4 above. This is not to say that there are no advantages to the enclitic theory over the particle theory. The proposed interaction between the development of verb-initial word order and the creation of the absolute and conjunct endings is ingenious, and McCone has greatly added to our understanding of the (pre-)Old Irish phonological developments, a great deal of which stems from his reaction on publication on the matter of absolute and conjunct by other authors. It is certainly to be preferred over the primary-secondary theory and athematic-thematic theory, being more detailed especially when it comes to phonological matters. When it comes to the particle theory, however, it is more difficult to pass a judgment on whether the enclitic theory is preferable. There are too many common factors, including the early $i$-apocope and the reconstruction of an apocope-shielding element, to say that the one is clearly the better theory at the cost of the other. For a more detailed discussion, I refer to Chapter 6 below, in which I will lay out my conclusion concerning the matter of the absolute and conjunct endings.

## Chapter 6: Conclusions

In this thesis, four main theories regarding the origins of the Old Irish absolute and conjunct endings have been discussed; the primary-secondary theory (Chapter 2), the athematic-thematic theory (Chapter 3), the particle theory (Chapter 4) and the enclitic theory (Chapter 5). From the intermediary discussions it could already be gathered that I believe the primary-secondary theory and the athematic-thematic theory to be the least likely candidates among these four. The primary-secondary theory seems to offer a nice reconstruction for the different absolute and conjunct endings, but the phonological problems that present themselves when reconstruction is looked at in more detail can neither be dismissed nor be solved satisfactorily. Moreover, the primary-secondary theory does not in itself offer an explanation for the emergence of two complementarily used sets of verbal endings. Watkins (1963) and Meid (1963) have both tried to account for the fact that primary and secondary endings supposedly both came to be used in the present tense by postulating an older stage of Proto-Indo-European in which the classically reconstructed distribution of primary endings for the present tense and secondary endings for the past tense had not yet developed as such. In this scenario Celtic would be the only branch to preserve this archaic system, apart from some supposed other remnants such as the Indo-Iranian injunctives, despite the fact that the Celtic verbal system otherwise seems to have undergone the same developments as we see reflected in other branches of PIE. Therefore, this version of the primary-secondary theory seems to me to be extremely unlikely. Moreover, while it offers a reconstruction for the Old Irish absolute-conjunct distinction, it still does not offer a real explanation for it.

The athematic-thematic reconstruction of the absolute and conjunct endings too entails a great number of phonological difficulties. Taken together with the fact that a number of personal endings were only distinguished between athematic and thematic in PIE through the use or absence of a thematic vowel before the ending and not through the ending itself, this theory requires a great deal of analogical reshuffling. Accounts of such a remodeling are provided by Börgstrom (1933) and Kortlandt (1979). Although very different, both these accounts incorporate the use of enclitic elements in the verbal system as a crucial step in the development of the absolute and conjunct endings. This postulation of clitics or particles turned out to be the most widely used approach to explain the creation of the absolute and conjunct endings in the years to come, although the details still differed greatly between authors. The reason for the popularity of this approach is understandable: as attempts to derive the two different sets of Old Irish endings from some older PIE distinction that was still visible at least in other languages proved unsatisfactory, it seemed logical to pursue the possibility that the absolute and conjunct endings find their origin in a feature that is no longer visible to us, but had great consequences for pre-Old Irish prior to its disappearance, either through analogical or phonological processes.

As has already become clear in the above, I find the idea that we must seek the creation of the absolute and conjunct endings in the use of particles and clitics certainly to be the most attractive approach among all ideas discussed in this thesis. The theories put forth by Cowgill (1975a, 1975b, 1985), Schrijver (1994, 1997) and McCone (1979, 1982, 2006) especially look promising. One common development reconstructed by all three of these authors is an early apocope of pre-Old Irish *-i in certain phonological environments - which effectively made the primary endings identical to the secondary endings - unless the *-i was shielded by a following element, whether that be a single particle or any enclitic. This development has the advantage of explaining why the conjunct endings seem to continue the PIE secondary endings, without the need to account for the presence of PIE secondary endings in the present tense. Additional evidence for $i$-apocope from the long and short dative forms (McCone 1978) and a number of prepositions (Schrijver 1994), that moreover allowed for
a more precise formulation of the sound law's conditions, offers further support for both the particle and the enclitic theory - despite criticism against the development as expressed by Kortlandt (1979). The question then is whether it is the particle theory as presented since Cowgill (1975a) or the enclitic theory as formulated by McCone $(1979,1982)$ that offers the scenario that is closest to reality regarding the creation of the absolute and conjunct endings.

The essential difference between the particle theory and the enclitic theory lies, as has been pointed out before, in the mechanism which is thought to have removed the particle or enclitic element in question. Proponents of the particle theory like Cowgill and Schrijver claim that the sentenceconnecting particle they postulate was regularly lost through sound law, while McCone proposed that the absolute endings at some point were analogically generalized for verbs in absolute-initial position, thus effectively getting rid of the enclitic elements that were responsible for their creation. Both scenarios have their advantages and disadvantages. Cowgill was not able to provide a clear IndoEuropean etymology for his particle *es, which leaves its postulation doubtful. Schrijver's (1994) solution to derive *es from earlier *eti would solve this problem, but this comes at the cost of having to formulate a number of sound developments in order for this scenario to work, and there is little additional evidence for these. On the other hand, the amount of analogic spread that is necessary to have taken place in McCone's particle theory too creates difficulty. Despite McCone's argumentation that language change and analogic change in particular do not always necessarily work in the direction of the least possible amount of forms, the creation of a separate set of verbal endings used in complementary distribution with the set that underwent $i$-apocope seems absurd even to Irish standards.

So what then is the most likely scenario? Both the particle and the enclitic theory are able to phonologically derive the absolute and conjunct endings to an acceptable degree from their proposed reconstructions, while both at the same time rely for a great deal on assumptions - an inevitable part of all systems that are reconstructed for a proto-language. Taking in consideration the criteria listed in the introduction that are required for a good reconstruction, however, it seems to me that McCone's enclitic theory is more favorable than the particle theory, for the sole reason that the presence of an unidentified particle in the proto-language can hardly be falsified. The clitic elements that according to McCone are responsible for shielding the pre-absolute verbs from $i$-apocope can to some degree still be found in the attested language, and although infixed object pronouns can be seen taking over from their suffixed counterparts even in simple verbs, their presence in the Old Irish sources gives the enclitic theory a more solid historical basis than the particle theory. I am still not entirely convinced by McCone's proposed analogy through which the *-i of the proto-absolute endings spread to the preterite in the function of a "glide", but I think it at least plausible, and in any case not significantly more disadvantageous than the mechanisms proposed by Cowgill and Schrijver to account for the spread of two different inflectional types from the present indicative to other tenses and moods. Additional evidence for Schrijver's proposed sound law PC *-t > *-s might change my opinion in favor of the particle theory, but as the matter stands, the enclitic theory in my opinion offers the best explanation for the existence of the Old Irish absolute and conjunct inflections.
A.P.M. Mudde

June 2021

On the Possible PIE Origin of the Old Irish Absolute and Conjunct Endings

## List of used abbreviations

| ABS | absolute | MASC | masculine |
| :--- | :--- | :--- | :--- |
| athem. | athematic | NEUT | neuter |
| CONJ | conjunct | NOM | nominative |
| DAT | dative | Olr. | Old Irish |
| eDIL | electronic Dictionary of the <br> Irish language | PIE | Proto-Indo-European |
| GOI | Thurneysen 1946, A Grammar <br> of Old Irish | PL | plural |
| Goth. | Gothic | PRES | present |
| Gr. | Greek | SRET | preterite |
| IE | Indo-European | Skt. | Sangular |
| Lat. | Latin | them. | thematic |

## References

Baudiš, J. (1922). On the character of the Celtic languages. Revue Celtique, 39, 33-46.
Beekes, R.S.P., \& Van Beek, L. (2010). Etymological Dictionary of Greek. Leiden: Brill.
Beekes, R.S.P., \& De Vaan, M. (2011). Comparative Indo-European Linguistics; An Introduction (2 ${ }^{\text {nd }}$ ed.). Amsterdam, Philadelphia: John Benjamins Publishing Company.
Bergin, O. (1938). On the syntax of the verb in Old Irish. Ériu, 12, 197-214.
Boling, B.D. (1972). Some Problems of the Morphology and Morphology of the Old Irish Verb. Ériu, 23, 73-101.
Borgström, C. (1933). The Absolute and Conjunct terminations of Old Irish verbs. Hermathena, 23, 54-64.
Breathnach, L. (1977). The Suffixed Pronouns in Early Irish. Celtica, 12, 75-107.
Budassi, M., \& Roma, E. (2018). On the Origin of the Absolute vs. Conjunct Opposition in Insular Celtic. Indogermanische Forschungen, 128(1), 293-338.
Cowgill, W. (1975a). The Origins of the Insular Celtic Conjunct and Absolute Verbal Endings. In H. Rix (Ed.), Flexion und Wortbildung : Akten der Fachtagung der Indogermanischen Gesellschaft Regensburg, 9-14 September 1973 (pp. 40-70). Wiesbaden: Reichert Verlag.
Cowgill, W. (1975b). Two further notes on the origin of the Insular Celtic absolute and conjunct endings. Ériu, 26, 27-32.
Cowgill, W. (1985). On the origin of the absolute and conjunct verbal Inflection of Old Irish. In B. Schlerath \& V. Rittner (Eds.), Grammatische Kategorien : Funktion und Geschichte : Akten der VII. Fachtagung der Indogermanischen Gesellschaft Berlin, 20.-25. Februar 1983 (pp. 109118). Wiesbaden: Reichert.

Darling, M. (2019). The Subjunctive in Celtic: Studies in Historical Phonology and Morphology [doctoral dissertation, Cambridge University].
Dillon, M. (1943). On the structure of the Celtic Verb. Language, 19(3), 252-255.
eDIL (2019). An Electronic Dictionary of the Irish Language, based on the Contributions to a Dictionary of the Irish Language. (Dublin: Royal Irish Academy, 1913-1976). Accessed from: http://edil.qub.ac.uk/.
Eska, J.F. (2012). Absolute and Conjunct, Cowgill and apocope. In H.C. Melchert (ed.), The IndoEuropean verb; Proceedings of the Conference of the Society for Indo-European Studies, Los Angeles 13-15 September 2010 (pp. 51-59). Wiesbaden: Reichert Verlag.
Evans, D.S. (1964). A Grammar of Middle Welsh. Dublin: The Dublin Institute for Advanced Studies.
Green, A. (1995). Old Irish Verbs and Vocabulary. Somerville: Cascadilla Press.
Hamp, E.P. (1982). Review of the book Studies in Descriptive and Historical Linguistics: Festschrift for Winfred P. Lehmann by P.J. Hopper (ed.). Zeitschrift für celtische Philologie, 39, 343-346.
Hock, H.H. (2005). The Insular Celtic Absolute: Conjunct Distinction Once Again; A Prosodic Proposal. In K. Jones-Bley, M.E. Huld, A. Della Volpe, M. Robbins Dexter (Eds.), Proceedings of the Sixteenth Annual UCLA Indo-European Conference Los Angeles, November 5-6, 2004 (pp. 153172).

Isaac, G.R. (2007). A new conjecture on the origins of absolute and conjunct flexion. Ériu, 57, 49-60.
Kim, R. (2000). The distribution of the Old Irish infixed pronouns: evidence for the syntactic evolution of Insular Celtic? University of Pennsylvania Working Papers in Linguistics, 6, 167-187.
Kim, R. (2002). The distribution of the Old Irish infixed pronouns, Cowgill's particle, and the syntactic evolution of Insular Celtic. In M.R.V. Southern (ed.), Indo-European Perspectives. Washington, D.C.: Institute for the Study of Man.

Kloekhorst, A. (2008). Etymological Dictionary of the Hittite Inherited Lexicon. Leiden: Brill.
Koch, J.T. (1987). Prosody and the Old Celtic Verbal Complex. Ériu, 38, 143-176.

Kortlandt, F. (1979). The Old Irish Absolute and Conjunct Endings and Questions of Relative Chronology. Ériu, 30, 35-53.
Kortlandt, F. (2006). More on the Celtic verb. In F. Kortlandt, Italo-Celtic Origins and Prehistoric Development of the Irish Language. Amsterdam: Brill.
Kroonen, G. (2013). Etymological Dictionary of proto-Germanic. Leiden: Brill.
Kuryłowicz, J. (1947). La nature des procès dit analogiques. Acta Linguistica, 5, 17-34.
Matasović, R. (2009). Etymological Dictionary of Proto-Celtic. Leiden, Boston: Brill.
McCone, K. (1978). The Dative Singular of Old Irish Consonant Stems. Ériu, 29, 26-38.
McCone, K. (1979). Pretonic Preverbs and the Absolute Verbal Endings in Old Irish. Ériu, 30, 1-34.
McCone, K. (1982). Further to absolute and conjunct. Ériu, 33, 1-29.
McCone, K. (1997). The Early Irish Verb. $2^{\text {nd }}$ edition revised with index. Maynooth: An Sagart.
McCone, K. (2006). The Origins and Development of the Insular Celtic Verbal Complex. Maynooth: The Department of Old Irish National University of Ireland, Maynooth.
Meid, W. (1963). Die Indogermanischen Grundlagen der Altirischen Absoluten und Konjunkten Verbalflexion. Wiesbaden: Otto Harrassowitz.
Meillet, A. (1908a). À propos de v. irl. beri. Mémoires de la Société de Linguistique de Paris, 14, 412-415

Meillet, A. (1908b). Introduction à L'étude Comparative des Langues Indo-Européennes. Paris: Librairie Hachette.

Meyer, K. (1908) Mitteilungen aus irischen Handschriften. Zeitschrift für celtische Philologie, 6, 257272.

Newton, G.E. (2006). The development and loss of the Old Irish double system of verbal inflection. [doctoral dissertation, Cambridge university].
Pedersen, H. (1909-1913). Vergleichende Grammatik der keltischen Sprachen. Göttingen: Vandenhoeck und Ruprecht.
Rix, H. (1967). Zur Vorgeschichte von absoluter und konjunkter Flexion. In W. Meid (ed.), Beiträge zur Indogermanistik und Keltologie: Julius Pokorny zum 80. Geburtstag gewidmet. Innsbruck: Sprachwissenschaftliche Institut der Universität Innsbruck.

Schrijver, P. (1994). The Celtic Adverbs for 'Against' and 'With' and the Early Apocope of -i. Ériu, 45, 151-189
Schrijver, P. (1997). Studies in the History of Celtic Pronouns and Particles. Maynooth: The Department of Old Irish National University of Ireland, Maynooth.
Sims-Williams, P. (1984). The double system of verbal inflection in Old Irish. Transactions of the Philological Society, 82, 138-201.
Stifter, D. (2006). Sengoidelc: Old Irish for Beginners. Syracuse: Syracuse University Press.
Thurneysen, R. (1907). On Certain Initial Changes in the Irish Verb after Preverbal Particles. Ériu, 3, 18-19.
Thurneysen, R. (1909). Handbuch des Alt-irischen. Heidelberg: Winter.
Thurneysen, R. (1914). Review of the book Vergleichende Grammatik der keltischen Sprachen. 2. Band. Bedeutungslehre (Wortlehre), by H. Pedersen 1913. Indogermanische Forschungen; Anzeiger, 33, 23-37.
Thurneysen, R., Binchy, D.A., \& Bergin, O.J. (1946). A Grammar of Old Irish. Dublin: Dublin Institute for Advanced Studies.

Tigges, W., \& Ó Béarra, F. (2006). An Old Irish Primer. Nijmegen: Stichting Uitgeverij de Keltische Draak.
De Vaan, M. (2008). Etymological Dictionary of Latin and the Other Italic Languages. Leiden: Brill.
Vendryes, J. (1911). La place du verbe en celtique. Mémoires de la Société de Linguistique de Paris, 17, 337-351.

Wackernagel, J. (1892). Über ein Gesetz der indo-germanischen Wortstellung. Indogermanische Forschungen, 1, 333-436.
Watkins, C. (1963). Preliminaries to a historical and comparative analysis of the Old Irish verb. Celtica, 6, 1-49.
Windisch, E. (1876). Das irische t-praeteritum. Beiträge zur vergleichenden Sprachforschung auf dem Gebiete der arischen, celtischen und slawischen Sprachen, 8, 442-470.
Zimmer, H. (1890). Keltische studien. Zeitschrift für vergleichende Sprachforschung auf dem Gebiete der Indogermanischen Sprachen, 30, 1-292.

On the Possible PIE Origin of the Old Irish Absolute and Conjunct Endings


[^0]:    ${ }^{1}$ Note that throughout the remainder of this thesis, I will be using the verbal classification system of present stems as it is set out in McCone (1997).

[^1]:    ${ }^{2}$ As already stated in the Introduction above, an example of another IE language with verb-initial word order is Welsh, a Celtic language fairly closely related to Irish.
    ${ }^{3}$ For this reason it does not suffice to say that simple verbs get absolute endings and compound verbs get conjunct endings, as the situation is sometimes simplified presented in handbooks and the literature.

[^2]:    ${ }^{4}$ This sentence is an example of the use of the copula to front elements and in this way express markedness as was described in Section 1.2 above.
    ${ }^{5}$ For the appearance of the preverb fris(s)• as frit(h)• before infixed object pronouns see also Schrijver (1994) and Section 4.4.3 below.

[^3]:    ${ }^{6}$ The $-\varsigma$ in the them. 2 sG in Greek is a later analogical addition from either the present athematic $2 s \mathrm{~s}$ or the imperfect $2 s$. Its exact origin is not relevant here.

[^4]:    ${ }^{7}$ The phonological problems arising from the primary-secondary theory were according to Cowgill so obvious and impossible to overcome that in a later article he made the following rather irritated remark: "[The primarysecondary theory] is so full of flaws at every point that I see no way that it can be seriously maintained any longer." (Cowgill 1985: 109).

[^5]:    ${ }^{8}$ Rare though it may be, there are indeed some cases of this. In a study on Old Irish suffixed pronouns
    Breathnach (1977) quotes some rare instances of enclitic object suffixes being used after verbs in clause-final position. In all these cases, the object suffix is used anaphorically to refer to the earlier expressed object standing in the accusative case at the beginning of the clause. It is possible that these anaphorically used clitics were used for emphasis as Breathnach proposes, and at the time of attestation were more free than other enclitics with regards to their position.

[^6]:    ${ }^{9}$ The form berim 'I carry' is not found in the earliest attestations, and therefore we can assume that it was actually a late creation analogical to original athematic verbs (eDIL 2019).

[^7]:    ${ }^{10}$ Budassi \& Roma ascribe to *yo- an original function in PIE as an anaphoric pronoun, rather than a relative pronoun. However, as they assume that *yo-had already become a relative marker in Insular Celtic, this anaphoric reconstruction is not relevant in the current scope.

[^8]:    ${ }^{11}$ The ending *-tes which Cowgill reconstructs here for the 2 PL has a parallel in Latin -tis and is probably goes back to the PIE 2DU ending (cf. Skt. -tas)

[^9]:    12 The unlenited final $-m$ of the 1 sG ending is generally thought to be analogical to the $-m$ of the 1 sG ending of the copula $a m<$ *esmi (e.g. Thurneysen 1946: 253).

[^10]:    ${ }^{13}$ But see also Section 3.3, footnote 5, on the rare use of anaphoric object pronouns with verbs adhering to Bergin's Law (Breathnach 1977).

