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The Syntax of Wackernagel's Law in the Prehistory of Old Irish

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Zusammenfassung

Die vorliegende Masterarbeit untersucht die Syntax von Wackernagels Gesetz in der Vorgeschichte des Altirischen. Wackernagels Gesetz, erstmals formuliert in Wackernagel (1892), besagt, dass Klitika tendenziell an zweiter Stelle im Satz stehen. Weitere Forschungsarbeiten zeigten, dass man verschiedene Arten von Wackernagel-Klitika unterscheiden muss, die, wenn man aus einer theoretischen Perspektive auf die Thematik blickt, durch teilweise unterschiedliche Mechanismen platziert werden. Diese Masterarbeit basiert auf der Analyse von Wackernagels Gesetz von Mark Hale und betont die Rolle, die Wackernagel-Klitika in der Entwicklung des sehr komplexen altirischen Verbalsystems spielten. Da das Gesetz vor allem im nicht bezeugten Voraltirischen aktiv war, basiert der Großteil der Arbeit auf Rekonstrukten. Dafür bietet das Altirische jedoch eine ideale Ausgangslage, da sehr viele Überbleibsel dieser Partikeln in der Phonologie und Morphologie altirischer Verben zu finden sind. Das altirische Verbalssystem zeigt sehr komplizierte Strukturen, die in vielen Fällen auf die Effekte von Wackernagel-Klitika zurückführbar sind. In dieser Arbeit werden die Klitika und die Theorien, die zu ihrer Form und Funktion formuliert wurden, diskutiert und kontextualisiert. Darauf folgt eine generativ-syntaktische Analyse des altirischen und voraltirischen Verbalsystems, die uns erlaubt die Entwicklung der Klitika auch von einer theoretischen Perspektive zu untersuchen. Hier wird die Annahme getroffen, dass sich das (vor)altirische Verbalssystem am besten durch eine *vP*-Remnant-Analyse erklären lässt, was schon für verschiedene andere Verb-Erst-Sprachen vorgeschlagen wurde. Nachdem Subjekt und Objekt sich aus der *vP* wegbewegt haben, bewegt sich die gesamte *vP* in den Spezifikator der TP, was verschiedenste Phänomene, die im Altirischen auftreten und die für andere Analysen Probleme bereiten, erklären kann.

Abstract

This Master's thesis examines the syntax of Wackernagel's Law in the prehistory of Old Irish. Wackernagel's Law was first formulated by Wackernagel (1892) and basically states that clitics always occupy the second position in the sentence. Further research subsequently showed that one needs to distinguish several groups of Wackernagel clitics with partly differing mechanisms accounting for their placement if one approaches the topic from a theoretical point of view. This thesis is based on the approach to Wackernagel's Law by Mark Hale and emphasises the influence that Wackernagel clitics had on the development of the complex verbal system of Old Irish. The law was mainly active in the non-attested prehistory of the language so that most of our knowledge is based on reconstructions, but Old Irish verbs contain many remnants of these particles which facilitate this task. The Old Irish verbal system shows intricate structures that can in many cases be traced back to the effects of several Wackernagel clitics. These clitics and the theories that exist concerning their form and function are discussed and contextualised. Following this, a generative analysis of the Old Irish and pre-Old Irish verbal system is proposed, showing how the Wackernagel clitics fit into this picture. Here, it is assumed that the (pre-)Old Irish verbal system can be best explained through a *vP*-remnant analysis. This kind of analysis has already been proposed for several other verb-first languages and is based on movement of the complete *vP* to the specifier of TP after the subject and object have left it. This can explain several phenomena that are found in Old Irish, which create problems for other analyses.

Preface

Even the scenic route must at some point come to an end. Writing this thesis was in all respects an adventure. It had its ups and downs, its dark valleys and its breathtaking views from a mountain top at sunrise. All in all, this time will never leave my memory.

I began thinking about writing my Master's thesis on a Celtic topic more than three years ago and as the idea developed, I fell more and more in love with this fascinating language branch. When, in a course on Indo-European syntax taught by Laura Grestenberger, we came across the topic of Wackernagel's Law, my interest in syntax was renewed and I began to look into whether a combination of these two topics could be feasible. In 2021, a course on Old Irish by Stefan Schumacher brought me to a conclusion, about which exact Celtic Language to write my thesis on. The following years consisted of intensive periods of writing, interrupted by periods when personal problems rendered progress impossible. In contrast to stories one hears of other people however, I never lost my fascination for the topic. New ideas did never cease to come to my mind and I rather had to force myself to come to an end, which now happens with a heavy heart, in addition to the great joy the work and its results (and of course also the awareness that I am completing another step on my academic way) give me.

Historical linguistics in general and the syntax of Old Irish in particular will never cease to awake my interest and I am very grateful for the possibility to have dedicated these years of my life to this topic. This wouldn't have been possible without the help of so many wonderful people.

First of all, I want to thank Laura Felder. You are the light of my life that guides me through all dark times, that brings joy and a deep feeling of belonging wherever I go. Without our long conversations, your endless support and your strong believe in my abilities I would never have been able to complete this thesis.

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Another great thank-you goes to my friends and colleagues who accompanied me on this way, some of them as writing (and discussion) buddies, others for listening to my problems during the writing process, giving valuable input or much-needed distraction in between

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Iris Kamil, who always shows me that with enough determination, everything can be accomplished. I'm so happy to have you as a friend!

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Paige Anderson: our walks and talks and all the cake we had was always a bright spot in trying times and I am so happy to know you!

Alexander Herren was the person who welcomed me with open arms into the field of Indo-European linguistics during the time of the Covid pandemic when it was difficult to find one's place in a new environment and I am all the more happy that this resulted in not only an academic friendship!

Last but not least, a very, very, very huge thank-you goes to my two supervisors, Stefan Schumacher and Laura Grestenberger who showed so much faith in my abilities, patience with all my quirks and infinite professional and personal support during this long process. I couldn't have wished for better mentors (concerning your actions but also your great knowledge) and I am so grateful that I have been able to work under your supervision!

List of Abbreviations

ABS	absolute	pl.	plural
AUG	augment(ed)	PLD	primary linguistic data
CONJ	conjunct	pOI	pre-Old Irish
CONS	consuetudinal	PRES	present
COP	Copula	PRET	preterite
DEM	demonstrative pronoun	PRON	pronoun
DM	Distributed Morphology	PRONA	infix pronoun class A
end.	endings	PRONB	infix pronoun class B
fem.	feminine	PRONC	infix pronoun class C
Gaul.	Gaulish	PRONP	possessive pronoun
Gk.	Greek	PRONS	suffixed pronoun
Hitt.	Hittite	Q	question
HMC	Head Movement Constraint	PV	preverb
IE	Indo-European	REL	relative
IND	indicative	RV	Rigveda
inf.	infix	Sg.	St. Gall Glosses
infl. end.	inflectional endings	Skt.	Sanskrit
INJ	injunctive	SBJV	subjunctive
INSTR	instrumental	suff.	suffixed
int.	interrogative	T-PRET	T-preterite
IPV	imperative	V1	verb first word order
Lat.	Latin	V2	verb second word order
LHM	Long Head Movement	(OI)VC	(Old Irish) Verbal Complex
masc.	masculine	VS	Verbum Substantivum
MB	Middle Breton	Wb.	Würzburg Glosses
ML	Milan Glosses	†	vowel lost by syncope
MW	Middle Welsh	*	depending on context either “ungrammatical” or “reconstructed”
NEG	Negation		
NOTAUG	Nota augentes		
OB	Old Breton		
OI	Old Irish		
OPT	optative		
part.	particle		
PASS	passive		
PC	Proto-Celtic		
PERF	perfect		
PFV	perfective		
Phryg.	Phrygian		
PI	Prosodic Inversion		
PIC	Proto-Insular Celtic		
PIE	Proto-Indo-European		

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1 Introduction

The synchronically intricate and very complex Old Irish (OI) verbal system is diachronically inseparable from Wackernagel's Law. This word-order law is active in many ancient Indo-European (IE) languages and it is also reconstructed for Proto-Indo-European (PIE). It basically states that clitic elements occupy second position in the clause and was first formulated in Wackernagel (1892) as a rule applying to a number of IE languages. As Old Irish is a verb-first language (V1), i.e. the verb is (nearly) always the first element of a clause, these clitics were soon associated with the verb by speakers. By the time of Old Irish, Wackernagel's Law is only partially active but remnants of its full productive presence can still be seen in the attested forms and from these, previous forms and syntactic structures can be reconstructed. To my knowledge, there is, up to now, no publication that covers Wackernagel's Law in the prehistory of Old Irish in its entirety and that tries to unite all previous thoughts, theories and information in one place, to contextualise them and to provide a theoretical linguistic analysis. This Master's thesis fills this gap by giving a unified account of the development of the individual elements and their impact on Old Irish syntax.

The Old Irish verbal system involves not only verbal elements but also others like conjunctions, negations, interrogatives and object marking elements. Thus, researchers often speak of the Old Irish Verbal Complex (OIVC). Wackernagel clitics played an important part in the formation of this Verbal Complex (VC) partly in the prehistory of the language but partly also still during the OI period, following some researchers. There are, on the one hand, several declarative and relative marking elements in the prehistory of Old Irish. They developed either out of PIE clause conjunctions or out of pronominal sources. In OI, however, they disappeared through phonological erosion and apocope processes and thus they are only discernible through their phonological reflexes in OI. On the other hand, there are the object pronouns. These can also be seen in other ancient IE languages as for example Vedic. Some researchers argue that in Old Irish they are no longer pronominal elements but object-marking morphology on the verb. They can be divided in four groups, three of them traditionally called "infixes", as they intervene between the first element of the VC and the rest. Depending on whether they occur following an original consonant or an original vowel and depending on the type of clause (declarative or various kinds of relative clauses) in which they occur they can be subdivided into three groups with different forms called classes A, B and C. The fourth group are the "suffixed" pronouns, which follow a simple independent verb.

As already said, these elements significantly impacted the development of the OI verbal system. They are the origin of the system of double inflection, which causes clause-initial verbs to have a different form than those preceded by certain elements. Also, the complicated system of Old Irish relative marking can be traced back to Wackernagel clitics as well as the various forms of the infixed pronouns.

The present thesis is divided into two parts. The first part examines the Old Irish remnants of these Wackernagel clitics and discusses what they tell us about previous language stages. Several theories and approaches to the topic will be discussed and contextualised. Based on this, some new proposals will be formulated. This part is divided into three sections. The first

one gives an overview of the importance, the research history and the modern interpretations of Wackernagel's Law. The second section, section 3, introduces the grammatical properties and peculiarities of Old Irish that are important for this thesis. The third section, section 4, then, is concerned with the pre-Old Irish (pOI) Wackernagel elements. Section 4.1.1 discusses the approaches to explaining the emergence of the system of double inflection and related topics. Section 4.1.2 concerns Old Irish relative marking. The following sections, sections 4.1.3 and 4.1.4, examine the clitics **k^ue* and **de*, the latter of which is strongly intertwined with the object pronouns/object marking affixes discussed in section 4.1.5. Following this discussion of existing research on these elements, section 4.2 presents some new insights into some aspects concerning these clitics. The third section of the first part is ended by a subsection proposing a template which displays the ordering of syntactic elements in pre-Old Irish. The same kind of template is given at the end of section 3.3 for Old Irish.

The second part is based on the findings of the first part and presents a formal syntactic analysis of the prehistoric (PIE and pOI) as well as the attested (OI) language stages and discusses the problems which the system poses. It is divided into four sections. The first of these, section 5, gives an overview of Generative Grammar in general and introduces theoretical concepts which are of importance for the following discussions. In the second section of this part, section 6, several previously proposed analyses of Old Irish syntax are presented and their advantages and problems are discussed. This directly leads to the third section, section 7, where a new analysis is proposed. First, several possibilities to analyse the OIVC and its development are discussed but they are shown to be unable to derive the attested data or to employ theoretically undesirable concepts. Based on these discussions a final analysis is proposed. It is based on the concept of *v*P-remnant movement which is used to explain several V1 languages. It is assumed that the subject and object leave the *v*P to some higher projection, which is followed by movement of the whole rest of the *v*P to the specifier of TP. This generates the attested VSO word order. Because the Old Irish verbal system has a highly complex structure that poses many challenges for theoretical models, the aim of all analyses tackling the problem is so far nothing more than to find a way to derive the correct order of morphemes. Concluding the second part, section 8 presents an overview of the development of the syntax of the previously discussed Wackernagel elements. Their main characteristics, origin and behaviour are again discussed, contextualised and theoretically analysed.

Part I

Wackernagel's Law in Old Irish: Historical-Comparative Survey

2 Wackernagel's Law

Wackernagel's Law is a rule for clitic placement in ancient Indo-European languages. It was formulated by Jacob Wackernagel in 1892 (Wackernagel 1892, Engl. edition in Walkden et al. 2020) who himself, however, credits it to Delbrück (1878: 47). The latter states at the beginning of his section on Vedic enclitics "Enklitische Wörter rücken möglichst an den Anfang des Satzes."¹ Wackernagel (1892), however, was the first to describe the law comparatively in more than one language.

But what now is Wackernagel's Law? His own formulation in a later work, often cited but quite cumbersome, is the following.

"Z. B. im ältesten Griechisch, in sehr hohem Maße bei Homer, auch noch bei Herodot, ist das Gesetz lebendig, dass schwach betonte Wörtchen, welches immer ihre syntaktische Beziehung sei, unmittelbar hinter das erste Wort des Satzes gestellt werden."²

Wackernagel (1920: 7).

In short, this can be reformulated as "enclitics occupy second position" (Walkden et al. 2020: 5).

2.1 Wackernagel (1892)

In the original article, the author locates the law mostly in Greek, Indo-Iranian and Latin and tentatively suggests that it was also present in Germanic and Celtic. The first seven sections of twelve (without headings in the original text but titled in the translation by Walkden et al. 2020) are dedicated to the Greek evidence, which therefore makes up the major part of the text. Walkden et al. (2020: 19), who, amongst other things, gloss all examples that consist at least of four words, state that there are "well over a thousand" Greek examples in the article. Wackernagel (1892) starts with an etymology put forth by Thumb (1887), who postulates that the Greek third person accusative personal pronoun $\mu\iota\nu$ /min/ has developed from **sma* (> Skt. *sma* 'indeed, certainly') + **im* (accusative singular of the anaphoric pronoun) on the basis of the similar syntactic behaviour of both forms.

Wackernagel (1892: 334), however, after criticising Thumb (1887) for not excluding the possibility that other Greek non-particle derived words might show the same behaviour, demonstrates in §1 that the corresponding dative form $\omicron\iota$ /hoi/, which is definitely particle-free, also follows his rule.

¹ "Enclitic words move as close as possible to the beginning of the clause" (translation by Walkden et al. 2020: 277).

² "For example, in the most archaic Greek, to a very high degree in Homer, also still in Herodotus, the law is active that weakly stressed little words, whatever their syntactic relationships might be, are placed directly after the first word of their clause" (translation by Hale 2019: 57).

Sections §2 and §3 are dedicated to showing that pronominal clitics in general obey his rule (he notes as special evidence that the non-enclitic first singular object pronoun ἐμέ /emé/ much less often occupies second position than its enclitic counterpart με /me/, which almost always is placed there). In section §4 he addresses the topic of possessive genitival and dative clitics, which can appear after the noun (as he expects them to do) but can also precede it. Additionally, they sometimes occur completely separated from their phrase and break up constituents to which they do not belong themselves (though only those that are clause-initial).

Section §5 concerns indefinite pronouns and some non-pronominal enclitics, sections §6 and §7 are dedicated to the postpositive particles (accented particles that nonetheless cannot be placed in first position but prefer the Wackernagel position).

The eighth section eventually leaves the domain of Greek and concerns the Indo-Aryan and Germanic evidence. Within the latter, he mentions the seemingly infixed enclitic particles of Gothic (e.g. *ga-u-laubeis* ‘do you believe?’, glossed by Walkden et al. (2020: 282) as PFV-Q-believe-2SG with the interrogative particle *-u-* placed between preverb and verb³).

The following sections (§9, §10 and §11) examine the Latin evidence, which, however, poses the problem that it is difficult to ascertain the enclitic nature of an element in this language.

Section §12 finally concludes the paper with the one aspect of Wackernagel’s (1892) theory that in later times received the most rejection but, as Hock (1982: 3) states, was for quite some time accepted by several scholars (for example also Watkins (1963; 1964)). Wackernagel (1892) assumes the verb-second (V2) placement of the verb in Modern German main clauses (which according to him is probably also attested for Old High German, Old Saxon, Old English and North Germanic) to be the original inherited word order of PIE. He does not mention (but assumes that the reader is acquainted with, cf. Hale 2019: 65) the fact that Vedic main-clause verbs are unaccented and those of subordinate clauses bear an accent and that Greek verbs have features that point to a former lack of accentuation. On this basis he states that it is

“ganz unwahrscheinlich, dass die Grundsprache das Verbum im Hauptsatz und im Nebensatz verschieden **betont**, aber doch in beiden Satzarten gleich **gestellt** hätte. Und weiterhin müssen wir auf Grund des früher Vorgetragenen erwarten, dass in der Grundsprache das Verbum des Hauptsatzes, weil und insofern es enklitisch war, unmittelbar hinter das erste Wort des Satzes gestellt worden sei.”⁴ Wackernagel (1892: 427) [emphasis in original]

Wackernagel (1892) adds that, as all the other clitics discussed in his paper are disyllabic at most, maybe not all verbs but only the shorter ones were affected by his law. This would, moreover, explain why only Germanic shows the pattern he assumes to be more archaic because, in his view, all other branches generalised the word order of longer verbs.

The paper is concluded by the discussion of evidence from other languages for this theory of verb placement.

3 Note that glossing the preverb *ga-* as a perfective particle is not entirely correct in this context, as there is no verb *laubjan* and therefore the preverb has a lexical function rather than a grammatical one.

4 “However, it is unlikely that the protolanguage stressed its verbs differently in main and subordinate clauses and yet placed them in the same position. Furthermore, based on what has been presented, we must expect that in the ancestor language the verb in the main clause was placed immediately after the first word in the clause because, and insofar as, it was enclitic” (translation by Walkden et al. 2020: 327).

The Celtic languages are only mentioned in the first sentence of section §9: “Indem ich dahingestellt lasse, ob das Pronomen infixum des **Keltischen** [...] nicht von hier aus Licht empfangt, wende ich mich sogleich zum Latein [...]”⁵ (Wackernagel 1892: 406 [emphasis in original]). This question can be answered with yes and will be examined in sections 4.1.5 and 7.

2.2 Influence and Problems

Wackernagel’s Law is exceptional because it is, in the words of Watkins (1964: 1036) “one of the few generally accepted syntactic statements about IE”.

However, the paper was not only very influential regarding the reconstruction of PIE syntax or the examination of clitics in a wider range of languages and language families but it also laid the foundation for much work on clitics, their placement and their nature in descriptive, historical, comparative and theoretical linguistics. Three important papers from the latter branch of linguistics are Zwicky (1977), which was very influential and is described by Walkden et al. (2020: 10) as “[t]he decisive push towards more explicit theorizing of clitics”, Zwicky & Pullum (1983) and Zwicky (1985).

In the first of these papers the author distinguishes three kinds of clitics:

Special clitics: clitics that have a stressed counterpart but occur in a syntactic position different from that of the latter (cf. Zwicky 1977: 3f), e.g. *Il les_{cl} a lus* vs. **Il les articles a lu(s)* cf. *Il a lu les articles* vs. **Il a lu(s) les_{cl}* (examples taken from Hale 2019: 107).

Simple clitics: clitics that have a stressed counterpart and occur in the same syntactic position as the latter (cf. Zwicky 1977: 5f), e.g. *He has read ‘em* cf. *He has read the articles* (examples taken from Hale 2019: 107).

Bound words: bound morphemes that show “considerable syntactic freedom [...] [T]hey can be associated with words of a variety of morphosyntactic categories” (Zwicky 1977: 6).

The second and the third paper concern the distinction of clitics, on the one hand vis-à-vis affixes (Zwicky & Pullum 1983) and on the other vis-à-vis independent words (Zwicky 1985).

Later work added other varieties and languages that display apparent Wackernagel clitics, for example Slavic, Lithuanian, Hittite, Tocharian, several Uto-Aztecan languages, Warlpiri and many others (cf. Walkden et al. 2020: 8ff). Moreover, the paper laid the ground for much research on the behaviour and nature of clitics in theoretical linguistics and the interplay of phonology and syntax determining their placement.

However, we nevertheless have to be quite careful with accepting this law as is. Let us begin with problems posed by the data.

The term “second position” only holds if we assume a rather broad definition. Most of these clitics appear after the first word, others, however, occur after the first constituent (Wackernagel used the term “Wortgruppe”⁶), others again, as in Gothic and Old Irish occur

⁵ “Leaving aside the question of whether this could also shed some light on the Celtic pronomen infixum [...], I turn now to Latin [...]” (translation by Walkden et al. 2020: 282).

⁶ ‘word group’.

inside a verb. Additionally, as Goldstein (2016: 5) puts it for Greek “there are many clitics in Greek that can legitimately be described as occurring in ‘second position’, but they do not all occupy the same ‘second’ position. Thus, there is no single ‘second’ position, but rather [...] multiple ‘second’ positions within the clause”.

Additionally, Hale (2019: 84f) argues that Wackernagel (1892) could not have intended the law to cover all “weakly-stressed ‘Wörtchen’⁷ in spite of what he wrote”, as proclitics are never subject to it and as there are also some other enclitic words that “always [stay] within the domain of the entity [they are] conjoining” (Hale 2019: 85f). This, he notes for example for “all the reflexes of IE **k^we* ‘and’” (Hale 2019: 85).

Based on all these problems the data pose, some authors (for example Hale 2019: 85) express the opinion that Wackernagel himself never intended the phenomenon he described to be a real law or rule but more of a tendency. Walkden et al. (2020: 6f), however, argue against this because Wackernagel himself, on the one hand, repeatedly uses the terms “rule” and “law” (the latter even in the title) and, on the other hand, lists potential counterexamples and tries to explain them away. Then again, if we look at the quote in the introduction to this section from Wackernagel (1920: 7), he himself wrote that the law is active “in sehr hohem Maße” (“to a very high degree”), meaning that he cannot have seen it as a rule without exceptions. We will leave the question about Wackernagel’s (1892) own intentions open and look instead at the reason that led researchers to assume that he indeed intended it as an invariable rule. This may be due to an interpolation of the diachronic development into PIE. Wackernagel (1892) describes his law to be stronger in earlier sources (i.e., Homeric Greek) than in later ones (for example Herodotus⁸). Based on this observation one could assume a general decline of a law that was fully active at some time prior to the attested data (i.e., in PIE). This assumption is, for example, the basis for the quote by Watkins (1964) at the beginning of this section.

Further criticism also addressed the fact that Wackernagel applied a quite unsystematic rule for determining the place of a sentence boundary, which directly impacts the ascertained position of the clitic(s) (cf. Walkden et al. 2020: 6, 15ff). This problem is also associated with Wackernagel’s (1920) formulation “welches immer ihre syntaktische Beziehung sei”⁹. Hale (2019: 99) provides the example from Euripides in example 1. He argues that no one would expect a clause like this to look like *προὔδαι κατὰ τέ τέ τέ σοι θυσίαι* Thus, he argues, this placement can in this case not be due to only phonological rules (*τε* /*te*/ is prosodically a clitic) and therefore has to be syntactically induced, violating Wackernagel’s (1920) original claim.¹⁰

⁷ ‘little words’.

⁸ Goldstein (2016) shows that it is, however, also in Herodotus more active than was assumed by Wackernagel (1892).

⁹ ‘whatever their syntactic relation may be’ [my translation, ND].

¹⁰ With this argument Hale (2019: 99) also discards other modern approaches that are based on phonological processes only.

- (1) φροῦδαί σοι θυσίαι χορῶν τ' εὐφραμοι
 vanished.NOM.PL **your**_{cl} sacrifices.NOM.PL choruses.GEN.PL **and**_{cl} auspicious.NOM.PL
 κέλαδοι κατ' ὄρφναν τε παννυχίδες θεῶν,
 sounds.NOM.PL **by** darkness.ACC.SG **and**_{cl} all_night_festivals.NOM.PL gods.GEN.PL
 χρυσέων τε ξοάνων τύποι Φρυγῶν τε
 golden.GEN.PL **and**_{cl} statues.GEN.PL figures.NOM.PL Phrygians.GEN.PL **and**_{cl}
 ζάθεοι σελαῖναι συνδῶδεκα πλήθει.
 very_sacred.NOM.PL moon_festivals.NOM.PL 12 in_number

‘Vanished are your sacrifices and the auspicious sounds of choruses and by darkness the all-night festivals of the gods and the figures of golden statues and the full-moon festivals of the Phrygians, twelve in number’

Tr.1071–1076 cited from Hale (2019: 99)

But Wackernagel’s Law can be criticised not only because of the partly contradictory data but also from a theoretical point of view. “Second position” is not a linguistic category in any syntactic theory. Goldstein (2016: 5) comments “From this perspective, this book is not about Wackernagel’s Law per se. It is about the morphosyntactic and prosodic structures that give rise to the distributional patterns collectively referred to as ‘Wackernagel’s Law’”.¹¹

When we take into account all these facts – the vague definition of sentence boundary, of the affected words and of the first element (word, constituent or part of a word?) and the theoretical problems – do we have to admit that, regardless of whether Wackernagel himself saw it this way, this law is only a tendency or do we even have to discard it completely? The latter option would be quite disappointing and also counterproductive because, as was mentioned above, the phenomenon was shown to exist not only in the IE languages Wackernagel worked on but also in many others that are completely unrelated. But describing a phenomenon as a tendency without looking for other explanations would be quite against the approach of a serious linguist. Given current assumptions, such a tendency can be either due to a syntactic change that did not yet undergo diffusion within the whole language community or due to an actual rule whose context and exact formulation has not yet been determined.¹² The first can be discarded again, as the phenomenon turns up in several, partially unrelated languages and at different times, also proving to be stable over longer time periods. Thus, we have to pursue the second possibility. This has been done for example by Mark Hale (1996, 2007, 2019) who views Wackernagel’s Law as an epiphenomenon of several distinct syntactic and phonological processes targeting different elements.

¹¹ I will, however, stick to this term in the remainder of this thesis, as it is very well established as a cover term for these phenomena. If I am referring to only one specific kind of mechanism this will be pointed out.

¹² Here one has, however, also to keep in mind that syntax is, in the generative approaches utilised in this thesis, seen as the linguistic competence of a single speaker. The attested linguistic data of corpus languages, however, does not allow us to test this linguistic competence in the same way as it is done with contemporary languages, which leads to much uncertainty concerning the conclusions that we can make (see section 5.4 for more discussion of this and other problems).

2.3 A Recent Analysis of Wackernagel's Law: Hale (2019)

There are of course many recent studies and texts on Wackernagel's Law that use modern theoretical concepts, for example Agbayani & Golston (2010), Keydana (2011), Goldstein (2016) and several others. These can normally be subdivided into prosody-dominant approaches, which claim that phonology is the main driving factor behind the placement of clitics and syntax-dominant approaches, which account for the main part of the processes that lead to clitic placement through syntactic operations. Ram-Prasad (2022: 90) writes that, with very few exceptions in early works, "all authors accept that both phonology and syntax are involved to some degree; the question is to what extent." A comprehensive list of literature on Wackernagel's Law in various languages can be found in Goldstein (2016: 4ff). Here, however, we will concentrate on the analysis of Mark Hale, who developed his analysis of Wackernagel's Law (a mainly syntactic account of clisis) based on Vedic Sanskrit and Greek, sometimes taking into account data from Hittite and Latin, for example in Hale (1987), Hale (1996), Hale (2007), and Hale (2019). This section introduces some core theoretical concepts that will be of importance later on in the analysis in part II. For information on those theoretical concepts the reader may be referred to section 5.1.

Hale (2019: 57ff) approaches Wackernagel's Law from a more systematic viewpoint in determining first the entities of a system and then the "processes that are defined over those entities" (Hale 2019: 66). As entities of a sentence with Wackernagel elements, he lists the following:

- **Ø**: elements that do not count for determining second position
 - **Ķ**: elements that "definitely do count" when establishing second position (for example stressed open-class lexical items)
 - **Neg**: elements that attract clitics out of second position (for example the Gk. negation οὐ /ou/)
 - **Ṗ**: elements that seem to behave like clitics but bear an accent mark in Greek texts (so-called postpositives)
 - **cl**: clitics
- cf. Hale (2019: 66f), partially based on Hock (1982)

The "processes" are, however, more difficult to determine. Hale (2019: 67) tries to define these for Wackernagel (1892) but runs into many problems. He argues that the latter assumed some kind of "templatic" approach where several items are filled into various slots and sketches a template for a sentence with at least one clitic but without a clitic attracting element (**Neg**) as follows:

(Ø) Ķ (Ṗ) cl ...

But what happens if there are several **Ṗ** or **cl** elements? What if these occur in a fixed order? Do we have to propose several categories **cl**₁, **cl**₂, **cl**₃ ...? And how, then, are we to account for the fact that, although **Ṗ** and **cl** can be multiplied, there can always only be one **Ķ**? How are we to account for the **Neg** elements that change the placement of **cl**? Is there a secondary ordering rule acting on the output of the template? As already mentioned, some modern concepts like syntactic constituency also need to be introduced to arrive at more accurate generalisations and some mechanism that produces these constituents (i.e., syntax). Moreover, how can we account for the fact that the rule was assumed to be stronger in earlier

language stages and weakened through the centuries? What was the synchronic grammar of the speakers in different language stages (cf. Hale 2019: 67f)?

Hale (2019) goes through Wackernagel's (1892) text in much detail and provides arguments for the theoretical acceptability and problems of its assumptions starting with the difficulty of the interaction of phonology and morphosyntax. In general the assumption of theoretical linguistics is that syntax has no access to phonological information (for example there are no languages in which a word beginning with /t-/ must precede or follow a word beginning with /p-/ or in which a word with two syllables is fronted but one with three is not¹³). What does this mean for clitic placement? It means that we cannot posit a rule that says "an unstressed word is always placed by syntax at the second position in the sentence".

Hale (2019: 70) considers several possible approaches. First, one could define Wackernagel's Law as a purely phonological phenomenon that has nothing to do with syntax (his arguments against these approaches were already summarised above). Second, it could be that syntax nevertheless has access to a limited set of special phonological information but not to others. But, if we consider Wackernagel's Law to be a purely syntactic phenomenon and look at it from a generative point of view (with Merge as the operation that builds syntactic trees) "there would be no way for the syntax to put an element in a position that it could guarantee would end up being 'second' in the clause" (Hale 2019: 101), because this would require theoretically undesirable look-ahead.¹⁴ Therefore, he also wants phonology to be involved because we do find clitic elements very often occupying second position. The third possibility would be that the place of clitics is determined by the interplay of syntactic placement followed by phonological processes that are able to change the place again.

Hale (2019: 104) describes a diagnostic that can help to determine the syntactic specifications of an element, that is, comparing it with the syntactic distribution of semantically similar words. Thus, he compares some of the "functional particles" with their corresponding stressed counterpart, i.e., Skt. *ca* with *utá*, Lat. *-que* with *et* and Gk. *τε* /te/ with *καί* /kaí/, noticing that "the enclitic version appears exactly one phonological word to the right of where the non-enclitic version would be expected to appear" (Hale 2019: 104).

At this point he summarises three facts that we now know about these kinds of elements:

- their surface position is partly influenced by phonology
- they cannot appear clause-initially
- they appear one phonological word to the right from their expected syntactic position

cf. Hale (2019: 104)

and derives the following generalisation out of these:

"When an enclitic element (which must lean to its left) sits at the left edge of its domain (and thus has nothing to its left to lean on in that domain), the phonology 'repairs' this

13 Another argument against Wackernagel's (1892) proposal concerning V2 word order in PIE for short verbs only.

14 The hierarchical structures of a syntactic tree are built from the bottom to the top (this often means that elements occurring linearly farther back in the sentence are merged earlier than the ones preceding them), not linearly from the beginning to the end. Hale (2019: 101) explains "So if the syntax puts the [...] clitic [...] at the top of the tree at some point [...] it can't know at that point how many more things are going to get put in above it – i.e., it can't know whether this is going to end up second position or not." and comments it with "That would require look-ahead, i.e., before the syntax builds the tree, it needs to build the tree to see where things are going to end up, but you can't build the tree before you build the tree!"

structure by a *minimal* rightward movement [one prosodic word, ND] of that element.”

Hale (2019: 104) [emphasis in original]

Following Halpern (1992), Hale (2019: 105) calls this operation ‘prosodic flip’ or ‘prosodic inversion’. This generalisation has the benefit that similar semantics are derived from similar syntactic structures that are only differentiated when they reach the phonology. It also explains why proclitics do not occur in second position when they occur at the left edge of their domain: they need a host to their right (cf. Hale 2019: 104f).

With this operation we can explain how the syntax of a sentence like that in example 2 arose:

- (2) *agnír ugró vā índrah*
Agni mighty or_{cl} Indra

‘Agni or mighty Indra’

Example taken from Hale (2019: 109)

The disjunction *vā* in this example occupies a position that, to cite Hale (2019: 109), “no element of its syntactic type could *ever* occupy for purely syntactic reasons [emphasis in original]”. But as the domain of the disjunction is the nominal phrase *ugró índrah*, *vā* has no host to its left in its domain and therefore has to undergo prosodic inversion.

If we allow the “prosodic flip” to be the only operation that can, in any way, change the position that was previously determined by the syntax, it must be possible to explain all those clitics that are traditionally termed Wackernagel elements either through prosodic inversion (i.e., one prosodic word left from the element’s syntactically assigned position) or through normal syntactic rules (i.e., in its normal, syntactically assigned position).

If we now look at special clitics in the sense of Zwicky (1977) as explained above in section 2.2, we must ask the question how these clitics get to their place and why non-clitic arguments expressing exactly the same can never occur there. Hale (2019: 107) explains that the standard analysis for this is that they “undergo **syntactic movement** to some well-defined syntactic position. Non-clitic arguments, by contrast, cannot undergo this movement and, thus, can never occupy ‘the same’ position as pronominal clitics [emphasis in original].” Often, this is modelled as placement at the ‘top’ of the IP or at the ‘bottom’ of the CP. This explains the placement of the pronoun after the first word or constituent (that is, if it is accidentally preceded by only one constituent; in the case of placement after the first word this constituent consists only of one word) but also the exceptions (imagine one topicalised and one focused phrase accompanied by a clitic sentence connector, which all occupy places inside the CP and therefore precede the pronoun).¹⁵ If, however, there is nothing in the CP preceding the pronoun and, thus, nothing that is able to provide a host, the pronoun can undergo prosodic inversion like the other clitics discussed before.

Hale (2019: 111) criticises Zwicky’s (1977) notion of special clitics because this “obscures crucial structural and computational differences”. Based on the operations that lead to their positioning, Hale (2019: 111f) proposes the following terms:

¹⁵ Note, however, that neither the reasons for this movement nor the kind of syntactic movement applying to clitic elements are described in more detail. This is for example noted by Keydana (2011: 118): “[...] the syntactic part of the scenario is mere stipulation, because empirical evidence for movement to C⁰ does not exist.”

- syntactic movement that does not move non-clitic elements → syntactic clitics
- no syntactic movement → simple clitics
- prosodic inversion if a host is missing → prosodically displaced (simple or syntactic) clitics

After this summary of part 2 of Hale (2019) we can see that, if we split Wackernagel's Law into several distinct processes and elements which are affected by them, we arrive at quite satisfying generalisations about clitic elements in the old IE languages.

Keydana (2011), in contrast, advocates a completely phonological account of Vedic clitic placement and thus an account very different from that of Hale. Nevertheless, he introduces terminology that is taken up by many subsequent texts on Wackernagel's Law and therefore will be explained here in short. He distinguishes

WL₁ clitics: This term corresponds to the Vedic clitic pronouns, although his description is much more complicated (i.e., what for Hale (2019) are syntactic clitics (no matter if prosodically displaced or not))

WL₂ clitics: These are the prosodically displaced simple clitics

WL₃ clitics: Under this term Keydana (2011) subsumes phrasal clitics, that is, clitics that do not have scope over the whole clause but just over a phrase in a clause (cf. example 2 above). cf. Keydana (2011: 107ff)

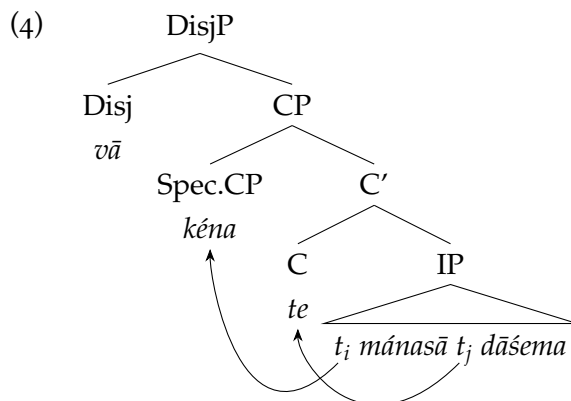
Keydana (2011) criticises several aspects of Hale's (1996) treatment of WL₁ clitics. On the one hand, he points out that the movement of WL₁ clitics to C⁰ is not motivated and its identity as head-movement is problematic, as the clitics "must be fully projected XPs in their base position" (cf. Keydana 2011: 119). The latter problem is normally solved by assuming bare phrase structure and a status of the clitic as minimal and maximal projections at the same time. On the other hand, Keydana (2011: 101) notes that there is a problem with Vedic sentences like the one in example 3.

- (3) *kéna* *vā*_{WL2} *te*_{WL1} *máнасā* *dāśema*
 INT.INSTR or you intention.INSTR worship.1PL.OPT

'Or with which intention should we worship you?'

RV 1.76.1 adapted from Keydana (2011: 108)

Following Hale (2007: 207), the syntactic tree for this example looks like example 4.



After linearisation into *=vā kéna te mánasā dā́sema* the WL₂ clitic *=vā* undergoes a prosodic flip to second position. Only, as Keydana (2011) points out, prosodic constituents are formed *before* prosodic movement takes place, which means that *kéna* and *=te* already form an entity when *=vā* flips and that the emerging structure should be *kéna=te=vā mánasā dā́sema*, which is, however, never attested. We will get back to this problem in later sections.

In this chapter, we saw that clitics is a multifaceted topic that still is in a central place within the discussion around the theory of grammar. Although they play quite an important role in the understanding of syntactic structures there are still strongly deviating opinions on how to analyse them. The following chapter will explore Old Irish grammar in general so that in chapter 4, finally, both topics can be combined and the Wackernagel clitics of Old Irish and its predecessors can be analysed.

3 The Old Irish Verb

The Old Irish verbal system is intriguing and fascinating in comparison with those of other Indo-European languages because it works in a completely different way. This section provides an overview of its features. Concerning most topics, I will give a purely synchronic description of the features because an acquirer or learner of Old Irish did not have any access to knowledge about the diachrony of their language and had to find a synchronic explanation for the language data they were confronted with during learning or acquisition. But, as we will see, some features that synchronically seem to be quite arbitrary and strange can be explained very nicely by looking at the diachronic changes that the language underwent. For that reason we will also always look at the diachronic explanations. Those including Wackernagel elements will, however, be mostly deferred until section 4. This section starts with an overview of the phonology (and partly the orthography) of Old Irish, as many other topics in the following will be incomprehensible without some knowledge of the phonology of Old Irish and its representation in writing. Section 3.1 includes explanations of Old Irish palatalisation, initial mutations and word stress and ends with a short overview of the diachronic development of these. The second section, section 3.2, forms the main part of section 3 and goes through the important features of the OI verbal system, starting with a general discussion, and then going into more detail on the verbal stem, preverbs, conjunct particles, the system of double inflection, affixed pronouns, the formation of relative clauses and verb-first word order. This is followed by a short overview of topics of minor importance for this thesis like person-marking/pronouns, verbal voice and two special syntactic constructions called Tmesis and Bergin's Law. This section is concluded by section 3.3, where a template for the OIVC is proposed.

3.1 Phonological Fundamentals of Old Irish

To be able to understand the developments leading up to the OI verbal system we first have to get acquainted with the special phonological features of Old Irish. As most of them are not central to the matter at hand, but are nevertheless essential to be mentioned to guarantee an understanding of the later discussions, I will refer to them only briefly. We will start with the synchronic features and then go on with a short overview of the phonological diachrony of OI.

The two most striking phonological features of the language are the palatalisation of consonants and the grammatically conditioned mutations of the initial sound of a word.

3.1.1 Palatalisation

Palatalisation affects all consonants except /h/. This means that the number of graphemes, 18, available to express the number of phonemes, 66, are out of proportion to each other, which results in a quite complicated orthography where the quality of consonants is indicated by the vowels preceding or following them. The front vowels <i, í, e, é> (the acute accent, called "síneadh fada", marks the length of the vowel) basically indicate palatalised consonants, the back vowels <a, á, o, ó, u, ú> indicate the non-palatalised ones. OI orthography is, however, very complicated and I will not go into more detail here. What must be mentioned, however,

is that palatalisation is phonemically relevant, i.e. we find the minimal pairs *ór* ‘gold’ and *óir* ‘of the gold (GEN.SG.)’ only distinguished by the quality of the consonant, with palatalisation indicated by the purely orthographical <i> (i.e. no /i/ sound turns up in *óir*) (cf. Stifter 2006: 15, 23).

3.1.2 Initial Mutations

The second important feature are the word-initial mutations. These exist in all Insular Celtic languages but not everywhere in the same form. In Old Irish, as in Modern Irish, we find three types of mutations (the affected sounds are underlined in the phonological representation):

Lenition: fricativisation of a consonant; only rarely visible in orthography, e.g. *bráthair* /ʰbra:θərʲ/ ‘brother’ vs. *a bráthair* /əʰʙra:θərʲ/ ‘his brother’ or *peccad* /ʰpʲekəð/ ‘sin’ vs. *mo pheccad* /moʰʙekəð/ ‘my sin’

Nasalisation sometimes also called eclipsis; only partly visible in orthography:

- voiceless plosive becomes voiced: e.g. *tabart* /ʰtəβərt/ ‘the giving (VN of *to give*)’ vs. *a tabart* /əʰʙəβərt/ ‘their giving’
- voiced plosive becomes homorganic nasal (in the beginning of the literary period the voiced plosive still is present but it gets lost in the later development of the language): e.g. *a mbráthair* /əʰm(b)ra:θərʲ/ ‘their brother’
- vowel is preceded by /n/: e.g. *ingen* /ʰinʲɣʲən/ ‘daughter’ vs. *a n-ingen* /əʰninʲɣʲən/ ‘their daughter’

h-prefixation called ‘gemination’ in GOI and ‘aspiration’ in Stifter (2006),¹⁶ occurs only after words ending in a vowel and adds /h/ to a word beginning in a vowel; hardly ever visible orthographically: e.g. *ech* /ʰeχ/ ‘horse’ vs. *a ech* /əʰheχ/ ‘her horse’

As can be seen, these mutations bear grammatical information and are therefore real morphophonemes. For example, there are three possessive pronouns *a*, only distinguished by the mutation they cause. The masculine singular form lenites (*a^L*), the feminine singular aspirates (this is normally not indicated in the literature so this would just be *a*) and the plural form nasalises (*a^N*). Other contexts that trigger mutations are, for example, the definite article preceding feminine nouns, certain prepositions, conjunctions, pronouns, case endings and, as we will see later (see section 3.2.7), certain types of relative clauses (cf. Stifter 2006: 29ff).

The distribution of these forms and the question which ones cause which mutation is synchronically completely arbitrary in OI. However, if we go a little bit further back in time, we find quite a simple explanation for them. One of the most influential phonological developments in the history of OI is an apocope whereby final syllables were lost. Before this, the contexts for the mutations were not arbitrary at all. Rather, they were mere Sandhi effects that, after apocope, were grammaticalised. Between word boundaries this led to a variation depending on the words involved; word-internally, the new, mutated sound was generalised.

¹⁶ However, I refrain from using them here for reasons of clarity, as ‘gemination’ comes from probably completely orthographic gemination of some consonants in positions where vowels are prefixed by an *h* and does not imply any phonologically relevant lengthened quality of the consonant but only the absence of any other mutation, and since ‘aspiration’ is sometimes also used for lenition.

- Lenition affected consonants between two vowels, e.g. **eẖio teγoh* > *a thech* /ə'θ̪ex/ 'his house'
- Nasalisation occurred when the preceding word ended in a nasal sound, e.g. **ēhon bouh* > *a mbó* /ə'mbō/ 'their cow'
- *h*-prefixation was triggered by words ending in a consonant that was not a nasal. If the following word started with a consonant the preceding one was assimilated and subsequently lost. If it started with a vowel the auslaut consonant was lenited to *h* and was preserved, e.g. *eẖiāh ek^uoh* > *a ech* /ə'heχ/ 'her horse'.

3.1.3 Word Stress

In general, stress-bearing words in OI are always stressed on the first syllable. As GOI (27) informs us "[t]he stress is expiratory and very intense". This and the placement of stress can be deduced from the strong reduction of unstressed syllables as well as from evidence from the modern varieties. There are, however, some exceptions to this rule. One is stress placement in verbal compounds in clause-initial position (see sections 3.2.3 and 3.2.5). The other context consists of several words that "all seem to have originated in the fusion of two or more words" (GOI: 30). These are for example the words *fadēin*, *fadesin* 'self, own', *cadēin*, *cadesin* 'even, namely, moreover, too' that will be discussed in more detail in section 4.1.4 and 4.2.2.

Moreover, prepositions, possessive pronouns and the article preceding a noun are unstressed, as well as the forms of the copula. They form a prosodic constituent together with the stressed element following them (cf. GOI: 30). Eska (1994: 57) notes that Anatolian and Continental Celtic evidence points to the fact "that the placement of stress in the verbal complex and prepositional phrase of Old Irish was not inherited, but an innovation (not of proto-Celtic, though probably of substantial age)".

3.1.4 Short Overview of the Diachronic Phonology of Old Irish

Lenition processes appeared in several waves affecting several phonemes in OI. The first one affected voiced plosives already in Proto-Celtic (e.g. *tige* /t̪iγ̪e/ 'houses' < Proto-Celtic **tegesi*), then, in Proto-Insular Celtic, several single sounds like /s/ > /h/ and /m/ > /v̪/ (e.g. Proto-Celtic **es̱io* > **eẖio* (> OI. *a* 'his')), but at this time only word internally. In Proto-Insular Celtic the context expanded to sentential Sandhi. At the same time, if the preceding word ended in a consonant, this was assimilated to the first consonant of the next word, resulting in gemination, which later just looked like the lack of any mutation (e.g. **eẖiāh bouh* > **eẖiā bbouh* > *a bó* /ə'bō/ 'her cow'). Finally, in Proto-Irish voiceless plosives were also lenited (e.g. **eẖio teγoh* > **eẖio theγah* > *a thech* 'his house'). At the same time, nasalisation of voiceless plosives started to develop through a sound change through which a combination of nasal and voiceless plosive became a geminated voiced plosive with temporary nasalisation of the preceding vowel (e.g. Proto-Celtic **ankus* > **ænkuh* > **ægguh* (> OI *éc* 'death')) (cf. Schumacher 2021: 29ff).

Palatalisation, like the mutations, does not emerge in one process affecting all the contexts where we find it in the attested sources at once but also in waves. The general conditioning

factors are, however, always broadly the same, that is, palatal vowels (i.e. the front vowels /i/, /e/) cause palatalisation, the non-palatal vowels (i.e. back vowels /a/, /o/, /u/) do not (e.g. *fer* /f̪er/ ‘man.NOM.SG’ < **uiros* vs. *fir* /f̪ir/ ‘man.GEN.SG’ < **uirī*) (cf. GOI: 97f).

Between Proto-Irish and Old Irish the grammaticalisation of the mutations, which had already started, was completed by the loss of the triggering word-final phonemes through apocope of final syllables (e.g. Proto-Irish **tōθa* > **tōθ* (> OI *túath* ‘people’)). This sometimes triggered a new round of palatalisations (Proto-Irish **knāvi* > **knāv̪i* (> OI *cnáim* ‘bone’)) (cf. Schumacher 2021: 57ff).

Several centuries earlier, another apocope that only affected *-i (and this maybe only in certain contexts took place). This is discussed in section 4.1.1 because it influenced the development of the system of double inflection (see section 3.2.5).

Apocope is one of the two processes that cause major changes of the Irish language. The second one is syncope, i.e. loss of word-internal syllables. This affected every other syllable starting from the stressed one (this context is important for compound verbs, where the first syllable is unstressed, cf. section 3.1.3) of course leaving out the last one because it only applied to word-internal syllables. This means that in a four-syllable word the second syllable was lost, while in a two-syllable word nothing changed. If we look for example at the word *sam(a)il* ‘like’ we see that nothing has changed here. But the adjective *cos⁺mil* ‘similar’ < **cossamil* shows syncope of the second syllable¹⁷. The antonym to *cosmil* is *éc⁺samil* ‘dissimilar’ < **écossamil*, again with syncope of the second syllable. The nominative plural of this form, however, *éc⁺sam⁺li* ‘dissimilar.NOM.PL’, which originally – i.e. after apocope – comprised five syllables (< **écossamali*), shows syncope of the second and the fourth syllable (cf. GOI: 67).

3.2 The Old Irish Verbal Complex

When talking about the verbal system in OI, researchers do not talk of "the verb" but rather of "the verbal complex", as already mentioned in section 1, because it consists of many different elements that are united in one phonological unit (stress is only assigned to one syllable). In this complex, the verbal root is surrounded by several affixes¹⁸. It can be preceded by one to five preverbs and/or one or two so-called conjunct particles. Another element that can be added is the so-called pronominal affixes (either as infixes or as suffixes, the latter, however, are quite restricted and seem to be in decline). Following the verbal stem, inflectional endings can occur. The verbal stem and all the other elements went through a process of univerbation and now constitute one single phonological word. This process involved a number of phonological changes and the fusion of many elements so that the original structure is hard to identify. This is illustrated in example 5, where the components of a verbal form like *co-n-imtacmaictis* ‘so that they surrounded’ (from *imm-tacmaing* ‘to surround’) are shown.

- (5) *co n- im(bi)- t(o)- a(d)- c(o)m- (a)ic- tis*
so_that- about- to- to- with- reach- 3.PL.PRET

CCath.: 4325

In the following, we will look at this verbal complex and the elements in it in more detail.

¹⁷ The dagger indicates the place of the syncopated vowel.

¹⁸ See Griffith (2011) and García Castillero (2020: 80) on the affixal status of these elements in the sense of Zwicky & Pullum (1983).

3.2.1 General Information

Old Irish is a verb-first language. The verb in its initial position can only be preceded by special elements called conjunct particles, certain conjunctions and adverbial phrases. For pragmatic functions like topicalisation or focus, periphrastic constructions like cleft sentences or the “nominativus pendens” are mainly used. The Old Irish verb marks three persons and two numbers, singular and plural. Not only the subject but in certain contexts also the object can be marked on the verb. Thus, OI is classified as a polypersonal language by some researchers. For this thesis, subject agreement is not of importance, which is why there will be only a short overview of the endings in section 3.2.9.1.1. The object-marking affixed pronouns, however, are very important and are discussed in sections 3.2.6 and 4.1.5. There are nine tenses/moods that can be expressed by a combination of the five verbal stems with the three sets of personal endings. Aspect can be marked by additional preverbs (see section 3.2.3).

3.2.2 The Verbal Stem

At the centre of each verbal complex in Old Irish is the verbal stem. Each verb shows five different stems, the present, subjunctive, future, preterite active and the preterite passive stem.

Each stem, except for those of the preterite, can use present endings for building non-past tenses and imperfect endings for building past tenses (see section 3.2.9.1.1 for information on the endings). The present stem can also take special imperative endings to build the singular imperative forms whereas the plural forms take the conjunct form (see section 3.2.5) of the present endings. The preterite active stem takes special endings. It is split up into *s-*, *t-* and suffixless preterite (cf. Le Mair 2011: 34, GOI: 372ff). The preterite passive developed out of a periphrastic construction involving the verbal adjective in **-to* and the copula. Subsequently, the copula was dropped and gender distinctions were lost, which resulted in a third singular and a third plural form. All the other persons are formed in the same way as those of the present passive (see section 3.2.9.2) (cf. Schumacher 2021: 125ff).

Stem	present endings	imperfect endings	ipv. endings
Present stem	present indicative	imperfect	imperative
Subjunctive stem	present subjunctive	past subjunctive	
Future stem	future	conditional/secondary fut.	
Preterite active stem	preterite		
Preterite passive stem	preterite passive		

Table 1: Relationship between verbal stem and tense in Old Irish (cf. Le Mair 2011: 34)

3.2.3 Preverbs

The strategy of adding preverbs or “local particles” to a verbal stem to modify its lexical meaning is quite frequent in IE languages and can with certainty be reconstructed for PIE. However, as McCone (2006: 177) tells us, this strategy was “exploited to a remarkable extent in Insular Celtic, particularly Old Irish”. In GOI (495) it says “There is no restriction on the number of prepositions that may be employed in composition”.

These preverbs usually originate from basic adverbs, and most of these basic adverbs also occur as prepositions in Old Irish (cf. GOI: 495ff). They modify the meaning of the verb they are combined with, sometimes in a quite transparent way (*beirid* ‘to carry, to bear’ vs. *do·beir* ‘to give’, lit. to carry to someone) but sometimes the derived meaning seems to be quite arbitrary (thus, *beirid* ‘to carry, bear’ vs. *as·beir* ‘to say’, lit. to carry out).

As already mentioned, in Old Irish there exist compounds with up to five preverbs, although there are, of course, many roots that occur only on their own and many more with only one preverb than with four or five. These were studied in Rossiter (2004) in much detail, but as I did not have access to this publication, I have to cite the data after McCone (2006: 177ff). Table 2 shows the number of preverbs that are found in the 1213 compound verbs listed in Rossiter (2004: 171–342).

number of preverbs	1	2	3	4	5
number of roots	730	351	108	21	3

Table 2: Number of OI verbal roots that combine with one, two, three, four or five preverbs

Of the roughly 160 (Wodtko 2007: 93) Old Irish primary verbs listed in KPV, a little bit more than 10% are only attested as *verba simplicia* (e.g. *damnaid* ‘to subdue’, *marnaid* ‘to betray’, *airid* ‘to plough’), but more than 15% are attested only in composition (e.g. *-cí* ‘to see’, *-gnin* ‘to perceive/recognise’, *-ic* ‘to reach’, with *-cí* and *-ic* being the root of more than a dozen compounds respectively). The proportion of *verba simplicia* to compounds in KPV is on average more than three compounds to every simplex (of the former, nearly a third goes back to a small number of roots; see *-ic* and *-cí* above; others are *beirid* ‘to bear’, *gaibid* ‘to seize’, *téit* ‘to go’) (cf. McCone 2006: 177).

Following Rossiter (2004) (again cited after McCone 2006: 179f), multi-preverb-verbs were most probably arrived at through “recomposition”, i.e. step-by-step accretion. Rossiter (2004) arrives at this conclusion observing that two thirds of all multi-preverb-compounds yield a further attested compound when the first preverb is removed. The remaining number can, on the one hand, be traced back to several special formations (e.g. *-uss-* as a second preverb). On the other hand, for some verbs that do not yield attested forms when their first preverb is removed, there are nevertheless hints that such a form existed earlier but did not survive (for instance, *éices* ‘poet’ seems to be derived from *in-ci-*, the unattested base of attested *de-in-ci* > OI *do·é-ci* ‘to look at’).

An example for multiple recomposition (in this case with four preverbs) is based on the root *-ic* (which, as was mentioned above, is only attested in compounds). See table 3.

<i>con·ic</i>		com-ic	'to attain, to be able'
<i>ad·cumaing</i>		ad-com-ic	'to extend to'
<i>do·acmaing</i>		to-ad-com-ic	'to reach'
<i>imm·tacmaing</i>	imb(i)-to-ad-com-ic		'to encompass'

Table 3: An example of recomposition based on the verbal root *-ic*

Some preverbs do not only have a lexical meaning but also a grammatical one. If used as functional elements they are called “augments” in KPV and McCone (2006) as they “[relate] to the tense and mood system [...] [although there are] appreciable differences between this Old Irish category and the familiar Greek augment” (McCone 2006: 190). The term was first introduced in McCone (1987: 96). They express potentiality or resultativity. This caused researchers (for example in) to call the augmented preterite a “perfect”. In the introduction to KPV (81) it is, however, explained that augmented forms are just subcategories of the general tense and mood categories of Old Irish and that one should therefore use the former term and not the latter. The most frequent preverb by far used as an augment is *ro-* (< PIE **pro*). Others are **ad-*, **kom-*, **uss-* (cf. KPV: 81).

A unique feature of compounded verbs in Old Irish is that the first and only the first preverb never causes mutation on the following element in a normal declarative main clause even if the same preverb does so in any other position and the corresponding preposition does it as well (cf. Watkins 1963: 4). Moreover, this first preverb is not accented in the independent form of the verb (see section 3.2.5) in contrast to the general accentuation rule of OI that places stress on the first syllable of a word.¹⁹ Many researchers on OI (for example Thurneysen in GOI, Schumacher in KPV) use the centered dot to indicate the boundary between the pretonic part of the verb and the accented syllable (see example 6).

- (6) *beirid* *vs. do·beir,* *ní·tabair*
 carry.3SG.PRES PV·give.3SG.PRES, NEG·give.3SG.PRES
 (s)he gives; (s)he does not give

I will follow this convention. Other symbols that are sometimes used are the colon (for example McCone 2006) or the hyphen (for example). The latter, however, can be misleading, as it is often also used to separate other building blocks of the VC from each other and therefore fails to indicate this important feature. These phenomena (word stress and effects of preverbs) will be discussed in more detail in sections 3.2.5 and 4.1.1.

As the first preverb, regardless of the presence or absence of other preverbs, is important in several contexts, the term “first preverb” will be used generally, including those cases in which only one preverb is present, to refer to its special effects.

3.2.4 Conjunct Particles

Conjunct Particles are verbal particles that always convey a grammatical meaning. There are negative conjunct particles (different forms of *ní*, *ná*, *nád*, *nách* also in combination with

¹⁹ Note, however, that the imperative forms and the so-called responsives are stressed on the first syllable if no affixed pronoun is present.

other elements with which they fused, cf. GOI: 538–542), interrogative conjunct particles (for example the general interrogative particle *in*, the interrogative adverb *co* ‘how (far)’, the interrogative pronouns *ce*, *ci*, *cía* ‘who(m), what’, cf. GOI: 286–292) and conjunctive conjunct particles (*ara* ‘(in order) that’, *dia* ‘if, when’, *i* ‘when, since’, *co* ‘(so/in order) that, until’, cf. McCone 2006: 1). Prepositions introducing relative clauses followed by the relative particle *a^N* (e.g. *ar-a* ‘on account of which’, *di-a* ‘to/from which’, *fri-s(s)a* ‘to(wards)/against which’ (cf. McCone 2006: 1)) also have the same effect on the verb they are attached to. Note the formal identity of some of the conjunctions and prepositional relatives. This is due to the fact that the former developed out of the latter.

Another conjunct particle is the semantically void particle *no-*, which is sometimes also called a “dummy preverb”, “empty preverb” or “host preverb” because it can be used, besides other functions, to provide a host for infixed pronouns (cf. Schumacher 2021: 102). It also appears in all tense/mood forms that are formed with imperfect endings (see section 3.2.2) when there is no preverb present.

The conjunct particle *ro-*, discussed in section 3.2.3 as the augment, functions as marker of perfective aspect and potentiality. *imm(a)-* can mark reciprocity (cf. García Castillero 2020: 35).

3.2.5 Double Inflection: Dependent and Independent Forms

Now that preverbs and conjunct particles have been dealt with, we can cover a very striking feature of Old Irish Grammar whose origin has been a constant topic of dispute between scholars of Old Irish during the last century and especially the last fifty years (more about this dispute in section 4.1.1).

OI verbs show different forms and endings depending on their position in the sentence. This is called double inflection. If a verb is clause-initial (broadly speaking; there are actually some exceptions like the imperative forms and those forms built with imperfect endings, cf. section 3.2.2) it takes the independent form, if it is preceded by a conjunct particle it takes the dependent form (cf. Stifter 2006: 54).

Concerning double inflection we must also consider another distinction, namely the one between simple and compound verbs. Therefore we can divide OI verbal forms into four groups, depending on the presence or absence of a conjunct particle and the presence or absence of a preverb.

	independent	dependent
Verba simplicia	<i>beirid</i> ‘(s)he carries’ absolute	<i>(ní)·beir</i> ‘(s)he (does not) carry’ conjunct
Compounds	<i>as·beir</i> ‘(s)he says’ deuterotonic	<i>(ní)·epir</i> ‘(s)he (does not) say’ prototonic

We can see that the independent simple verbs (called absolute forms) have longer endings than their dependent counterparts (called conjunct) whereas the compounds show the same endings in independent (deuterotonic) and dependent (prototonic) form although they highly differ in their phonological form (*as·beir* corresponds to *·epir*) and the placement of stress

We have to be careful here with the term “conjunct” as it has three different uses in this context. The dependent form of a simple verb like *·beir* is called the “conjunct form”. The term, however, is also used to denote the “conjunct particles”, which cause a simple verb to take conjunct form and a compound to take prototonic form (e.g. the negation in *ní·beir* and *ní·epir*). The third use of the form has not been mentioned so far. As noted above, compound verbs show the same endings in independent and dependent forms. These are also identical with the endings of the dependent form of a simple verb and this set of endings is termed “conjunct endings” (in our example above this is the zero ending following the verbal stem *beir* in *(ní)·beir-Ø*, *as·beir-Ø* and *(ní)·epir-Ø*).

In imperatives and forms of the suffixless preterite this distinction is missing; thus second singular *tochlaid* ‘dig up!’ is prototonic in contrast to the third singular present form *do·claid* ‘he digs (up)’ (McCone 2006: 79). Note that these both developed from endings different from those of the PIE primary-secondary system (McCone 2006: 147). There are also the so-called responsives, which are lacking this distinction and always take conjunct form. They are used to answer questions and in certain formal contexts. An example is given in 7.

- “But you cannot carry off any one of them alive”, added the charioteer. “Indeed I can”, said Cú Chulainn. TBC-I² (774–776) cited from García Castillero (2020: 221)

'A naked boy plays, a hungry boy does not play'

- (10) *trenghit* *golut, ny threigk* *molut*
 perish.3sg.pres.abs wealth NEG perish.3sg.pres.conj fame

‘Wealth perishes, fame does not perish.’

All three adapted from GMW (119)

The diachronic explanation of the absolute-conjunct distinction has been subject to long-lasting discussions and keeps provoking much disagreement between researchers. McCone (2006: 98) writes: “This problem has notoriously generated more debate in print than any other issue in historical Celtic grammar”. In 1975, Warren Cowgill published a paper that laid the ground for all modern theories on the development. Its short version is that there was, on the one hand, an apocope of *-i* in early Insular Celtic leading to the partial loss of the difference between PIE primary and secondary endings. On the other hand, Cowgill (1975) proposed an enclitic element of the form **es* marking declarative sentences (often termed “main-clause particle”). This particle, Cowgill said, occupied Wackernagel position and therefore protected the *-i* of the verbal ending from apocope if the verb was the first element in the clause (**bereti-es* > *beirid*) but could not do so if any other element (a preverb, a negative particle, certain conjunctions etc.) preceded it (**ní-es-bereti* > *ní·beir*). Different theories concerning this distinction emerged in the last decades, some of them agreeing with Cowgill’s (1975) proposals, others disagreeing with them. They are examined in more detail in section 4.1.1.

3.2.6 Affixed Pronouns

There are very few instances in Old Irish where the tonic personal pronouns can be used. Mostly, their unstressed affixed counterparts have to be used. These affixed pronouns comprise a category of elements that will come up again and again in this thesis because they were Wackernagel elements. For this very reason there is a suffixed variant of them in independent simple verbs, when the verb was the clause-initial element (see example 11) whereas in forms where some element – a preverb or conjunct particle – preceded the verb, they followed this element developing into infix²⁰ pronouns during the univerbation of the OIVC.

- (11) a. *comallaid-i*
 fulfil.3SG.PRES-PRONS.3SG.M/N
 ‘fulfils it’
 b. *beirth-i*
 carry.3SG.PRES-PRONS.3SG.M/N
 ‘bears it/applies it’
 c. *móρθ-us*
 magnify.3SG.PRES-PRONS.3SG.F
 ‘magnifies her’

GOI (270)

20 Note that although “infix pronouns” is the traditional term for these elements they do not fit the modern definition of the term “infix”. Infixes in general are assumed to be morphemes that are placed within the root or stem of a word. Here, however, they intervene between a preverb and the verb or, even less compatible with the definition, between a negation, conjunction or interrogative particle and the verb.

The suffixed object pronouns are only used in very restricted environments (mostly the third person pronoun, suffixed to a third person verb), due to the general decline of suffixation in Old Irish and the simultaneous increase of infixation. Poetic language, however, preserves a wider range of combinations (cf. Watkins 1963: 6). The infixed pronouns can be divided into three classes. Class A, deriving from the plain pronouns, occurs after preverbs originally ending in a vowel (see example 12), class B, characterised through /d/ <t> preceding the former pronoun, occurs after preverbs originally ending in a consonant (see example 13) and class C, marked by a /ð/ <d>, occurs in relative sentences (see example 14). However, the latter in this context freely alternate with the class A and class B markers except in the third person, where instead of class A the class C ones are obligatory (GOI: 255ff).²¹

- (12) a. *ní-m·charat-sa*
NEG-PRONA.1SG·love.3PL.PRES-NOTAUG.1SG
‘they love me not’
- b. *no-s·bered*
PV-PRONA.3SG.F·carry.3SG.PRET
‘he was carrying it (fem.)’
- c. *imm-us·acaldat*
PV-PRONA.3PL·address.3PL.PRES
‘they (masc.) address one another’ GOI (260f)
- (13) a. *fri-tamm·orcat*
PV-PRONB.1SG·offend.3pl.pres
‘they offend me’
- b. *co-t·n-erba*
PV-PRONB.3SG.M·entrust.3SG.FUT
‘he will entrust himself’
- c. *co-ta·ucbat*
PV-PRONB.3PL·raise.3PL.PRES
‘they (masc.) raise themselves’ GOI (261f)
- (14) a. *nu-dam·chrocha*
PV-PRONC.1SG·crucify.3sg.pres
‘which crucifies me’
- b. *ru-da·n-ordan*
PV-PRONC.3SG.M·dignify.3SG.PRET
‘which has dignified him’
- c. *ar-da·túaissi*
PV-PRONC.3PL·hear.3SG.PRES
‘who hears them’ GOI (262ff)

²¹ Therefore it is correct to call the class C pronouns the relative variants as they only occur in relative contexts but it would be wrong to call the class A and B pronouns the non-relative variants.

Table 4 shows the most frequently used forms of the OI affixed pronouns.

person	class A	class B	class C	suff. forms
1SG	$-m^L$, $-mm^L$.	$-dom^L$, $-tom^L$.	$-dom^L$.	$-um$
2SG	$-t^L$.	$-tot^L$, $-t^L$.	$-dat^L$.	$-ut$
3SG.M	$-a^N$, $-\emptyset^N$.	$-t^N$.	$-id^N$, $-did^N$, $-d^N$, $-da^N$.	$-i/-it$
3SG.N	$-a^L$, $-\emptyset^L$.	$-t^L$.	$-id^L$, $-did^L$, $-d^L$.	$-i/-it$
3SG.F	$-s^{(N)}$.	$-da$, $-ta$.	$-da$.	$-us$
1PL	$-n$, $-nn$.	$-don$, $-ton$.	$-don$.	$-un(n)$
2PL	$-b$.	$-dob$, $-tob$.	$-dob$.	$-ib$
3PL	$-s^{(N)}$.	$-da$, $-ta$.	$-da$.	$-us$

Table 4: The infix and suffixed pronouns of Old Irish (cf. GOI: 259f and García Castillero 2020: 53)

The categorial status of these elements is controversial. Traditionally, they are called affixed pronouns but researchers sometimes also call them clitics or, sometimes, affix in one sentence and clitic in the next without making any clear distinction. This arose from the fact that most researchers looked at these elements from a diachronic point of view and under this view they certainly are pronominal arguments and clitics. It is not clear, however, that that is also what they are synchronically. In more recent papers (Eska 2010 and Griffith 2011), some authors have argued that these elements must be seen as real verbal affixes used for object agreement and not as pronouns and, least of all, as clitics. I will here, following the tradition, use all these terms interchangeably and stay agnostic on this question.

3.2.7 Relative Clauses

GOI (312ff) lists six different ways of forming relative clauses in Old Irish.

1. When the Latin or German equivalent of the clause is introduced by a preposition governing the relative pronoun, a relative particle $-a^N$ or $-sa^N$ is used (see example 15). This particle looks identical to the accusative of the neuter definite article (cf. GOI: 312, Watkins 1963: 24, Schumacher 2014: 166).

(15) *.i. nach accuis triss-a n  tatsat som inna anu*
i.e. every cause through-REL obtain.3PL.PRET NOTAUG.3PL the riches
hisin
PRON.ACC.PL.MASC-DEM

‘i.e. every cause through which they obtained those riches’

ML. 57a3, example taken from Griffith & Stifter (2013: ML. 057a03)

2. The third persons, and in early times also the first plural of absolute simple verbs, have special relative morphology that does not indicate whether the antecedent is the subject or object of the relative clause. Examples for *beirid* ‘to carry’ are given in example 16.

(16)	3SG.ACT	beires	‘who (3SG) carries ...’ / ‘whom (s)he carries’
	1PL.ACT	bermmae	‘who (1PL) carry ...’ / ‘whom we carry’
	3PL.ACT	bertae	‘whom (3PL) carry ...’ / ‘who they carry’

3. Negated relative clauses do not show the “normal” form of the negation (*ní* or *ní*) but a special relative one *nad-*, *na-* (also *nád-*, *ná-*) or, before infixed pronouns, *nach-* (also *nách-*).
4. The infixed pronouns also have certain forms that only occur in relative clauses (Class C) (see section 3.2.6). The other forms (Class A and B), however, can be used in almost all cases interchangeably with the Class C ones.²²
5. The preverbs *imm-* and *ar-* have special relative forms: *imme-* / *imma-* and *ara-*.
6. In all other cases, mutations are used to express the relative character of a clause. They occur after the first preverb of compounds, after the negative particles, after the verbal particle *ro*, after forms of the copula or after *no-* prefixed to simplex verbs. The most frequent strategy by far for forming relative clauses is the leniting relative clause (see example 17). The nasalising relative clause (see example 18) is “semantically [more] marginal” (Watkins 1963: 29). Relative nasalisation also applied to the anlaut of relative simple verbs (GOI: 319).

(17) *ind huli doíni ro·chreitset*
the all men PV.^L-believe.3PL.AUG.PRET.

‘all men who have believed’

GOI 315

(18) *is sí méit in sin do·n·indnagar in díthnad*
COP.3SG.PRES she extent the that PV.^N-bestow.3SG.PRES.PASS the consolation

‘that is the extent (F.) to which the consolation is bestowed’

GOI 316

This system looks quite complicated but it can be slightly simplified if we look at its diachrony. Then, we can reduce the six different ways of relative marking to the following three:

1. Strategies 2, 5 and the lenition part of strategy 6 above can be traced back to one Wackernagel element **iō* for which “[t]he Insular Celtic languages present incontrovertible evidence” (McCone 2006: 248). If we consider the analysis of Schrijver (1997), the picture becomes a little bit more complex (see section 4.1.2.1). The origins of relative nasalisation are very complicated and thus unclear, disputed and often enough just left aside. Regretably, this thesis will not offer the space for a comprehensive overview of all the theories concerning it. It will, however, be partly discussed in sections 4.1.2.1 and 4.1.2.2.
 2. Strategies 3 and 4 can, following Schrijver (1997), be explained through reanalysis of enclitic sentence connectors.
 3. Strategy 1 is synchronically the most transparent and has already been explained above.
- The development of relative marking in OI will be discussed in more detail in section 4.1.2.

²² Class A infixed pronouns only in their first and second persons, the Class B pronouns in all forms.

3.2.8 Verb-first Word Order

In opposition to PIE, for which SOV is reconstructed as basic, unmarked word order, in Old Irish we find the unmarked word order to be verb-initial. This word order actually existed in PIE as a marked construction and was a variant of the general, pragmatically marked, construction whereby any constituent could be put at the left edge of the sentence to express topicalisation or focus.

McCone (2006: 65) expresses the view that the V1 word order arose through the generalisation of the verb-initial order, which was possible already in PIE through pragmatic fronting. This pragmatically marked position changed into a grammatically induced word order. This, however, did not happen in the whole Celtic branch as Celtiberian shows SOV word order (cf. Eska 2004: 179). Gaulish is more difficult to classify as it shows verb-initial, -medial and -final word orders. The examples of verb-initial order, however, can normally be explained as pro-drop SVO clauses. Eska (2004: 182) also states that Gaulish could not have been V2 as there are inscriptions with two nominal phrases preceding the verb. McCone (2006: 72f) mentions that in Rigvedic texts the interrogatives, which are typical conjunct particles in OI, tend to occur clause-initially and, basing himself on typological and statistical arguments, he proposes automatic topicalisation/focus of interrogative particles for Proto-Insular Celtic.

Intertwined with this theory is one that is rooted in work by Wackernagel (1892), Vendryes (1912) and Dillon (1943). It states that, in Proto-Insular Celtic times, there arose a rule for Wackernagel clitics (commonly known as “Vendryes’ Restriction”) which prompted them to cliticise to a verbal element. In combination with Wackernagel’s Law, Vendryes claimed, this led to a verb initial word order for simplex verbs and to a fronting of the first preverb or a conjunct particle (cf. Vendryes 1912), which, after univertation of the whole verbal complex, also resulted in verb initial order.²³ This was, following the proponents of this theory, later generalised for all sentences regardless of whether there was a clitic present or not. This conception persisted for decade after decade. It is for example to be found in Eska (2004: 183) and it is an important part of McCone’s (2006) theory of the development of absolute and conjunct endings, although it ignores all findings from theoretical linguistics stating that, due to its status as a “weak” element, it must be the clitic that moves instead of the clitic having the power to attract a host to its position. Another argument against this scenario of the development of verb-first order is that we find clitics in pronominal complexes in Old Irish (see sections 4.1.4 and 4.2.2) that can appear far away from the verb and that typology shows that clitic pronouns (i.e. typical Wackernagel particles) in some languages like Lithuanian combine with the verb without causing it to move (cf. Senn 1966: 251ff, 480).

3.2.9 Further Grammatical Categories

In the previous sections I have described those characteristics of OI verbal grammar that are most important for this thesis. They concern the design of the OIVC and the realisation of several grammatical concepts, some of them as rare and exceptional from a comparative

²³ This rule was proposed in Vendryes (1912) and further examined in Dillon (1943). Eska (1994) also argues for this rule. Following Vendryes (1912), he states that it can be seen in Gaulish, where, allegedly, everytime a clitic is present, the verb or any preverbal element (negation, preverb etc.) is in first position so that the clitic has its “proper” host. The name “Vendryes’ Restriction” was coined by Sims-Williams (1984: 167ff).

point of view as the system of double inflection, while others, like the use of preverbs for verbal composition are quite common in IE and other language families. In the following sections, I will discuss some other topics that are of minor importance for this thesis but nevertheless have to be mentioned to ensure comprehension of the following discussions. This includes person marking apart from the affixed pronouns, which were already discussed in section 3.2.6, comprising verbal endings and the so-called *notae augentes*, voice in OI and two syntactic constructions that are characterised mainly through a verb-initial word order. These are called Tmesis and Bergin's Law.

3.2.9.1 Persons

In section 3.2.6 we have already discussed the affixed pronouns, which mark the object on the verb. There are, however, also the personal endings that agree with the subject and a set of forms called "*notae augentes*", which Griffith (2011) regards as the actual personal pronouns of OI (with infixed pronouns as agreement affixes).

3.2.9.1.1 Endings

In PIE there was a difference between the so-called primary and secondary endings that were already mentioned in section 3.2.2. The former were used for present tenses, the latter on their own just express general statements without making any reference to their anchoring in time. In combination with the augment (at least in some languages like Vedic and Ancient Greek), however, they imply past tenses. In Old Irish this system had long collapsed, though in the end, to some extent it nevertheless ended up with something similar, because also in Old Irish there is a set of endings that is called by some researchers primary and another that is called secondary. To prevent confusion, I will, however, stick to the terms "present" and "imperfect", based on the functions they express when combined with the present stem. The most important difference between the PIE and the Old Irish system is certainly that in PIE the categories underlying the different stems were those of aspect and in Old Irish they are those of tense. The primary and secondary endings of PIE were only distinct through the so-called "*hic-et-nunc-i*", which was added to the secondary endings to give the non-past meaning and form of the primary ones. In Proto-Insular-Celtic this *-i* disappeared through the "*early i-apocope*", a phonological change accepted by many but not all scholars, which was already mentioned in section 3.2.5 and will be discussed in more detail in section 4.1.1. The resulting forms developed into the Old Irish present conjunct endings (on the difference between absolute and conjunct see section 3.2.5 above, on the development of these forms and several theories about their formation more in section 4.1.1). The origin of the imperfect endings, however, is not completely clear. There are some indications that at least the singular forms go back to PIE middle forms (also because they do not show differing active and deponential forms (on voice see section 3.2.9.2)) but the origin of the plural endings remains unclear (cf. Schumacher 2021: 111). Moreover, the imperfect endings do not show the difference between absolute and conjunct as these forms are always prefixed by the dummy preverb *no-*, which was described in section 3.2.3 and so, by default, form compound rather than simple verbs. The imperative endings, eventually, hardly differ from the indicative active conjunct endings. Only the second- and third-singular forms are distinct.

3.2.9.1.2 The Notae Augentes

These are “real” clitics in the sense of Zwicky & Pullum (1983) in that they attach to any element (substantive, independent pronoun, pronominal preposition or verb), McCone (cf. 2006: 215), Griffith (2011). McCone (2006: 215) also calls them “emphasising particles” reflecting the traditional view on these elements. He writes: “[...] these typically serve to highlight (often contrastively) various pronominal elements, including the personal endings of the finite verb [...] Unlike the suffixed and infixed pronouns, then, they are by no means confined to second place in the sentence in conformity with Wackernagel’s Law and are, for instance, regularly placed right at the end of the verbal complex” as in example 19.

- (19) *d-a·gníu-sa* *sin*
 PV-pron.3sg-do.1SG.PRES-notaug.1sg that

‘I do that’

McCone (2006: 215)

These will, however, not be discussed in this thesis due to reasons of scope.

3.2.9.2 Voice

Old Irish has an active as well as a passive voice, both of which are realised on the so called active as well as on the deponent verbs. These deponents were originally middle verbs. However, their form, as well as their newly formed passive, differs from, say, the Latin deponents, and does not coincide with the passive form of the active verbs. The deponential inflection in OI can therefore synchronically be seen as a special form of the active flexion (cf. GOI: 328). Only the third persons of the passive have a separate form, all other forms are formed with the conjunct third singular form preceded by *no·*, which hosts the infixed pronoun corresponding to the person which is the subject of the verb. The forms for the verb *caraid* ‘to love’ are summarised in table 5.

1SG	<i>no-m·charthar</i>
2SG	<i>no-t·charthar</i>
3SG	<i>carthair</i>
1PL	<i>no-n·carthar</i>
2PL	<i>no-b·carthar</i>
3PL	<i>cartair</i>

Table 5: Passive forms of *caraid* ‘to love’ (Schumacher 2021: 104)

3.2.9.3 Tmesis and Bergin’s Law

The early Irish legal and saga texts often contained alliterative, in McCone’s (2006: 61) words “arcane”, passages, so-called *rosc* or *retoiric*. In these passages two syntactic constructions occur that are quite special in comparison to the unmarked Old Irish word order. The first one is called Tmesis and comprises sentences in which the first preverb is clause-initial, while the remainder of the verb is at the end of the sentence, except in what Watkins (1963: 31),

following Gonda (1959: 7), calls amplified sentences²⁴. This construction therefore can only be found with compound or dependent verbs.

- (20) *ro-da· slúagaib -sert*
PV-REL.PRON.C.3PL host.DAT.PL array.3SG.PRET

‘who has arrayed them in hosts (vs. *ro-da·sert slúagaib*)’ McCone (cf. 2006: 61)

Bergin’s Law was first described by Bergin (1938) and concerns sentences in which the verb in dependent form is placed at the end of the sentence (again sometimes we find it in non-final position in amplified sentences). In this kind of sentence we do not find personal pronouns and hardly any relative constructions (cf. Watkins 1963: 32), in contrast to Tmesis, where this is the regular case (cf. McCone 2006: 62).

- (21) *fri angel n-acallastar*
towards angel.akk.sg speak to.3SG.PRET

‘he conversed with an angel (vs. *ad·gláastar fri angel*)’ McCone (cf. 2006: 62)

The difference between the two structures is therefore the preverb, which in the tmesis sentences is mobile whereas in the Bergin-Law sentences it is not (cf. Watkins 1963: 35).

It is highly disputed, however, if these constructions represent archaic sentence structures or synchronically formed ones, possibly on the basis of Latin structures. McCone (2006: 62) writes that the interpretation as archaic feature prevailed up until the early eighties, the arguments against it, however, then became more in number and more convincing (compare also Corthals 1999). In this thesis both phenomena will be considered as rather recent ones that cannot be traced back to pre-Insular Celtic origins (and thus, became part of some register of the language only after introduction of grammaticalised V1-syntax).

3.3 Templates for the Old Irish Verbal Complex

García Castillero (2020) divides the OI verbal complex into six slots, which serve to explain some accentuation issues and to show the combinational possibilities that this verbal complex has. His slots are, however, useful only for formal description, as they can never all be filled at the same time, and some of the slots (cf. García Castillero 2020: 156) can be filled by more than one element. To make things a little more concrete, table 6 shows the six slots García Castillero (2020) proposes and the elements that can fill them.

Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6
Conj.part(s)./PV	Inf. pron.	Conj.part./PV(s)	Verbal stem	Infl. end.	Suff. pron.

Table 6: The template of the Old Irish verbal complex proposed by García Castillero (2020: 32)

²⁴ “In the majority of the works examined the final position [of the verb, ND] is most usual. Although the initial position has never been predominant, the verb may, speaking generally, occur at the beginning in a well-definable number of cases. Instances are moreover not rare in which the verb preceded by the object (and the subject, if there is one) does not constitute the last element of the sentence. [...] In most cases the sentences exhibiting this [non-final, ND] position of the verb are amplified, that is to say: they are from their beginning until the verb complete in themselves and all the words following the verb may be left out without mutilating the sentence” (Gonda 1959: 7).

As already mentioned, this template is only notional, as it is impossible that all slots are filled at the same time, while it is possible that some slots contain more than one element (cf. García Castillero 2020). García Castillero further argues that one could imagine a more complex template but this was not needed for his purposes.

Constructing the template in this way has the benefit that it makes it possible to read off another important aspect of the Old Irish verb: accentuation. If there is no element in slot 3, then the main stress will be on the first syllable of the element in slot 4. If slot 3, however, is filled by one or more elements, the main stress will be on the first syllable of that element or of the first of these (cf. García Castillero 2020: 33). This gives us the distinction between deuterotonic and prototonic verbal forms.

For the purpose of this work I have designed another template for the Old Irish beginning of a clause that fits the requirements here better. It starts with whatever initiates the sentence (i.e. including elements that do not trigger dependent forms) and ranges as far as the element following the verb (be it the subject or any other constituent).²⁵ For this end, I have conjoined García Castillero's (2020) slots 3, 4 and 5 into one that just stands for the main part of the verb, beginning with the accented syllable. To distinguish it from the template of García Castillero (2020) I chose to use letters instead of numbers for the slots.²⁶

X	A	b	C	(+b)	D
non-conj. part.	PV conj. part.	pron. (inf.)	V	pron. (suff.)	x

Table 7: The new template of the Old Irish Verbal Complex

Let us now go through the structure of the template. One of the most important distinctions here and in this thesis in general is the one between independent words and clitics. This is indicated in several ways in the template. We see that some slots are named with uppercase and others with lowercase letters. The former stand for slots containing independent words, the latter for enclitic slots. Clitics also have another feature in this template as they can occupy several places depending on whether there exists a host preceding them or not. If so, the clitic can stay in its regular place but if the host is missing (i.e. if slot A is empty) the clitic has to move behind the first available host (i.e. the verb in slot C). This gives us the distinction between infixes and suffixed pronouns. Moreover, clitics are indicated through the lighter color of the vertical line separating them from the slot that functions as a host.

Slot X: Here, we find the elements (conjunctions and adverbial phrases) that can precede the verb without triggering the dependent form. For this reason (as they seem to be left aside in the counting of the first element in the clause) I termed this slot "X" and not A.

²⁵ Note that in this template elements that are or are not part of one single phonological word are not distinguished.

²⁶ Note that the *notae augentes*, which can attach to the verb are left out in this template as they are not considered in this thesis in general for reasons of space.

Slot A: This slot contains those elements that trigger the conjunct or prototonic form of the verb, i.e. the first preverb and conjunct particles (I leave out of consideration here for reasons of simplicity the possibility of two conjunct particles present at once, as is possible with the augment *ro*, which follows complex or seemingly unsystematic placement rules, and with the negation forming complexes with some conjunctions like for example *coní* ‘so that . . . not’).

Slot b: As already explained above, this slot is the regular place for the infix pronouns of Old Irish.

Slot C: This slot contains the main part of the verb (this formulation only concerns the phonological qualities) beginning with the first accented element, which can be a preverb, the augment or the verbal stem itself, followed by the inflectional endings.

Slot (+b): Alternative position for object pronouns if Slot A is empty and thus provides no host. If the pronoun is placed here, it is realised as the suffixed form.

Slot D: This slot represents the first word of the remainder of the sentence.

4 Wackernagel's Law in the Prehistory of Old Irish

Although in Old Irish we hardly see any direct evidence of Wackernagel's Law (except the affixed pronouns), in the language's prehistory the law was actually quite influential in forming the verbal complex. Watkins (1963: 12) writes that the position of the (reconstructed) enclitic in the prehistory of Old Irish is constant and always the second position in the sentence corresponding to Wackernagel's Law.

A challenge concerning these particles is that in many attested finite verbal forms²⁷ there exists at least the possibility that more than one of them was present and that they interacted and merged phonologically so that the attested forms are hardly ever to be called transparent in their internal structure. This is a constant topic of disagreement between researchers.

In the following sections we will first discuss the various Wackernagel enclitics in detail. These discussions are followed by section 4.2, where some new interpretations and ideas are presented. These concern the development of those conjunct particles which are conjunctions, the function and development of the PIE conjunction **de*, which shows different behaviour in the VC from the other, etymologically similar elements, and the reasons for non-initial word stress. The last section, section 4.3, provides a template for pre-Old Irish which is comparable to the one given for Old Irish in section 3.3.

4.1 Pre-Old Irish Wackernagel Elements

One group of Wackernagel-elements in pre-Old Irish is that of the connective particles. We find the three particles **eti* (see section 4.1.1), **k^ue* (see section 4.1.3) and **de* (see section 4.1.4), (cf. Schrijver 1997: 2). These were reanalysed in the prehistory of Irish as declarative and relative markers. Then, there are the relative markers (see section 4.1.2) and last but not least the clitic object pronouns (see section 4.1.5).

4.1.1 Double Inflection and the "main-clause particle" **eti*

In section 3.2.5 the distinction between independent and dependent verbs was introduced. The fact that verbs show two different forms depending on their placement in the sentence is, however, not the only peculiarity of this phenomenon. Another one is the lack of mutation after the first preverb (in independent compounds) or the conjunct particle (in dependent forms), also in cases where both the corresponding preposition and the preverb itself in non-initial position causes a mutation (compare deuterotonic *fo·tlen* 'to remove' with prototonic *·fothlann* and *fo thalam* 'under (the) earth'). This missing mutation is also to be found with the affixed pronouns, e.g. *do-s·mbeir* 'brings her/it(f.)' (< **to-sVn·beret*), where we see regular nasalisation of *b* but no lenition of *s* > *h* > $\emptyset$. With the sentence connector **k^ue*, however, this is not the case: *na-ch-a·ta-bair* 'which does not bring her/it(f.)' < **ne-k^ue-sVn·to-beret* 'and (s)he does not bring' where *k* of *k^ue* is lenited to *ch* and *s* is lost through the lenition *s* > *h* > $\emptyset$. With forms that originally ended in a consonant or a consonant cluster that should have been lost at the end of a word we find this loss to be present in the prepositional form but not in the

²⁷ Note that in this thesis I will not deal with the forms of the copula, which show another level of intricacy and variety in their forms. Ó hUiginn (1986: 35) states that the copula is "in both its syntax and its morphology [...] different from all other verbs".

corresponding deuterotonic preverb (compare *con·beir* ‘to conceive’ with *co céill* ‘with sense’), McCone (cf. 2006: 74f).

Schumacher (2004: 94)²⁸ states: “The history of research into the problem of absolute vs. conjunct is as old as modern Celtic Studies itself”.

In the 19th century, the theory that the absolute endings developed out of the PIE primary endings and the conjunct endings out of the PIE secondary endings was the most popular idea, first formulated by Windisch (1876: 450). Examples for this development are the following forms:²⁹

- *beirid* < *b^hereti (3SG.PRES.ABS)
- *·beir* < *b^heret (3SG.PRES.CONJ)
- *birt* < *b^hēr-s-ti (3SG.T-PRET.ABS)
- *·bert* < *b^hēr-s-t (3SG.T-PRET.CONJ)

This theory, however, faces one big problem. In PIE the primary endings were used to form the present (among other things) but not the aorist, which is one of the sources of the OI preterite, in particular the t-preterite and the s-preterite. Conversely, the secondary endings were used for the aorist (among other things) but not for the present. Moreover, although it seems to be phonologically plausible at the first glance, Cowgill (1985) shows that there are a number of additional problems with this theory. The major step towards a better understanding of the processes was the publication of Cowgill (1975), followed by Cowgill (1985).

Cowgill (1975) explained, based on work by Thurneysen (1907) and Thurneysen (1914), GOI, Dillon (1943) and Boling (1972), that the only phonologically plausible explanation was a Wackernagel particle **es* (which would be in complementary distribution with other particles, such as **k^he*, explaining the lenition/gemination effects). He was himself cautious with proposing an etymology for this particle, tentatively suggesting, based on work by Thurneysen, that it could be derived from the apocopated third singular form of the copula **est* < **esti* (cf. Cowgill 1975: 66f).

Cowgill (1975), moreover, proposed an apocope of *-i* in early Insular Celtic, known as “early *i*-apocope”, which led to the loss of the difference of primary and secondary endings.³⁰ He suggests that this apocope only happened after *-t-*. McCone (1978) adds an additional argument for this assumption, namely the “short datives” of consonantal nominal stems, and enlarges its context to every *-i* in “genuinely final position and not shielded by a following enclitic” (McCone 2006: 111). This also shows that different researchers, who in general all do assume this apocope of *-i*, envisage it in different ways, as Kortlandt (2019) writes. He states that

“[w]hile Cowgill assumes a morphologically conditioned early loss of final **-i* in the 3rd sg. and pl. verbal endings [...], Kim McCone has tried to turn the rule into a general phonetic apocope of **-i*. [...] Peter Schrijver has tried to formulate an intermediate position between Cowgill’s and McCone’s, proposing that the apocope of **-i* was limited to the position after a voiceless obstruent.”

Kortlandt (2019: 249)

28 Cited here from the translation by Theresa Illés published in Karl & Stifter (2007: 353).

29 Note that these reconstructions are not the ones proposed by Windisch (1876) but employ modern assumptions about how to reconstruct apart from the fact that it is no longer assumed that the absolute/conjunct distinction arose out of the PIE primary and secondary endings.

30 In contrast to a particle marking main clauses, this was not proposed by anyone else before.

Early *i*-apocope and the main-clause particle in combination yield the following examples for the forms examined before.

- *beirid* < PIC *bereti-(e)s (3Sg.pres.abs.)
- *·beir* < PIC *(ne)-(e)s·beret (3Sg.pres.conj.)
- *birt* < PIC *bir(s)ti-(e)s (3Sg.t-pret.abs.)³¹
- *·bert* < PIC *(ne)-(e)s·bir(-s)-t (3Sg.t-pret.conj.) cf. McCone 2006: 98

However, the identity of the particle **es* has always been a topic of discussion and uncertainty. McCone (2006: 78) summarises this with the following quote.

“It now seems to be generally agreed that the only remotely feasible shape for the proposed particle is a proximate **es* or **is*, at least as far as Old Irish is concerned. However, it has proved far more difficult, not to say impossible, to identify a viable source for it that does not call for unreasonable assumptions about certain aspects of Insular Celtic historical phonology.” McCone (2006: 78)

Cowgill (1985: 109) objects to this kind of criticism with: “Our inability to give a sure etymology for this particle, or a rationale for its having become obligatory following the first element of most types of clause in prehistoric Insular Celtic, are not, in my opinion, grounds for rejecting it, unless some other theory is available that explains the facts at least equally well and without such difficulties.”

Already thirty years before Cowgill’s (1975) influential paper, Dillon (1943) had suggested a masculine third singular nominative anaphoric pronoun **es* that following his interpretation should be cognate with the Hitt. animate subject pronoun *aš*. However, for PIE, no clitic nominative personal pronouns are reconstructed (cf. McCone 2006: 76). Boling (1972) opted for a neuter singular demonstrative **ed* (which is also attested in Old Indic enclitic *íd*³²), which works much better syntactically and semantically. As, however, final *-d* was lost early (see for example the third singular neuter infixed pronoun *-a-* < **e* < **ed*) this particle should have caused lenition, as does the aforementioned third-singular neuter pronoun. Note, however, that at the time of the publications of Dillon 1943 and Boling 1972 the early *i*-apocope had not yet been proposed and they had to assume that the particle was added only to forms with secondary endings that for some reason replaced all the forms with primary ones. This was, in some publications, explained by assuming that the injunctive forms had survived into Celtic and increased hugely, which, however, was not a really satisfying explanation because it is unclear why one would have used the underspecified injunctive forms for present tense semantics if one had perfectly intact present endings (the same can also be said for the aorist). The other proposed explanation was that in Celtic, the PIE present-aorist system and the corresponding endings did not fully develop, which would, however, be quite an unlikely anachronism in a language branch that otherwise shows several features that are obviously genetically related to their correspondents in other branches (McCone 2006: 76, 98).

The main reactions to Cowgill (1975) comprise nearly all combinations of acceptance or rejection of his two proposals as can be seen in table 8.

³¹ Note that McCone (2006) assumes that the *hic-et-nunc-i* was introduced into the preterite forms by analogy. This *i* was not originally there.

³² Note that although this form bears an accent it is syntactically a clitic. Another clitic of this kind is for example *hi* ‘for’.

	rejection of <i>i</i> -apocope	acceptance of <i>i</i> -apocope
rejection of main-clause particle	–	McCone ³³
acceptance of main-clause particle	Kortlandt ³⁴	Schrijver ³⁵ , Schumacher ³⁶

Table 8: Reactions to Cowgill (1975)

We will now look at the proposals of Kortlandt (1979) and McCone (2006) and also touch upon views of other authors, and afterwards we will discuss the theory by Schrijver (1994) and Schumacher (2004).

4.1.1.1 Kortlandt's Approach

As mentioned before, Cowgill (1975) himself hesitantly proposed a particle **es* 'it is (so)' derived from the third singular copula **est*. This etymology was taken over by Kortlandt (1979; 1982; 1994; 2007; 2019) and also by Kim (2002).³⁷

Kortlandt, however, rejects the early apocope of *-i* basing himself on several phonological facts. He instead explains the different forms through the different endings that he reconstructs for thematic and athematic verbs. According to him, the endings of athematic verbs yielded the OI absolute form, those of thematic verbs the conjunct ones.

One typical point of criticism that is often brought forward against a development of the main-clause particle out of the copula is that for the imperative it is argued that the particle must have been missing there because the imperative is not declarative but in the subjunctive it was nevertheless present. Kortlandt (2019: 251) explains that in a sentence like *ma nos-comalnammar* 'if we (should) fulfil them' the main-clause particle acts as a "focus particle" and that the meaning of the sentence should be interpreted as 'if it is (the case) that we fulfil them'.

After summarising the main points of other theories on the absolute-conjunct distinction and their problems, Kortlandt (2019: 253) states: "It will be clear that my theory must be preferred not only for morphological but also for semantic reasons".

McCone (2006: 79, 132ff) criticises the approach of Kortlandt basing himself on several arguments, the most important of which are summarised here. Besides his notion that the approach requires too many poorly motivated analogies, one point of criticism is that most researchers do not reconstruct different thematic and athematic endings except for the primary first person singular (athematic **-mi* and thematic **-ō*). Moreover, he argues that even if the forms proposed by Kortlandt should ever have existed, they would not necessarily have survived in the Celtic branch because they did not do so in its nearest neighbour branches, Italic and Germanic. He also argues that the fact that the (by definition non-declarative) subjunctives show a dependent-independent distinction goes against the

³³ McCone (1979; 1979; 1982; 1985; 2006)

³⁴ Kortlandt (1979; 1982; 1994; 2007; 2019)

³⁵ Schrijver (1994; 1997)

³⁶ Schumacher (1999; 2004; 2012)

³⁷ Kim (2002) is based mainly on the forms of the infixed pronouns (see sections 3.2.6 and 4.1.5). He also provides a syntactic analysis of the behaviour of main-clause particle and affixed pronouns, as this is, however, based on the analysis of Carnie et al. (2000) (see section 6.1 for discussion and very explicit counterarguments) it cannot really be relied on.

notion that imperatives cannot host the particle because they are not declarative. Another point that he criticises is that Kortlandt's analysis only works for the Goidelic branch, ignoring the fact that in Old Welsh there are remnants of an absolute-conjunct distinction. Last but not least, a very important argument in favour of McCone (2006: 132) against Kortlandt's analysis is that McCone (2006) himself is strictly opposed to the particle theory in any of its different forms but an advocate of the early apocope of **-i* (he states: "an early Insular Celtic apocope of *-i* can be (and by now usually is) regarded as an established fact", McCone 2006: 163). This leads us to a sketch of the analysis brought forward in McCone (2006).³⁸

4.1.1.2 McCone's Approach

McCone (2006: 85) bases his approach mostly on the argument of verb initial position through an interplay of Wackernagel's Law, Vendryes' Restriction (see section 3.2.8) and univerbation of the verbal complex and he argues strongly against a main-clause particle of any form: "Since all available or conceivable versions of this approach are obliged to play fast and loose in varying degrees with phonetics, semantics and syntax, it is surely necessary to conclude that an enclitic particle **es(si)*, **et(i)* or the like is a mere phantom" (McCone 2006: 89). Some pages earlier McCone (2006: 77f) states: "As far as methodology is concerned, it is patently absurd to attempt to solve perceived historical phonological irregularities by invoking an otherwise invisible element that must then itself be supposed to have behaved in a phonologically irregular manner in order to explain some of the very anomalies that prompted its postulation in the first place. As we shall see, this fatal flaw attaches to all of the candidates proposed to date."

But now to McCone's proposal. In his 2006 book, he explains that, because of Wackernagel's Law and Vendryes' Restriction, verbs or preverbs or a conjunct particle had to move to the beginning of the sentence whenever a clitic was present. This clitic preserved the pre-apocope ending of the verbal form in initial position. If, however, the verb stayed at the end of the sentence either because there was no clitic or because a preverb or conjunct particle was present, the ending was lost due to apocope and the conjunct forms arose. Therefore, the distinction between primary and secondary endings was no longer visible in most contexts, and following McCone (2006: 107) the former *hic-et-nunc-i* was reinterpreted as an element used to attach a clitic that was now introduced also into the past tense forms to break up heavy consonant clusters. At this time one found a distribution of forms in the following way:

1. Verb in topic/focus position
 - a) *#bereti(-E)(...)#*
 - b) *#beret(...)#*
2. Verb in pragmatically neutral position
 - a) *#.X(-E)(...)beret(...)#*

³⁸ Cowgill (1985: 109) comments on the then available versions of Kortlandt's (Kortlandt 1979) and McCone's (McCone 1982) theories as follows: "Frederik Kortlandt and Kim McCone, to my immense gratification, have each accepted a part of my theory. However, neither has accepted it in toto, and I do not think that the modifications suggested by either constitute real improvements."

Later, due to a need for homogenisation, forms with *-i* were reinterpreted as representing initial verbal forms regardless of whether a clitic was present or not. McCone (2006: 107) writes:

“This homogenisation of initial forms with and without an attached enclitic seems a natural enough development, its direction being determined by the undesirability of eliminating **-i-* on account of its continuing usefulness, when followed by an enclitic, as a buffer between consonants.”

The lack of an absolute–conjunct distinction in the imperative and suffixless preterite is explained by McCone (2006: 166) as follows:

“Since **-i* was no more than an accessory marker serving to provide morphological reinforcement of a verb’s status as topic/focus that was already adequately indicated at the syntactic level by initial position, it is hardly surprising that it did not spread as such to other active paradigms, notably those of the imperative and the suffixless preterite, in which it had failed to get a foothold owing to their lack of personal endings with an **-i* liable to apocope unless shielded by an enclitic.”

Subsequently, McCone (2006: 167) says that the clause-initial verbal complex was generalised through univertation of tmesis patterns³⁹ leading to a loss of the former topic/focus position that was now regularly occupied by the verb. Thus pendens and clefting constructions were introduced to mark topicality or focus.

Concerning stress placement, McCone (2006: 209) states: “There is no obvious objection to placing the introduction of regular word-initial stress at least as far back as Insular Celtic. For this purpose a conjunct particle (such as the negative)⁴⁰ and associated verb, whether simple or compound, must have been treated as two separately stressed words until the first of these became proclitic as part of a more general Insular Celtic process affecting syntagms such as preposition plus head noun or copula plus predicate”.

McCone suggests that, as with simple verbs, the pattern that arose in analogy to the dependent forms when a clitic was present (i.e., what should later form the typical deuterotonic pattern) was subsequently generalised for all clause-initial forms (cf. McCone 2006: 210).

The lacking mutation after the first preverb is explained by McCone (2006: 212) through analogical spread from those forms that originally triggered the mutation to all the others. He states: “These patterns were naturally transferred to the anlaut of the following segment in the new double-stressed (> deuterotonic) forms without infix” (McCone 2006: 213).

Cowgill (1985: 110f) himself criticises this approach because of the amount of analogy that is needed to arrive at the proposed forms and calls McCone’s model of the development of distinct absolute and conjunct forms “nearly as unlikely as Kortlandt’s”. He says that there is no evidence for a language stage in which verbs could only appear in clause initial position if followed by an enclitic and the same is true for preverbs.

Kortlandt (1994: 61f) criticises McCone’s account with the following statement:

³⁹ Here he assumes that “tmesis” concerns not only the combination of preverb and verb but also negation and other conjunct particles (cf. McCone 2006: 167)

⁴⁰ Based on the subsequent text passages it seems that he includes the first preverb into this statement.

“I cannot accept any theory which builds on an analogical differentiation between absolute and conjunct endings. If there was any interaction between the two sets of forms, the only result can have been the replacement of one by the other, as indeed happened in later Irish. The distinction between absolute and conjunct endings must originally have been motivated semantically, as morphological distinctions always are. After the loss of the semantic element there can have been no such thing as the massive spread of a redundant morphological category.”

Schrijver (1997: 147) calls McCone’s approach one that “require[s] massive analogy to create and develop the absolute – conjunct distinction of Insular Celtic”. This is countered by McCone (2006: 170) with the statement: “These seem a small price to pay for release from the morass of problems associated with a generalised main-clause particle.”

4.1.1.3 Schrijver and Schumacher’s Approach

As can be seen in table 8 above, Schrijver (1994) accepts the existence of a main-clause particle. He writes that although “[...] the suggested etymologies of the particle have as yet failed to completely convince even the proponents of the theory [...] the explanatory power of **es* is such that a rejection on the basis of the lack of etymology alone would be like throwing out the baby with the bath-water” (Schrijver 1994: 180f). Schrijver (1994: 180ff) himself proposes that Cowgill’s main-clause particle developed out of PIE **et(i)* ‘and’, cognate with Lat. *et* ‘and’, Gk. *ἐτι* /*éti*/ ‘further, moreover’, Skt. *áti* ‘beyond, very (ADV)’, Goth. *ib* ‘but, and’ and probably with Gaul. *eti* ‘and, further?’, *etic* (< PIE **eti-k^ue*) ‘and also’ (cf. Schrijver 1994: 184). This particle, according to him, was in complementary distribution with the sentence connectives **de* and **k^ue* (see sections 4.1.4 and 4.1.3). The independent PIE adverb **eti* ‘still, and’ must then later have become a clitic. The theory of Schrijver (1994) was further elaborated by Schumacher (1999; 2004), who argues that this cliticisation happened after a fundamental change in word order, which caused the verb to occupy clause-initial position (Schumacher 2004: 97ff).

Its function was to connect clauses and therefore, in continuous texts, it was present in all but the first main clause.⁴¹ Schumacher (2004: 99; transl. Karl & Stifter 2007: 355) writes (in the translation from Karl & Stifter (2007: 355)): “Main clauses not containing **eti* thus had been marginalised”. He describes how their decreased but not completely erased state can be seen in the **eti*-less forms (imperatives and responsives). This function and nearly generalised form of a sentence connector is typologically not unknown. It can be found in Hittite (mostly the non-enclitic sentence connector *nu* but a Wackernagel enclitic can also be used), but also in Middle Welsh in the form of the conjunction *a(c)* ‘and’ that “in MW narrative prose appears at the beginning of most sentences” (Schrijver 1997: 153) and Biblical Hebrew. The latter is also a VSO language, in which narrative texts usually start with a verbal form in the perfect while all subsequent verbal forms are in the imperfect and preceded by a

41 Note that in the following I will often refer to this element as a declarative marker although this is not entirely correct as it also occurs in the subjunctive and is rather to be seen as a main-clause marking element. Even the latter is debatable as **eti* is assumed by Schrijver (1997) to be present in the class B pronouns that can also appear in relative clauses. Thus, one either has to assume that **eti* was not restricted to declarative (or, to include the subjunctive forms, main-clause) contexts or that the contexts where these pronouns could be used was extended at some point after the particle and the pronoun had merged phonologically (see section 4.1.5).

proclitic conjunction *wa* ‘and’. Schumacher (2004: 103)⁴² writes “[f]rom a corresponding stage, Insular Celtic went one step further in that it more or less generalised the clause connector and almost entirely eliminated forms without it”.

The main argument for this is not to be found in Old Irish but in the Brittonic languages. Schrijver and Schumacher show that the main-clause particle is actually attested in some British forms when these occur in main clauses before a vowel. Examples are the negation in main clauses, MW *ny(t)* (e.g. *nyt af* ‘I do not go’ Schrijver 1994: 182), MB *ned* < OB *nit*, *net*, the MW preverbal particle *neu(t)* corresponding to the semantically empty particle *no-* in OI, and the MW augment *ry/rit* corresponding to *ro* in OI (Schrijver 1994: 182). Moreover, this *-t* is also found in the preverb-like adverb *hu(t)* ‘so, thus’ and a substantial number of verbs like *hanfot* ‘to come from, be, become’ (e.g. in the first singular present *han-d-wyff* (cf. Schumacher 1999)) and *darfot* ‘to happen, come to an end, die’ (e.g. third singular preterite *dy-d-aruu*), *arwyrein* ‘to praise’ (e.g. first singular present *ar-d-wyreaif*), *dyfot* ‘to come’ (e.g. third singular present *dy-d-aw*) and a number of forms found with other verbs (cf. Schumacher 2004: 107ff). The common denominator of all these forms is that they appear only in positive declarative sentences where they are either clause-initial or preceded only by an adverbial phrase or a nominativus pendens and that in each verbal form the first preverb is followed by a /d/ although one would expect a vowel to follow. In other words, in all these cases we find an extra element /d/ exclusively in forms where any version of the particle theory predicts the appearance of a particle. This /d/ cannot be traced back to a particle **de* or the like but needs to come from some element **Vt* (Schumacher 2004: 103).

Therefore, one can assume a phonological development of PIE **eti* > **et* > pOI **es* for the prehistory of Irish.⁴³ In the Brittonic languages the change of *t* > *s* did obviously not take place.

This was an important moment in the history of the particle theory because it made this element that up to that moment was only reconstructed based on its reflexes⁴⁴ more tangible.

One of the main counter arguments to this hypothesis that is brought up again and again is that **eti* is an independent stressed element in all other Indo-European languages in which it is attested and never a clitic (see for example McCone 2006; LIPP s.v. **éti*). However, I follow the proponents of this theory in that this can hardly be a convincing argument because elements of a language are able to change and as there were already other clitic elements which had similar semantics and were used with similar functions (compare **de* and **k^ue*) a development like this does not seem too far-fetched. Furthermore, in Tocharian B there is also an enclitic connective (*-s*) to be found that can be traced back to PIE **eti* (cf. Hackstein 2005: 176).

Schrijver (1994: 185) exemplifies a similar development with the OI copula, which was also a clitic in contrast to the accented PIE roots **h₁es* and *b^huH-* from which it is derived. Schumacher (2004) adds the non-clitic relative pronoun (PIE accented **H_iós*, **H_iéh₂*, **H_iód*),

⁴² Again in the translation from Karl & Stifter (2007: 358).

⁴³ Thus Schrijver (1994; 1997). Schumacher (2004: 102: fn. 105) remains agnostic as far as the further phonetic development of **et* in Irish is concerned.

⁴⁴ Note that this is methodologically sound. The power of the comparative method reaches as far as positing elements only based on their reflexes. The most famous example for this are the PIE laryngeals that first were just assumed based on several structural problems that could be solved in this way but later, when Hittite was discovered, received proof of existence.

which was preserved in Celtiberian but arguably developed into a clitic invariable relative particle /iō/ (< *iōd 'NOM/AKK.NEUT) in Gaulish⁴⁵ and also in the Insular Celtic languages (see section 4.1.2.1 below).

A problem that still awaits a solution is the exact phonological development of infixed *eti. On the one hand, the question is how final *-i could be subject to apocope in a word like *to-eti-bereti. On the other hand, after this apocope happened, the development of the *-t- poses problems when it stands between two vowels. Before a consonant it would be assimilated and therefore lead to the lack of mutation and in the auslaut a voiceless plosive following a vowel becomes a fricative that later becomes *h and is lost subsequently. These two contexts, thus, are unproblematic. Intervocally, however, there is no real way that *-t- could become *h, as in the inlaut between two vowels it would remain a fricative *-θ-.⁴⁶ Cowgill (1985: 117f) proposed as a solution that there was still a word boundary after the main-clause particle. This could at first glance be argued, because tmesis should certainly be reconstructed for PIE and also because the Wackernagel position was after the first preverb and not after the preverb-verb-complex, which indicates that it was perceived as an independent word. However, as soon as we have an object clitic that follows the main-clause particle, this explanation does not work any longer. Cowgill (1985: 117f) does argue that there was also a word boundary after an object enclitic but this explanation is not really satisfying. McCone (2006: 82) writes:

“[W]hereas a word boundary between the enclitic particle *es(s) and a following enclitic in the chain rendered the former liable to auslaut rather than inlaut developments, there was no such boundary between *es(s) itself and an initial preverb or verb with the result that the latter underwent the regular inlaut developments to be expected before a clitic attachment.”

Is it likely that one has to assume analogical influence from those cases where *eti was not followed by another enclitic. Nevertheless, this poses a real problem for the theory.

The fifth chapter of McCone (2006) consists only of criticism of the Schrijver/Schumacher approach to the particle theory. On the one hand, he states that Schrijver's sound law *-t# > *-s# is “entirely ad-hoc” (McCone 2006: 225). On the other hand, as was already discussed above, he doubts the possibility of *eti becoming a clitic. He states:

“Schrijver's suggestion above that *eti was cliticised under the influence of the inherited enclitic connectors *kʰe ‘and’ and *de ‘and, but’ is weak, since it might more reasonably be supposed that the existence of virtual synonyms of *eti in enclitic position [...] would rather have impeded its gravitation towards a slot that was already fully occupied.”

I cannot conform to this view. If there are several elements that fulfil the same function (connecting clauses – although not with exactly the same semantics) it seems rather logical that they should also tend to adapt in their syntactic behaviour.

McCone (2006) tries to dismiss the Brittonic forms with /d/ < *eti, stating that these go back to a hiatus filler. Thus, he claims, between two vowels /d/ would be infixed to prevent

45 But see section 4.1.2.1, where McCone (2006: 250) is cited saying that this cannot be the etymology for *iō because there is evidence that final *-d was retained in Gaulish.

46 Schumacher (2012: 5) suggests that the *-h from the auslaut was analogically transferred first to forms with suffixed pronouns (e.g. *bereθi-h-en ‘carries him’ > OI beirthi) and subsequently also to compounds (e.g. *wo-θ-em-binah ‘attacks him’ was changed to *wo-h-em-binah > OI fa-mben).

a hiatus. In all other contexts, however, /d/ would not have been allowed. Schumacher (2004: 104f) provides the following verbal forms as evidence against this.

- (22) *cin-nit·hoys*
 although-NEG.PRON.3SG.N-VS.3SG.PRES

‘although there is not’

BBCS 3: 256.14

In this example we have /-d-/, which is expected, in both McCone’s (2006) and Schumacher’s (2004) approaches.⁴⁷

- (23) *or aur ni·hoys*
 because NEG.PRON.3SG.N-VS.3SG.PRES

‘because there is not, lit. from the hour, when there is not’

BBCS 3: 256.5f

In example 23 we see two vowels following each other (at the end of the negation and at the beginning of the verbal form) without an intervening /d/. McCone’s (2006) theory cannot explain what is happening here and the example is not mentioned in his book. The particle theory with the etymology by Schrijver (1994), however, can easily explain example 23, as Schumacher (2004: 105f) shows. *or aur* (and the parallel OI conjunction *úare/hóre* ‘because’ derived from *úar/hór* ‘hour’) can literally be translated as ‘from the hour when ...’. They can, however, also be used to express causal subordination but due to their etymological ancestry they still trigger relative morphology in this usage. Thus, we do not expect **eti* to have been placed between the negation and the verb but the relative particle **io*, which explains the lack of /d/.

A second example that is problematic for McCone’s (2006) account is the one in 24.

- (24) *cen-nit·boi*
 although-NEG.PRON.3SG.N-VS.3SG.PRES.CONJ

‘although there may not be’

BBCS 3: 256.11f

Here, we have the opposite of example 23 because we have a verb beginning with a consonant and nevertheless /d/ turns up. McCone (2006: 238ff) states that all cases where /d/ occurs before a consonant can be analysed as part of the Class B infixed pronoun. But then, a pronoun of the same kind should also be present in *or aur ni·hoys*. McCone cannot explain why it is not present there.

Another context where the presence and absence of /d/ can be easily explained by the particle theory but not by McCone’s theory is the different behaviour of finite and infinite verbal forms. MW *ar-wy-rein* ‘to praise, to raise’ appears in several panegyrics of the twelfth and thirteenth centuries as a verbal noun in the title and then in finite form in the text. Finite first singular *ar-d-wyreaf* in *Ardwyreaf y hael o hil gruffut*⁴⁸ ‘I praise a generous descendant of the lineage of Gruffudd’ (Hendregadredd: f. 6v.28; H: 12.24) shows an infixed /d/ in

47 Note that the OI cognate of W *cy-* ‘although’ is the conjunction *cía* which is followed by the independent form of the verb whose first sound is not lenited. Thus, we expect the reflex of **eti* to occur after the negation *ni-* and not after the conjunction. The argument of McCone (2006: 240) that because *cin-ni(t)* is subordinating it should not contain the main-clause particle is therefore not valid.

48 The <d> here is to be read as /d/ and not as /ð/, see Schumacher (2004: 108f).

independent main-clause-introducing position but in the verbal noun in the title *Arwyrein ywein Gwalchmei Ae kant* ‘Praise of Owein; Gwalchmei composed it’ (Hendregadredd: f. 6v.27; H: 12.24) it is missing. Only once in the whole corpus of pre-1300 poetry do we find a verbal noun *ardwyrein*, namely in the poem Edmyg Dinbych in the Book of Taliesin. However, this verbal noun belongs to a different verb and means ‘to rise high’, being a compound of *wyrein* ‘to rise’ with the adjective *ard* /arð/ ‘high’. Therefore, the argument of McCone (2006: 244) is invalid.⁴⁹

One problem of the particle theory in general (not only this particular approach) was raised by McCone (1979a) and is often used by opponents of the theory as an argument against it. Compound verbs with preverbs ending in a vowel (mostly *do*, *ro* and very rarely also *fo*) alternate between normal and contracted forms without any apparent conditioning factor, e.g. *ro·ic* ‘to arrive’ vs. *ric*, *do·uc* ‘has brought’ vs. *tuc* and *do·adbat* ‘to show’ vs. *tadbat*.

McCone (1979a: 8) dates the elision of the vowel of the preverb to the early eighth century based on the attestations and phonological reasons. In his view, this makes it impossible to postulate that the *h* that is often found in MlIr. sources after pretonic preverbs ending in a vowel is a direct reflex of **es* because then *h* should have been there also in the eighth century and blocked the elision except for leniting relative clauses.

Cowgill (1985: 111) responded to this argument as follows: “McCone has seen one real difficulty with the particle theory [...] I am not sure now how to explain these”.⁵⁰

These are not the only theories concerning the emergence of the independent/dependent distinction. They are, however, the ones that are most often discussed. For other analyses compare Sims-Williams (1984), Koch (1987), Isaac (2000; 2001) and Budassi & Roma (2018).

None of the theories discussed here provides a completely satisfactory explanation for the linguistic facts, but the particle theory with the etymology proposed by Schrijver (1994) and Schumacher (2004) seems to be the most widely accepted analysis. Griffith (2020: 240) writes:

“The generally accepted form of the enclitic is now **eti* (Schrijver 1994; Schumacher 2004), the form of which has been determined based on direct British Celtic evidence, indirect Irish evidence, and etymological considerations.”

Therefore, I too will adopt the assumptions of this analysis in the following.

4.1.2 Relative Marking

Relative Marking in Old Irish is also a quite difficult topic as could already be seen in section 3.2.7. Pedersen (1913: 215f) already noted that generally in Insular Celtic an important distinction of relative clauses exists between those cases where the relative pronoun acts as subject or object (what he calls “eigentliche Relativsätze”⁵¹) and those where it had some other function (these he calls “uneigentliche Relativsätze”⁵²). Therefore, we will now look at each of the different types of relative clauses successively.

49 Note that McCone (2006: 244) bases his argumentation for a connection of the forms of *ar-wy-rein* with *ardd-wyrein* on fn. 118 in KPV (109), although this connection is strongly rejected there. Note also that McCone completely fails to mention the verbal noun.

50 He goes on with: “In any case, the difficulty posed by these verbs is much less than the difficulties involved in the edifice of hypotheses and analogic changes with which McCone would replace the particle **(e)s*” (Cowgill 1985: 111). See also Schrijver (1997: 115ff) for an attempt to address this issue.

51 “proper relative clauses [my translation, ND]” (cf. McCone 2006: 252).

52 “improper relative clauses [my translation, ND]” (cf. McCone 2006: 252).

4.1.2.1 Relative Clauses Whose Antecedent is Their Subject or Object

If the antecedent of an OI relative clause is its object (e.g. *the man that Laura saw*), there seems to be a free choice between lenition and nasalisation (see example 25).

- (25) *in fer do·biur* = *in fer do·mbiur*
 the man PV·LEN.bring1SG.REL. = the man PV·NAS.bring1SG.REL.

‘the man whom I bring’

Schrijver (1997: 91)

If, however, the antecedent is its subject (e.g. *the man who saw Laura*), a leniting relative clause is obligatory. If the antecedent is a neuter singular object, lenition also seems to be obligatory (cf. Schrijver 1997: 92 following McCone 1980).

One element that is reconstructed by almost all researchers in one form or another is an uninflected Wackernagel particle $\check{*}io$ ⁵³ that pOI inherited from the PIE inflected accented relative pronoun $\check{*}i\acute{o}-$, which is also found in Greek, Phrygian and Indo-Iranian. In Celtiberian this element is still found in its inflected, accented form. In Gaulish it already lost its inflectional properties and was cliticised (cf. McCone 2006: 247). An example for this marker in Gaulish can be seen in the sentence in example 26.⁵⁴

- (26) *martialis dannotali ieuru ucuete sosin celicnon eti-c*
 Martialis Dannotalos.GEN.SG dedicate.3SG.PAST. Ucuetis.DAT.SG this Celicnon and
gobedbi dugionti-io ucuetin in alisiia
 with the smiths worship.3PL.REL. UcuetisACC.SG in Alisia

‘Martialis son of Dannotalos dedicated this celicnon to Ucuetis and with the smiths/made by the smiths who worship Ucuetis in Alisia’

RIG: L-13

McCone (2006) explains that in Old Irish, nasalisation and lenition were both possible as a marking strategy when the antecedent of the relative clause was its object, the former much more often if the antecedent was not a neuter singular. This fact led some researchers (e.g. Ahlqvist 1983) to posit an inflected relative pronoun also for Insular Celtic ($\check{*}iom/\check{*}i\acute{a}m$ for masculine and feminine but $\check{*}io < \check{*}i\acute{o}d$ for the neuter). One big problem with this analysis, however, is that in the earlier Würzburg glosses the amount of masculine and feminine relative nasalisation is less than in the later Milan glosses. This would mean that the original pattern was in decline around 750 AD but had gained much in frequency relative to the lenition pattern in the early 9th century. Therefore, McCone (2006: 250) argues for an uninflected relative particle $\check{*}io$, regardless of number, gender or identity of the antecedent as object or subject, that derived from the bare stem $\check{*}io$. He proposes this etymology in contrast to the rather popular one of a petrified nominative/accusative neuter singular $\check{*}i\acute{o}d$ first suggested by Thurneysen (1909: 305) because a loss of final $\check{*}d$ can be reconstructed for Insular Celtic

53 Note that Schrijver (1994: 177) argues based on phonological reasons for a very late univerbation of $\check{*}io$ and the preceding element in contrast to the much earlier one that has to be envisaged for example for $\check{*}eti$. This is criticised by McCone (2006: 257). Schumacher (2004: 101) remains agnostic. If this were true, the analysis in section 7 would not work any more, but since in Gaulish and British this element is present as a clitic I would doubt that it was preserved as an independent word in the prehistory of Irish for so long and, moreover, independently reanalysed as a clitic in all three branches.

54 In this example there are also other pertinent words: *eti-c* includes the presumed Insular Celtic main-clause particle *eti* in non-clitic form and the conjunction $\check{*}k^he$ (see section 4.1.3) and *sosin* is discussed in section 4.1.4.

but it would not account for the Gaulish forms where other cases possibly attest a retention of final *-d*. However, he also states that if there were an explanation for what happened to the **-d* in Gaulish, this etymology would be as good as his own (McCone 2006: 250).

Schrijver (1997) nevertheless assumes a relative marker **io < *iod*. He examines the pattern of nasalisation in the glosses mentioned above. In addition to the fact that there are more cases of nasalisation in the later Milan glosses one must moreover consider that in the youngest of the three main parts of Old Irish glosses, the St. Gall glosses, there is again less nasalisation. The pattern, thus, seems to be very inconsistent with an increase in the beginning (around 750 in the Würzburg glosses) with a short peak in the first quarter of the 9th century (the Milan glosses) and a decrease again around 850 in the St. Gall glosses (cf. Schrijver 1997: 92, 102).

For that reason, Schrijver (1997: 92ff) reexamined the data and found that many instances of lenition in relative clauses with m./f. antecedents are actually cases of copula sentences with no overt antecedent. To understand what this means we can look at this phenomenon in English, where we find that a copula sentence like *It's the man whom I see* can be interpreted as defining a covert neuter antecedent as in *It's the man whom I see, not the woman*, which can be paraphrased as *What I see is the man, not the woman*, but it can also be interpreted as *It's the man whom I see, not the man I hear*, which cannot be paraphrased in that same fashion. In the latter case the man is defined by the relative clause and, thus, is the sentence's (clearly masculine) antecedent. An Old Irish sentence like *is mé féin as-biur i tossuch* 'It is myself whom I mention first' (Wb. 14c30) can equally be paraphrased as either 'What I mention first is myself', with neuter antecedent and 'Whom I mention first is myself' or 'It is myself, whom I mention first', with a m./f. antecedent (cf. Schrijver 1997: 93f). He therefore advances the hypothesis that leniting relative clauses originally occurred with neuter object antecedents and nasalising relative clauses with m./f. antecedents and that the Old Irish speakers used this distinction to express these fine-grained semantic differences also if there was only a covert antecedent. Upon checking the data for this hypothesis it emerges that in the Würzburg glosses on the whole it is confirmed and those cases in which there are divergences from the anticipated pattern show certain characteristics that explain how they got confused as being the other pattern. In the Milan glosses, leniting relative clauses with m./f. object antecedent are increasing in number and in the St. Gall glosses there are hardly any sentences with nasalising relative marking. In Middle Irish, the leniting relative clauses fully replaced the nasalising ones (cf. Schrijver 1997: 97ff).

Based on these findings his proposal is that an explanation first presented by Pedersen (1909: 396)⁵⁵ is correct, namely that in relative sentences with subject antecedent the uninflected particle **io*, cognate with the Gaulish particle that can be seen in words like *dugiionti-io* 'who worship (?)' (see example 26) and *toncsiíont-íó* 'who will destine'⁵⁶, was used (see Schrijver (1997: 104ff) for arguments why to reconstruct this particle like this).

⁵⁵ See also Sims-Williams (1984) for a similar theory.

⁵⁶ Note that this verbal form is often translated as 'who will swear' but KPV (651) explains that it is phonetically and morphologically improbable that this form was derived from **tu-n-g-e/o-* and instead proposes it to be a Gaulish *-sie/o-* future from the causative form **tonk-ī-*.

However, in relative clauses with object antecedents an anaphoric object pronoun was used. The m./f.sg. pronoun was **em* > **en*, triggering nasalisation, the n.sg. one was **ed* > **e*, triggering lenition. The n.pl. (probably something like **ī* < **ih₂* or **iā* < **ieh₂*) originally ended in a vowel, therefore also triggering lenition, whereas the m./f.pl. ended in **-ns* > **-s* > **-h*, which should lead to no mutation at all. Schrijver (1997: 111f) proposes that the number distinction was lost in analogy to the neuter, which was also advantageous in providing a distinction between declarative⁵⁷ (no mutation, like the original m./f.pl. relative clause) and relative clauses. It has to be noted that the special relative morphology of the absolute endings can only be explained through **iō* and that **e(d)* would have yielded different forms. Schrijver (1997: 112) therefore suggests that originally both forms were present but already before Old Irish the system of relative endings began to be simplified and the forms based on **e(d)* were lost.

This hypothesis also resolves one of the arguments the opponents of the particle theory often raise against it as it is part of Schrijver's (1997) explanation for the arbitrarily used contracted forms of compounds beginning with *to*, *ro*, *fo* (e.g. *ric* instead of *ro·ic* 'to arrive') (see above at the end of section 4.1.1.3).

McCone (2006: 259ff) criticises this approach for various reasons, but in particular for the small number of examples that Schrijver (1997) has at hand for making his claims on the distribution of relative lenition and nasalisation is far too small to be statistically relevant and that the classification of Schrijver's (1997) examples is not always correct. McCone (2006: 260) therefore discards the theory as a whole and proposes instead that only **iō* was used to mark relative clauses. He states that relative lenition after the first preverb and also the form of the preverb as well as the relative endings of simple absolute verbs can be explained "by regular sound change supplemented by a limited amount of straightforward analogy" (McCone 2006: 271). Additionally, he notes that in the Brittonic branch subject and object antecedent relative clauses are never distinguished (McCone 2006: 249).

In the next section, 4.1.2.2, a theory by Jasanoff (1999) on how relative nasalisation arose in Old Irish is discussed.

4.1.2.2 Adverbial Relative Clauses

"Improper relative clauses" are those where the antecedent designates the time, manner, degree, source or cause of the event in the relative clause, normally called "adverbial relative clauses" and also those where the antecedent is the verbal noun of the verb of the relative clause (i.e., in *figurae etymologicae*) or where the antecedent corresponds to the predicative nominative of the relative clause. These are all realised through the nasalising relativising strategy (cf. GOI 316). However, Thurneysen (GOI: (319)), also tells us that nasalising relative clauses can, in almost all contexts, be replaced by a normal non-relative clause.

Ó hUiginn (1986: 63) argues that nasalising relative clauses were increasing in frequency, based on his analysis of adverbial relative clauses (as with relative clauses with object antecedent, as McCone (1980) showed; see on this the analysis of Schrijver (1997) above). He states: "OIr. was engaged in replacing unmarked parataxis by formally marked relative construction and the extent to which the use of the nas. rel. predominates already in Wb.

⁵⁷ Or rather main clauses.

shows that this development had reached a very advanced stage indeed by the middle of the eighth century” (Ó hUiginn 1986: 63). Most of the examples that preserve parataxis are clauses containing the copula, which is in general more conservative in its syntax (cf. Ó hUiginn 1986: 66). On the other hand, in Middle Irish times relative nasalisation had vanished (cf. Ó hUiginn 1986: 71).

Many researchers have proposed some particle ending in a nasal as cause for this kind of relative marking but this caused a similar problem as with the main-clause particle, as Ó hUiginn (1986: 76) points out: “Postulating an unstressed particle or pronoun with nasal auslaut would clearly go a long way towards providing a neat explanation for the construction as we find it. Problems arise, however, when we look for a particle that is suitable both from a phonological as well as from a functional point of view and when we attempt to account for the initial nasalization of the relative forms of simple verbs by means of such a particle.”

Ó hUiginn (1986: 81f) shows that this initial nasalisation of absolute relative forms is old. However, he holds the view that relative nasalisation was not fully established by the time of the Würzburg glosses contrary to what was argued by Schrijver (1997) (see above). Based on this assumption he proposes that formal relative marking was only used for the more “direct” relative clauses with a subject or object antecedent in the early prehistory of Irish and discards the possibility of a relative pronoun or particle ending in a nasal as proposed by several researchers before (e.g. GOI: 323; Breatnach 1980). All other relative clauses are assumed by him to have been similar to the ones found in Middle Welsh, where an independent relative particle *y(d)* was used for the indirect relative clauses. Basing himself on the view that this particle is also found in main clauses, he assumes it to be a paratactic structure (for a different view, see Schumacher 2014: 195f). He suggests that in Irish the need to mark the relative formally was felt and therefore the initial mutations were taken over analogically from subject and object relative clauses.

Pedersen (1898: 349ff) proposed that relative nasalisation originated in the normal grammatical mutation after some antecedents (e.g. *in tain* ‘at the time that’) first affecting only the first sound of absolute relative forms, which was then reanalysed as a relative marker. Ó hUiginn (1986: 85) adds the prepositional relative clauses as influence. He also wants to derive relative nasalisation in object relative clauses from this phenomenon, it being introduced to resolve ambiguity between subject and object antecedents, as he exemplifies with the Modern Irish sentence given in example 27.

- (27) *an fear a bhuaileann Seán*
the man REL hit.3SG.PRES S.

either ‘the man who hits Seán’ or ‘the man whom Seán hits’ Ó hUiginn (1986: 83)

Ó hUiginn (1986: 75) states that because many other relative markers in pOI were not originally relative markers (**de*, **k^ue*, etc.) the one responsible for adverbial or improper relative clauses need not have been one either. In fact, several researchers have proposed a reanalysed previously non-relative third person pronoun, either **so*⁵⁸ or **e*- as main relative

⁵⁸ This, however, seems to yield phonological problems (cf. McCone 2006: 256). Schrijver (1997: 106) adds that because there are many signs that point to the existence of **io* in Old Irish, **so* should only be reconstructed as a relative marker if **io* is not possible. He argues that **so* in no context seems to work better than **io*.

marker in Insular Celtic, sometimes besides **io(d)*, sometimes exclusively. Moreover, it is typologically not uncommon for demonstrative pronouns to develop into relative pronouns, compare German *ein(e) Triangel der/die/das*⁵⁹ *im Orchester gespielt wurde* ‘the triangle that was played in orchestra’ (cf. McCone 2006: 255).

There are, however, some non-adverbial forms that Jasanoff (1999) explains through a nasalising relative marker **son*, for example the third person present special relative form *beres* ‘who bears, whom (s)he bears’ and some forms of the copula. This form cannot be explained by **io* or something similar. Thus, he proposes a “semantically attenuated conjunction or complementiser similar, e.g. to Engl. *that* in expressions like *at the time that*, *by reason that*, older *when that*, *for that* etc. [emphasis in original]” (Jasanoff 1999: 211), whose effect was subsequently extended to those clauses with a subject or object antecedent (cf. Jasanoff 1999: 210). He states: “In general, the loss of intervocalic **-s-* was so early in Irish that **-son* and **yo* would have fallen together almost everywhere” (Jasanoff 1999: 211). He explains that several IE languages “show a tendency to haplologize sequences of the type **-sVs* to **-s-*” (Jasanoff 1999: 212), which according to him, conditioned a different development in some forms. As an example he gives the third singular relative form of the copula **essi-son* > **esson* > *as*^N and assumes that at some time the form **asa*^L also existed (< **essi-io*) but lost its final syllable later on due to analogical levelling. The ending **-sson* was subsequently used with all other verbal stems in **-e-*, **-ā-* and **-ī-* leading to forms like *beres*. These forms were “originally confined to nasalizing relative clauses but eventually generalized, like the 3 sg. rel. *as* itself, to leniting clauses as well” (Jasanoff 1999: 213).

4.1.2.3 Prepositional Relative Clauses

As was explained in section 3.2.7, relative clauses introduced by a preposition utilise an element *(s)a*^N, which is at least phonologically identical with the neuter definite article,⁶⁰ although in relative use it is invariable with respect to gender, number and case (cf. GOI: 312). Pedersen (1898: 394ff) proposed that it developed out of two independent elements that were then reanalysed as the neuter definite article because of their formal similarity when combined. He thus explains why the form of this element is invariable. The GOI and others who mention this kind of sentence only state that there is a formal identity and do not make clear statements on its etymology. Schumacher (2014: 166f) argues that the two elements are identical because the definite article itself originated in a demonstrative pronoun and the prepositional relative clauses can thus be traced back to paratactic structures, introduced by a preposition and an anaphorically used demonstrative pronoun. This then would be similar to the German relative pronoun (recall the example with the triangle played in the orchestra in section 4.1.2.2 above). He thus proposes a development as sketched in example 28.

(28) [I see the flute.][With this I play.] > [I see the flute [with which I play.]]

This derivation is quite transparent but has not received much attention in Celtic Studies, also because Celticists pay not much attention to what is going on in Germanic Studies and

⁵⁹ German *Triangel* ‘triangle’ can really be used with all three articles (cf. Duden 2023: *Triangel*).

⁶⁰ The construction preposition + accusative singular of the neuter definite article and preposition + *(s)a*^N yield phonologically basically the same forms (Schumacher 2014: 166).

vice versa. The construction and the element in it will, however, be of importance to explain why only certain complementisers are conjunct particles (see section 4.2.1). Moreover, it will be part of my proposal for an explanation of the distribution of the class C infixed pronouns (see sections 4.1.5 and 4.2.1).

4.1.2.4 Negation in Relative Clauses and Beyond

Negation can surface in various forms in OI relative clauses (e.g. *nǎd*, *nǎch*, *nǎnd*, *nǎch* + inf. pron. and more (Ó hUiginn 1987: 177). Watkins (1963: 25f) argues that these forms are derived from the clitics **de* (see section 4.1.4) and **k^ue* (see section 4.1.3), originally meaning ‘and not’ (Binchy 1960: 82) that were reanalysed from conjunctions to relative markers “in the late prehistory of the language” (Ó hUiginn 1987: 177). LIPP (s.v. 2. **-de*) states that **de* was often united with the preceding element. This happened particularly often with negations, not only in Old Irish but also, for example, in Greek and Old Avestan. Dunkel writes: “Die irische Verwendung der Negation *nad* [...] in Relativsätzen hat sich wohl aus der Parataxe entwickelt, etwa ‘es wird eine Zeit kommen, und nicht wird sie leicht sein’ > ‘... die nicht leicht sein wird’”⁶¹ (LIPP: s.v. 2. **-de*).

The distribution of the different forms follows strict rules that have only a few exceptions. If there is an infixed pronoun of classes A or B, *nǎch* is used, if not, *nǎd*. In the case of a nasalising relative clause with a class C pronoun, *nǎ* surfaces. Note that this means that **k^ue* and **de* never occur together in these clauses (see section 4.3).

In negated responsives the forms *nad*· and *nach*· appear, which means that **de* and **k^ue* could occur in these forms. Schrijver (1994: 184f) explains this in the following way:

“The occurrence of **de* and **k^ue*, which also appear as connectors in subordinate clauses, indicated that the relation between the responsive clause and the clause to which it is a responsive is a very close one: the hearer (or reader) of the responsive clause is to infer from the preceding clause a semantic element (or elements) which is (are) essential for the correct understanding of the contents of the responsive clause. [...] The use of **eti* is at variance with this strong dependence on the preceding sentence.”

Concerning negative imperatives, Schrijver notes that the negation there is non-leniting *ná*·, which he tentatively traces back to **ne-(e)ti*. This, however, would make no sense because why should **eti* then be completely absent from the positive forms? Before infixed pronouns the negation used with imperatives is *nach*·, which he again traces back to the fact that the interpretation of the imperative “depends on the preceding linguistic context for some of its semantic contents” (Schrijver 1994: 185). That is, a person who hears **tabair* ‘give.IMP’ has to refer to extralinguistic context to know what should be given to the speaker. “The presence of **eti* might be at variance with this relation of dependence” (Schrijver 1994: 185).⁶² In Schrijver (2015: 76), however, he renounces this analysis in favour of the reconstruction **na-k* < PIE **na-k^ue* for all Insular Celtic instances of the prohibitive negation, based on Brittonic evidence.⁶³ Thus, the previously discussed problem of **eti* in the imperative vanishes.

61 “The Irish use of the negation *nad* [...] in relative clauses developed probably out of parataxis, e.g. ‘there will be a time and it won’t be easy’ > ‘there will be a time that won’t be easy’.”

62 Note, however, that he conflates the function of a connector that links a clause to the preceding linguistic content and the deictic function of an element that refers to extralinguistic context.

63 The a-vocalism of **na-* lacks an explanation so far.

4.1.3 The Conjunction **k^ue* ‘and’

PIE **k^ue* is a particle that is hardly found in Old Irish texts. Following LIPP (s.v. 1. **(s)k^ue*) it had the meaning ‘and’ already in PIE. The author writes: “Idg. 1. **(s)k^ue* verbindet koordinierend Wörter oder Wortgruppen (Phrasen, Satzteile oder Sätze).”⁶⁴ In OI, however, it only occurs conjoining clauses (Watkins 1963: 8). It is cognate with, e.g. Lat. *-que*, Gk. *τε* /*te*/, Skt. *ca* and the second element of Gaul. *eti-c* (the first one being **eti*, discussed in section 4.1.1); GOI (549f). LIPP (s.v. 1. **(s)k^ue*) discusses the fact that in most ancient IE languages there was more than one coordinating conjunction available and notes that to this date the distribution of these (the author mentions **-de* ‘to this/besides’, **iō* ‘to this/besides; and’ and **h₂o* ‘to this/besides’) is not clear, especially as they also had to compete with other strategies of coordination (for example asyndeton or repetition of preverbs). This, as we can see in the course of this section, was also the case in the prehistory of Old Irish.

The most comprehensive examination of PIE **k^ue* in Old Irish is Binchy (1960). PIE **k^ue* appears as *-ch* in OI after some proclitics ending in a vowel but only in very archaic texts such as some of the legal texts, which, following Binchy (1960: 82) were only preserved due to their “‘sacred’ character [...], for in the Amra [Coluim Chille, ND], which came to be felt as a quasi-magical incantation [...], every word had its own peculiar virtue exactly as in the ‘immutable’ canon of the Laws”. He thus suggests that “the last vestigial remains of *-ch* (apart from *nochis* and *sechis*) had disappeared before the beginning of what we may call the classical period of Old Irish” (Binchy 1960: 82).

But let us take a look at the data. In its presumed original use the particle occurs only in pretonic position following three proclitics, namely the preverbs *ro* and *to* and the preterite 3sg form of the copula *ba*, which in OI is always unstressed and proclitic (Binchy (1960: 82), cf. GOI: 475). Binchy (1960: 82) observes that it is strange that the particle is never found after the other proclitics ending in a vowel, namely *fo*, *ar(e)*, *de*, *imb(e)* and *ind(e)*, but expresses the hope that other researchers will be able to find them in some of the texts that he did not analyse. Some of his examples (example 29 for *ro-ch*-⁶⁵, example 30 for *to-ch*- and example 31 for *ba-ch* ‘and ... was’) are the following:⁶⁶

- (29) *fer ōa n-élat be[i]ch ro=ch lamethar*
 man from.3SG.REL escape.3SG.PRES bee.NOM.PL PV=**and** venture.PRES.IND.3SG
forgull
 testimony

‘a man from whom bees escape (i.e., swarm) and who ventures (i.e., is prepared) to testify’
 BB (80, §44), CIH (vol. 2: 453.15), Binchy (1960: 83), AL (iv 190.12.)

64 “PIE 1. **(s)k^ue* conjoins as a coordinating conjunction words or groups of words (phrases, parts of clauses or clauses)”.

65 Note that the verb of the clause introduced by *ro-ch*- has to be interpreted as a relative form although it is nowhere marked as such.

66 Bracketed forms in the original OI text are words that have been misread by scribes that were not acquainted any more with certain words or grammatical structures.

- (30) *Ata morfeser (morseiser, -ir MSS.) i tuaith ar[a]-c[h]uille*
 VS.PRES.IND.3SG a_group_of_seven_men in territory.DAT.SG prohibit.3SG.PRES.REL
coir urnadma, to=ch-intat (toich tindtat MSS.) a
 agreement.GEN.SG betrothal.GEN.SG PV=**and**-return.3PL.SBJV their
mnā uadaib
 woman.DAT.PL from.3PL

‘There are seven men in the territory who forbid a lawful betrothal and their wives [may] return [home] from them.’ CIH (vol. 1: 4.33), Binchy (1960: 84), AL (v 132.2.)

- (31) *ba-ch rī Temro (temrach MSS.)*
 COP.3SG.PRET=**and** King Tara.GEN.SG

‘and he was king of Tara.’

BB (68, §32), CIH (vol. 2: 449.26), Binchy (1960: 86), AL (iv 178.13.)

Following Binchy (1960), there is, however, also another, secondary use of **k^ue*, where it is combined with *no* and *se*, very often found with the second singular and the third singular and once with the third plural consuetudinal of the copula that is also to be found in the glosses (i.e., texts that show less archaic features) as a translation of Lat. *id est* ‘that is’ (compare examples 33a and 33b). In the legal texts, however, as Binchy (1960: 86) states, *nochis* often seems to be only an emphasised ‘and (yet/still)’ (compare examples 32a and 32b).

- (32) a. *To-bert a chin forsin fer bata(i)r*
 give.3SG.PRET POSS.3SG.M/N liability.ACC.SG on the man.ACC.SG VS.3PL.PRET.REL
be[i]ch no=ch-is [sī] breth in so
 bee.NOM.PL PV=**and**-COP.3SG.PRES she judgement.NOM.SG.F the this
bretha[e]
 judge.3SG.PRET.REL.PASS

‘He charged the man who owned the bees with its offence and this is the judgement which was passed.’

BB (70, §33), CIH (vol.2: 449.26), Binchy (1960: 87), AL (iv 178.15.)

- b. *fuil na fera do lām na*
 blood.NOM.SG NEG.REL pour.3SG.PRES your hand.NOM.SG NEG.REL
forrngai[r] do t[h]enga, sech-is tū do-ren
 command.3SG.PRES your tongue.NOM.SG **and**-COP.3SG.PRES you pay.3SG.PRES
a fiachu
 POSS.PRON.3SG.M/N fine.AKK.PL

‘blood which your hand does not shed nor your tongue commands, and [yet] it is you who pay the fines for it’

CIH (vol. 5: 1885.10) adapted from Binchy (1960: 89), AL (v 142.3.)

- (33) a. *no=ch-is ó-n-mlith-son*
 PV=**and**-COP.3SG.PRES with-the.F-grind.VN-NOTAUG.3SG.M

‘that is, from the grinding’

ML. 023a20 (Griffith & Stifter 2013)

- b. *sech-is* *do-nd-fir-brithemain-són*
and-COP.3SG.PRES with-the.M-true.DAT.SG-judge.DAT.SG-NOTAUG.3SG.M

‘that is, to the true judge’

ML. 026c11 (Griffith & Stifter 2013)

no is normally identified as the semantically void preverb that is otherwise used as a host for infixed pronouns or in those tenses that use the imperfect endings. It is, however, strange that following *noch* we find the copula in its absolute form. Binchy (1960: 91) also wonders about this and mentions the forms *issech* and *sech*, which are used as isolated glosses for Lat. *et* ‘and’. He states:

“On the strength of these examples one is at least entitled to conjecture that *issech* [< PIE **esti-ke*], late *sech* by apocope, originally represented ‘and is (*estque*)’, but eventually became confused with the homonymous preposition and conjunction *sech* [‘past, beyond’ (GOI: 530, 550)], with the result that *is* was pleonastically repeated after it”.

Binchy (1960: 92) admits that this analysis is highly speculative and that there are also others like the one in the GOI, proposing that the first element is identical with the demonstrative pronoun *se*.

If *noch* is combined with simple verbs these appear in the conjunct form, unlike the copula (see examples 34 and 35). There are, however, hardly any examples attested.

- (34) *cuic seoit* [...] *ro midir* *Morand; noch fil tri*
 five sed.NOM.PL PV assign.3SG.PRET Morann PV=**and** vs.3SG.PRES.**conj** three
seota cacha tratha ro follaigther
 sed.NOM.PL every.GEN.SG day.GEN.SG AUG neglect.3SG.PRES.REL

‘Five “seds” [...] was [the fine] fixed by Morann; but there are three “seds” for every day that is neglected’
 CIH (vol. 5: 1898.31), AL (i 102.7.)

- (35) *noch(a) dlig somul n-eich*
 PV=**and** be_entitled_ to.3SG.PRES.**conj** swift.GEN.SG horse.GEN.SG

‘and he is entitled to a well-balanced(?) / swift horse’

CIH (vol. 6: 2315.20), Binchy (1960: 90), Br.D.Ch. (§35)

Even fewer examples (namely only one) exist for *noch* in combination with a compound verb. In example 36 we find a form of the verb *as-luí* ‘to escape’ preceded by *noch*. However, as the form was broken up by a line break in the manuscript it is not possible to say “whether the scribe was really hesitating between the deuterotonic and the prototonic form” (Binchy 1960: 90). He suspects that the writer wanted to write the deuterotonic form (*as-rula*) and was wrong, as it should have been the prototonic *no-ch-érla* like with the simple verbs.

- (36) *Mad airm i mbí immed mbech*
 if place where (lit. in_which) COP.3SG.CONS.PRES.REL a_large_quantity bee.GEN.PL
no-ch ar/rula saithe cacha lestair
 PV-and escape.3SG.AUG.PRET swarm every.GEN.SG container.GEN.SG

If it be a place where there are many bees (i.e., several hives with different owners), and a swarm has escaped from every hive

BB (80, §45), CIH (vol. 2: 453.28), Binchy (1960: 90), AL (iv 192.8.)

Based on these examples Binchy (1960: 91) suggests, after acknowledging that the evidence is too scarce to build any theories, that *no* was used as a host for *=ch* before simple verbal forms and before those compound verbal forms whose first preverb ended in a consonant. He contrasts them with the infixed pronouns that developed different forms (Class B) following these preverbs.

Watkins (1963: 9) argues that *-ch* was replaced in Classical OI by the conjunct particle *co* (*n*) ‘so that’. He cites as an example a sentence that was already partially mentioned in example 31, repeated in its longer form in example 37. Here, we can see that *-ch* is still used in the first part, but in the second, where the affixed pronoun needs a host, another strategy has to be used.⁶⁷

- (37) *Ba-ch* *rí* *Temro* *con-id-dubart*
 COP.3SG.PRET=**and** King Tara.GEN.SG **so that**-PRONC.3SG.-say.3SG.PRET
as-sa *flaith*
 out_of-Poss.3SG rule.AKK.SG

‘And he was king of Tara and it put him out of his kingship.’

BB (68, §32), CIH (vol. 2: 449.26), Watkins (1963: 9), AL: (IV 178.13–14)

Binchy (1960: 80f) notes that in his view the particle was unable to combine with a stressed element. This claim is rejected by Watkins (1963: 12) with the two arguments that the unstressed character of preverbs and the copula is an Irish innovation and that accentuation did not matter to Wackernagel’s Law. He cites archaic Old Latin examples in which **k^ue* attaches always to the first word regardless of its present or missing accentuation. He remarks that

“[w]hile the restriction of *-ch* to pretonic words or particles is a descriptive fact in Old Irish, I would regard this simply as a mark of how fossilized *-ch* was in our oldest Irish. From the historical point of view its use after *ba* shows clearly that it could be originally used after stressed words.”
 Watkins (1963: 11)

Watkins (1963) argues that the restriction of *-ch* to pretonic position is due to the general decline of suffixes in OI.

The last context in which this particle is to be found in OI is at the same time the one where it is attested the most often, that is, in the relative negation before infixed pronouns, *näch*, which was already examined in section 4.1.2.4.

4.1.4 The Connector **de*

The entry dealing with this particle in LIPP (s.v. 2. **-de*) states the following: “2. **-de* ‘dazu; andererseits’, Konjunktion, additiv und adversativ; phrasenverbindend”.⁶⁸ This short entry already permits some inferences for the function of the particle in OI and also fits some of

⁶⁷ He states that this restriction to only one clitic was present at “the time of our earliest Old Irish” (Watkins 1963: 10) but argues that it must have been possible in earlier times, which can be seen from the form of the negation *näch* before infixed pronouns. We will see in the following sections that combinations of clitics were actually the standard situation in pOI.

⁶⁸ “2. **-de* ‘to this/besides; on the other hand’, conjunction, additive, adversative; linking phrases [my translation, ND]”.

the conclusions researchers on OI have reached and therefore supports these with data from other languages.

Schrijver (1997), in an important book on Celtic pronouns and particles in which much attention to this special particle is paid, identifies two different though etymologically related particles **de* (Schrijver 1997: 131). One, used in pronominal complexes,⁶⁹ that may be compared with Gk. ὅδε /*hóde*/ ‘this’ < **so-de* and one that developed out of a PIE sentence connective **de* occupying the Wackernagel position and may be compared with Gk. δὲ /*dè*/ (cf. Schrijver 1997: 131).

He provides the following definition of the function of pronominal **de* in Old Irish:

**de* accompanying a deictic pronoun indicated that the pronoun does not refer to a person or thing in the immediate linguistic or conceptual vicinity but to a previously expressed or conceived person or thing. Schrijver (1997: 140)

However, he also admits that there is no “OIr. evidence which demonstrates that this semantic contrast is more than [sic!] hypothetical” (Schrijver 1997: 144).

If we now look back at the meaning provided for PIE **de* in LIPP (s.v. 2. **-de*), Schrijver’s (1997) statement receives some support.⁷⁰

In verbal contexts this particle occurs in the relative forms of the negation (on this, see section 4.1.2.4) and in some forms of the affixed pronouns (see section 4.1.5).

We find this particle not only in verbal contexts but also in combination with other pronouns. For example, if we look at the PIE demonstrative pronoun **so*/**seh₂*/**tod* (NOM.SG.M, NOM.SG.F, NOM/AKK.SG.N), which generalised the initial **s* at the cost of **t* in Celtic, we find that there are traces of it in Celtic on its own, reduplicated, followed by **de* and reduplicated in combination with **de*. Thus, there is **so* (> OI. *so* ‘deictic particle’), **so-de* (> OI. *sund* ‘here, hither’), **so-so* (> Gaul. *sosin* ‘that’; the expected unattested non-neuter form would be **so-so(s)*) and **so-de-so* (> OI. *suide*, the independent anaphoric pronoun). The same is true for the Proto-Insular Celtic form of the NOM/AKK.SG.N **sim*, which can be seen in the Gaulish example above (cf. Schrijver 1997: 16f). We also find the particle in combination with the anaphoric pronoun **sin* (probably cognate with Skt. *sīm*), which yielded the Proto-Celtic and OI definite article (**sindos* > *in*/**sindā* > *in^L*). Concerning these forms, Schrijver (1997: 50) states that determining the original semantic distinction between the four different combinations is not possible at the moment.

Instead, he approaches the problem from a different perspective. Other forms in which **de* surfaces are the reflexive **sue-sin* (> OI. *féin* ‘self, own’) vs. **sue-de-sin* (> OI. *fadéin* ‘self, own’), **ke-sin* (> OI. *céin* ‘even, namely, moreover, too’) vs. **ke-de-sin* (> OI. *cadéin* ‘even, namely, moreover, too’) and **sin* (> OI. *-sin* ‘that before-mentioned’) vs. **sin-de-* (> OI. definite

69 Note that in LIPP (s.v. 2. **-de*) it is assumed that **de* could only stand in second position in the sentence and that the Celtic pronominal forms developed during a time when pronouns could still be pragmatically fronted so that **de* could attach to them. Note also that there is strong cross-linguistic evidence that clitics that occupy second position in their domain (thus, they are not sentential but phrasal clitics) exist (cf. Keydana (2011) on WL₃ clitics). Therefore it is much easier to assume this also for **de* (even if it is not attested in the other branches, see section 4.1.1) because it is doubtful if pragmatic fronting of pronouns happened often enough to cause a univerbation of pronoun and **de* so that this complex could afterwards also be used in other positions.

70 One has to bear in mind, though, that Schrijver (1997) is cited in the LIPP, so his analysis was part of the data on which the entry in the LIPP is based.

article); Schrijver (1997: 72). This leads him to the conclusion that **de* is an optional element in pronominal complexes. One problem is posed by the OI reflexive *fadesin* < **sue-de-sin*. This form has a quite complicated paradigm that can be seen in table 9. Pedersen (1913: 153) explains this through a personal pronoun that agreed with the element to which the reflexive refers, so that the form actually consisted of the PIE reflexive **sue* + (particle **de*) + (personal pronoun) + anaphoric pronoun **-sin* (lit. for 3.SG.M ‘self + the before mentioned + he + that.distal’⁷¹).

1/2SG	–	<	– ⁷²
3SG.M	<i>fadesin</i>	<	<i>*sue de es sin</i>
3SG.F	<i>fadisin</i>	<	<i>*sue de sī(s) sin</i>
1PL	<i>fanisin</i>	<	<i>*sue nis sin</i>
2PL	<i>fadisin</i>	<	<i>*sue de uis sin</i>
3PL	<i>fadesin</i>	<	<i>*sue de ens sin</i>

Table 9: Attested forms of *fadesin* and the reconstructions proposed by Schrijver (1997: 75ff)

However, due to the fact that OI *fadēin* and all other forms in the paradigm are stressed on the second syllable, Schrijver (1997: 75) analyses the pre-forms as also bearing stress on the syllable following the PIE reflexive **sue*, while **sue* itself is analysed as “unstressed and proclitic”. He admits that, because **de* is a clitic in all other environments, it is likely that in forms with **de* the third element probably bore the stress, so that in **sue-de-es-sin*, the third singular masculine personal pronoun, **es*, was stressed. Then, however, the question arises of how a clitic can attach to another clitic, since in all other cases **de* is an enclitic (not proclitic) element that here would attach itself to **sue*. We will encounter a possible solution for this problem in section 4.2.2.

All forms of the paradigm of the reflexive show allomorphy concerning **de*.⁷³ In descriptions of Old Irish grammar, these allomorphs are usually regarded as synonyms but as both of them are consistently used in all persons throughout the period, Schrijver (1997: 78) concludes that there must have been a semantic difference. After examining the contexts of the third persons (because there is too little material for the other ones) he proposes that **de* is marked for contrast. The great majority of contexts in which *fadesin* occurs are contrastive. 40 times out of 79, *fesin* appears in contexts that are unlikely to be contrastive, whereas the remaining contexts are contrastive. So he suggests that *fesin* could be used in both contexts, i.e., it was unmarked for contrast. This also fits the strong association of **de* with the third persons that is discussed in section 4.1.5 because only there a differentiation between referents

⁷¹ eDIL (2019: s.v. *1 sin*) actually gives as a translation for the adjectival use (i.e., in combination with an article and a noun) ‘that, the above-mentioned, the before-mentioned’. For the adverbial use that rather fits our situation here there is no general translation but only context-dependent ones. eDIL (2019: s.v. *1 sin*) proposes, although with a question mark, that the adverbial use is the original one. This seems appropriate concerning these examples.

⁷² A first or second person singular *fadesin* is not attested (Schrijver 1997: 75f).

⁷³ For the first and second persons, although there is no *fadesin*, there is a form *fadēin* going back to **sue de sin* (Schrijver 1997: 75).

is needed (so for example in *He_i kisses him_j* or when a reflexive is used as in *He_i told him_j about himself_i*). There cannot be several first or second person referents at one time.⁷⁴

In relative clauses **de* can also be used to mark contrast. So *in fer do·mbeir* (< **sindos ūiros tu en beret(i)*) means ‘the man whom he/she brings’ whereas *in fer dod·mbeir* (< **sindos ūiros tu ŋo de en beret(i)*) means ‘the man who brings him’ (cf. Schrijver 1997: 140), with **de* indicating that the infixed pronoun is not identical with the person referred to by the relative pronoun (i.e., the antecedent of the relative clause).

The suffixed pronouns of the third singular masculine and neuter provide additional evidence for the meaning of **de*. These pronouns occur as *-i* after a 3sg. verb and as *-it* after a 3pl. verb, the 1pl. present and future, the 1sg. future and rarely after a 3sg. preterite (the complete material was collected by Breatnach 1977). The simpler form also has a quite obvious etymology: The third person present ending **-ti* merged with (the main-clause particle +) the suffixed pronoun, masc. **en*, or neuter **e* < **ed* (cf. Schrijver 1997: 143). Schrijver (1997: 143) shows that the generally accepted etymology (compare Pedersen 1913: 149 and GOI: 271) of the more complex form *-it* is improbable and proposes personal ending + **es de en* as an etymology (the main-clause particle **es* < **eti* accounting for the fact that **de* is not lenited). To explain the distribution of the forms he proposes that *-i* and *-it* could both occur after a 3sg. verb but that because of the decline of the suffixing pattern and also through contrastive pressure this is only attested in preterite forms, where we find both variants. This fits the fact that in OI, as Breatnach (1977: 87) shows, suffixed and infixed pronouns were frequently used to express reflexive semantics. Following non-preterite forms, only *-it* was possible because the object pronoun (3sg.) could never refer to the verb that had another number-person configuration (cf. Schrijver 1997: 141ff).

McCone (2006: 273) wants to derive the presence of **de* in the Class C pronouns from a need to resolve ambiguity between forms with and without infixed pronoun that looked alike after apocope (e.g. *do·beir* < **tu βerⁱ* from either **tu-yo·βeret* ‘who brings’ or **tu-y(o)-e·βeret* ‘who brings it’). However, as Schrijver’s (1997) explanation fits the distributional facts better and is more fine-grained, I will follow his analysis in here.

4.1.5 Affixed Pronouns

As already seen in section 3.2.6, the distribution of class A and B infixed pronouns reflects the absence or presence of an original final consonant in the preverb or conjunct particle that preceded the preverb. Kim (2002: 153), in discussing the affixed pronouns, writes “It is highly surprising [...] that no explanation has yet been proposed for this clearly phonological distribution. The standard handbooks call no special attention to these two separate sets of infixed pronouns [only stating the distribution as a fact, ND] and until recently (Schrijver 1997: 131–9) there have been, to my knowledge, no efforts to provide a common origin and/or historical account of their coexistence.” What he means with this statement is that, although the distribution can be easily explained, the development of the different forms did not seem to be of interest for a long time. The handbooks merely state that in some of them

⁷⁴ Except in highly construed and rather rare contexts where for example a person is part of an organising team of a concert hall and part of a band and says *We_i [i.e., the organising team] gave us_j [i.e., the band] the possibility to perform here*.

an unexplained element /d/ is present that is missing in the other set with no explanations where this /d/ came from. In the preceding sections we already touched upon some of the explanations by Schrijver (1997), whose study was mentioned in the quote above. We will now look into this in more detail.

Watkins (1963: 25ff) proposed that originally there was only one set of enclitic pronouns that evolved into three different categories due to an added connective particle **de*, which was added before the class B and class C pronouns, with class A being just the simple pronouns. He identifies this **de* with Gk. δὲ /dè/. Schrijver (1997: 63ff), however, shows that the etymology of these pronouns cannot be that simple for several reasons. He agrees with Watkins (1963) that class A shows the plain pronouns and class C emerged through the combination with preceding **de* but argues for the absence of the particle **de* in the class B pronouns. He explains that the formal identity of class B and class C pronouns makes no sense because class A and B pattern together syntactically and semantically. They are in complementary distribution triggered by the phonological form of the preceding preverb. Moreover, some preverbs show forms before class B markers that suggest that an element /d/ (<t>) rather than /ð/ (<d>) preceded these pronouns (compare the preverbs *con·* and *in·* with their forms *cot-* and *at-*). In previous literature (for example McCone 1979a and Pedersen 1913), as Schrijver (1997: 133) remarks, this was explained through various analogical effects but none of these explanations is convincing, as he shows. To explain the forms, he concludes, one has to assume an element /t/ that would become /d/ through voicing at word boundaries. An obvious solution to this problem presents itself (however, only to those who support the particle theory) in form of the main-clause particle **eti* (see section 4.1.1). To derive the attested forms, Schrijver must stipulate the loss of the initial vowel of **eti* so that the third singular class B pronoun developed in this fashion: **kon et en* > **kon t en* > **koden* > *cot·n-* (<cot> being the orthographic representation of /kod/). This loss is, in his argumentation, caused by a sound law that led to the loss of the vowel of the second syllable in a proclitic group with more than one syllable, which is already proposed in Pedersen (1909: 263), however, based on material that can be explained in other ways too (cf. Schrijver 1997: 135f). There is no direct evidence for this loss but given that similar sound changes exist which are also limited to proclitics, Schrijver calls the existence of “such a syncope far from surprising” (Schrijver 1997: 136).

With this solution the class A and B pronouns can be explained in the same way with differentiation of the two through the complete disappearance of **eti* in class A except for the lacking mutation on the following consonant whereas in class B the post-consonantal **-t* remained.

Schrijver (1997: 63ff), however, admits that in the third persons of the class B pronouns **de* actually was present. This special relation between the particle and the third person of the affixed pronouns can be seen for example in some British inflected prepositions, e.g. MW *rac* ‘before’, which has the singular forms 1SG *rag-of*, 2SG *rag-ot* but 3SG.M. *rac-d-aw* and 3SG.F. *rac-d-(e)i*, in OI enclitic pronouns suffixed to the 3SG of the copula, where the class A forms are used in the first and second persons but those of class C in the third and some other cases.

Another important phenomenon which we came across in section 3.2.6 is that in relative clauses the object markers for the first and second person vary freely between class A, B and C. However, in the third person this variation only concerns classes B and C, which points to the fact that class A, providing the only forms without **de*, is not allowed in this context. This also makes sense in the light of the semantics of third person forms, where the possibility exists that there are several entities or persons to that can be referred to as shown in section 4.1.4. This also aligns with the typological universal that states that if a language has reflexive pronouns distinct from non-reflexive ones in the first and/or second person it must also have them for the third person but not vice versa (The Universals Archive: s.v. *Universal 608*). In the pre-OI case the situation is a slightly different, in that we have reflexive pronouns contrasted with non-reflexive ones in all persons, with the non-reflexive third-person ones being additionally marked for contrastiveness in certain contexts: **de* could be present in third-person forms but did not need to be, thus yielding the various forms to be found in OI (cf. Schrijver 1997: 137). For the class C pronouns Schrijver (1997) follows the general conception of them containing connective **de* but he proposes that it was combined with the relative marker **io*, rejecting the idea that **io* was absent if a pronoun was present. This also fits the fact that in third singular masculine forms where a consonant-final preverb was followed by a class C pronoun, an otherwise unexplained vowel appears which was regularly lost in all other forms, e.g. *con-i-d·n-árraig* ‘who has bound himself’ (cf. Schrijver 1997: 138).

Schrijver (1997: 132) explains that the class A pronouns were preceded by **eti* blocking the lenition after the final vowel of the preverb. In the class B and C pronouns this particle was, according to him, either not present because **de* already performed this task or at least it was with certainty not placed between **de* and the pronoun because in forms with a third person plural object pronoun we find lenition of the initial **s* (> **h*- > Ø) as in **eks-de-sus·orget(i)* ‘he kills them’ > *ata·oirg*. However, in the first and second singular and the first plural we find unlenited phonemes after **de*, which according to Schrijver (1997: 132) were introduced from class A.

Kim (2002: 156) criticises the analyses by Schrijver (1997). He notes that it is improbable that Schrijver’s (1997) ad-hoc sound law **t* > **s* applied after preverbs ending in a vowel but after preverbs ending in a consonant it did not. This objection is strongly linked to the loss of the **e* of **eti* due to an ad-hoc sound law that says that in a pOI proclitic group that was longer than two syllables the vowel of the second syllable was to be lost (some kind of early syncope). In his opinion the main-clause particle derived from the copula **esti* should give exactly the attested forms for class A and B pronouns, in the first case after a vowel, in the second after a consonant.

Finally, in sentences introduced by the conjunctions *ma* ‘if’ and *cía* ‘although’ that lack an infixed pronoun an infixed element *-(i)d-* appears that looks like the third singular neuter class C infixed pronoun. I do not know how to interpret this element. GOI (325) states that it is “doubtless” the same particle as the originally relative but semantically bleached verbal particle *yd* of MW. As this particle is, however, always clause introducing in MW in contrast to the Wackernagel, i.e., second-position, particle of Old Irish, this comparison can be questioned.

4.2 Some New Interpretations

We now have an overview of the data that allows us to reconstruct several Wackernagel enclitics in the prehistory of Old Irish as well as of the (in parts strongly varying) views, theories and analyses that have been brought forward concerning them. Before we will look at the order in which these elements occurred in the OIVC we will look at some details that could lead to new interpretations of some of the elements in certain contexts.

4.2.1 Sentential and Pronominal **de* and Prepositional Relative Clauses

Schrijver (1997) in most statements seems to regard **de* in the VC as the sentential connective, especially in all his statements on **eti*, **k^ue* and **de* being in complementary distribution. On the other hand, he sometimes reconstructs **eti-de* (cf. Schrijver 1997: 143), in this case also assuming the semantics he proposed for pronominal **de*. We will now look at the distribution of the forms and in which cases they should be interpreted as which form of the particle. First, however, we have to decide if we want to keep the notion of two different elements, as Schrijver (1997: 146) derives them from the same etymon and the meaning does not seem to be very different. Here we will nevertheless stick to the notion of two different lexical items, on the one hand, because we find different syntactic behaviour (sentential **de* behaves like one of Keydana's (2011) WL₂ clitics, pronominal **de*, however, behaves like a WL₃ or phrasal clitic), on the other hand, because Schrijver's (1997) distinction of the semantic specification of the two elements makes sense as long as we have no arguments that imply something else.

Now that this is settled we can look at the distribution of **de*. Schrijver (1997) describes it as occurring in

- the verbal complex in
 - the relative form of the negation
 - the infixed pronouns of class B (only third person)
 - the infixed pronouns of class C in relative contexts (also contrasting relative clauses with object and subject antecedent)
 - the suffixed pronoun of the third singular masculine and neuter *-it* (vs. *-i*)
- pronominal complexes with
 - the demonstrative pronoun **so/*seh₂/*tod*
 - the anaphoric pronoun **sin*
 - the reflexive particle **sue*
 - **ke* 'even he/she' < PIE **ke/*ko/*ki* 'this one here'

Here, he and some authors of earlier literature (for example Watkins 1963) seem to imply that the two contexts can be equated with sentential vs. pronominal use of the particle. If we take a closer look at this distribution it becomes clear that a reordering of the subpoints is needed as **de* in the infixed and suffixed pronouns does not surface because it has some function concerning the connection of clauses but because it has a function concerning the pronouns (at least in Schrijver 1997 interpretation summarised in section 4.1.5 above). Thus, one could also say that there is only one example that could be explained as an occurrence of

sentential **de*, that is, the relative negation. This is also supported by the fact that here **de* and **k^ue* never occur together, even if class C pronouns are present.^{75, 76} This could be interpreted in the way that here sentential **de* still shows the original distribution.⁷⁷ In analogy to this on the one hand and, on the other hand, to pronominal **de* in pronominal complexes, **de* was reanalysed and generalised. The particle now was associated with the object pronouns instead of being seen as a clause-marking element also inside the verbal complex and thus could be transferred to other contexts than negation. In all other cases, it would make more sense (if we follow the meaning of **de* that is assumed by Schrijver 1997 and supported by the reconstructed meaning found in LIPP) to connect **de* with the pronoun.

This can be seen clearly once we look at the contexts where the Class C pronouns occur:

- After relative (s)a^N introducing a prepositional relative clause (and i^N ‘in which’, which is always used without (s)a^N when other prepositions would be followed by the particle.⁷⁸)
- After the conjunctions dia^N ‘if, when’, ara^N ‘in order that’, co^N (these are all assumed to derive from preposition + (s)a^N).
- After the interrogative particle *in*.
- In other relative clauses, seemingly in arbitrary distribution with the class B and A pronouns (except for the third person).

Remember that Schrijver (1997) interpreted **de* as marking contrast, more accurately contrast to the directly preceding person or thing that was mentioned, in the *fesin/fadesin* cases, the third persons of the class B pronouns and the class C pronouns in subject antecedent relative clauses in distinction with object relative clauses without these pronouns. How does this square with the contexts listed above? We have the prepositional relative clauses, which are formed with a relative particle that is at least in its form identical with the neuter definite article, which developed out of a demonstrative. Regardless of whether we assume that this element is genetically identical with the definite article or only phonologically (see section 4.1.2.3), we can state that from the moment on that this element was associated by speakers with a demonstrative-like element they could have felt the need to distinguish a directly following object clitic from this element by using **de*.

Additionally, the association of this element with relative contexts opened up the possibility to reanalyse it as just another relative marker (at least some form of **io* can be assumed to be *communis opinio* among researchers, and some also reconstruct more than that, see section 4.1.2.1). This would mean that the group consisting of preposition plus following article-like element, which was originally followed by independent forms, was reanalysed as some kind

75 See GOI: 265: “Before infixed pronouns the negative *nā* (*nād*) [...] appears as *nach-*, *nách-* where the pronoun begins with a vowel, and as *nachi-* in Wb., *nacha-* in Ml. where it begins with a consonant. The pronouns have the forms of class C, but without the initial *d*.”

76 Schrijver (1997: 64) argues that the copula (which is generally assumed to preserve archaic features better than other verbs in OI) in combination with suffixed pronouns also shows the distribution found with the negation, with a suffixed pronoun in the first and second singular (1SG **esti-es-me* > *iss-um* (*écen*) ‘it is (necessary) for me’ (Wb. 10d24) vs. 3SG **esti-de-en* > *iss-id* (*n-aithrech*) ‘there is (repentance) for him’ (Ml. 90d12). He states: “We may notice that **es* and **de* are in complementary distribution in this paradigm” (Schrijver 1997: 64).

77 This would also explain why relative negation before infixed pronouns is never *nād* (because all of these cases were reanalysed as class C pronouns) and why after *nách-* even the class C pronouns lack the *-d*.

78 Schumacher (2014: 166f) explains this by assuming that **en* (> *i^N*) could be used as a fully stressed adverb with some meaning like ‘therein’ and thus did not need a demonstrative. A first paratactic and then reanalysed relative structure like the one in example 28 with *i^N* could be imagined as [I see the house.] [Therein I live.] > [I see the house [in which I live]].

of conjunct particle plus clitic, which is a secondary development (cf. Ó hUiginn 1986: 85). Moreover, this accounts for the fact that *ara*^N, *dia*^N and *co*^N are the only conjunctions that are conjunct particles because all of them and only they developed out of a preposition introducing a relative clause and the relative marker *a*^N. In the case of all other elements that developed into conjunctions there was nothing that could be equated with the phonologically weak declarative and relative particles of the language and therefore there was no context for the reanalysis. Newton (2006: 173f) notes that these complementisers are united by their shared etymology but cannot explain why other conjunctions were not reanalysed into a position where they triggered dependent forms of the verb.

Concerning the interrogative particle *in*, it is more difficult to state a reason because the etymology is rather unclear. GOI: 292 only states “The *-n* of the interrogative particle *in* has been taken to be an old negative.” In the LIPP it is not to be found.

The question of the variability of class A, B and C pronouns in the first and second persons has to be left open for further research. In the Würzburg glosses the class A forms predominate in the first and second persons while in the Milan glosses there are more class C forms. The class B forms always are fewer than the class C ones. However, one has to note that the number of examples on which research concerning this can be based is exceedingly low: Ó hUiginn (1986: 67) cites less than twenty examples in the two corpora respectively in which a phonological context for the class A pronouns occurs and four in Würzburg and twenty in Milan for the class B pronouns. Maybe some kind of contrastive use and also a change in the contexts in which they surface between the times of the two corpora could be determined through a thorough examination of the data, or maybe the numbers are just too low. This is left open here for future research.

To conclude this argumentation a problem of this theory has to be noted, that is, that the class C pronouns are also used in reflexive meaning (see example 38).

- (38) *int-i* *con-id-narraig*
 ART.SG.M-PRON.3SG.M PV-PRONC.3SG-bind together.3SG.AUG.PRET

‘he who constrains himself’

ML. 015C01 (Griffith & Stifter 2013)

Additionally, we have to keep in mind that these are only speculations on a language’s prehistory based on the generalisations of researchers over the data that the attestations present. Such a situation offers so many possibilities for wrong interpretations at any stage of the development of the analysis that an explanation like the one proposed here must always be treated with caution.

The fact that **de* does not follow the pronoun in the VC, in contrast to the situation in the pronominal complexes (e.g. third singular masculine **sue de es sin*), can be explained through the fact that a host was already provided by the same element that also hosted the pronoun. The assumption of pronominal **de* in infixed and suffixed pronouns also explains how **de* and **io* or **eti* can be present at the same time although they (at least the former sentence connectors) are said to be always in complementary distribution. They originally really were in complementary distribution but later **de* was reanalysed as a part of the pronominal

element in the sentence and could therefore also appear together with another of the relative and declarative markers.⁷⁹

Contexts in which it is argued that **de* appears with a declarative or relative marker (and consequently has to reflect pronominal **de* instead of sentential **de*, which is assumed to be in complementary distribution with the other elements) are the following:

***eti+*de+pron:** Schrijver (1997: 143) assumes this for the third persons of the class B infixed pronouns (cf. Schrijver 1997: 137) and for the third person singular suffixed pronoun *-it* < **es-de-en*.

***io+*de+pron:** This he assumes instead of **de+PRON* as Watkins (1963: 26ff) proposed as relative marker in the contexts where **io* would occur without an infixed pronoun (cf. Schrijver 1997: 138f). He does not say anything about the other relative markers that he reconstructs (e.g. **en*, **ed*).

(s)a^N+*de+pron: This reflects the syntactic reanalysis of the relative marker into the same position as the other relative markers as proposed above, which led to the introduction of dependent verbal morphology in prepositional relative clauses.

4.2.2 Stress on Non-Initial Syllables in Old Irish

Let us now briefly look at the Old Irish words in which stress is not on the first syllable. GOI (27ff) lists the following items:

- Compound Verbs
- Words that seem to go back to two or more words
 - *alaile/araille* ‘another’ from two identical elements (*aile* means ‘other’ and there exist also forms like *ala-aile* ‘another GEN.SG.FEM’, ML.51c5 cited from GOI: 307).
 - *immallei/immalle* ‘together’ < *imm-a-llei/lle* with infixed *a^N*, which (GOI (517f) sees as the petrified possessive pronoun of the third plural form and not the third singular masculine infixed pronoun as others have suggested, cf. GOI: 518). The first element is the preposition *imb*, *imm* ‘about, mutually’ (GOI: 518ff), the last GOI (523) identifies with the preposition *la* ‘with, among’, which “undoubtedly has its source in the noun *leth* (neut. s-stem) ‘side’” (GOI: 523). In MacBain (1911: 239) it is traced back to *imb-an-leth* ‘by the side’.
 - *calléic/calléice* ‘still, however’ *co-lléic/lléice* ‘till I leave, till thou leavest’.
 - *innunn/innonn* ‘thither, yonder’. This belongs to a group of local adverbs which bear different prefixes depending on whether they express a meaning corresponding to ‘where’, ‘whither’ or ‘whence’. In this group, most forms behave like *innunn/innonn* concerning stress placement (cf. GOI: 305).
 - *fadéin, fadessin* ‘self’ (see section 4.1.4).
 - *amin/amein/amne/amnin* ‘so, indeed’. < Pedersen (1913: 188) traces this back to *am+sin*, with *am-* being an element that is related to *amal* ‘as, like’ and *sin* being

⁷⁹ Note that, following Schrijver (1997), a phonological merger and subsequent association with the pronoun also happened with **eti* in the class B pronouns. There, however, because the element did not occur in phrasal contexts in the prehistory of Irish, its meaning was not interpreted differently and the association of **eti* and the pronouns through phonological fusion only produced a phonological variant with no differences in meaning.

the demonstrative pronoun. Pokorny (1933: 176), pointing out that this etymology does not explain most of the attested forms, associates it with Lat. *amen* or Gk. ἀμήν /amēn/.

immalléi/immalle and *calléic/calléice* present cases of unverbated syntactic groups in which the first element was unstressed even before univibration took place (prepositions and the article before nouns are never stressed and neither are first preverbs in deuterotonic compounds; see section 3.2.3; cf. GOI: 30). For *alaile/araile*, *innunn/innonn* and *amin/amein/amne/amnin* this is difficult to ascertain because of their missing etymologies or their structure. We can, however, note that the presence of clitics seems to entail non-initial stress (p.c. Stefan Schumacher).⁸⁰ Thus, in compounded verbal forms without any infix (imperatives, responsives, compounds with a precedings conjunct particle) stress is placed on the first syllable. The case of *fadéin/fadesin* is more difficult. Schrijver (1997: 74) reconstructs *féin* < **sue-es-sin*, proposing the presence of the personal pronoun **es* based on the fact that “the OIr. forms beginning with *fad-* are stressed on the second syllable. This means that **sue-* was unstressed and proclitic. Consistency demands that originally **sue-* was unstressed throughout the paradigm, also in forms of the type *fesin* < **sue-es-sin*, which in OIr. had initial stress. In order to explain the paradox, we may assume that the element immediately following **sue-* received the stress, in this case **-es-*, and that as a result of contraction **sue-'es-sin* > **hue-'es-sin* became *'fessin*, with initial stress” (Schrijver 1997: 74). Note, however, that in all other contexts **de* is an enclitic and not a proclitic. So how do we account for the fact that it occupies the second place in a complex following another unstressed element?⁸¹ It would be much easier to propose a rule that shifted the word stress to the syllable following a clitic if one was present. This would allow us to account for the pOI stress pattern of compound verbs⁸², second syllable stress of *fadéin*, *fadesin* and first syllable stress of *féin*, *fesin*. Nonetheless, we could still analyse **de* as a normal WL₃ element that occupies second position in its domain through prosodic inversion. Note, however, that this is only speculation and see the discussion in section 7.2.3 on the question if a phonologically weak element like a clitic can influence stress patterns.

4.2.3 Reanalysis of **de* and **k^ue* as Relative Markers

This is not so much a new analysis than it is a cautionary note. It is often said that **de* and **k^ue* were reanalysed as relative markers in the prehistory of Old Irish. This statement is probably true for **de*, at least building on what can be inferred from the attested data. But if we look at **k^ue* we find that, up to a time not much before the attested Old Irish, *-ch* seemed to be in use as a conjunction without any relative meaning. Thus, it seems probable that **k^ue* was only reanalysed as relative in combination with the negation to form the element *näch*·, which should be explicitly stated when talking about this reanalysis.

⁸⁰ Note also the behaviour of compound forms in the imperative, which show prototonic form except if an infixed pronoun is present. Then they show deuterotonic stress (compare section 3.2.5).

⁸¹ One could point out that preverbs in OI are also unstressed and the infixed pronouns nevertheless follow them, but preverbs were stressed at earlier times. In LIPP (s.v. 1. **sue-*) the clitic or non-clitic status is not discussed.

⁸² This includes the pattern of responsives and imperatives with and without infixed pronouns, where **eti* is assumed to be missing

4.3 Order of the Wackernagel Elements in pre-Old Irish

Now that we have seen which Wackernagel elements are to be found in pOI let us consider their placement and the order in which they appear when they appear together.

The declarative and relative markers are certainly the first ones to appear after the clause-initial element (i.e., the element that is counted when determining the Wackernagel position) because their effects can be seen on the following clitics if present. After those, the element that was reanalysed as pronominal **de* appears, directly followed by the pronominal clitics. If we now design the same kind of template as in section 3.3, we need two new clitic slots: one for the declarative/relative markers (for reasons of space subsumed here under the cover term **FORCE**), which will be denoted by a lowercase “a” because it precedes the pronominal clitics and one for pronominal **de*, which will be placed in a secondarily split-up slot “b” as I assume that it formed a pronominal complex together with the object pronouns.

We thus arrive at the following form of the template:

X	A	a	b ₁	b ₂	C	(+a, +b ₁ , +b ₂)	D
non-conj. part.	PV COMPL NEG int. pron. rel. prep.	FORCE	pron. <i>*de</i>	pron.	V	FORCE + pron. <i>*de</i> + pron.	x

Table 10: The reconstructed template of the pre-Old Irish Verbal Complex

All the slots that we find here are the same as in the template for OI (see table 7), except for the fact that the categories that make up the conjunct particles are listed on their own in Slot **A** because this will be important in the later discussion in section 7 and that the clitic slots **a** and **b₁** are now present. Therefore, I will not go over them again.

Part II

Wackernagel's Law in Old Irish: A Generative Syntactic Analysis

5 Generative Grammar and Syntactic Reconstruction

The main goal of generative syntax is to provide a model of how linguistic structures are generated by the competence of an ideal speaker. In the last few decades generative syntactic analyses of corpus languages have, moreover, proved useful for providing insight into their grammatical structures. However, one has to be quite cautious because one of the most important tools for the generativist is grammaticality judgements of native speakers that, sadly, are missing for corpus languages and even more for reconstructed language stages.

Nevertheless, several studies such as Willis (2011), Walkden (2014), Meelen (2020) and Ram-Prasad (2022), as well as work with the Parametric Comparison Method (see PCM) show that syntactic reconstruction (which was often deemed impossible in previous literature⁸³) actually yields results that fit external facts.

The first three of the following sections will shortly introduce basic concepts of generative grammar or, to be more precise, Minimalism (see section 5.1) and Distributed Morphology, (see section 5.2) and the cartographic approach to the left periphery (see section 5.3). Section 5.4 concludes with a discussion of problems syntacticians working on corpus languages have to face that differ from those of contemporary ones.

5.1 A Short Introduction to Generative Grammar

Let us now look at those characteristics of generative grammar that are important for the topic of this thesis. The “Y-Model” (see figure 1) depicts the various modules that are part of the generation of linguistic output. The syntax generates hierarchical structures out of the elements that are provided by the lexicon. These are then interpreted in the Conceptual-Intentional system (often just abbreviated as CI, also called LF for Logical Form) and the Articulatory-Perceptual system (AP, also PF for Phonological Form), where semantic interpretation and phonological derivation take place.

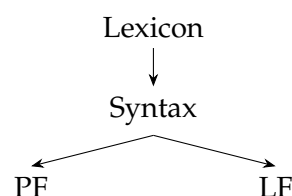
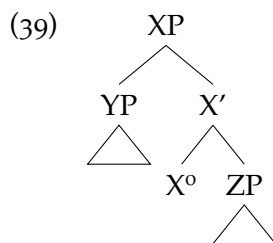


Figure 1: The Y-Model of Grammar

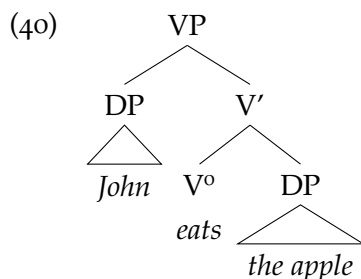
⁸³ See for example Lightfoot (2002: 135) who ends his article with the well-known statement “[...] one can no more reconstruct the syntax of a protolanguage than one can reconstruct last week’s weather, and for the same reason: both reflect chaotic systems.”

5.1.1 Merge and Basic Structures

Syntactic structures are built by the operation “Merge”, which combines two elements. The element resulting from this Merge operation can again be merged with another element, i.e., Merge is recursive. This also means that the structures that arise from the recursive application of this operation are always binary branching with the elements higher up in the tree dominating the ones further down. If two elements are merged, one of them always “projects”, that is, the node dominating these two elements has the same name and features as one of its daughters. The projecting element is called the head (X^0 in the tree below), the other one, its sister, is called the complement (ZP[hphrase] in the Tree). If an element does not dominate a branching node it is called a terminal node (indicated by a superscripted ^{0}). In earlier approaches the so-called X-Bar-Structure was the general building set for a tree. This X-Bar-Structure provides a model of positions linked to special functions as in the tree in example 39.

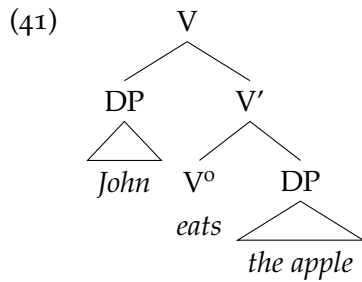


The minimal projection X^0 is the projecting node in the XP (the latter being the maximal projection). There is also an intermediate projection called X' or X-Bar that provides a place for an additional phrase, its sister, YP, which is called the specifier. Specifier and complement are both arguments of the head. The triangles above YP and ZP indicate that they dominate another full X-Bar-Structure that for reasons of simplicity and space is not fully pictured here. Such an XP could for example be the V[erbal]P[hphrase] with the subject (a D[eterminer]P[hphrase]) as its specifier and the object, another DP, as its complement (see the tree in example 40).⁸⁴



Later, the notion of Bare Phrase Structure was developed, meaning that if there is no specifier or complement these positions can always be left out, leaving just the head, which, in this case, can be a minimal and maximal projection at the same time. If one strictly followed such an approach one would have to leave out the distinct names of minimal, intermediate and maximal projections and everything would just carry the name of the head like in the tree in example 41 (cf. Harley 2013: 65).

⁸⁴ Note that this is a greatly simplified structure just to explain the general model.



For reasons of notational convenience I will, however, stick to the traditional X-Bar-annotations. Bare Phrase Structure has some far-reaching theoretical consequences that will not concern us much in this thesis, but as the concept itself will be mentioned in some of the following discussions, it is included in this overview.⁸⁵

5.1.2 Lexical and Functional Categories and the Borer-Chomsky-Conjecture

Another important distinction in generative grammar is between lexical and functional categories. The former consist of nouns, lexical verbs, adverbs and adjectives,⁸⁶ the latter of all the other words that express grammatical relations rather than lexical concepts. This distinction is also found in descriptive approaches to language analysis because lexical and functional categories show different behaviours (for example, it is much easier to add new words to lexical categories than to functional ones, i.e., it is much easier to build anew or take over a noun from another language than for example a determiner). In generative grammar the functional categories are able to be present even if they are not phonetically realised (e.g. the DP *birds* in *I have seen birds* is assumed to consist of a phonologically empty plural indefinite determiner that in the singular would be realised as *a(n)*). These functional categories are assumed to bear certain features (in the example above, one for indefiniteness and one for plural). Changes in the functional categories and their features is assumed to be the reason for diachronic syntactical change in general. This assumption is based on the “Borer-Chomsky Conjecture”, see example 42.

(42) The Borer-Chomsky Conjecture

“All parameters of variation are attributable to the features of particular items (e.g. the functional heads) in the lexicon.” Baker (2008: 156)

This conjecture has important implications for syntactic reconstruction, which was long deemed impossible because it was unclear what to compare. For example, Lightfoot (2002: 119) asked how one can “define a sentence of French which corresponds to some sentence of English” (Lightfoot 2002: 119). This problem was solved through the application of the Borer-Chomsky Conjecture. From this point onward, researchers could compare syntactic features and examine how they change over time, as in the works mentioned in the introduction to this section.

⁸⁵ I will for example assume head-movement (see section 5.1.4) in its traditional form, with no strong claims about how exactly it works. For an overview of the problem and different models that seek to solve it see Harley (2013).

⁸⁶ Note that this discussion does not yet assume a DM-approach (see section 5.2) as in the remainder of the thesis. In DM, only roots can be called “lexical elements” in the traditional sense. These roots are most often assumed to be acategorial and only during the derivation, when they get merged with a categorising suffix, can they be identified as noun, verb or adjective.

5.1.3 Layers of Sentential Structure

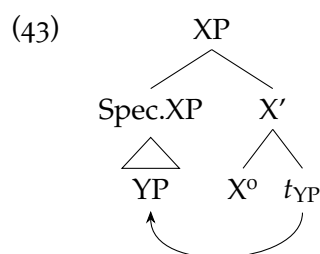
Already in early generative syntactic work we find the notion of several layers of sentential structure in which the verb is embedded.⁸⁷ There are three layers that are commonly accepted:

- **V(erb)P**: the “Core Predication”, associated with argument structure
- **T(ense)P**: responsible for “subjecthood and modality”, i.e., tense, aspect, mood (TAM), negation, case assignment, agreement etc. (sometimes also called I(nflectional)P)
- **C(omplementiser)P**: “information structuring”, i.e., relation to the discourse context, i.e., clause-typing, topicalisation, focalisation

Hale (cf. 2019: 43)

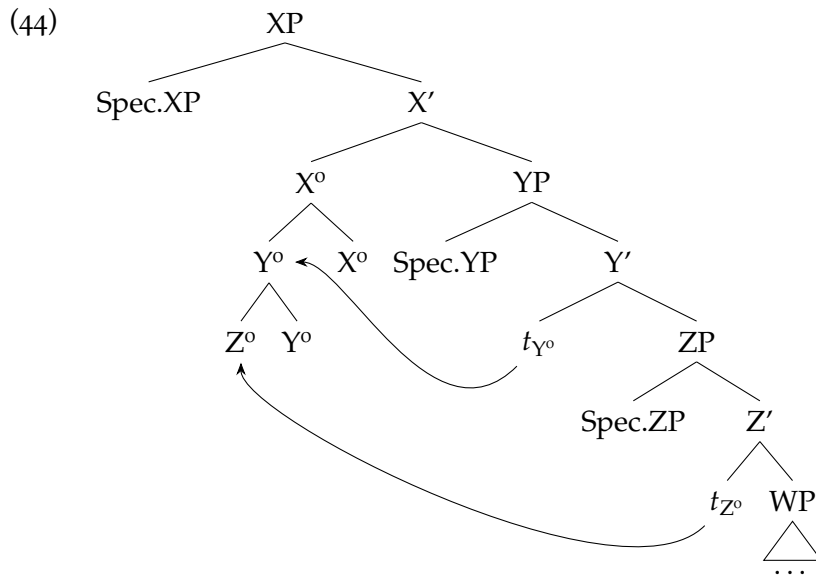
5.1.4 Other Operations: Move and Agree

There are also other operations in generative grammar like “Move” and “Agree”. The former leads to a displacement of an element further up in the tree. There are different views on Move, the most common being that it creates a copy of an element and remerges it further up in the tree, leaving a trace (t) in the place in which it was originally merged (or “base-generated”). In more recent approaches it is seen as a specific kind of Merge, Internal Merge, where the element that is merged is taken from the tree. I will here stick to the conventional terminology of movement while keeping in mind that movement is just another kind of Merge. There are two different kinds of Move, phrasal movement and head movement. The names are self-explaining. Phrasal movement moves phrases into specifiers as is shown in example 43.

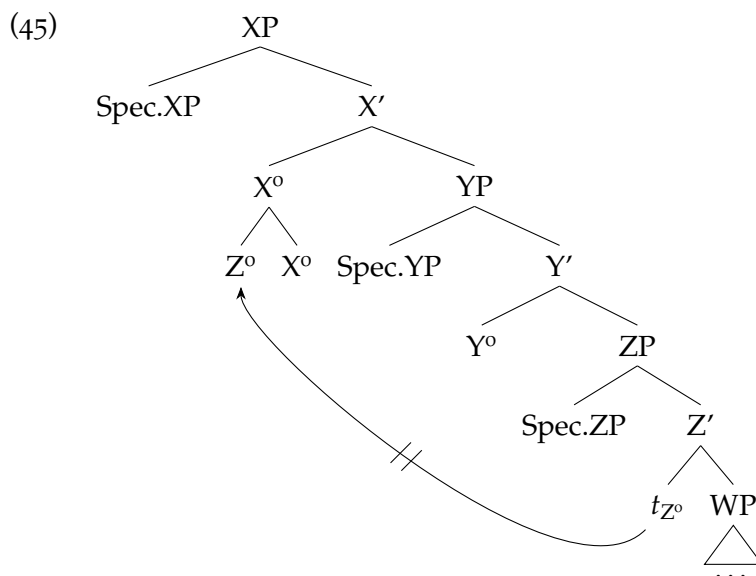


Head movement moves a head up to the next higher one into which it incorporates, as in example 44.

⁸⁷ I will not go into detail on the non-verbal phrases like the above mentioned DP or the P[repositional]P[hrase] for reasons of space.



This kind of movement is constrained by the so-called Head Movement Constraint (HMC) stating that heads have to move through every intermediate X⁰ position. The movement in example 45 is thus impossible because Z⁰ can only get to X⁰ with having first moved through Y⁰ as in example 44.



The difference between head-movement and phrasal movement will play a vital role in the development of a fitting analysis for OI syntax in section 7.2.3.

The third mechanism besides Merge and Move, Agree, concerns the valuation of features that are present on a given node. As it, however, will not be of much importance in this thesis I will not go into more detail here.

5.1.5 Spell-Out

After the syntactic derivation is finished, Spell-Out happens. Depending on the approach one takes, this means the translation of hierarchical structures into linear ones and sometimes also replacement of (morpho-)syntactic features through phonological ones (see section 5.2). Since Chomsky (2000) many researchers assume that this process proceeds in so-called Phases. A phase is a projection that is subject to the Phase Impenetrability Condition (PIC):

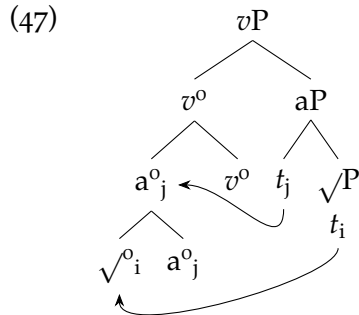
- (46) In phase α with head H, the domain of H is not accessible to operations outside α , only H and its edge are accessible to such operations. Chomsky (2000: 108)

The domain of a head is its complement whereas the edge consists of the specifier and the head itself. Other researchers talk of Spell-Out domains. We will not go into much detail concerning the theoretical specifications of the phonological processes in this thesis but note that a completely satisfying analysis of Old Irish Verbal Syntax should include a theory of the phonological processes leading to the attested forms because of the importance of stress in distinguishing dependent and independent compounds and concerning the placement of clitics.

5.2 Distributed Morphology

In the early nineties, Distributed Morphology (DM) developed as a syntax-based approach to morphology in opposition to so-called lexicalist approaches. The latter assume that an element that is taken from the lexicon to be merged into a syntactic tree was fully specified for category and inflectional features at this point, as exemplified through the Y-Model in figure 1. This means that all morphological processes affecting it are already performed in the “lexicon”, some kind of database that provides the input for syntactic derivation. Bobaljik (2017: 2) explains that “DM is centered around two key hypotheses; both common in various parts of the literature – where DM claims novelty is in the synthesis of these two leading ideas under the architecture in (1) [here to be seen in figure 2, ND]” (Bobaljik 2017: 2). The first of these is the so-called “Syntax-all-the-way-down” (Bobaljik 2017: 2). This means that morphological structures and complex words are formed by syntactic mechanisms. The second key hypothesis is called “Late Insertion”. This means that syntax works with abstract morphosyntactic feature bundles lacking any phonological information. The latter is only provided at Spell-Out. DM distinguishes these “feature bundles” (specifying grammatical features) from so-called “roots” (specifying basic lexical concepts) and both together represent the atomic building blocks for syntax and morphology. Morphology is therefore a part of the syntactic derivation based on the finding that “morpheme order reflected semantic scope” (Harley 2013: 49). This can be easily translated into a tree with the hierarchical structure created by Merge representing the semantic hierarchy of morphemes. Therefore morphology and syntax consist partly of the same operations. In this approach the view on the VP also changed. Here, it is no longer assumed as introducing a verb but as introducing a categorially un(der)specified root, which only in combination with the verbalising *v*P gets its category assigned. If we now have for example a deadjectival verb, the tree for it would look like

the one in example 47. Here, the root and the adjectival category marker underwent head movement to v^o .



The approach is, however, called **Distributed Morphology** because morphological operations take place not only in the syntax. At this point, the above-mentioned Late Insertion comes into play. DM assumes that when the syntactic derivation is finished there are some operations called “morphological operations” that take place in the “syntax-phonology interface”, in the model below these are called “post-syntactic”. The Y-Model, which was already shown in figure 1, can thus be redrawn into the form in figure 2.

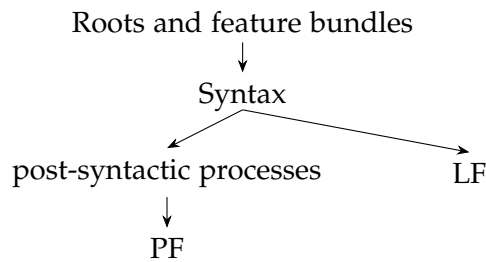


Figure 2: The DM-Version of the Y-Model of Grammar

These post-syntactic processes consist at least of the Linearisation of the hierarchical syntactic structure into a linear string of elements and subsequently of Vocabulary Insertion (Linearisation and Vocabulary Insertion are sometimes also conflated into one operation called Spell-Out (see section 5.1.5)). During Vocabulary Insertion the atomic roots and feature bundles are replaced by phonological features stored as listed vocabulary items in the lexicon.

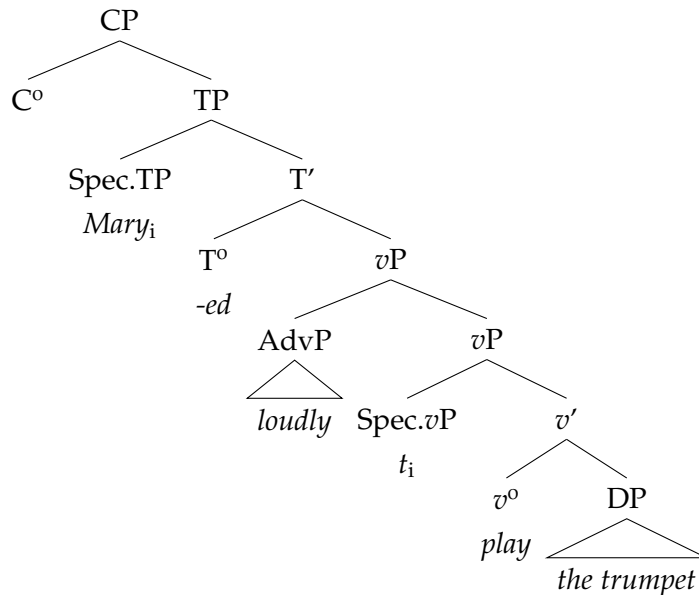
In Embick & Noyer (2001) some additional postlexical/morphological operations, subsumed under the term “Morphological Merger” are suggested that account for the placement of phonologically dependent items. Morphological Merger was first described by Marantz (1988: 261) who states: “At any level of syntactic analysis (D-Structure, S-Structure, phonological structure), a relation between X and Y may be replaced by (expressed by) the affixation of the lexical head of X to the lexical head of Y.” We will now take a short look at the different kinds of Morphological Merger that are proposed in Embick & Noyer (2001).

Embick & Noyer (2001: 561) state that “Merger is an operation with different domains of application”. They distinguish at least two kinds of Merger, one called “Lowering”, taking place after the syntactic tree has been formed but before Vocabulary Insertion, which therefore targets hierarchical structure and one, called “Local Dislocation”, which takes place after or

simultaneous with Vocabulary Insertion and thus operates with already linearised strings of elements.

Lowering, in their model, accounts for example for the placement of tense markers in English. At the end of a syntactic derivation, a tree like the following would have been formed.⁸⁸

(48) Mary loudly played the trumpet.



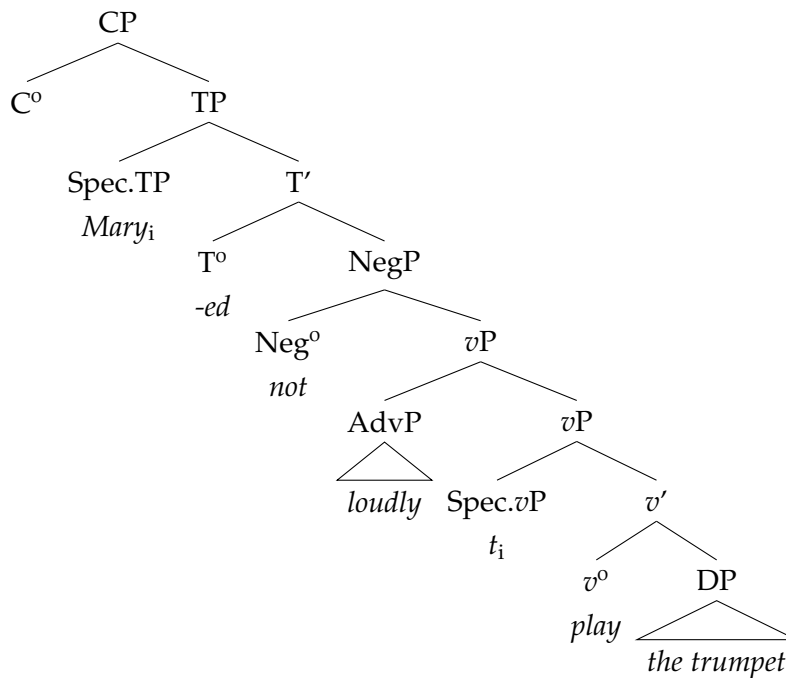
But the tense feature has no host in this position (in English the verb does not move to T°) and thus T° lowers to the head of its complement to give something like example 49.

(49) [CP[TP Mary [_{vP} loudly [_{v°} play+[_{T°} ed]] the trumpet]]].

The tense feature can here skip the adjunct phrase *loudly* because Lowering targets the head of the lowered element's complement. If, however, another head (for example, clausal negation) intervenes, Lowering is not possible and *do*-support kicks in as a repair mechanism (compare the tree in example 50).

⁸⁸ Note that in DM one would expect the terminal nodes to only contain abstract feature bundles and no lexical items like *Mary*, *loudly*, *play* or *-ed* at this time of derivation. The latter for example would be something like [past]. However, for reasons of representational simplicity I choose to insert lexical items into this tree.

(50) Mary did not loudly play the trumpet.



Local Dislocation, on the other hand, does not adjoin a head to the head of its complement but to the head it is linearly adjacent to. In an abstracted form its function is shown in example 51, where the star indicates strict adjacency.

(51) $[X^*[Z^*Y]] \rightarrow [[Z+X]^*Y]$

Embick & Noyer's (2001) example for this is comparative and superlative formation in English. Based on the fact that the non-periphrastic comparatives can only occur with monosyllabic adjectives they argue that Local Dislocation happens after Vocabulary Insertion. Therefore, *smart* forms the comparative *smarter* but *intelligent* forms the comparative *more intelligent*. If, however, an adverbial intervenes, the comparative/superlative morpheme cannot appear on the adjective although it is monosyllabic as in example 52.

(52) Mary is the mo-st amazingly smart person.

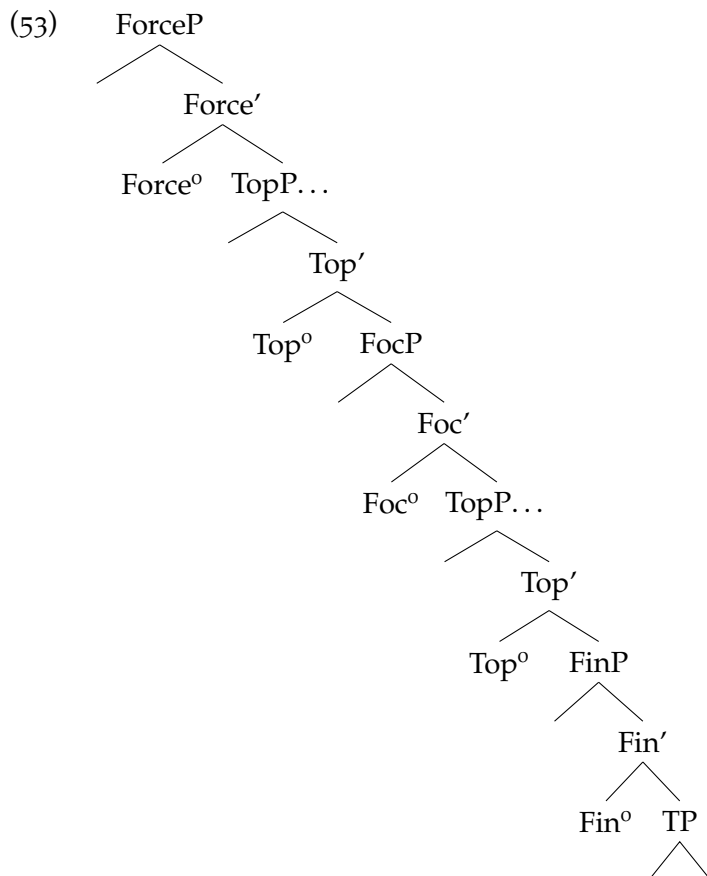
These mechanisms, however, have to be employed very carefully because they could quickly lead to an overgenerating system. Moreover, the post-syntactic movements that are proposed here are not always adequately motivated, unlike syntactic movement. Newton (2006: 60) states: "[A] level between syntax and phonology that duplicates syntactic movement is conceptually undesirable. Both Lowering and Local Dislocation involve downward movement, an operation that is strictly forbidden in the syntactic component. Allowing such operations detracts from the explanatory force of syntax." We will come back to these mechanisms in sections 6.2 and 6.3.

5.3 The Left Periphery

Above, the various layers of sentential structure (sometimes also called the clausal spine) were introduced. One of them, the CP, also called the left periphery of the clause, is a structure that is very important for this thesis.

Several decades after they were first introduced these layers got partially more complex. In its modern standard analysis, the VP for example consists of two layers called VP and *v*P. In DM, the VP is not even verbal any longer but introduces a root that is un(der)-specified for category with the *v*P acting as a verbaliser and a projection VoiceP that introduces the external argument (cf. Kratzer 1996).

In the same way, there have been proposals for a more fine-grained structure of the CP, where an “articulated CP” (i.e., one with several projections) is contrasted with a “generic” one that consists only of one projection. This is strongly intertwined with the so-called “cartographic” approach to syntax. The basic idea of cartographic approaches is that there exists a one-to-one mapping between syntactic projections and semantics and that all languages have the same syntactic structures, which are richly articulated. One of the most influential articles in this framework is by Rizzi (1997) who proposed, based on Italian data, the following structure for the CP.



This structure combines two systems, the “Force-Finiteness System” and the “Topic-Focus System”. In the words of Rizzi (1997: 283), the former fulfills the function of an “interface between a propositional content (expressed by the IP) and the superordinate structure (a higher clause or, possibly, the articulation of discourse, if we consider a root clause)”. He

concludes that the C system expresses “at least two kinds of information, one facing the outside and the other facing the inside” (Rizzi 1997: 283). The projection facing the outside he calls ForceP because it expresses illocutionary force, the other one FinP because it defines the finiteness of a sentence, selecting a TP that expresses TAM and other features. The second system provides the landing site for topicalised and focalised elements with a simple working definition of topic as normally expressing old information (compare example 54) and focus normally associated with new information (compare example 55).

(54) Your book, you should give to Paul (not to Bill).

(55) YOUR BOOK, you should give to Paul (not mine). cf. Rizzi (1997: 285)

The two ways of fronting differ also in their distribution and ordering. There can be only one FocP but in contrast it is possible to have several TopPs at once (indicated through the dots in example 53) that can be either on both sides of the FocP (see example 56) or only on one of both sides as in example 57 (cf. Rizzi 1997: 283ff).

(56) *Credo che a Gianni, QUESTO, domani, gli dovremmo dire.*
 C Top Foc Top IP

‘I believe that to Gianni, THIS, tomorrow we should say.’

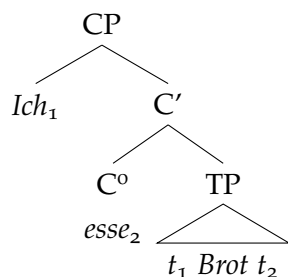
(57) *Credo che domani, a Gianni, QUESTO gli dovremmo dire.*
 C Top Top Foc IP

Rizzi (1997: 295f)

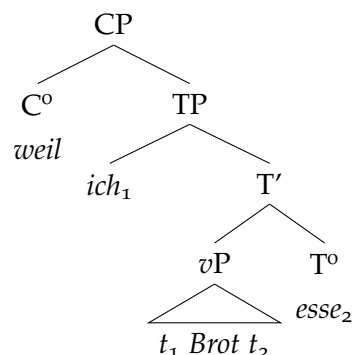
Note that, although I only give these two examples for illustration, all combinations are possible. *domani, QUESTO, a Gianni* and *a Gianni, domani, QUESTO* as well as *QUESTO, a Gianni, domani* and *QUESTO, domani, a Gianni* are all grammatical (cf. Rizzi 1997: 295f).

However, there are some characteristics of cartographic approaches that can be criticised, for example the fact that there exists a one-to-one syntax-semantics mapping. This contradicts findings from several languages. An example where one position can fulfill several functions is the German CP, where the verb in main clauses is fronted to C⁰ through head movement, accounting for V2 word order (see example 58) but only to T⁰ if C⁰ is filled by for example a complementiser (see example 59) accounting for verb final word order in subordinated clauses.⁸⁹

(58) *Ich esse Brot.*
 I eat bread



(59) [...] *weil ich Brot esse.*
 because I bread eat



⁸⁹ In German only the CP is head-initial. All lower projections have their head to the right of their complement. Therefore, T⁰ is the rightmost position in the clause.

Also, if all structures that have been proposed were present in all languages (i.e. also in those where they are not used), this would imply high computational effort.

Nevertheless, the elaborate research that has been carried out especially on the Rizgian CP structure provides a broad base of actually attested syntactic configurations confirmed via grammaticality judgements. The so-called uniformitarian hypothesis states that “the forces operating to produce linguistic change today are of the same kind and order of magnitude as those which operated in the past [...]” (Labov 1972: 275). For corpus languages, syntactic structures can only be examined with a much reduced set of methods (see section 5.4). Thus, it is extremely helpful if the possibility exists to base one’s analysis on an analysis of a contemporary language whose data seems to follow the same underlying rules. Therefore, in this thesis, I will stick to a Rizgian analysis of the left periphery without making any strong claims on the theoretical assumptions underlying this analysis.

5.4 A Short Note on Working with Corpus Languages

The syntactic analysis of corpus languages poses some problems that do not surface when working with contemporary ones.

First, the data is often incomplete and impaired. Researchers are constrained by the forms that are attested. Depending on the size of the corpus these may be very few. Moreover, these forms may be impaired due to incomplete transmission. Many texts are only attested in copies, written several hundred years after the original was composed. This leaves room for a lot of different errors. Scribes may just have made errors due to lack of concentration, they may have changed words because they sounded too archaic or not archaic enough and maybe some expressions they did not understand at all any more and interpreted something different from what was actually written down. Thus for example, the preverb *to-* in combination with the Wackernagel particle *-ch* < **k^ue* (see section 4.1.3) in the verb *to-ch-intat* in example 30 was mistaken for the adjective *toich* “natural, lawful”, as can be seen from the orthography in the text and also from the gloss (Binchy 1960: 83f). Additionally, we have no access to the I-language, the internal mental grammar of a speaker, i.e., his or her language competence, but only to the E(xternal)-language, that is, performance. We can never be completely sure what a speaker (or writer) wanted to express with a certain syntactic structure because we cannot ask them in case of uncertainty. Thus, ascertaining the exact structure of functional projections and their exact function in corpus languages is more difficult than in contemporary ones.

Nevertheless, it is indeed often possible to form analyses based on the data that we have and, given enough caution by the researcher, the study of corpus languages can be successfully advanced by applying these methods. This is partly because we can base our research on the uniformitarian principle, already explained above in section 5.3. The extensive study of and knowledge about the texts and their grammatical structures is equally important, which has now for several centuries been the main concern of philology. Thus, there is already a vast amount of descriptive and comparative research on which theoretical inquiries can be based. In recent decades the digital humanities approach has also helped much to create further understanding of the syntax (and also other areas of examination) of corpus language.

6 Analyses of Old Irish Syntax

The intricate structures of OI syntax have tempted several researchers to try to find analyses.⁹⁰ We will now look at three influential analyses: Carnie et al. (2000), Adger (2006) and Newton (2006). The first one tries to explain OI syntax through syntactic processes only. Further research, however, showed that this approach, unfortunately, has several shortcomings. Therefore, the analyses of Adger (2006) and Newton (2006) were developed, which both rely on the post-syntactic processes of Distributed Morphology.

6.1 Carnie et al. (2000)

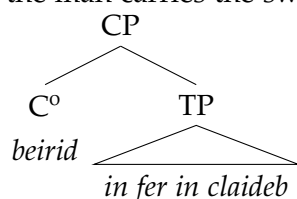
6.1.1 Overview

Carnie et al. (2000) propose a filled C^0 requirement for OI and argue that in absolute (i.e., independent simple) verbal forms the verb moves to C^0 and there receives its inflectional properties. In all other cases C^0 is already filled by a preverb or a conjunct particle, causing the verb to stay further down in the tree and thus preventing it from showing absolute inflection. Therefore they link morphological form to specific positions in the syntactic tree. If the verb is in C^0 it is absolute, if not, it displays conjunct endings (including the endings in compounds). If the preverb is in C^0 it forms a phonological entity distinct from the verb but if C^0 is already occupied by a conjunct particle the preverb combines with the verb in a lower position.

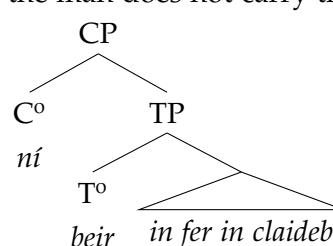
The trees for absolute verb vs. conjunct verb with negation would be those in examples 60 and 61 (examples adapted from Carnie et al. 2000: 46):

- (60) *Beirid in fer in claideb* (61) *Ní beir in fer in claideb*
 carry.3SG.PRES the man the sword NEG carry.3SG.PRES the man the sword

‘the man carries the sword’



‘the man does not carry the sword’



They argue that the existence of special relative endings indicates that absolute verbal forms are in C^0 , where the feature $[\pm wh]$ is then realised on the verbal form. They also mention that there are special forms of certain preverbs in relative contexts, which further corroborates their hypothesis that the deuterotonic form of compounds is derived through the preverb being placed in C^0 . Another argument for the simple verb’s position in C^0 is that object pronouns are suffixed to simple verbs whereas in all other contexts they precede the verb (and sometimes also preverbs). Given that object pronouns are usually assumed to occupy a place between the CP and the TP (in different accounts researchers argue for either

⁹⁰ Although they probably scared off just as many or even more.

the lowest position in the CP or the highest in the TP) this suggests that the verb rises to C⁰ if it is simple and independent (cf. Newton 2006: 31).

Carnie et al. (2000) explain that, as the phonological word never includes conjunct particles and only sometimes preverbs (that is, if they are not the initial element of the verbal complex), the elements have to occupy different positions and arrive at the conclusion that everything that occupies C⁰ lies outside of the phonological word. They write: “[...] we assume that the pretonic position is associated with the complementizer head” (Carnie et al. 2000: 48).

However, in deuterotonic compound verbs, as they notice, the movement of the preverb (base-generated in *v*⁰ in their account because the preverb and the verb form a semantic unit), to C⁰ and of the verb to T⁰⁹¹ produces a violation of the HMC (see section 5.1.4). Here, however, the verb moves to T⁰ without going through the position of the preverb – this would result in incorporation – and the preverb skips T⁰ on its way to C⁰. This is, in their eyes, especially significant in those cases where more than one preverb precedes the verb and in which the verb incorporates with all of them but the first. Carnie et al. (2000) solve this problem by resorting to Long Head Movement (LHM). This was proposed for a phenomenon that occurs in several Slavic languages, some Romance ones and in one Celtic language, Breton, and involves participles that move “around” auxiliaries to create initial participle-auxiliary-clusters (cf. Carnie et al. 2000: 50). In this analysis the authors suppose that not only XP positions, as generally assumed, but also head positions are sensitive to the distinction between A and A' movement.⁹² In this analysis, participles are assumed to undergo A-bar movement and can therefore skip the T⁰-position. Carnie et al. (2000) adopt and adapt this thesis for the OI data. Last but not least they talk about what they call “Wackernagelian clitics” and how these present evidence for their analysis. They state that “Enclitics (E) adjoin to C⁰” and so account for infixed pronouns in deuterotonic compounds and in dependent simple and compound forms and for suffixes in absolute forms.

6.1.2 Criticism

As Newton (2006: 29) remarks, this analysis is quite similar to the one of V2 vs. verb final word order in main vs. subordinated clauses in Germanic languages, with the only difference that the CP specifier in OI does not have to be filled.

Adger (2006: 623), however, lists several problems of this approach, some of which are also acknowledged by Carnie et al. (2000). One of these is that LHM normally targets non-finite verbal forms and that it moves the elements to satisfy a tense feature in C⁰. Furthermore, LHM does not normally take place in embedded contexts, which would, however, be necessary to explain the OI data. Adger (2006: 626f) moreover argues that the movement of simple verbs to C⁰ cannot be present with compounds because then, in this approach, stress would be placed on the first preverb and affixed pronouns would appear as suffixes. He states “But now we are faced with a paradox: we need to block compound verbs from raising to C, but allow simple verbs to do so. But this requires us to distinguish between a compound verb that has

⁹¹ Carnie et al. (2000) call this projection “Infl”.

⁹² A(rgument)-positions are those where a grammatical function can be assigned, A'-positions (sometimes also called non-argument positions) those where this is not the case. So, for example, the movement of an object to subject position is A-movement, the movement of any element to the front of the clause in questions is A'-movement (cf. Baltin 2001: 226).

raised to T and a simple verb that has raised to T. Yet the movement operation attracts T to C, and there is no obvious way that this operation can be made sensitive to the internal content of T.” Newton (2006: 30ff) also discusses several problems of this approach. She notes that the use of suffixed pronouns is very restricted in OI because in most contexts these pronouns are actually infixes, following *no·* and therefore these pronouns cannot provide evidence for the verb in C°. She states “the fact that suffixed pronouns are not productive and are only used in restricted contexts means that they do not provide convincing evidence that simple verbs move to C. [...] CHP [i.e., Carnie et al. (2000), ND] must be able to account for the productive pattern.”⁹³ Relative clauses, on the other hand, which are the second argument of Carnie et al. (2000) for the verb moving to C°, are also problematic in the way assumed by the authors, as Newton (2006) shows. Like the pronominal suffixes, the special relative endings are restricted to certain persons and in all other contexts, again *no·* is used. Here Newton (2006) states “CHP must be able to account for these restrictions, explaining why movement to C is blocked in the majority of relative contexts. [...] [T]he productive pattern seems to be that where the verb only moves as far as T and the cases that seem to demonstrate V-to-C movement are exceptions, suggesting that we should not postulate a filled-C requirement for Old Irish.”

6.2 Adger (2006)

6.2.1 Overview

Adger (2006) argues that neither a syntactic nor a prosodic inversion analysis of the OIVC provides results that fit the data and proposes an analysis based on the Morphological Merger operation of Distributed Morphology (Embick & Noyer 2001, see section 5.1). His analysis works in essence in the same way as Embick & Noyer’s (2001) analysis of Lithuanian verbal forms.

Adger (2006) develops a scheme [X] . [Y + Z + W] in which the pretonic element (conjunct particle or preverb) is placed in X and [Y + Z + W] represents the verbal stem. Both bracketed domains are phonologically independent of each other. Y always bears main stress, X is always unstressed (Adger 2006: 611).⁹⁴ In the space between the two domains the infixes pronouns can be placed and “[...] in archaic and poetic registers, it may also host entire phrases in a construction traditionally termed *tmesis* [emphasis in original]” (Adger 2006: 611). Adger (2006: 615) shows that the domain [X] is excluded from certain phonological processes applying to [Y + Z + W] by contrasting some deuterotonic and prototonic forms,

⁹³ This statement itself, however, can also be criticised because the suffixed pronouns are still productively used in the sense that they would also appear on a newly formed simple verb in the restricted contexts where they do occur. On the other hand, underlyingly, the statement that for understanding the OIVC it would have more explanatory power to focus first on the more frequent forms is true but this does not mean that the question why the distribution is as it is (Why is there a complementary distribution at all and what causes those certain forms that retain the older forms to do so?) and how the syntax of the suffixed pronouns works can be discarded. This question will not be discussed in this thesis.

⁹⁴ Note, however, that in contrast to this statement Adger (2006: 620) notes that, concerning the placement of suffixed pronouns, simple verbs take the place of [X]. He retains the latter analysis for the rest of the paper. Then, however, the question poses itself why simple verbs are always stressed but preverbs and conjunct particles never are.

i.e., elision (*fo·ácaib* ‘to leave’ vs. *·fácaib*),⁹⁵ assimilation (*ad·cobra* ‘to desire’ vs. *·accobra*), lenition (*fo·fera* ‘to cause’ vs. *·foíra*; lenited /f/ is phonologically null) and palatalisation (*do·ic* /do’ikʲ/ ‘to come’ vs. *·tic* /tʲikʲ/). He states that “[i]n all the cases, a phonological process which would usually include the preverb is blocked when that preverb is in initial position” (Adger 2006: 615).

Adger (2006: 628) describes the structure of the Spellout System based on Embick & Noyer (2001) in the following way:

- (62) Syntax → Morphological Labelling → Morphological Merger → Vocabulary Insertion
→ Prosodic Labelling → (Prosodic Inversion)

These operations are assumed to happen in the order given in example 62. Morphological Labelling marks elements in the syntactic tree “as different kinds of X⁰s” (Adger 2006: 628). The next operation affixes one element to another and Vocabulary Insertion substitutes the syntactic features that up to this point represented the words and morphemes that would constitute the elements of the sentence for phonological ones. After this step, Prosodic Labelling accounts for stress placement and Prosodic Inversion happens at the end of all these operations, shifting clitics in a position without a host to a position where they have one. Note that in his model based on the Old Irish data and, in contrast to what Embick & Noyer (2001) argue, both kinds of Morphological Merger are placed before Vocabulary Insertion because Local Dislocation triggers verbal allomorphy. We will return to this point later.

Adger (2006: 631) assumes a Rizgian Left Periphery for Old Irish and proposes that Force is required to enclitically adjoin to an X⁰. Combining this with his original structure, [X] . [Y + Z + W], we get the linear order in 63.

- (63) Force X Y Z W → [X+Force] Y Z W

If X is a simple verb, Force triggers absolute endings. Force is also responsible for the placement of stress. Adger (2006: 635) proposes the alignment constraint in example 64, based on the fact that Force is normally associated with the left edge of a phonological constituent larger than the prosodic word:

- (64) Align the left edge of a phonological phrase (or perhaps an intonational phrase) with the right edge of Force.

Because phonological phrases dominate prosodic words in the prosodic hierarchy, it is impossible that the former should be contained within the latter and therefore the pretonic part of a compound is separated from the rest of the prosodic word of which it would otherwise be a part. This accounts for the phonological facts summarised above where deuterotonic and prototonic compound verbs act differently.

For simple verbs Adger (2006: 637) proposes the following derivation:

After syntax we arrive at a structure like 65.

- (65) Force [TP [T⁰ V T] ...]

⁹⁵ Note that this is only synchronically an elision-context. Historically, /o/ and /a/ contracted to /ā/ (cf. GOI 1946: 512) and the /o/ in the deuterotonic form *fo·ácaib* was secondarily inserted.

Then T string vacuously Locally Dislocates to V, leading to 66.

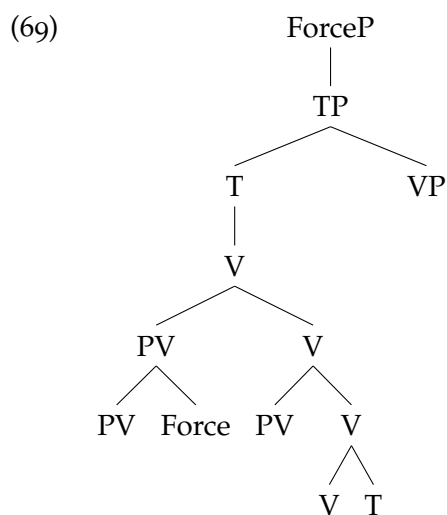
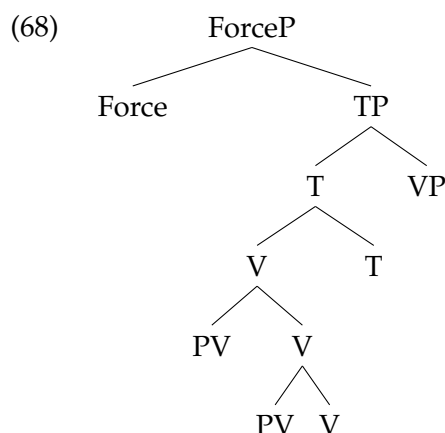
$$(66) \text{ Force * } [_{T^0} V * T] \dots \rightarrow \text{Force * } [_{T^0} [_{V^0} V + T]] \dots$$

Afterwards, Force Locally Dislocates to [V + T] as in 67.

$$(67) \text{ Force * } [_{T^0} [_{V^0} V + T]] \dots \rightarrow [[[_{V^0} V + T] + \text{Force}] \dots]$$

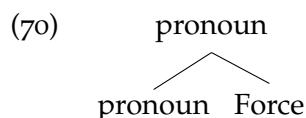
Then, Vocabulary Insertion happens and if Force is adjoined to T, absolute endings are inserted. If Force, however, is Locally Dislocated to any other element (i.e., a preverb or conjunct particle) conjunct endings are inserted.

This is illustrated in example 68, which shows the tree at the end of the syntactic derivation, and example 69, which shows the structure after Local Dislocation of T to V and of Force to the preverb has taken place.



Adger (2006: 638)

If there is a pronoun involved, Adger (2006: 646) proposes that it occupies the topmost TopicP and then undergoes Lowering. He proposes that, at first, Force lowers to the pronoun, so that the former follows the latter, and then both elements together lower to [V + T] or to the preverb or the conjunct particle. He argues that Force has to follow the pronoun because suffixed pronouns in simple verbs only occur if the verb bears absolute declarative endings and because deponent verbs take active inflection if a pronoun is present. Moreover, suffixed pronouns affect the outcome of syncope and final devoicing, which would not be possible because of the phonological approach he takes that was summarised above. If Force preceded the pronoun, in his analysis, the phonological phrase would start before the pronoun, which could therefore not form a phonological entity with the verb. The fact that we find different mutations after pronouns that are not influenced by the presence of Force is explained by Adger through the fact that Force Locally Dislocates to the pronoun and thus the pronoun projects as in the following tree.



6.2.2 Criticism

Although this analysis seems to account for the OI data, there are some problems that we will discuss in the following. For a start, Adger's notion that Force follows the pronoun does not fit the diachronic data. This directly follows from his approach, exemplified through the following quote.

"A number of historical explanations for this pattern have been put forward [...]. In this paper we are concerned with what the analysis of this data teaches us about the structure of the spellout component of the grammar and so we will be concerned with the system from a synchronic perspective only." (Adger 2006: 618)

From a diachronic perspective, however, this is nevertheless an important point that should not be ignored.

Also, Bruening (2019: 9f) criticises the Local Dislocation of T to V before Local Dislocation of Force and the pronoun in Embick & Noyer's (2001) account of Lithuanian. This operation is needed so that the clitics do not intervene between the verb and the inflectional endings. If V and T were not forming an entity by the time Force and the pronoun are replaced, the pronoun would intervene between the verb and its ending. There is, however, no other motivation for Local Dislocation of T to V, i.e. it is completely unmotivated by itself. Additionally, if there is any other suffix present besides the inflectional endings one would need two steps of this unmotivated string vacuous Local Dislocation before the one that can actually be seen because it changes the morpheme order (cf. Bruening 2019). An example for such a suffix is the deverbal nominalising suffix *-mas-*, which can be followed by the clitic reflexive marker *-(i)s(i)*, compare *leñkti* 'to bend' vs. *leñkti-s* 'to bend oneself' vs. *lenkì-mas* 'the bending' vs. *lenkì-mas-is* 'the bending of oneself' (cf. Senn 1966: 113).⁹⁶ This is arguably also the case in Old Irish secondary verbs, for example in those employing the *-(a)ig*-suffix (these are also called *-igidir*-verbs based on the third singular present ending).

The *-(a)ig*-suffix also indicates another problem with this analysis and also the one by Newton (2006), discussed in the next section. Normally, at least in a DM approach, which both of these analyses take, secondary verbal suffixes are assumed to be placed in v^0 , where Adger (2006) and Newton (2006) place the preverb. We will come back to this problem in section 7.

A third problem is a methodological one. Adger (2006: 631, 645) argues that, because in his analysis the Locally Dislocated element triggers allomorphy, this process has to happen before Vocabulary Insertion. This unites it with Lowering in this respect. On the other hand, the two still differ because the latter applies to hierarchical structure and the former to a linearised one. In my opinion it is very important to be careful with the theoretical conclusions drawn from historical data. Of course we have to account for the phenomena in our languages and sometimes we encounter certain phenomena that are not attested in this way in the contemporary languages (although still maintaining the uniformitarian principle) or features that did not receive much attention in the theoretical literature based on contemporary languages. But in my view, proposing new mechanisms based on corpus languages or

⁹⁶ Bruening (2019) also proposes his own analysis of the OIVC. As he, however, uses an approach that has very different basic assumptions than the ones employed in this thesis, I will not go into this here.

adapting those that already exist should be approached with caution. One could argue that it would have been better if Adger (2006) had proposed another Morphological Merger that takes place between linearisation and Vocabulary Insertion instead of reformulating the conditions for Local Dislocation that were in the first place based on viable arguments. Thus, an already existing mechanism (Morphological Merger) would have been extended to another context, which is slightly better than changing an already existing one in a way that renders analyses of contemporary languages impossible. This would, however, result in three different Merger mechanisms (or four if we include Phonological Merger, i.e., prosodic inversion, in the count) and, thus, in a proliferation of mechanisms, which makes the system too powerful and leads to overgeneration, which is conceptually less desirable. On the other hand, the Local Dislocation that Embick & Noyer (2001) propose and the one that Adger (2006) uses are not able to account for the same set of facts.

Newton (2006: 50ff) criticises several aspects of this approach. On the one hand, Adger's (2006) account of why object pronouns have mutational effects on the following element although Force intervenes does not work because if Force marks the beginning of a phonological phrase, the preceding pronoun and the following element, regardless of whether it is a verb or a preverb, would be part of different phonological phrases, which would block phonological effects between them. She also points out that Force should not follow the pronoun because the pronoun itself never undergoes any mutation. Moreover, according to her, Adger's (2006) account does not fit the generalisation of Embick & Noyer (2001) that Local Dislocation always affects the most deeply embedded structure first because the pronoun and Force undergo Local Dislocation before the pronoun+Force complex undergoes Local Dislocation with the V+T complex. Additionally, she criticises that the Force projection that Adger (2006) proposes is never phonologically realised and seems to have "no semantic, pragmatic or discourse function. Its only role is to achieve the desired forms in the syntax" (Newton 2006: 59). She poses the question how this head could be acquired, as it is always null, and, even more problematic, how children can acquire the fact that it is enclitic.⁹⁷ Finally, another point of criticism from Newton (2006) is that Adger's (2006) account employs language-specific postsyntactic rules. She argues that following Chomsky's architecture of the grammar, phonology manipulates the derivation after syntax has done so. However, because the structures they act upon differ from each other, there has to be something in between. Those operations that are conceptually motivated according to her are the linearisation of hierarchical structures, Vocabulary Insertion and Chain Reduction. The latter is based on a copy theory of movement and accounts for the fact that only the topmost copy is pronounced. Other post-syntactic rules that are empirically motivated and language specific, such as Local Dislocation, have already been discussed in sections 5.1 and 6.2. Newton (2006), however, does not want these language-specific processes in her analysis, (cf. section 5.2). Thus, she proposes an approach that works only with postsyntactic mechanisms that are theoretically inherent to every language in DM.

⁹⁷ Newton (2006: 66) herself also invokes a Force-feature but only as a feature present on C⁰ and T⁰ and not as an independent projection as she points out.

6.3 Newton (2006)

6.3.1 Overview

Newton (2006) takes a diachronic approach to OI syntax and proposes an analysis for the development of the syntax between PIE, pre-OI and OI⁹⁸ in which the change from one stage to the next is always characterised by two main changes. These are summarised in table 11.

	CP structure	movement of verb	preverbs
PIE	articulated (Top/FocP and C _{wh} P)	pragm. verb fronting	(phrases)
pre-OI	generic	<i>v</i> to C	lexical heads
OI	(generic)	<i>v</i> to T	verbal feature on <i>v</i> P

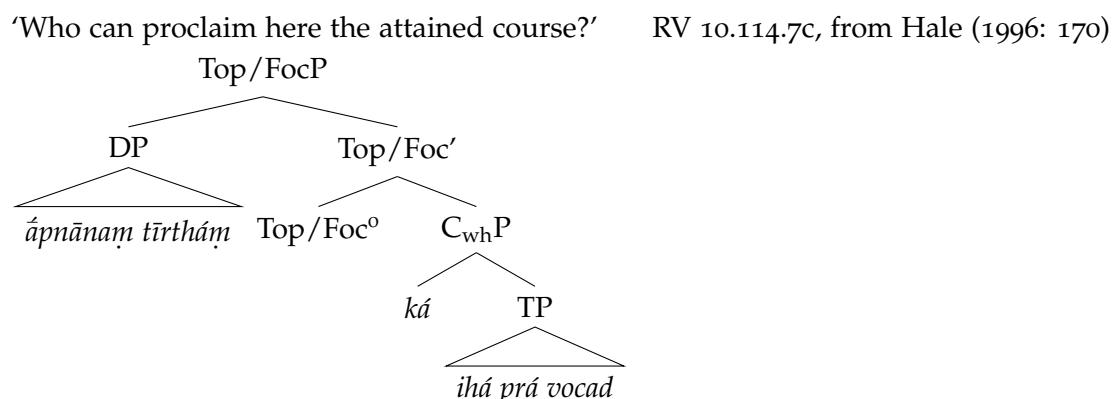
Table 11: The changes envisaged by Newton (2006) between the synchronic grammars of PIE, pOI and OI

Based on the analysis by Carnie et al. (2000) she argues that the patterns they propose (with a simple independent verb moving to C⁰) were actually present but only in a prehistoric language stage and that by the time of Old Irish, the verb did not move to C⁰ any more. But let us look at the structures that she proposes chronologically.

6.3.1.1 Proto-Indo-European

Newton (2006: 126ff) views the CP of PIE based on Hale (1987) and Hale (1996) as an articulated CP with an outer position for topicalised or focused elements (Top/FocP) and an inner position for wh-elements (C_{wh}P), ignoring for the moment that this disagrees with the Latin and the Greek evidence but following the Vedic (and probably Hittite) evidence. This structure is illustrated by the Vedic example in 71.

- (71) *āpnānaṃ tīrthāṃ ká ihá prá vocad*
 attained.ACC.SG course.ACC.SG WH.NOM.SG here forth speak



PIE shows SOV word order. However, verbs can be fronted for focus like every other constituent. In compounds or negative sentences the preverb or the negative particle can be

⁹⁸ Newton (2006) also goes further on in time and discusses how the independent/dependent distinction was lost up to the Middle Irish period. As this, however, is not important for the present thesis it will be left aside here.

fronted to achieve the same semantic effect with the verb staying in its normal position (cf. Newton 2006: 164f). Verb fronting expresses a connection of sentences. The particle **eti*⁹⁹ had the same function but, due to bleaching, both phenomena occurred more and more together, resulting in the reanalysis of **es* as a clause typing particle marking declarative sentences. Its grammaticalisation went on from clause typing clitic to an affix, so that the head of the inner C° position that it had previously filled became empty, which led to the reanalysis of the articulated CP to a generic one. Thus, Newton (2006) provides an account for the development of V1 word order different from the one proposed by Vendryes (1912).

Preverbs in PIE were most likely independent adverbs adjoined to the VP or *vP* as in example 72.

- (72) *sá kṣápaḥ pári śasvaje*
he.NOM.SG nights.ACC.PL PV hold.3SG.PERF

‘He had the nights encompassed.’

RV 8.41.3a

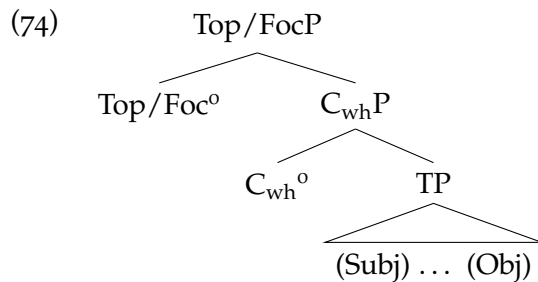
In case of fronting, they would move to the Spec.TopP/FocP as in example 73.

- (73) *prá vaḥ sá dhītáye naśat*
forth-adv/PV you_{cl} this.NOM.SG thinking.DAT.SG reach.3SG.AOR.SBJV

‘this reaches forth (=comes) to your thinking.’

RV 1.41.5c, example taken from Hale (1996: 184)

The situation in PIE can be seen in the following tree structure, where Top/Foc° can be filled by any focused or topicalised constituent including the verb, the preverb, a negation or anything else.¹⁰⁰



⁹⁹ In her thesis, Newton (2006) calls this particle **es*, following Schrijver (1997), and thus uses its pre-OI form.

¹⁰⁰ Note that this is no problem if one accepts bare phrase structure in the most extreme form, where the difference between minimal and maximal projections is no longer of importance. Otherwise, however, it is difficult to explain how the verb, a head, can move into the phrasal specifier position in complementary distribution with all these other phrasal constituents. Concerning another topic in her thesis, Newton (2006: 45) plays with this idea of min/max-movement. She does so, however, only with a phrase that moves as a head, which is the more common assumption of this kind of movement than that of a head moving as a phrase (see for example also Roberts 2010: 39ff). Ram-Prasad & Roberts (2022) propose min/max-movement for this kind of verbal topicalisation in early IE languages.

6.3.1.2 Pre-Old Irish

If we now turn to pre-OI quite a different picture presents itself to us. Preverbs have changed their status through reanalysis to lexical heads originating in v^0 and blocking V^0 -to- v^0 head movement when present. The formerly pragmatically motivated verbal fronting has been generalised and grammaticalised as head-movement of v^0 to C^0 to satisfy a filled C^0 condition of C^0 , the latter projection now being generic. Simple verbs are therefore raised to C^0 . This is in close relation to the development of V1 and double inflection. Newton proposes that **es* became so frequently used that its meaning as a sentence connector was bleached. To maintain the connection between the clauses, however, the other strategy that existed for this, fronting of the verb, was exploited. Thus **es* and verb fronting occurred more and more together, both bleaching semantically more and more.

Newton (2006: 159) argues that **es* at least after the early apocope of **i* has to be an affix based on the criteria proposed by Zwicky & Pullum (1983). On the one hand, after the apocope it seems to cause a stem alternation and, on the other hand, it always appears together with the same host, i.e., the verb. She argues that through the reanalysis of **es* to an affix, V^0 -to- C^0 movement was implemented into the system because now the verb had to be placed in C^0 (clause-typing is normally associated with this projection) to check the feature. Absolute morphology informed the children acquiring the language that a simple independent verb was placed in C^0 . In compounds, only the preverb (the head of v^0) is moved to C^0 and the verb stays in its original position (V^0 -to- v^0 movement is blocked if v^0 is already filled). Newton (2006) thus assumes that in pre-OI tmesis was the normal word order pattern in compounds in independent position. If C^0 itself is already filled, however, for example by a complementiser, an interrogative pronoun or a negative particle (the OI conjunct particles), no movement takes place.

But how did children stop acquiring the articulated CP? The cues for it must have been lost. In a generic CP only the configuration XP - X^0 is expected. Therefore, the evidence for XP - XP , X^0 - XP and X^0 - X^0 must be lost. How did this loss come to be? In the non-Celtic early IE languages the inner C^0 position is filled by phrasal elements, namely inflected relative/interrogative pronouns. In Celtic (except Celtiberian) neither of these pronouns inflect any more (although in Old Irish they pattern differently, the interrogative particles being conjunct particles and the relative particle appearing in second position as a relative clause typing marker in complementary distribution with the above mentioned reanalysed **es*). This means these former pronouns are reanalysed as heads, which eliminates the XP - XP and the X^0 - XP structures.¹⁰¹ Later these particles become reanalysed as affixes (leading to the distinction of independent and dependent verbal forms) making space for the verb to appear in the inner C^0 position, which eliminates the X^0 - X^0 structure.

Following Newton (2006: 164), the development of the initial negative conjunct particles followed the same path as the development of verb and preverb, which all got reanalysed as being in the left periphery for grammatical reasons.

Concerning conjunct particles that are conjunctions, Newton (2006: 168), following GOI (298f), argues that they all developed out of a preposition and the relative particle a^N . These

¹⁰¹ Newton (2006) assumes that inflection of a pronoun points to phrasal status and the loss of inflection to the reanalysis as a head.

prepositional phrases were originally part of the main clause¹⁰² and subsequently reanalysed as part of the embedded one. She connects this with the development of English *that*, which is often argued to have developed out of paratactic structures like the one in example 75, and with the development of the preposition *for* (see example 76).

(75) I know that. The earth is round. > I know [that the earth is round].

(76) [It is good [for me]] [to go] > [It is good] [for me to go] Based on Newton (2006: 169)

To explain the fact that only these three elements became conjunct particles, however, she has to come up with many different explanations depending on the form and behaviour of the other conjunctions because she thinks it unlikely that “there will be a single answer to [the] question” of what prevented the other nominal and adverbial expressions from becoming reanalysed as complementisers. A different solution for this is proposed in section 4.2.1.

6.3.1.3 Old Irish

From pOI on to OI there were two main changes, according to Newton (2006): v^0 -to- C^0 movement that only happened in certain circumstances disappeared and was replaced by V^0 -to- T^0 movement with no constraints. This was only possible because, in compounds, v^0 was not filled by a preverb anymore. Instead, they were reanalysed as conjugation class markers and thus reduced to a single verbal feature on v^0 that agreed with a feature on C^0 . Due to this change, V^0 could always move to v^0 and then on to T^0 . The change in the status of preverbs is needed because all analyses that assume that they are lexical items and that work with direct syntactic movement (head movement as well as phrasal and remnant VP movement) fail to derive the attested structures¹⁰³ (although compare sections 7 and 8). Newton (2006) hence proposes an analysis based on post-syntactic operations, especially Chain Reduction. Assuming a copy theory of movement, the output of syntax contains several copies of one element. During Chain Reduction, every copy except the highest/leftmost one is deleted. Another important fact here is that she assumes based on Chomsky (2008) and Chomsky (2007) that C^0 and T^0 are rather like one complex projection than two independent ones and that T^0 enters into the derivation without features of its own but gets them from C^0 (with crosslinguistic variation of which features are present only on C^0 , which are there on both and which are just passed on from C^0 to T^0 and, thus, are only present on the latter). Therefore, the change from v^0 -to- C^0 movement to v^0 -to- T^0 movement just changes the association of the former clause-typing feature from the C^0 head to the T^0 head. Newton (2006) argues that after the loss of clause-typing **es* through apocope in the 5th century the main function of the absolute endings (as well as the conjunct endings) was subject-verb agreement and although they still expressed the difference between declarative and relative clause type it was not any more important enough to link the verb to C^0 .

Newton (2006: 61) proposes that the insertion of *no·* in contexts where an affixed pronoun or a relative marking affix needs a host resembles English *do*-support and that in cases where

¹⁰² Note that this is a different interpretation than the one brought forward in sections 4.1.2.3 and 4.2.1 based on the analysis of Schumacher (2014: 166f), where the preposition and the pronoun are never part of the first main clause but rather of the second main clause that gets reanalysed as a subordinated one.

¹⁰³ See Newton (2006: 36ff) for a more detailed discussion.

no *no*-support is found (in declarative forms without a object pronoun) the placement of the suffixed pronouns and absolute relative endings could be explained by a similar mechanism as tense marking in English, where if T^0 is empty the tense features are somehow transferred to the verb in v^0 . Following her, this is achieved through an extension of the mechanism Chain Reduction, which deletes all but the topmost copy after movement. She proposes that this mechanism also targets features. If there is an identical feature in the c-command domain of the higher feature, the lower one is deleted. However, features with the property [affix] need a “host” to satisfy the Stranded Affix Filter (sometimes also called Stray Affix Filter), which is defined in her analysis through a positively valued (non-default) feature. Thus, if there is no host for an affixal feature on C^0 , the higher copy is deleted and the one in T^0 is spelled out. For Old Irish she proposes a Force feature, which is present on C^0 and T^0 but can only be realised on one of the two and accounts for declarative and relative marking. If C^0 provides a host, the lower copy is deleted. If it does not, however, the higher copy is deleted and Force is spelled out in the form of absolute endings on the verb. Let us now come back to Newton’s (2006) explanation of *no*-support in OI. She states “Neither *do* in English nor *no* in Old Irish are associated with a single meaning or function, and both can be used in a variety of environments” and tries to determine the features that are present in the contexts where *no*· occurs: with infixed pronouns ([+object_{CL}]), relative clauses ([+wh]) and secondary tenses ([+aspect]). In these cases, C^0 bears a non-default feature and can thus act as a host. But if there is no other feature present than the Force feature, the whole C^0 head will be banned from receiving a phonological realisation and therefore the elsewhere particle *no*· cannot be realised.¹⁰⁴ Thus, she accounts for the fact that simple verbs in any other context than the ones specified above appear without *no*·. If, however, an [+object_{CL}], a [+wh] or an [+aspect] feature are present *no*· will kick in.

For compounds she argues that preverbs at this point in the language’s history are no longer independent vocabulary items but only verb class markers that “have no meaning independent of the verb” (Newton 2006: 78). She argues for this because “there are only a handful of initial preverbs found in the Old Irish period and they are not used productively” (Newton 2006: 78f). She states: “[...] if preverbs are merged as light v^0 heads we might expect them to function as light v^0 heads do cross-linguistically, for example in terms of determining the argument structure of a verb or expressing aspect. This does not seem to be the case. Preverbs have no grammatical function.”

These verb class markers are realised as verbal (conjugational class) features (she calls them just [v1], [v2], [v3], ...), which are present on C^0 and v^0 and are valued by the root. These features, however, are underspecified and lose the competition for Vocabulary Insertion if any other feature is present in v^0 . To achieve this result she has to propose that the verbal features and the other features like [Force] and [Fin] are always present on all elements, as shown in table 12.

¹⁰⁴ Note that the term “elsewhere” here can be misunderstood because it can be blocked. Newton (2006) uses this term because *no*· surfaces if a pretonic element is needed but no other vocabulary item is available.

[Force]	[Fin]	[v]	[neg]	↔	/ní/
[Force]	[Fin]	[v]	[Q]	↔	/in/
[Force]	[Fin]	[v]	[neg] [rel]	↔	/nad/
[Force]	[Fin]	[v]	<i>when</i>	↔	/dia ^N /
[Force]	[Fin]	[v]	<i>until</i>	↔	/co ^N /
[Force]	[Fin]	[v1]		↔	/do/
[Force]	[Fin]	[v2]		↔	/fo/

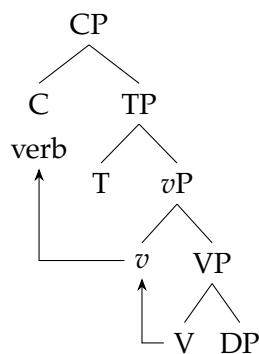
Table 12: Feature combinations of several vocabulary items competing for insertion into C⁰ according to Newton (2006: 80, 199)

[v] here stands for any realisation of this verbal feature. It doesn't matter if it has a positive value (corresponding to a preverb) or if it does not have any (this would mean that we are looking at a simple verb) in those cases where only [v] stands in the table because there are other features present that cause a different VI to surface. For example, if [neg] is present in addition to [Force], [Fin] and [v], the vocabulary item /ní/ wins the competition because it fits more features than a phonologically zero realisation and than any preverb (Newton 2006: 80ff).

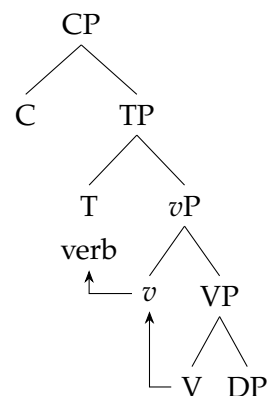
Newton (2006: 80) notes herself that the notion of vocabulary items like conjunctions (*until* and *when* in the list above) competing for insertion during Vocabulary Insertion is problematic in DM terms and proposes that maybe they, too, can be broken down into feature bundles.

The changes from pre-OI to OI can be seen in the following tree structures taken from Newton (2006: 181). The left side always shows the pre-OI structure, the right side the OI one. Examples 77 and 78 show the trees for independent simple verbs, examples 79 and 80 the ones for independent compounds and examples 81 and 82 show the trees for dependent verbs, both simple and compound.

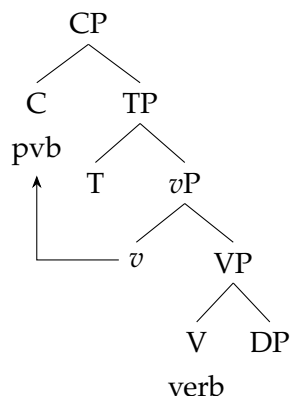
(77) Simple verb in pre-OI



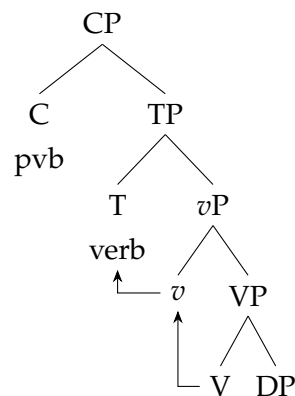
(78) Simple verb in OI



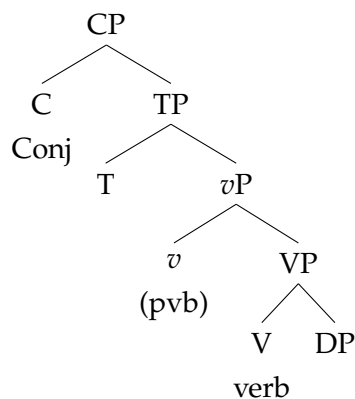
(79) Compound verb in pre-OI



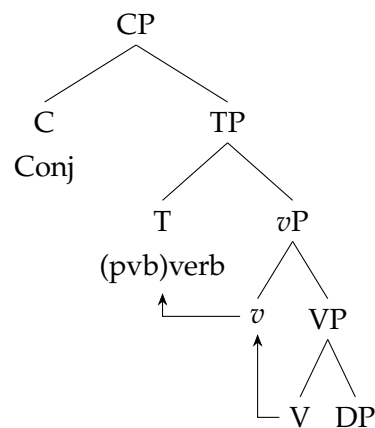
(80) Compound verb in OI



(81) Independent verb in pre-OI



(82) Independent verb in OI



Newton (2006: 181)

6.3.2 Criticism

Although the analysis of Newton (2006) seems to account for the data at first glance, there are several points that can be criticised.

Let us begin with the data. There are verbs which were newly formed during the OI period based on Latin ones. One example for this is *imm·díben* ‘to circumcise’, which is transparently formed on the basis of Latin *circumcīdere* ‘to circumcise’ with *imm·* ‘around’, corresponding to Lat. *circum* ‘around’ and *díben* ‘to cut’,¹⁰⁵ corresponding to Latin *caedō* ‘to cut’. This shows that preverbs were not semantically empty at this stage, as Newton claims.

There are, however, cases in which the preverb *do·* seems to have a quite arbitrary meaning¹⁰⁶ and, as McCone (2006: 183) states, there were only a few preverbs that were still

¹⁰⁵ This can again be split up into the preverb *dí* ‘of, from’ and the root *ben*, conjunct form of *benaid* ‘to beat, strike, cut off’.

¹⁰⁶ Note that also its etymology poses problems. It was probably at some point in its history equated with the preposition *do* ‘to’, but originally it derived from an element **to*. This voiceless consonant can for example still be seen in the dependent form of *do·beir*, *·tabair*, where it was not voiced to /d/ in tonic position.

productive in the “late prehistoric and early historic stage”. Nevertheless, some of them still were productive, which provides a firm counterargument against Newton’s (2006) analysis.

Her statement that the preverbs have no grammatical function is not correct either, as they are able to change the valency of the verb. This can be seen from the comparison of transitive *beirid* ‘to carry’ and ditransitive *do·beir* ‘to give’.¹⁰⁷ Moreover, several preverbs can fulfil the function of the augment (most often *ro·* but **ad* and **kom* also often fulfil this function, see section 3.2.3).

Another point that can be criticised is the long time of tmesis that Newton (2006) seems to posit. Although the absolute chronology of the language stages she proposes is deliberately left open, the time during which obligatory preverb fronting in independent contexts with the verb in situ is expected to be active is very long. A state of affairs where particles are separated syntactically from their verb is not a rare phenomenon cross-linguistically. In the case here, however, the assumed tmesis¹⁰⁸ spans most of the sentence not only in pragmatically marked contexts, but as the normal grammatically triggered form.

Additionally, there are some methodological problems with her approach.

One of these problems occurs in feature combinations like in example 83, where [v1] again stands for *do·*.

(83) [Force] [Fin] [v1] [neg]

This should be the feature combination needed for *ní·tabair* ‘(s)he does not give’. But what happens to the verbal feature if the negative vocabulary item wins the competition? Newton (2006) makes contradictory assumptions concerning this question. On page 75 she writes “When some element other than the preverb appears in C, the preverb is spelled-out with the verb in T. However, when the preverb is spelled-out in C, the lower copy in T is deleted, resulting in the deuterotonic verbal form.” On first glance this seems to be a reasonable line of argumentation. However, on page 63 she writes “At the point of Chain Reduction, then, phonological information is not yet available.” This means that to Chain Reduction only features are visible and thus there is no way for the process to “know” that the negative conjunct particle will be realised in C⁰ instead of the preverb. Thus, the lower copies of the verbal feature (on the root, *v*⁰ and T⁰) will be deleted. Then, during vocabulary insertion, the negative conjunct particle wins the competition and the value of the verbal feature has no influence whatsoever. So, actually, we would expect a form like *ní·beir* to surface, however, with the meaning of *ní·tabair*. A language where in the presence of a negative element a preverb is dropped without any change in meaning of the verb does not sound very probable and, more important, is not what we find in Old Irish.

Even if this problem did not exist, Newton’s (2006) approach would run into problems as soon as it tried to explain verbs with several preverbs. For the Old Irish system she assumes preverbs to have been reduced to verbal features on the verbal root but there cannot be several verbal features. Thus, it is impossible to derive, for example, verbs like the ones mentioned in table 3.

¹⁰⁷ Here, the equation of the **to* from which this preverb must have derived to the preposition *do* ‘to’ that was discussed in footnote 106 can be seen. Note, however, that one has to be cautious as the verb’s grammatical function could also be a fossilized remnant with the ditransitivity of *do·beir* being a lexicalised quality of the compound verb.

¹⁰⁸ Based on the actually attested tmesis cases whose archaic character is, however, disputed, see section 3.2.9.3.

Another problem that is present in the analysis of Newton (2006) as well as in the one of Adger (2006) has already been mentioned in section 6.2.2 and will again be discussed in section 7 and concerns the placement of preverbs in v^0 . This position is generally associated with verbal derivative suffixes like *-aig-*. As there are, however, compound verbs with this suffix, preverbs cannot be placed in v^0 .

Moreover, the blocked V^0 -to- v^0 movement if v^0 is filled by a preverb shows a general problem of head-movement. Instead of blocked movement, one could also expect that the verb would nevertheless move to v^0 and incorporate with the preverb. When this does or does not happen can only be stipulated for all kinds of head-movement.

Finally, an analysis which does not require any postsyntactic processes (except phonology) would still be preferable to this one.

7 A New Analysis of the Development of Old Irish Verbal Syntax

Because all the existing analyses of OI syntax and its prehistory are somewhat unsatisfactory due to the reasons discussed in section 6, I will propose a new analysis in this chapter with special regard to the V1 syntax and the effects that the fossilised Wackernagel clitics play, in order to explain what happens in the OIVC. In contrast to the approaches driven by syntax only or by syntax and morphology that were sketched in the previous chapters, the analysis that will be proposed here relies on syntactic and phonological processes to derive the structures found in PIE, pOI and OI.

The topic of reconstructing syntactic structures is, as already discussed in section 5, a delicate undertaking. As other Celtic languages will not be examined to an extent that allows more than hints, the focus is on the OI data. This data, however, does not present us with a case as hopeless as could be, due to what Schrijver (1997: 2) calls “morphological debris which reflects older syntactic markers (particles and pronouns) that have become fossilized”. Based on these fossilised elements, and with the much cited statement “today’s morphology is yesterday’s syntax” by Givón (1971: 394) in mind, we are not so badly equipped.

In addition, we can tackle the problem from the other direction. Much recent research has shed more and more light on PIE syntax by reconstructing it on the basis of several other old IE languages. Therefore, instead of reconstructing back into an uncertain past, we are provided with a chronological starting point and an endpoint and only have to determine the steps needed to take us from the one to the other. We can therefore “reconstruct[...] forwards in time” as Watkins (1962: 5) puts it.

If we start at the endpoint and look at the OI verbal system, as has been done in some detail in section 3, we are confronted with yet another problem. In some contexts the OI language allows suffixed pronouns while in others it does not. In the same way, there are contexts where simple verbs can bear special relative endings and others where *no* has to be used. Out of these mixed paradigms we can abstract two systems. The system that does allow suffixed pronouns and special relative endings could be called OI₁, as it is assumed to be the more archaic and older one, while the other system, which uses *no*, could be called OI₂, as it manifests a more recent development. OI₂ will, however, not be a topic in the following discussion as it goes beyond the scope of this thesis, which is mainly concerned with Wackernagel’s Law, which at this time is assumed to be no longer active at least concerning the WL₂ clitics because they no longer exist as separate entities.¹⁰⁹ Thus, I will use the term OI for what should be called OI₁. Note that this usage of the term OI could be misleading as it does not correspond to the time of attested texts, which is normally called OI, but starts earlier, shortly before the apocope of final syllables. Between what I call the PIE system and the pOI system, there was a very long time, as pOI stands for a language stage that shows features that are associated with Insular Celtic. Thus, it is probable that many more things happened than can be discussed here. More fine-grained distinctions of processes and maybe

109 Concerning the infixed pronouns it is debated if they are at this time still placed by mechanisms used to explain Wackernagel’s Law or if they are object marking verbal morphology. If they still were subject to the former mechanisms, fronting to some projection hosting second position clitics as well as prosodic inversion would still be active and my above statement would be incorrect (see Bate 2024 for an approach arguing in this way). In this thesis I remain agnostic to this question but I have modelled the infixed pronouns in the analysis as still obeying this law.

additional changes, language states and therefore synchronic syntactic systems might be ascertained through examining the Continental Celtic languages and the Brittonic branch of Insular Celtic. In the following discussion the minimal set of changes required to get from one system to the other will be examined.

Ram-Prasad (2022) proposes an analysis of the PIE left periphery. Based on this analysis I trace the development up to Old Irish to determine whether the syntactic peculiarities can be explained on a synchronic basis for three language stages, PIE, pOI and OI following Newton's classification. We will look at the analysis and its problems in the following and subsequently try to tackle the obstacles. This will result in the employment of a VP-movement analysis instead of proposing head-movement, as has been done in all other analyses of Old Irish up to now. But first, let us start with a survey of the data we have to account for.

7.1 What is the Data, Descriptively?

We have already seen the templates for OI and pOI in the previous chapters. To get the full picture they will be repeated here after a description of the PIE language stage based on the discussion in Ram-Prasad (2022: 81). These templates are comparable to each other in the sense that an element that is in slot C in PIE will still be in slot C in pOI even if slot B is no longer present during this language stage (i.e. the slots do not change their names), but only if the element itself does not undergo any changes (for example if an element was reanalysed from an independent word to a clitic, it is assumed to change the slot).

In PIE there existed some non-clitic conjunctions which occur at the beginning of the sentence and are not counted when determining the Wackernagel position in the clause. These are, as in OI and pOI, placed in a slot "X", the label indicating that this slot is associated with some processes perceived to be somehow "clause-external".¹¹⁰ The next slot, "A", can host anything that was fronted for pragmatic reasons. This could be the subject, the object, but also the verb, the preverb, the preverb and the verb together, the negation (again this might be in combination with the verb and, if present, an intervening preverb), interrogative pronouns and quantifiers (for an argumentation of why these elements all share one slot, see Ram-Prasad 2022: 81ff). Delbrück (1878: 13) stated for Old Indic: "diese traditionelle Wortstellung wird durchkreuzt von der occasionellen Wortstellung [...] jeder Satzteil, der dem Sinne nach stärker betont sein soll, rückt nach vorn."¹¹¹ In a later publication Delbrück (1888: 16) assumes that this is also true for PIE.

Following this slot, we come across the first clitic slot, "a". This is the place where enclitic complementisers can be found. These are the ones called WL₂ by Keydana (2011). As was already shown in section 2, clitics play an important role in determining word-order patterns. Ram-Prasad (2022: 84) also emphasises this point in his explanation of the difficulties which

¹¹⁰ I am aware that this term can be misleading, as these elements are clause-introducing and thus have to be a part of the clause. The same is true, for example, for the German complementiser *denn* 'because, for' which is also sometimes called clause-external. The term "clause-external" is therefore used here in a completely descriptive way concerning some word-order patterns. From a theoretical perspective one could also say (if one takes a phase-based approach) that, in the development of OI, these elements are in a higher phase than the clitics and therefore are not able to act as a host.

¹¹¹ "This traditional word order is sometimes overruled by the occasional word order [...] any part of the sentence, which should, concerning its meaning, get stronger emphasis, is moved to the front [my translation, ND]."

determining the pragmatic reasons for the fronting of a certain constituent in a corpus language can pose. These clitics, on the other hand, are placed according to non-optional and not pragmatically induced syntactic or phonological rules and therefore can help determine the place of other constituents.

The relative pronouns, following Ram-Prasad (2022: 96ff), do not occupy the same slot as the interrogatives, as was proposed by Hale (2019), but can be found in slot “B”.¹¹² This slot can provide a host for the clitics in slot “a” if Slot “A” is empty.

The second slot for enclitics in the PIE left periphery is slot “b”. It contains Keydana’s (2011) WL₁ clitics, i.e. the clitic object pronouns. Following this, the “remainder of the sentence” starts. As in OI and pOI, slot “D” presents its first element. In contrast to the later language stages, however, in PIE, this slot can represent the first element of the clause if all preceding uppercase slots are empty. In this case all the enclitics are attached to the element in this slot, it being the first available host. The template for PIE is shown in table 13. Table 14 shows the template for pOI. The OI template, finally, is given in table 15.

X	A	a	B	(+a)	b	D	(+a, +b)
COMPL	PV V (NEG)+(PV)+V NEG int. pron. focused XP	COMPL	rel. pron	COMPL	pron.	x	pron. + COMPL

Table 13: The reconstructed template for PIE

X	A	a	b ₁	b ₂	C	(+a, +b ₁ , +b ₂)	D
COMPL	PV COMPL NEG int. pron. rel. prep.	*FORCE	pron. *de	pron.	V	*FORCE + pron. *de + pron.	x

Table 14: The reconstructed template for the pre Old Irish Verbal Complex (again)

X	A	b	C	(+b)	D
non conj. part.	PV conj. part.	pron. (inf.)	V	pron. (suff.)	x

Table 15: The template of the Old Irish Verbal Complex (again)

These templates describe the linear order of positions and the possible elements that can occur in there. But how can these be accounted for theoretically?

¹¹² Relative clauses in PIE are examined in Ram-Prasad (2022) in great detail. See there for more information.

7.2 A Simple Solution and its Problems

Based on the assumptions taken from the analyses summarised in section 6 and the analysis of the PIE left periphery by Ram-Prasad (2022) and assuming that tmesis and Bergin's Law (see section 3.2.9.3) are not archaic structures, quite a simple solution can be formulated. This solution, discussed in section 7.2.1, however, runs into some problems as will be shown in section 7.2.2. The main problem here is the question of how to deal with the preverbs. In a short digression it will be shown that the Old Irish verbal system would be very simple to explain theoretically if there were no preverbs. Based on this, I reach the conclusion that all the analyses proposed so far do not work and that an entirely different approach may help to explain how the elements come to occupy the positions they do in the attested data. In section 7.2.3, thus, a different analysis of verb-first languages, including phrasal verbal movement instead of head-movement, will be combined with some of the key assumptions about Wackernagel's Law discussed in section 2.

7.2.1 The Analysis

Ram-Prasad (2022: 81ff), based on Rizzi (1997) and various recent analyses of Wackernagel's Law (for example Hale 1996; Hale 2007, Goldstein 2016 and others) proposes an analysis of the structure of the PIE left periphery. He identifies several elements¹¹³ as occupying positions in the CP of what he calls PIE₂ (PIE without the Anatolian languages) based mostly on his analyses of Vedic and Ancient Greek. Latin partly shows deviations from this pattern, which, however, can be explained as secondary. In Anatolian quite a different picture of clitic placement presents itself, which Ram-Prasad (2022: 115ff), however, is able to derive from the system underlying the PIE₂ system, which he calls PIE₁ (i.e. PIE before the Anatolian split).

Note that, as was already briefly mentioned above, Hale (2007) and Ram-Prasad (2022) subdivide the left periphery in two different ways. Whereas the former has one landing place hosting topics and foci and another for interrogatives and relative pronouns, the latter assumes relatives to be topicalised (of course with the possibility of additional topics) and interrogatives to be focused.¹¹⁴ Nevertheless, Ram-Prasad (2022: 93) writes: "Hale's left periphery is remarkably similar to Rizzi's (1997) in structure: although he posits a unitary C⁰, like Rizzi he allows for a proliferation of left-peripheral heads motivated by discourse factors." He goes on: "Hale's model [...] captures a significant portion of the data – but not quite all of it. The central flaw is a failure to distinguish between the position of relative and interrogative pronouns, [...] [which] show different distributions in Vedic" (Ram-Prasad 2022: 96). This is best visible when looking at their distribution in relation to preverbs. These precede relative pronouns but never precede interrogative pronouns. Ram-Prasad (2022: 100) in fact produces arguments for the hypothesis that preverbs and interrogatives never co-occur in the left periphery and models them to be in the same syntactic position. This would imply that they also cannot co-occur together with negatives in the CP, which occupy the same slot.

¹¹³ These were already discussed in the descriptive section 7.1 above but will again be listed here with the theoretical implementation of Ram-Prasad (2022).

¹¹⁴ Note that this also solves the problem in Newton (2006) of how to explain that interrogative and relative pronouns developed in different ways into OI.

This again is shown to be true with the exception of cases where negative, preverb and verb are fronted together, as in example 84.¹¹⁵

- (84) *má prá gāma patháḥ vayám*
 NEG PV go.INJ.1PL path.ABL.SG we.NOM

‘Let us not go away from the path.’

RV 10.57.1a adapted from Ram-Prasad (2022: 100)

Ram-Prasad (2022) argues that the following elements are placed in the left periphery in PIE.

- **enclitic conjunctions** (Keydana 2011: WL₂; slot “a” above) base-generated outside the clause but moved by prosodic inversion. These are assumed also for PIE₁ although only for PIE₂ there are some secure cognates, e.g. **-kʰe* ‘and’ (cf. Ram-Prasad 2022: 123).
- **focalised negators, quantifiers, interrogative pronouns, PV** (slot “A” in the template) in Spec.FocP (cf. Ram-Prasad 2022: 100)
- **relative pronouns** (slot “B” in the template above) in the specifier of the lower TopP (he reconstructs these as non-enclitic). They occupy this position and not for example Spec.FocP because relative pronouns can co-occur with other Foci¹¹⁶ and since only Topics can be iterated but Foci cannot, they cannot be placed in Spec.FocP. Thus, they have a distribution different from that of interrogatives, in contrast to what Hale (2007) assumes, because interrogatives cannot co-occur with other Foci. Spec.ForceP and Spec.FinP also are out of the question because relative pronouns can be preceded as well as followed by Topics.¹¹⁷ This also fits the interpretation because the relative pronoun in a sense expresses what the relative clause is “about” (cf. Ram-Prasad 2022: 44, 138).
- **enclitic pronouns** (Keydana 2011: WL₁; slot “b” above) base-generated in the VP and moved by head movement to the head of the lowest active phrase of the left periphery (following the analysis of Hale 2007 who, however, assumes one unitary C⁰). Ram-Prasad (2022: 127) calls these ‘syntactically enclitic’ in contrast to only phonologically enclitic elements like, for example, the WL₂ particles. These can be reconstructed for PIE₁ (cf. Ram-Prasad 2022: 123). He writes that “we can be confident that WL₁ in PIE₁ contained a number of (mostly) monosyllabic oblique personal pronouns” (Ram-Prasad 2022: 123).

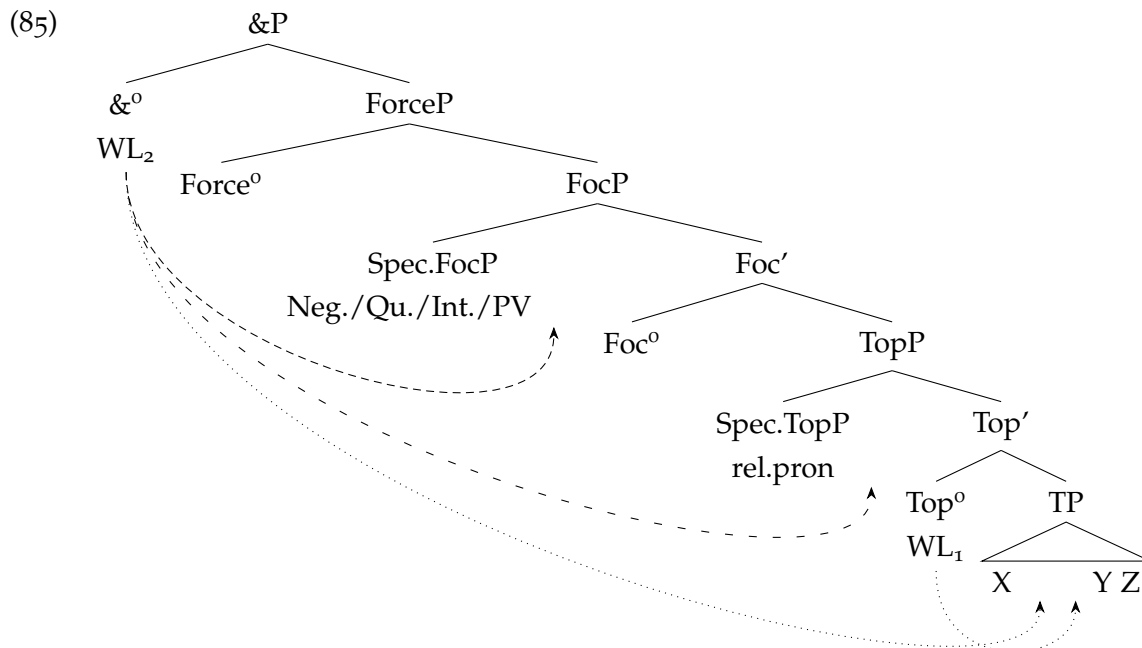
Based on these assumptions, he proposes the structure shown in the tree in example 85 of the left periphery in PIE, where the arrows indicate prosodic movement. All syntactic movement has already happened at this point. The densely dashed arrow shows the movement that happens if Spec.FocP is filled. If it is empty, but Spec.TopP is filled, the

¹¹⁵ Here with the prohibitive negative *má*, there are however also examples with the negative particle *ná*, compare RV 1.164.37a.

¹¹⁶ Compare the English sentence *John is the kind of person who* [_{Focus} *under no circumstances*] *would I be willing to talk to* (taken from Ram-Prasad 2022: 44).

¹¹⁷ Compare English *This is the man who*, [_{Topic} *his car*], *he gave away* (taken from Ram-Prasad 2022: 44).

movement indicated by the arrow with loose dashes happens. If Spec.FocP and Spec.TopP are empty the WL₂ and WL₁ clitics move behind the first element of the remainder of the sentence, as shown by the dotted arrows.

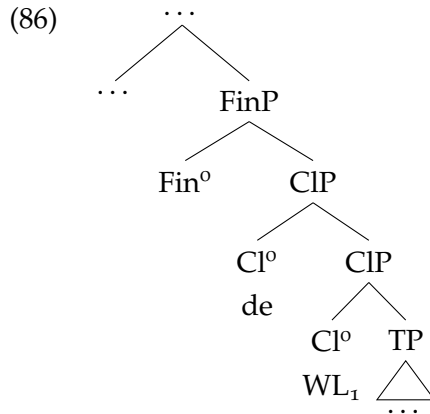


Let us now look at the question of which changes we have to assume to get the structures reconstructed for pOI from the tree in example 85.

One of the most important changes that we see in pOI is a change of word order concerning the preverbs. In PIE, in fronted position, following Ram-Prasad (2022), they were in complementary distribution with negation,¹¹⁸ interrogatives, etc. In pOI, however, they occur seemingly grammaticalised (i.e. in unmarked clauses) in the order negation-preverb-verb. Another change concerns the declarative and relative markers. The relative pronoun (now reanalysed as an uninflected particle), the element $-(s)a^N$ occurring together with relative-clause-introducing prepositions and those elements which in PIE occupied the $\&^\circ$ head were reanalysed as clitics base-generated in Force°. Here we can at least posit a relative chronology, since **io* also occurs as a clitic in Gaulish, suggesting that it was cliticised first. **eti* and **de* then probably followed. **-k^ue* can still be found as a connector in very archaic Old Irish texts. Thus, for this element, we can only talk of a reanalysis in the context following a negative element. The reanalysis of $-(s)a^N$ was probably rather late because it happened based on the relative function of $-(s)a^N$ and its equation with the other relative markers by the speakers. The third change is the introduction of pronominal **de* into WL₁ clitics. Concerning this question there are two possible approaches. On the one hand, one could assume that out of the contexts summarised in section 4.2.1 new forms of the infix pronouns with contrastive meaning were formed. At some point, these could not be split up into two independent elements, **de* and the pronoun, by language acquirers any longer. This must have been already at the time when they were only used in those contexts where **de* still occurred in complementary distribution with the other declarative/relative marking elements. Speakers then started to use them in other contexts where they wanted to express contrastive semantics.

¹¹⁸ Except if the whole complex negation-preverb-verb is fronted.

The second possibility is that, instead of analysing these clitics as placed in the lowest active projection of the left periphery, we assume a new projection, some kind of Cl[itic]P that can be iterated and is placed between the left periphery and the TP. Thus we could have a structure as in example 86.



Note that this does not change anything about the analysis as there is, up to now, no real motivation for the movement of the clitic into the position which it occupies. Thus, the name that we assign to the projection it occurs in is not important at the moment. To be able to show **de* as a separate clitic however, I will from here on use the extra CIP instead of placing the pronominal clitic in the lowest projection of the left periphery without making any claims about which of the two explanations sketched above is the right one.

The fourth change that we need for pOI is grammaticalised head-movement of V^0 through v^0 to T^0 .

For the following trees, I will take the declarative independent and dependent third person present forms of the predecessors of the OI verbs *beirid* ‘to carry’ and *do·beir* ‘to give’ with or without a third singular masculine object pronoun ($a^N < *en$) to exemplify the structures. Double inflection is here indicated through the main-clause particle **eti*,¹¹⁹ and the conjunct particle used in the following examples is the negation **ne*. The relevant forms are listed in table 16.

Double Inflection	independent		dependent	
Affixed pronoun	absent	present	absent	present
Simple Verb	<i>*bereti-eti</i> > <i>beirid</i>	<i>*bereti-eti-en</i> > <i>beirthi</i>	<i>*ne-eti-beret</i> > <i>ní·beir</i>	<i>*ne-eti-en-beret</i> > <i>ní·mbeir</i>
Compound	<i>*to-eti-beret</i> > <i>do·beir</i>	<i>*to-eti-en-beret</i> > <i>da·mbeir</i>	<i>*ne-eti-to-beret</i> > <i>ní·tabair</i>	<i>*ne-eti-en-to-beret</i> > <i>ní·tabair</i> / <i>ní·daβætʃ</i> /

Table 16: The sample paradigm for the following discussion

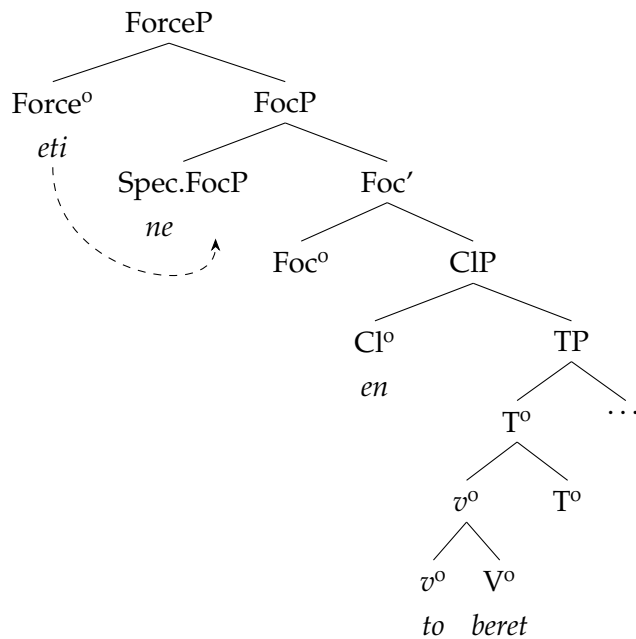
The derivation of these forms is illustrated in the trees in examples 87, 88 and 89. Again, the arrows show prosodic movement. All syntactic movement has already happened at this stage. The placement of the preverbs in v^0 here is based on the analyses by Adger (2006) and

¹¹⁹ Note that this element may already have had the phonological form **es* at this stage.

Newton (2006). However, as we will see later, this analysis cannot be maintained and will have to be adapted to solve some problems.

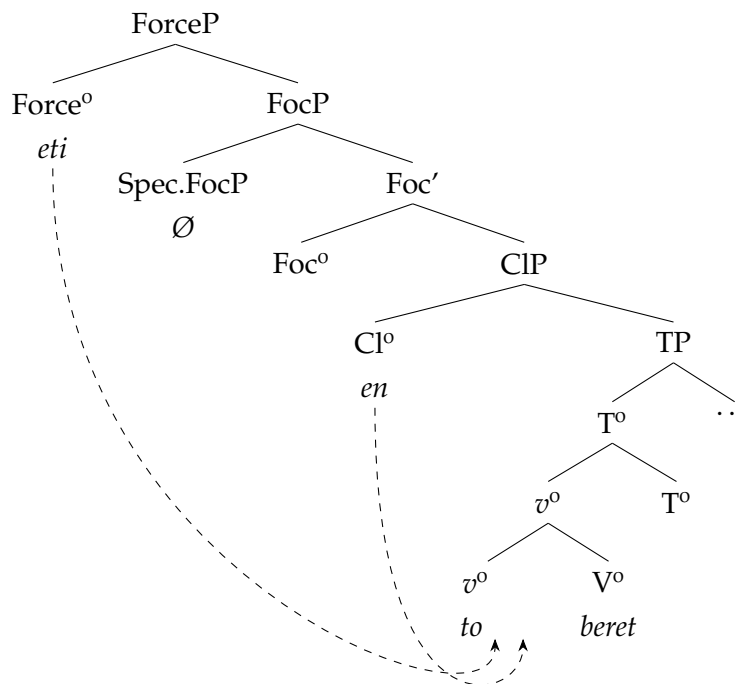
- (87) *ne eti en to-beret*
 NEG DECL him PV-give.3SG.PRES

‘(s)he does not give him’



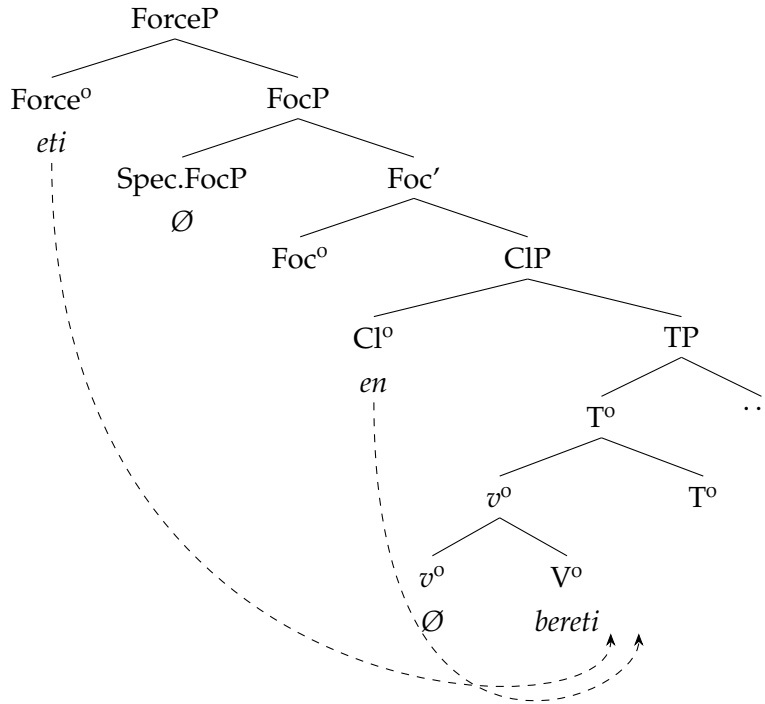
- (88) *to eti en beret*
 PV DECL him give.3SG.PRES

‘(s)he gives him’



- (89) *bereti eti en*
 carry.3SG.PRES DECL him

‘(s)he carries him’



The syntactic position of the conjunct particles probably changed at some time. Following Ram-Prasad (2022), the PIE predecessors of the OI conjunct particles occupied the specifier position of FocP. For OI, Carnie et al. (2000), Adger (2006) and Newton (2006) assume that conjunct particles are C° heads base-generated in this position. We therefore have to assume that they are reanalysed from phrases to heads.¹²⁰ I propose that this happened after the declarative and relative markers were reanalysed from clitics, in the sense that they were independent syntactic elements that could occupy a node in a syntactic tree by themselves, to affixes similar to, say, tense markers in English. The latter occur as features on the T° head and attach to a modal verb if one is base generated in T° but can also be realised on any other verbal position where it has a host.¹²¹ When this had happened and **eti*, **io*, etc. did not block anything else from occupying the Force° head, negation, interrogatives and some conjunctions could be base-generated there, as this head is often associated with the marking of these characteristics.

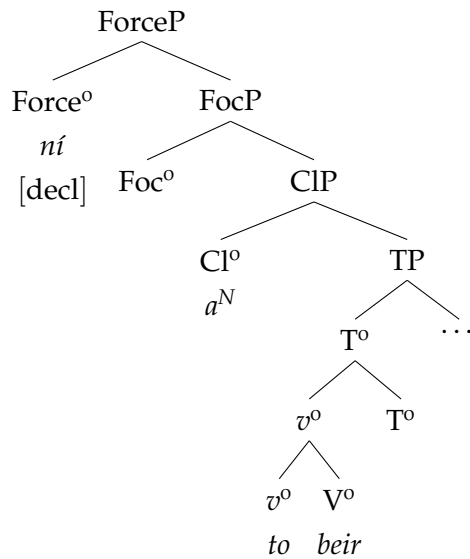
¹²⁰ This is quite a common change. Van Gelderen (2008: 200) discusses a third factor principle (a “general, cognitive, innate constraint on how we perceive and interact with the world” (van Gelderen 2008: 200), which therefore influences our cognition in all concerns, also language) that can be broken down to “analyze something as as [sic!] small as possible” (van Gelderen 2008: 200). She calls this the Head Preference Principle (HPP): “Be a head, rather than a phrase” (van Gelderen 2008: 200).

¹²¹ See section 5.2 for discussion. Besides Lowering there are other approaches that can explain this affix order. In older literature this phenomenon was explained through a process called “Affix-Hopping”, whereas Harley (2013) calls it “Merger under Adjacency”.

Now, if there was a conjunct particle in ForceP,¹²² the [Force] feature was realised there, if there was no conjunct particle but a preverb, [Force] was realised there and if there was no conjunct particle and no preverb, [Force] was realised on the verb. Thus, when apocope occurs and drastically changes the form of the verbs and their [Force]-affixes, the function is still expressed through their reflexes after apocope (mutation, different endings, etc). Syntactic trees for OI would now look as in examples 90,¹²³ 91 and 92.¹²⁴

- (90) *ní a^N to beir* (ní·tabair)
 NEG him PV give.3SG.PRES

‘(s)he does not give him’

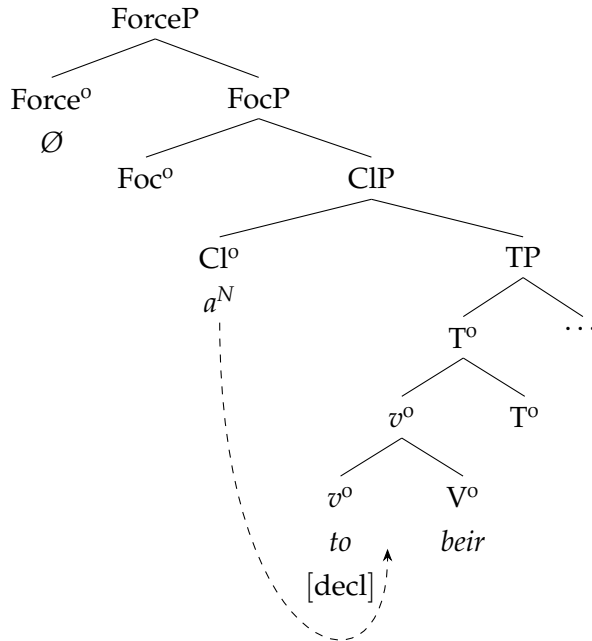


¹²² Those contexts where it seems as if there were two pretonic conjunct particles, like *coní* etc., are analysed here as just being the normal conjunct particle *co^N* with a negative feature additionally present on Force⁰.

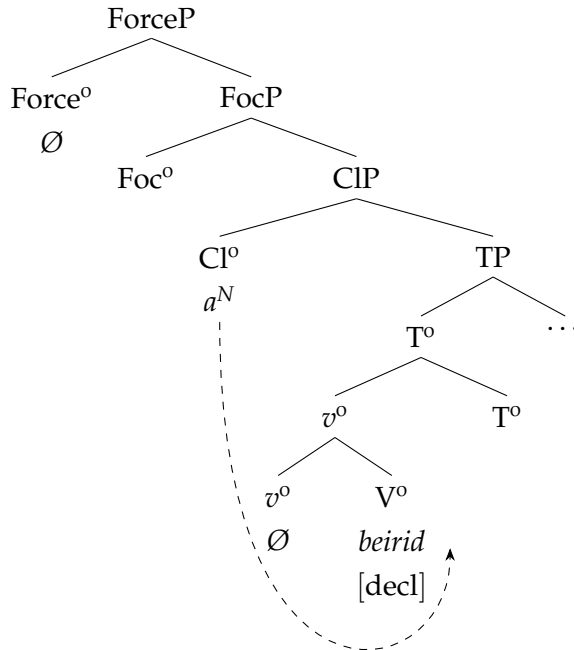
¹²³ Note that the first sound of the preverb is here nasalised, i.e. *ní·tabair* is /nʲi:·daβərʲ/.

¹²⁴ In Old Irish, synchronic phonological processes often preclude a transparent analysis of the internal constituents of a word. Therefore I have given the various morphemes in their isolated forms in the gloss and added the actual form the verbal complex adopted in Old Irish in brackets.

- (91) *to a^N beir* (da·mbeir)
 PV him give.3SG.PRES
 ‘(s)he gives him’



- (92) *beirid a^N (beirthi)*
 carry.3SG.PRES him
 ‘(s)he carries him’



The reanalysis of the former declarative and relative clitics and the Spec-to-Head reanalysis of the conjunct particles mark, in this model, the end of the pOI period and the beginning of the OI one.

The main difference between this approach and the ones by Carnie et al. (2000) and Newton (2006) is that we do not need to assume any longer that preverbs and conjunct particles have to occupy the same syntactic position although they both occur in pretonic position. Prosodic inversion of the pronoun generates the right word order. This removes all the problems associated with explaining why the preverbs sometimes seem to move and sometimes not.

The next section discusses some remaining problems of this analysis.

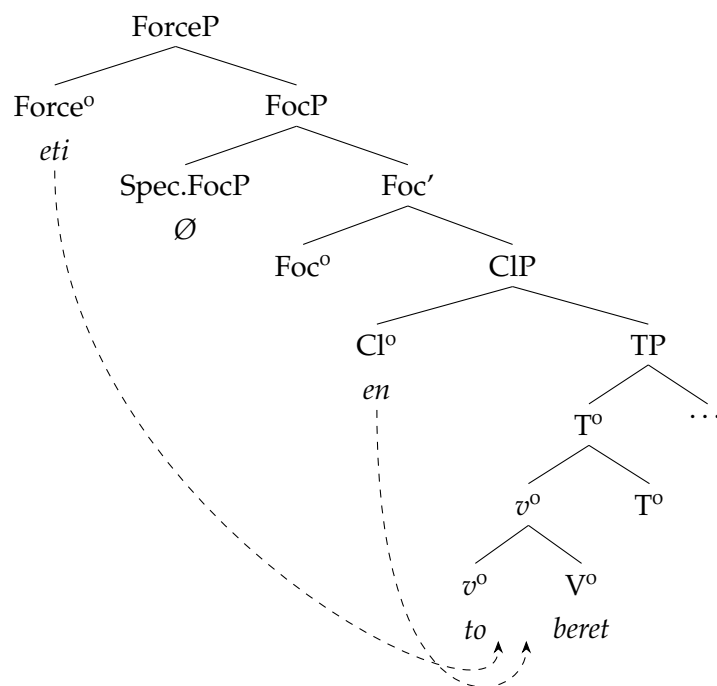
7.2.2 Problems and Solutions

The main problem is the placement of the preverb. If we analyse it as a head of v^0 , as Adger (2006) and Newton (2006) do and as was done in the analysis above, several problems emerge.¹²⁵ The first one concerns the inflectional endings. These have been quietly ignored in the account in section 7.2. Adger (2006: 607ff) shows that non-finite verbal forms stay in situ in the VP (these sentences show SV word orders). Thus, it would be satisfying to analyse movement of the verb to T^0 as a condition on the realisation of finite morphology. These endings, however, then have to be analysed as occurring on T^0 , which leads us to the question why in a tree like the one in example 88, repeated here as example 93, the clitics can intervene between the preverb and the verb to give a structure like **to-eti-en-beret* but not between the verb and the inflectional endings to give something like **bere-eti-en-ti* as in example 94.

¹²⁵ Bate (2024: 7ff) sees the preverbs as a part of the verb which is already attached to the latter in the lexicon. He then assumes that the object pronoun undergoes PI around the first syllable, regardless of whether it is the first preverb or anything else. A problem for this analysis is those forms of the copula which are longer than one syllable. Also, clitics attaching to the first syllable of any word are unknown to me elsewhere, cross-linguistically. One could argue that it is some kind of infix but this would be unexpected for pronominal clitics.

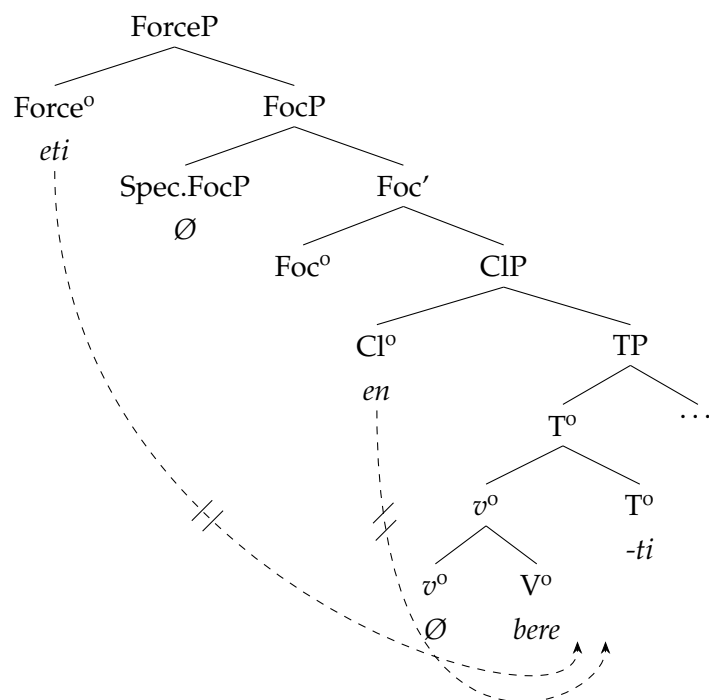
- (93) *to eti en beret*
 PV DECL him give.3SG.PRES

‘(s)he gives him’



- (94) **bere eti en -ti*
 carry DECL him 3SG.PRES

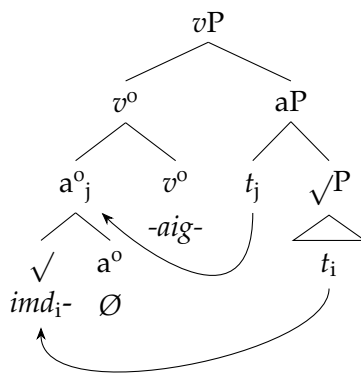
‘(s)he carries him’



This is especially strange because the preverb hierarchically intervenes between the verb and the inflectional endings. This, of course, does not necessarily need to influence the phonology but it nevertheless makes this account more problematic, especially if we assume some kind of prosodic hierarchy, where a syntactic X^0 corresponds to a phonological word and a syntactic phrase to a phonological phrase. It would make much more sense to analyse the preverbs as being syntactically independent from the verb and to form one phonological entity after the syntactic derivation in certain contexts, as Heather Newell (p.c.) tells me. We will return to this point later.

Moreover, v^0 is the position which is associated with secondary verbal morphology, i.e. if a verb is derived from a noun, as for example with the $-(a)ig$ suffix, which was already mentioned in section 6.2.2, this suffix is assumed to be the realisation of v^0 (cf. Bobaljik 2017: 9, Panagiotidis et al. 2017, Grestenberger 2022, etc.). This is exemplified in the tree in example 95.

- (95) *imd-* *aig-*
 many/numerous aig
 ‘to abound, to increase’



The tree in example 95 shows the structure of the verb *imdaigidir* ‘to abound, to increase’ which is derived from the adjective *imdae* ‘many, numerous’ (Le Mair 2011: 221). One could now defend the view that preverbs have a similar function as secondary verbal affixes because they derive new verbs from already existing ones. We do, however, find $-(a)ig$ -verbs with preverbs, which suggests that the two elements can co-occur and are therefore not competing for the same structural position. An example is the compound of *imdaigidir* with the preverb *do-*, *do-imdaigedar* ‘to multiply, to increase’.

Thus, we should try to find a different analysis of the preverbs. Actually they provide the only difficulty for an otherwise simple and sound analysis. To demonstrate this, we will now look at the possible structures without preverbs.

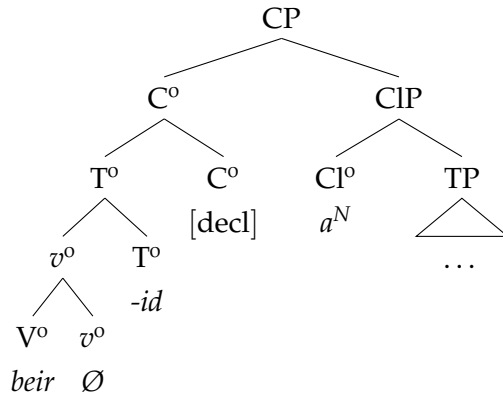
For independent simple verbs we would assume V^0 -to- T^0 -to- C^0 movement with the WL_2 clitics being base generated in C^0 and the pronominal clitics again in the CliticP between the CP and the TP as in example 96.¹²⁶ In dependent simple verbs we would have the conjunct particles base-generated in C^0 and V^0 -to- T^0 movement of the verb with the final movement of

¹²⁶ Note that in this analysis I assume a generic CP because nothing more is needed and because it is only to sketch the significance of the preverbs in making the verbal system this complex.

T⁰ to C⁰ blocked because C⁰ is already filled as in the tree in example 97. This model would not need prosodic inversion or any post-syntactic processes.

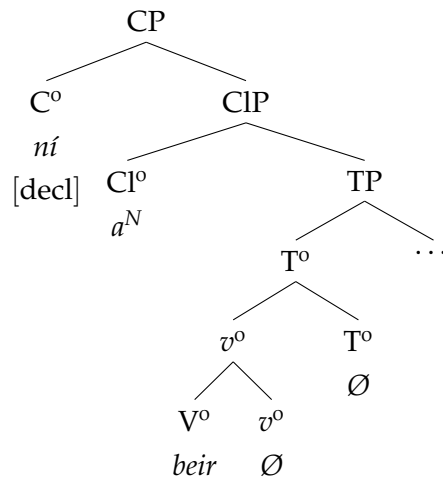
- (96) *beir -id a^N (beirthi)*
 carry 3SG.PRES him

‘(s)he carries him’



- (97) *ní a^N beir (ní·mbeir)*
 NEG him carry.3SG.PRES

‘(s)he does not carry him’



If we now, however, try to squeeze in the preverbs, problems start to arise. The first question to answer is whether they are heads or if they project their own phrases. In the preceding discussion we have seen enough arguments that made clear that they cannot be heads of *v*⁰. But also the other imaginable head-positions seem to provide more problems than benefits for them because we always have to account for the preverb’s position at the left edge of the sentence, in front of the verb through some kind of movement. The easiest implementation there would be head-movement with incorporation of the verb into the preverb or vice-versa, which, however, makes it impossible to account for the deuterotonic forms of preverbs because there they need to be split up again. Thus, they must be phrases. Verbal particles (another term for preverbs) act as phrases in other languages as well (compare for example Zeller 2001 and Ram-Prasad 2022), which therefore does not pose any problems.

This claim is also substantiated through the fact that there can be several preverbs present at once (see section 3.2.3). Phrases can be iterated but there cannot be several identical heads present at the same time.

Verbal particles are often assumed to be the heads of a phrase or a small clause which is the complement of V^0 and takes what would be the complement of the verb in simple verbs as its complement (cf. Kayne 1985, den Dikken 1995, Svenonius 2004).¹²⁷ To get the right word order, they are often modelled to target some Asp[ect]P directly above or below vP . Another possibility is to assume that they did not change their status as adjuncts to VP or vP , as was assumed for PIE. The latter, however, is not very probable because their function changed notably. But as it is easier to model and as it also does not influence the rest of the analysis I will stick to the idea of them being adjuncts to the vP .

Next, these elements somehow have to move to the left edge of the clause. And here, our problems start. We cannot keep the very simple model proposed above because there we could move them either to Spec.CP or to Spec.TP. In the first case we would still get V^0 -to- T^0 -to- C^0 movement because C^0 is empty. This would, however, leave the clitic pronoun in the wrong position, following the preverb and the verb (e.g. **to-eti-bereti-en* for pOI). The second possibility, movement to Spec.TP would give us a verb-pronoun-preverb word order, which again, is completely wrong. Thus, we return to Rizzi's Split-CP.

As in the analysis in section 7.2, we assume that the conjunct particles are heads of ForceP. The same head also bears a [decl] feature that can be realised on lower heads if present. The verb undergoes V^0 -to- T^0 movement. But where do the preverbs go? They could move for example to Spec.TP. Then, we could still assume the pronouns to occupy the head of FocP, TopP, FinP or a ClP intervening between the left periphery and TP and undergoing prosodic inversion if there was no host. But what brings the preverb to TP? What reason does it have to occupy this position?

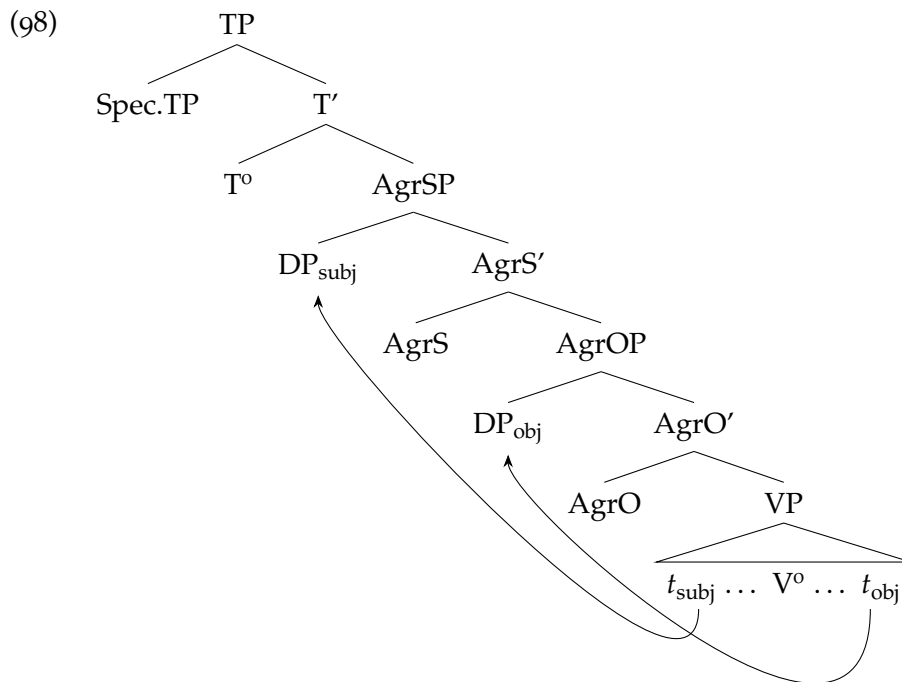
Note that the assumption of conjunct particles and pretonic preverbs as occupying the same position as suggested by Carnie et al. (2000) and Newton (2006) cannot be maintained if we assume the preverbs to be phrases and the conjunct particles to be heads. Newton (2006: 36) states that "[i]nitial preverbs behave phonologically and syntactically like conjunct particles, which suggests that both appear in the same position, namely C'' ". The syntactic behaviour (i.e. that they occur in this phonologically marked position in complementary distribution) is indeed at first glance the strongest argument against this alternative interpretation of the two elements. There is, however, one important difference between preverbs and conjunct particles. The former can occur in tonic or posttonic position whereas the latter cannot, which is due to the fact that, on the one hand, there can be several preverbs at once but only one conjunct particle and that, on the other hand, preverbs are merged much lower in the tree (the latter point is also mentioned in Newton (2006: 38)).

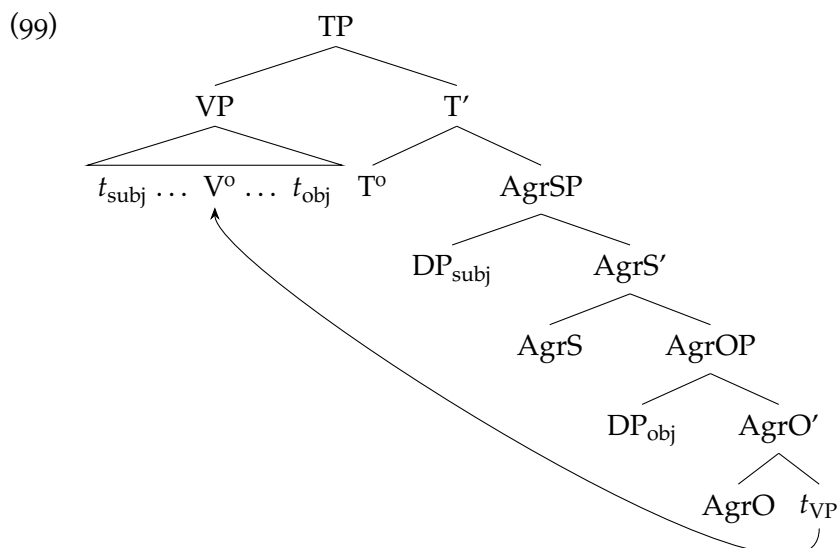
¹²⁷ Note that the semantic effect which Carnie et al. (2000) and Adger (2006: 621) use as argument for placing the preverb in v^0 is no problem for an analysis of the preverb in such a phrase, as argued in the vast amount of literature on this kind of analysis of particle verbs. The aspectual component which he mentions has to be excluded here because the augment has different distributional properties than other preverbs and, thus, has to be analysed in a different way. How exactly this works will not be examined in this thesis due to reasons of scope.

7.2.3 A Revised Analysis: The Verb-Remnant Approach

7.2.3.1 Syntax

We have seen in the last sections that there are several severe problems that the Old Irish Verbal Complex poses for a syntactic analysis in the usual way. One of them was the question of how the preverbs can be fronted in the way that is attested and this problem can be solved if we take another viewpoint on what happens during the derivation of verb initial word order. A very common analysis for verb-first languages is the so-called *v*P-remnant movement. In this kind of analysis it is not the verb that is raised by head-movement to the T^0 or C^0 position but rather the whole VP that is raised. Examples for such an analysis can be found in Massam (2000), Lee (2008) and Medeiros (2013). San Lucas Quiaviní Zapotec, a small Mexican language examined in Lee (2008), is V1 like Old Irish. The author proposes tree structures like those in examples 98 and 99 to account for the position of the constituents. In example 98 we see that the subject and the object leave the VP to be assigned case in designated Agreement Phrases. These projections originated in earlier work on syntactic structures. In recent times it is most often assumed that the *v*P is accountable for theta-role assignment for the object and the TP for the subject. These projections can, however, still be found sometimes as they help to explain certain phenomena. When the specifier of TP is merged, the *v*P-remnant, which now only contains the verb, raises to this specifier. This is triggered by some feature which Massam (2000: 105) calls [Pred] (for predicate) and which is similar to the EPP-feature that accounts for movement of the subject into this position. There the verb is in an Agree-relation with T^0 and thus values its tense features there. In the trees in 98 and 99 the arrows now indicate syntactic movement.





The feature Massam (2000) proposes is called [Pred] because she shows for Niuean that it is not only the VP that is attracted by this feature but the predicate in general. This also explains why people came up with this kind of analysis. In several V1 languages the verb, generally assumed to undergo head-movement, patterns with other elements (DPs and PPs) that are phrases. This is also the case in Modern Irish. Carnie (1995: 130ff) shows that the copula *is* at this stage is no longer a verb but rather a preverbal particle that patterns with other preverbal particles with the one difference that the preverbal particles precede a verb and the copula a non-verbal predicate. The preverbal particles also highly resemble the copula in form. Carnie (1995), however, approaches this problem from the other side in trying to find an explanation of how these phrasal predicates are able to act like heads (cf. Lee 2008: 100ff). But there are also analyses for Modern Irish tackling these problems through a *v*P-remnant analysis (e.g. Duffield 1995).

In Old Irish, the copula is still fully inflected and shows a much greater number of characteristics of a full verb than it does in the later language stage. This is true for most of the diagnostics Carnie (1995) brings forward for Modern Irish but importantly not for all because already in Old Irish, the copula is a proclitic to the following predicate. Moreover, the predicate always moves to the front of the clause together with the copula, and thus is even placed before the subject. Example 100 shows a copula clause in which the object *cele dæ* precedes the subject *in fer hisin*.

- (100) *is cele dæ in fer*
 COP.3SG.PRES servant.NOM.SG god.GEN.SG the.NOM.SG man.NOM.SG
hisin
 PRON.NOM.SG.MASC-DEM

‘That man is a servant of God.’

Griffith & Stifter (2013: Ml.030c03)

This can under the present account easily be explained through the requirement that in copula clauses the predicate stays inside the VP and is raised together with the rest of this phrase.¹²⁸ This also explains in part why the copula per se presents such a very complex

¹²⁸ This slightly weakens the argument that the object leaves the VP to be assigned case in AgrOP.

system. For example, in combination with a conjunct particle it nevertheless remains proclitic and does not receive stress, as for example preverbs in compounds would in this context (compare unstressed *níptar* ‘they were not (COP.3PL.PRET)’ with the corresponding stressed Verbum Substantivum *ní-bátar*). This mirrors the incipient stages of the development into a particle. Thus, there is already one aspect of the grammar of Old Irish that can be more easily explained through a *vP*-remnant-analysis than through verb raising through head-movement.

Of course, concerning this account, the question of how these structures developed out of the PIE system poses itself.¹²⁹ There are several developments that could be imagined. One possibility, though not really possible to substantiate, is that *vP*-remnant movement developed in Insular Celtic due to substrate influence of a verb-initial language already spoken there (theories on a potential substrate influence have been proposed and much discussed, see McCone (2006: 17ff) and Schrijver (2015: 194f) for discussion). As already mentioned, however, a development like this is difficult to trace with the material that we have attested. Another possibility would be to assume that *vP*-remnant movement was already possible in the language. Remember the discussion in footnote 100 (section 6.3.1.1) on the problems of verbal topicalisation in PIE. As in the Mexican and Polynesian languages discussed above, there are cases in which an element that is normally identified as a head (the verb) patterns with phrasal elements (DPs, PPs, even VPs including negation and others). There are many analyses of other languages where *vP*-remnant movement in certain contexts is assumed, for example den Besten & Webelhuth (1987) who coined the term “remnant movement” for “a peculiarity of verb-preposing in German and Dutch” (Hinterhölzl 2002: 127) for sentences like in example 101 in comparison to the one in example 102. Because the finite verb, *hat*, occupies C^0 ,¹³⁰ the elements preceding it have to be in the specifier of CP and, thus, we expect them to be phrases.

- (101) *Gelesen hat Hans das Buch*
read-PART has Hans the book

‘Hans has READ the book.’

Example taken from Hinterhölzl (2002: 127)

- (102) [_{VP} *Das Buch gelesen*] *hat Hans t_{VP}*
the book read.PART has Hans

‘Hans has READ THE BOOK’

Example taken from Hinterhölzl (2002: 127)

If one considered that *vP*-remnant movement was already a possibility in PIE we could address the problem of the initial verb that seems to occupy the same position as otherwise occupied by phrases. It could be explained quite easily in the same way as in examples 101 and 102 for German above. Thus, let us assume that *vP*-remnant movement was already a possibility in PIE. Note, however, that, at this time, the *vP*-remnant would move due to pragmatic reasons to the specifier of FocP. For Insular Celtic we will then assume that this possibility was more and more generalised and grammaticalised, meaning that at some point the *vP*-remnant no longer moved to Spec.FocP for pragmatically marked purposes but to Spec.TP as a general grammatical characteristic of the language.

129 An analysis of the different language stages concerning the Wackernagel clitics will be given in section 8. Therefore the discussion here will be rather brief.

130 Compare the trees in examples 58 and 59.

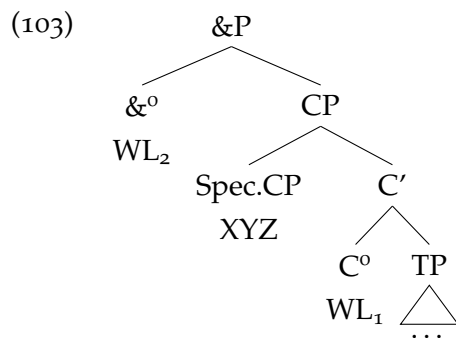
A *v*P-remnant analysis also has the benefit of explaining why we never find any verb-initial structures with a preverb in situ. This is quite a common structure for example in German, where the verb head-moves to C⁰ ¹³¹ and thus has to leave the preverb behind. Though in a *v*P-remnant analysis structures like the German ones are possible, it is also possible to prevent them and nevertheless preserve the independent status of a fronted preverb and verb.

The analysis proposed here can thus more easily account for the facts posed by the Old Irish Verbal Complex concerning the copula (for several reasons, see above) and the placement of preverbs than other proposed or imaginable analyses of Old Irish syntax.

7.2.3.2 Phonology

Up to this point, we have mostly ignored Spell-Out and the phonological properties of the derivation. This concerns the ordering problem that was brought up by Keydana (2011) and discussed in section 2.3, the position of the Wackernagel clitics in compound verbs and stress placement. Let us now go through these.

Keydana (2011) explains that after the syntactic tree has been formed a WL₁ clitic as for example the one in the (simplified) tree in 103 should already form an entity with the preceding element when the WL₂ clitic moves by prosodic inversion and thus, the attested word order cannot be generated, see example 104.

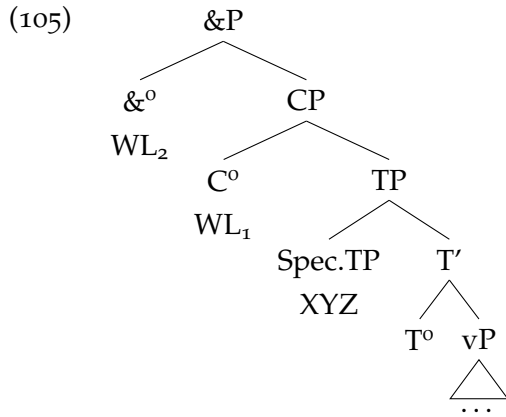


- (104) a. =WL₂ XYZ=WL₁ ...
 b. *XYZ=WL₁=WL₂ ...

A very similar problem arises when both, the WL₂ and the WL₁ clitic, have to move phonologically to get a host (see the tree in example 105). Here, because Spell-Out is assumed to progress from the lowest embedded structures up to the higher ones, we have to assume that, first, the WL₁ element (see example 106b) and afterwards the WL₂ (see example 106c) element undergo prosodic inversion and we arrive at the wrong word order.

¹³¹ Compare structures as in example 1, where the verb *aufmachen* is split up.

- (1) Er *macht* die Türe *auf*
 He makes the door open
 'He opens the door.'



- (106)
- a. =WL₂ =WL₁ XYZ ...
 - b. =WL₂ XYZ=WL₁ ...
 - c. *XYZ=WL₁=WL₂ ...

Note that this problem only concerns PIE and pOI. In OI, where the declarative and relative markers are reanalysed as affixes that are no longer positioned by prosodic mechanisms, the word order problem disappears because there is only one kind of clitic left.

However, we have to resolve the problem of the two earlier language stages. There are several imaginable solutions. If for example the pronouns were placed higher up in the tree than the WL₂ clitics, the ordering would be correct. The comparative IE evidence, however, shows that this is not probable. Another solution could be that the WL₂ and the WL₁ clitics formed an entity already in the syntax and then underwent prosodic inversion together.

The latter could explain the pOI data. For PIE, however, this does not work because of sentences like the one in example 107, where the two clitics are separated by another element, the non-clitic relative *yó*.

- (107) *utá vā_{WL₂} yó no_{WL₁} marcáyād ánāgasah*
 also or who.NOM.SG us.ACC.PL would-harm innocent.ACC.PL

‘or also who would harm us, though innocent’ RV 2.23.7a, from Hale (2007: 198)

Thus, we still have to find a viable solution. Let us look more closely at Spell-Out. As was already described in section 5.1.5, Spell-Out does not happen all at once but in segments called Spell-Out domains. Elements which are in the same Spell-Out domain can influence each other (cf. McGinnis-Archibald 2016: 408). Thus, if we assume that the left periphery and at least the specifier of TP form one Spell-Out domain, we can solve the problems discussed above. It means that the WL₁ clitic does not form an impenetrable unit with its phonological host at the time the WL₂ clitic moves so that the latter can be positioned between them.

The same is true for the general position of clitics in deuterotonic compound verbs. If Spell-Out would not allow for this kind of influence of higher elements on lower ones, clitics could not be placed between the preverb and the verb. By the time the clitics underwent prosodic inversion, preverb and verb would already have formed an entity on their own. The resulting word order is completely wrong. For a verb with the expected word order **to-eti-en-beret* an analysis of this kind would proceed in the derivation as shown in example 108.

- (108) a. *=eti =en to-beret
 b. *=eti to-beret=en
 c. *to-beret-en-eti

Now, let us turn to the third problem. In section 4.2.2, the idea was brought forward that the presence of a clitic resulted in stress following this clitic. Heather Newell (p.c.) points out that from a theoretical point of view it is unlikely that a phonologically weak element like a clitic can have such an influence on other elements which themselves are not weak. There are, however, other languages that do show this kind of effect. McCone (2006: 210), for example, describes a phenomenon which is present in some Romance languages, for example in Portuguese. This language has so-called mesoclitics, which arose through univerbation of their host and a following element. The Vulgar Latin periphrastic future of the type *cantare habeo* ‘(I have to sing >), I will sing’ could include a clitic object pronoun which was hosted by the infinitive *cantare*. When the infinitive and the auxiliary merged, with the auxiliary grammaticalising into personal endings, the clitic was not shoved further back to be hosted by the whole newly formed word as could be expected but remained in its position. In the normal forms without a clitic, the future form has one stressed syllable. If however the clitic intervenes, there are two stressed syllables, namely the inflectional ending, as is normal, and the syllable preceding it, e.g. *comprará* ‘(s)he will buy’ vs. *comprá-lo-á* ‘(s)he will buy it’ (McCone 2006: 210).¹³² A similar influence of clitics on stress patterns can also be seen in Ancient Greek, where stress, if the last syllable (the ultima) is long, is assigned to the antepenultima (the third to last syllable) or to the penultima (the second to last syllable). If, however, an enclitic element is added at the end, there can be another stress added. νῆσός τις /*nēsós tis*/ ‘some island’ for example shows in addition to the normal circumflex on the penultima an acute on the ultima if an enclitic is present (Van Emde Boas et al. 2019: 291). Thus, there seems to be convincing evidence for the fact that clitics can have an influence on the stress pattern of a word.

We can therefore assume that in pre-Old Irish stress is assigned to the first syllable except in those cases where a clitic intervenes. In these cases the syllable directly following the clitic receives stress.

The discussion in this section helps us to solve the three big problems that came up in the preceding sections. A more detailed examination of the phonological properties of the derivation will, however, be left open for further research as it goes beyond the scope of this thesis.

¹³² Note that this system, as well as the OI one, pose problems for phonological theory as clitics are normally assumed to only affect phonological words and should not be able to be placed inside them (and thus affect phonological entities smaller than a phonological word) because this would need additional phonological bracketing for which there is no evidence otherwise (Heather Newell, p.c.).

7.2.3.3 Example trees

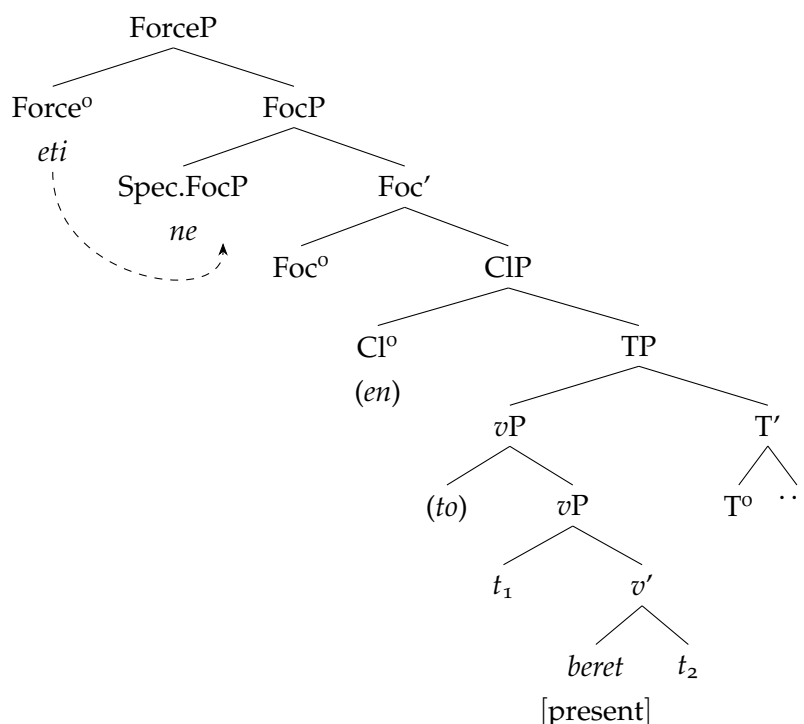
How then would (pre-)Old Irish sentence structures look under this kind of analysis?

This section presents sample trees for the paradigm of (pre-)Old Irish verbs in table 16. The *v*P-remnant (including the adjoined preverb¹³³) moves up to Spec.TP, which can be explained through the fact that the verb has to get its inflectional features, but because it has to move together with the rest of the VP, head-movement to T⁰ is not possible. After the rest of the syntactic tree has been built, clitics undergo prosodic inversion if necessary.

Example 109 shows the tree for a pre-Old Irish dependent simple or compound verb and 110 shows the same for Old Irish¹³⁴. In example 111 we see the pre-Old Irish tree for an independent compound verb and in example 112 the same for Old Irish. Examples 113 and 114 finally show the pre-Old Irish and Old Irish trees for an independent simple verb.

- (109) *ne eti (en) (to) beret*
 NEG DECL (him) (PV) carry/give.3SG.PRES

‘(s)he does not carry/give (him)’

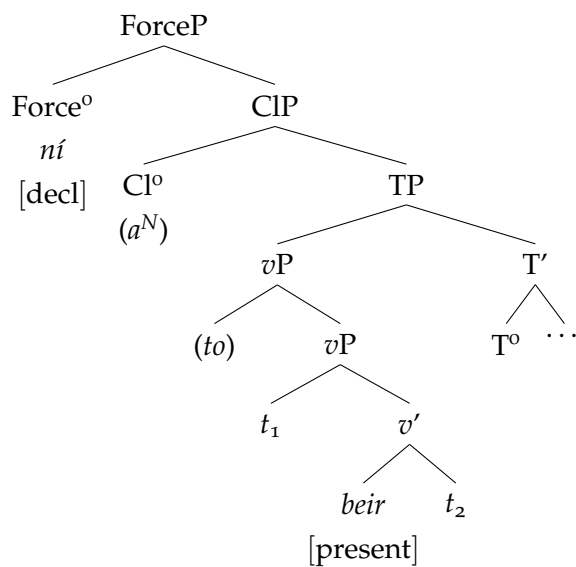


¹³³ If we were to assume that these are base-generated in a ResultP, we would have to assume that they moved up to another projection above *v*P, which is moved with the *v*P-remnant.

¹³⁴ Note that the pronoun in the compound verb is only visible through its nasalising effects on the following consonant (*ní-tabair* = /nʲiːˈdaβərʲ/).

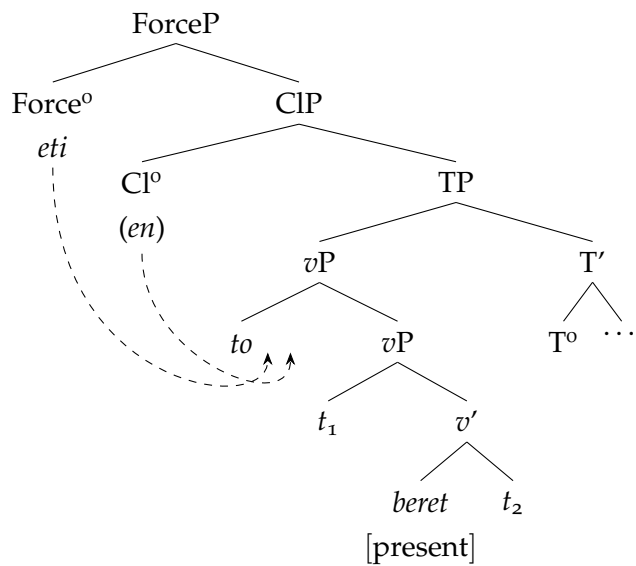
- (110) *ní (a^N) (to) beir* (*ní·beir/ní·mbeir/ní·tabair/ní·tabair*)
 NEG (him) (PV) give.3SG.PRES

‘(s)he does not carry / give (him)’

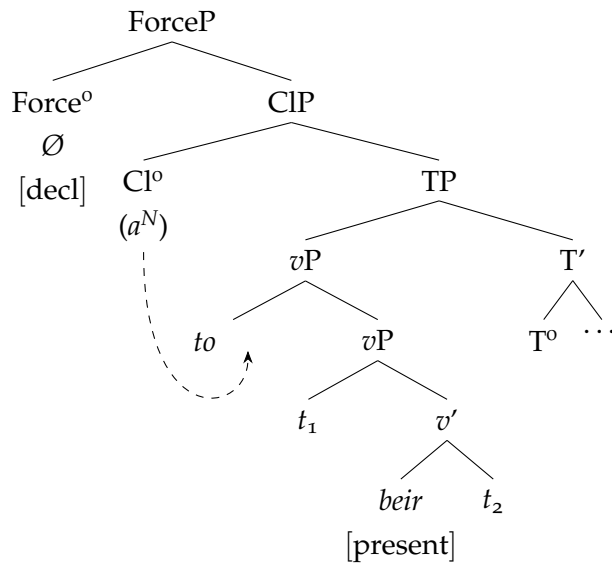


- (111) *to eti (en) beret*
 PV DECL (him) give.3SG.PRES

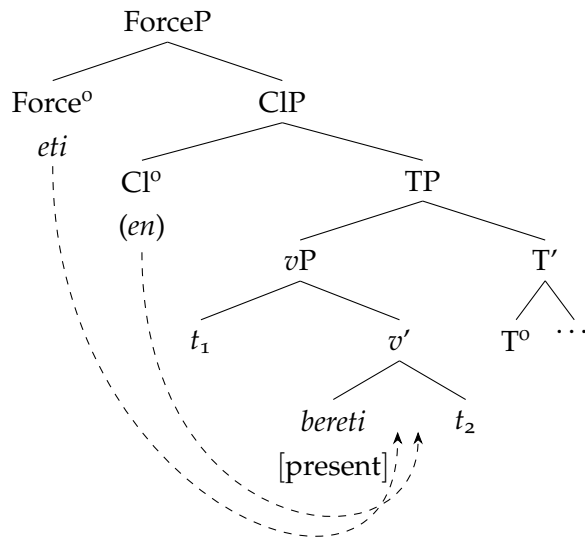
‘(s)he gives (him)’



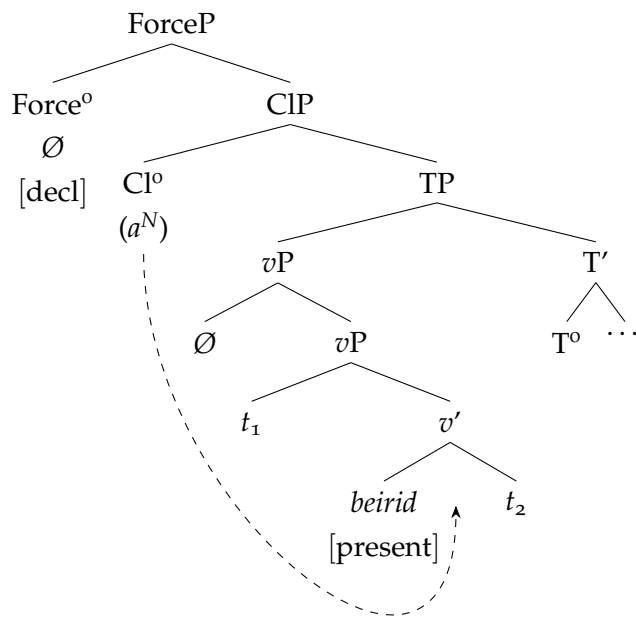
- (112) *to* (a^N) *beir* (*do·beir/da·mbeir*)
 PV (him) give.3SG.PRES
 '(s)he gives (him)'



- (113) *bereti* *eti* (*en*)
 carry.3SG.PRES DECL (him)
 '(s)he gives (him)'



- (114) *beirid* (*a^N*) (*beirid/beirthi*)
 carry.3SG.PRES (him)
 '(s)he carries (him)'



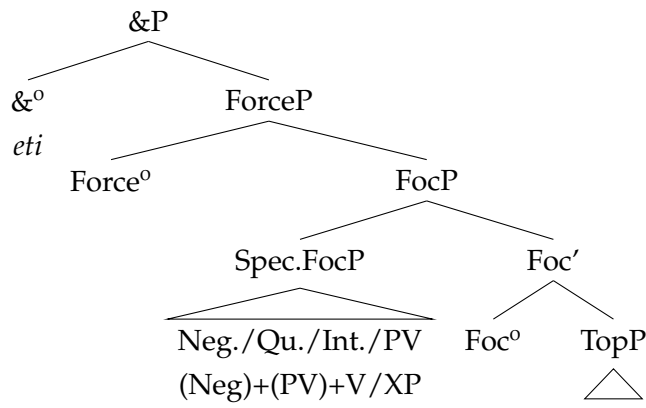
Under these premises the analysis proposed here has proven more advantageous although it still leaves space for further investigation. In addition to the benefits mentioned above, it also connects Irish with other verb-initial languages and, thus, adds another language to a group linked by a unified analysis for verb-initial syntax. With this being established, let us now see how the Wackernagel clitics discussed in the first part of this thesis fit into this new picture of Old Irish clausal syntax.

8 The Syntax of Wackernagel's Law in the Prehistory of Old Irish

Although some problems in the formal explanation of the development and structure of the OIVC remain, approaching the topic with a focus on the Wackernagel clitics and verb first syntax (through a *v*P-remnant analysis) provides important insights into the language's diachrony. To sum up, I want to return to the formal interpretation of the syntactic development of the Old Irish Wackernagel enclitics, which form the main interest of this thesis, in a slightly more detailed way.

Let us start with the main-clause particle **eti*.¹³⁵ This element was a non-clitic sentence connector in PIE (see example 115) and in the Proto-Insular Celtic language stage speakers seem to have used this to express sentence connection to an extent that resulted in a nearly generalised use of **eti* (at this time it also developed into a clitic). Subsequently **eti* was reanalysed as a main-clause marker because it was well-nigh omnipresent in this kind of sentences. This is shown by the pOI tree in example 116. In OI, finally, **eti* had vanished through phonological processes and was only present as a declarative feature on Force⁰,¹³⁶ causing lack of mutation on the following sound (compare *ní·tabair* /nʲiːˈdaβərʲ/ in example 110 with *ní·tabair* /nʲiːˈtaβərʲ/ here).

- (115) *eti* Neg./Quant./etc. ...
 and X ...
 'and ...'

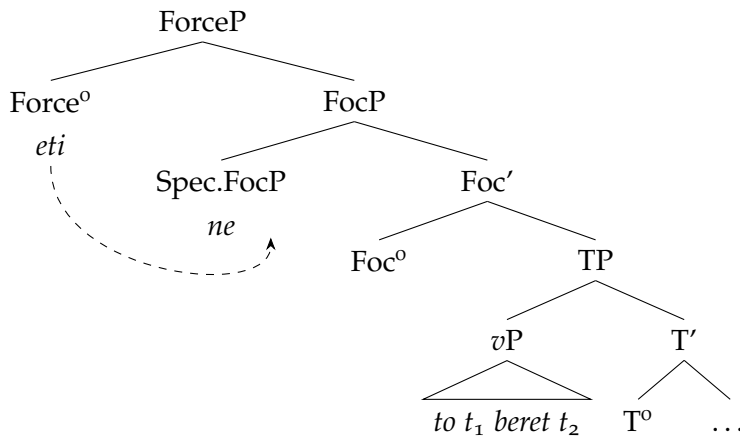


¹³⁵ I will, for main clauses, only show the trees for dependent compound verbs. Other topics such as the structures of simple verbs, the independent form of the compound and how prosodic inversion works in these structures, have been discussed thoroughly in the previous sections. For relative contexts I will mostly choose the independent compound form because relative negation often works differently. Sometimes tree structures will also be based on actually attested examples instead of the forms introduced in table 16.

¹³⁶ Note that, by this time, the negation was reanalysed from a phrase in Spec.FocP as head of Force⁰.

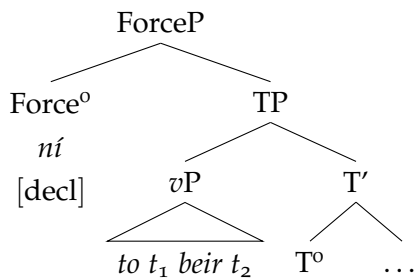
- (116) *ne-eti to beret*
 NEG-DECL PV give.3SG.PRES

‘(s)he gives not’



- (117) *ní to beir* (ní·tabair)
 NEG PV give.3SG.PRES

‘(s)he does not give’

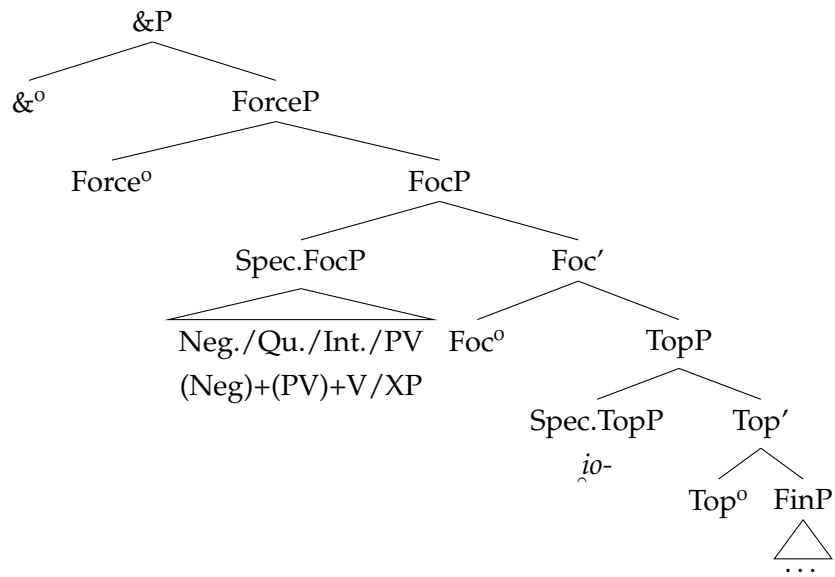


The Wackernagel element that is assumed to be the second most influential one in deriving the attested Old Irish verbal system is the relative particle **iō*. It behaves exactly like **eti* does in later times (up to the fact that it is lost through phonological processes and afterwards its reflexes are realised through a relative feature on Force⁰). Their origins differ, however. As discussed in much detail in section 4.1.2.1, it developed out of the fully inflected PIE relative pronoun **iō-*. Its exact etymology is controversial. At this stage it occupied the specifier of TopP as can be seen in example 118. Note that at this time it would be structurally possible for any PIE conjunction, including **eti*, **k^ue* and **de* to occur together with the relative pronoun (there might be of course semantic or other constraints). Only after the reanalysis of **iō* into the head of ForceP,¹³⁷ as in example 119, this was no longer possible. Note also that the PIE relative pronoun was not a clitic. Thus, if Spec.FocP was empty and there was no non-clitic conjunction, the relative pronoun could be the clause-initial element and, thus, also the host of clitic conjunctions. Example 120 shows an Old Irish verbal form where the reflex of **iō* is the relative lenition on *do·beir* /do·βe:rʲ/.

¹³⁷ Note that in those cases in which Spec.FocP was phonologically realised this reanalysis didn't involve any change in the linear order of elements. *iō* in the sequence PV-*iō*-XYZ can be analysed as being placed in Spec.TopP with no postsyntactic movement as well as in Force⁰ with subsequent prosodic inversion.

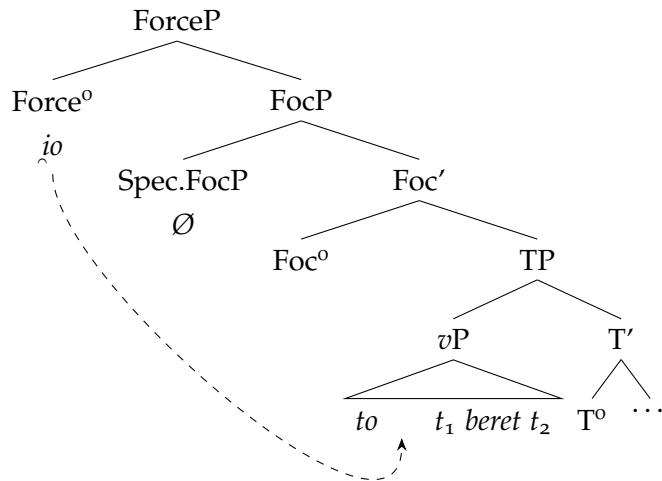
- (118) *Neg./Quant./etc. io- ...*
X who ...

'who ...'

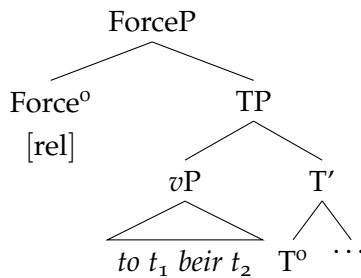


- (119) *to-io beret*
PV-REL give.3SG.PRES

'who gives'



- (120) *to beir* (do·beir /do·βe:rⁱ/)
 PV give.3SG.PRES.REL
 ‘who gives’



Various researchers have proposed further Wackernagel elements marking relative contexts. However, there is little agreement among researchers about these. Nevertheless, I will give a short overview over these elements. Schrijver (1997) reconstructs other relative markers depending on whether the antecedent of the relative clause was its subject or object. These are **em* and **ed > *e* explaining the distribution of relative lenition and relative nasalisation. Jasanoff (1999) reconstructs an element **-son* that in most contexts fell together with **io* but can explain certain inexplicable forms. The origin of the nasalising relative mutation in adverbial contexts is also still debated but some researchers have proposed another Wackernagel particle, for example a form **iom*, also derived from the PIE relative pronoun. These elements can basically be modelled in the same way as **io*, except for the PIE stage. To discuss which position these elements occupied then and how they came to be used in the same way as **io* will be left for future research.

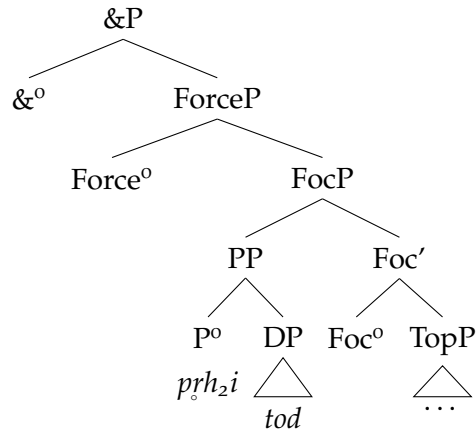
-(s)*a*^N is also a relative marking element and occurs in relative clauses introduced by a preposition and those conjunctions that are conjunct particles (the latter developed out of the former). Following Schumacher (2014: 166) these were originally paratactic structures introduced by a preposition and an anaphorically used demonstrative pronoun. This PP was probably fronted to Spec.FocP. I proposed in section 4.2.1 that this demonstrative pronoun was at some point identified with the class of elements marking declarative and relative clauses because it could easily be reanalysed as occupying the same position as the declarative and relative markers. The preposition was then equated with the negation or interrogative markers and -(s)*a*^N was reanalysed as a clitic. Thus, from this point on, these constructions triggered the dependent form of verbs. In the following examples this construction is examined using the preposition *ar* ‘before’ with relative (s)*a*^N or the identical conjunction *ara*^N ‘in order that’, which originally derived from *ar* ‘before’ + (s)*a*^N. Example 121 shows the PIE stage, where the PP with the preposition and the demonstrative occupies Spec.FocP.¹³⁸ After the reanalysis leading to the pOI structure, the two elements changed their place in the hierarchical syntactic structure. The attested order is then derived through prosodic inversion. What is important is that they are linearly directly in front of the verb. Thus, this development must have taken place after the reanalysis of VP-raising to FocP as VP-raising to TP. Example 122 shows the pOI structure. Here, the preposition was reanalysed as a conjunct particle and

¹³⁸ The form of the OI pronoun is different from the PIE one, where the nominative and accusative singular neuter demonstrative pronoun was *tod*.

the demonstrative as a clitic Force⁰ head. In OI, shown in example 123, the preposition and the demonstrative seem to have fused into one single item (at least concerning the use as a conjunction). Note that *ara·tabair* has the phonological form /ara·daβər^j/.

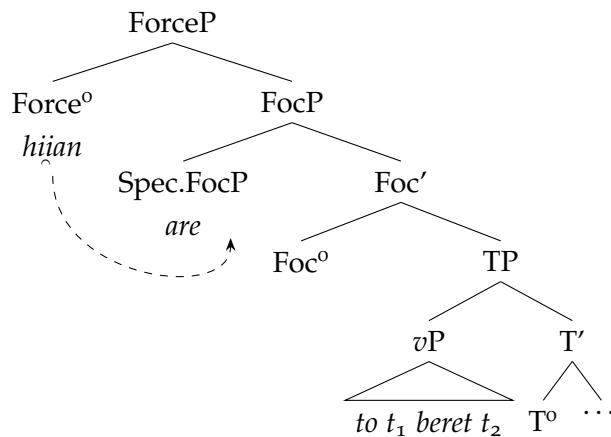
- (121) *prh₂i tod V...*
before that ...

‘before that ...’



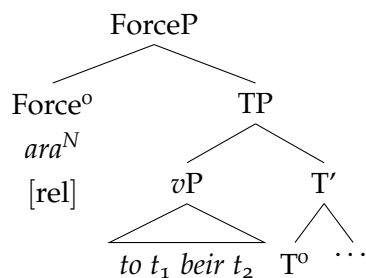
- (122) *are-hiian to beret*
before-that give.3SG.PRES

‘before which (s)he gives/in order that (s)he gives’



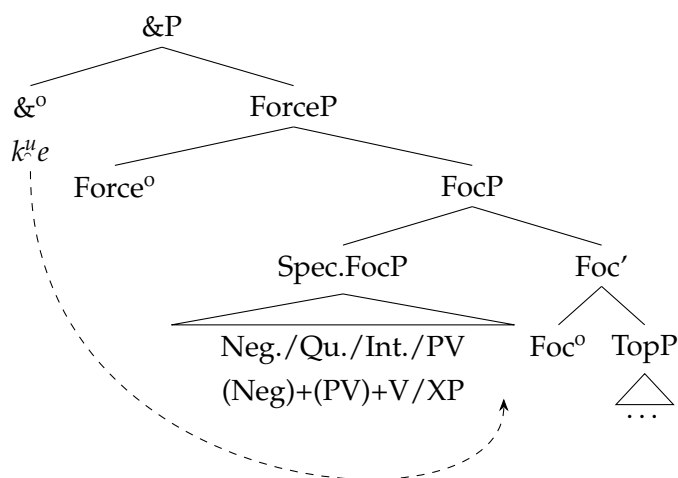
- (123) *ara to beir (ara·tabair)*
before_that/in_order_that PV give.3SG.PRES.REL

‘before which (s)he gives/in order that (s)he gives’



In some contexts, instead of **eti*, other PIE conjunctions were used, that is, the conjunctions **-k^ue* and **de*. The former was reanalysed as a relative marker in combination with the negation alongside the continued use as a conjunction. The PIE structure in example 124 can be seen as the basis of both uses. Example 125 shows the conjunctive use of *-ch* in OI. As there are very few examples for this, only appearing in archaic language in very limited contexts, I refrained from constructing an example based on those sample forms that were mainly used in the previous sections and instead used the verbal form, *noch fil* ‘and it is’, appearing in example 34.¹³⁹ In contrast to **eti*, which was phonologically lost but whose reflexes were grammaticalised as a declarative-marking feature, this did not happen for **k^ue*. The latter, rather, was lost from the lexicon,¹⁴⁰ leaving no trace except in special constructions. Relative negation formed with *-ch* only occurs in special contexts, for example following infixed pronouns. Such a structure is modelled in example 126 for pOI, where **k^ue* was still an independent syntactic item¹⁴¹ and example 127 for OI, based on the verbal form *nách-beir* /naχ·βe:rʲ/ (Wb. 6c18, cited from GOI: 265), where the element *-ch* is part of the vocabulary item for the relative negation in this context.

- (124) *Neg./Quant./etc. -k^ue ...*
 X -and ...
 ‘and ...’



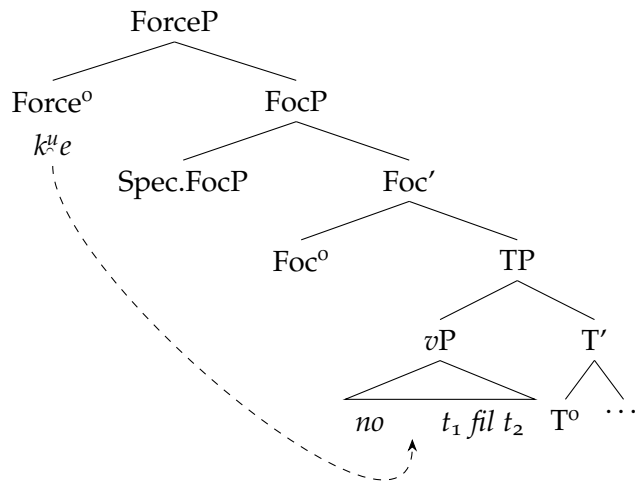
139 Note that the question of the independent form of the substantive verb *fil* will be ignored here. The tree is only meant to illustrate the properties of the clitic.

140 Probably due to a general development: after **eti* and **io* were lost phonologically and **de* was univerbated with other elements, *-ch* was the only non-pronominal clitic element. Also, phonologically, it was getting weaker and, thus, could easily be lost entirely.

141 I do not make any claims for the question of when *-k^ue* was reanalysed as relative in negation contexts and, therefore, I give both translations in the gloss.

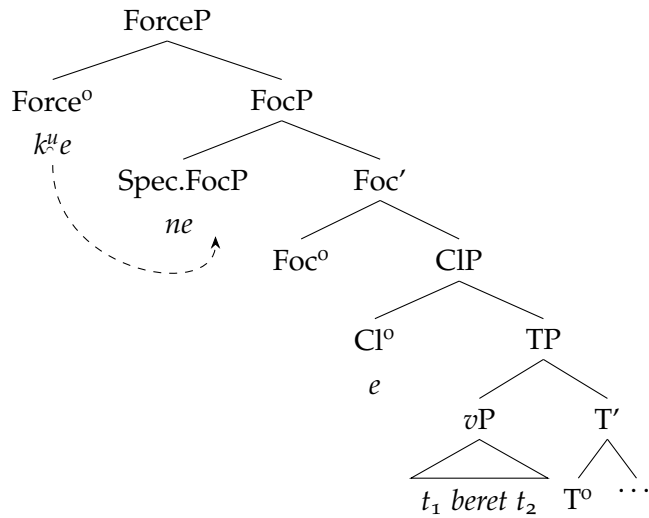
- (125) *no -k^ue fil* (no-ch fil)
 PV -and give.3SG.PRES

‘and it is’



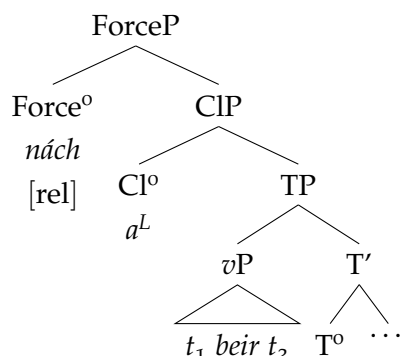
- (126) *ne -k^ue e beret* (nách·beir)
 NEG -and/REL it carry.3SG.PRES

‘and (s)he does not carry it/who does not carry it’



- (127) *nách* *a^L beir* (*nách·beir*)
 NEG.REL it carry.3SG.PRES

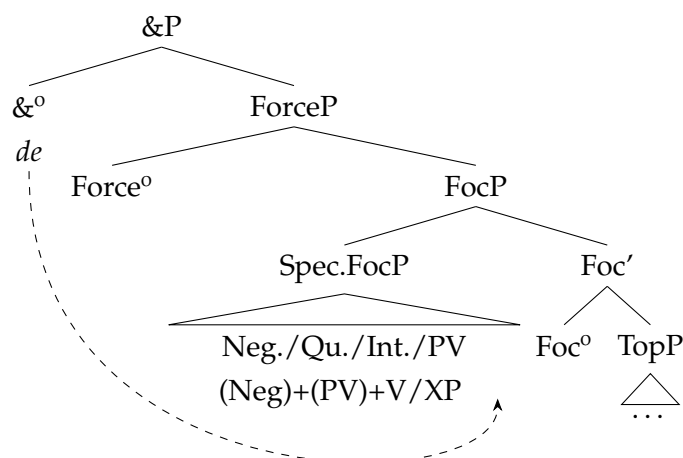
‘who does not carry it’



**de*, in contrast, was probably generalised rather early in several uses that were all limited to relative constructions. On its own, it is found in relative negation. The other context where it occurs is in combination with pronouns. We will look at this a little bit later. Now, the trees for **de* in relative negation are given here although they are basically the same as for **k^ue*. Note, again that there is lenition in the verb in example 130 (*nád·tabair* is /na:d·daβəɾʲ/))

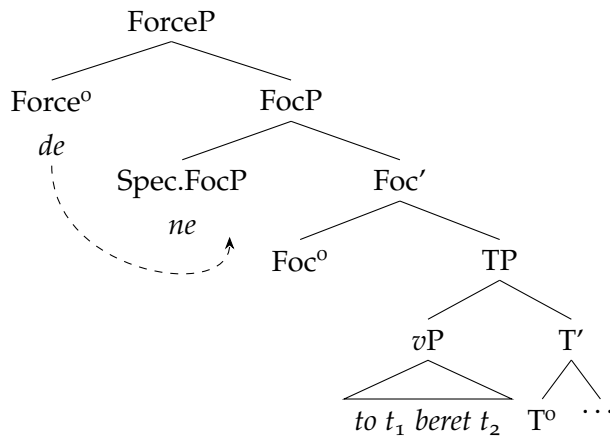
- (128) *Neg./Quant./etc. -de* ...
 X -and/besides ...

‘and/besides ...’



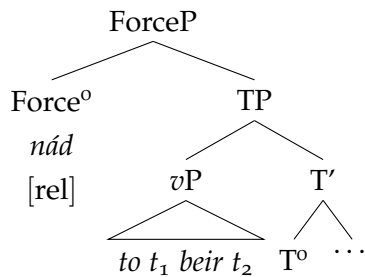
- (129) *ne -de to beret*
 NEG -REL PV give.3SG.PRES

‘which does not give’



- (130) *nád to beir* (nád·tabair)
 NEG.REL PV give.3SG.PRES

‘who does not give’



There are two kinds of structures where these markers were apparently not present. These are imperatives and responsive non-negative clauses. Both kinds of verbal forms only show conjunct form.

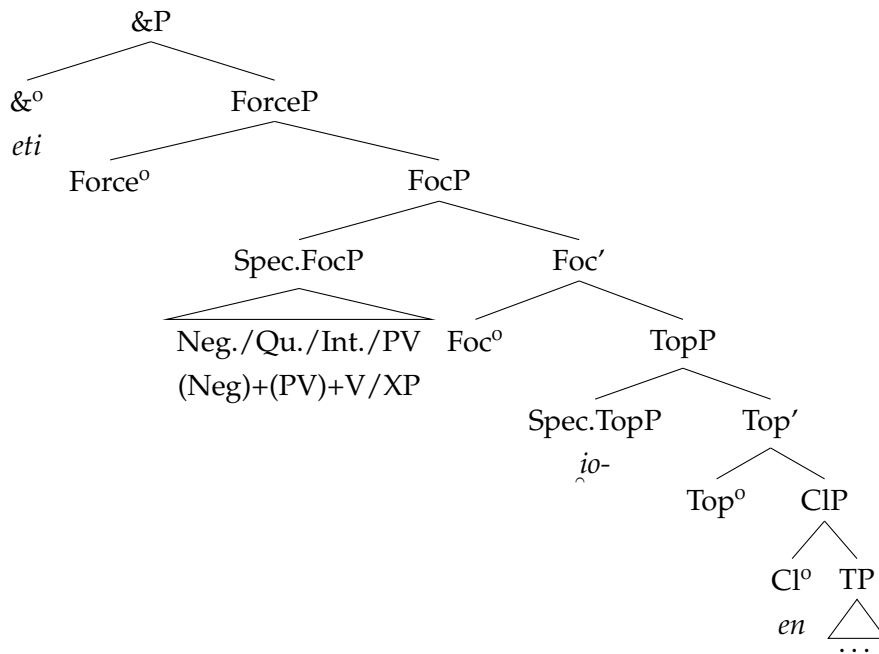
The second class of elements are the object pronouns. In Old Irish there are three different classes of “infix” pronouns (classes A, B and C) and one class of suffixed pronouns. The latter are, however, highly restricted in their use and seem to be in decline. The suffixed pronouns and class A of the infix pronouns are generally assumed to represent the simple form of the PIE pronouns. They originated in contexts where **eti* is reflected only indirectly (or at least this is assumed by proponents of the particle theory) and Class A is still to be found in phonologically determined contexts. Class B represents the pronouns which merged phonologically with the preceding main-clause particle **eti* in those contexts where it was not lost.¹⁴² Trees for the declarative sentences with class A infix pronouns are given in examples 132 and 133 (here, with the negation, although the preverb *do* would yield the same pronominal forms in contexts triggering independent verbal forms) and those for class

¹⁴² Note that **eti* originally could not have been restricted to declarative contexts either, because the class A and B infix pronouns can be used interchangeably with the class C pronouns in those relative clauses whose antecedent is their subject or object; alternatively, these pronouns intruded into the domain of relative clauses. If this is the case, the question arises why this happens at all.

B (here, with the preverb *for*) are given in examples 134 and 135. Example 131 shows the predecessor of class A and B infixed pronouns as well as that of the suffixed ones. Note again that in example 133 we have nasalisation, caused by the masculine third singular object pronoun (*ní·tabair* is /ni:·daβər^j/) and in example 135 we find lenition, caused by the neuter third singular pronoun that was chosen here due to semantic reasons (*fort·beir* is /ford·βe:r^j/).

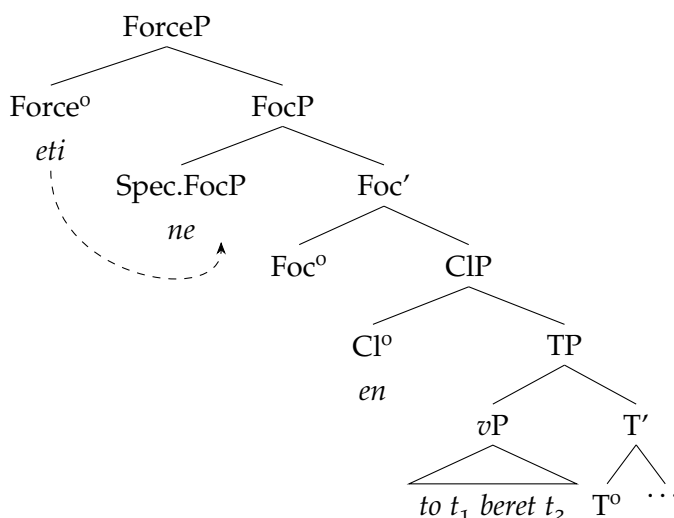
- (131) *eti* Neg./Quant./etc. *io-* *en* ...
and X REL.PRON him ...

‘and who ... him ...’



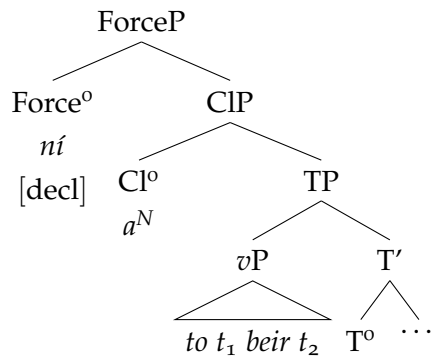
- (132) *ne eti en to beret*
NEG DECL him PV give.3SG.PRES

‘(s)he does not give him’



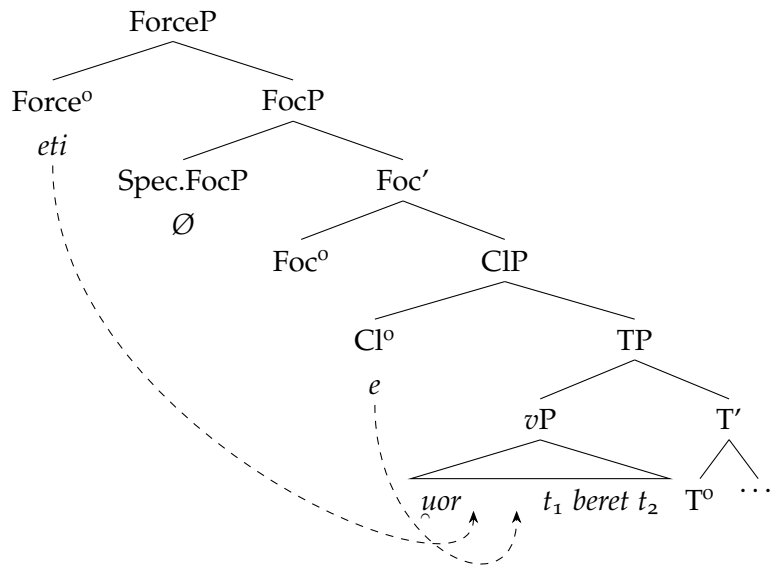
- (133) *ní a^N to beir* (*ní·tabair*)
 NEG him PV give.3SG.PRES

‘(s)he does not give him’



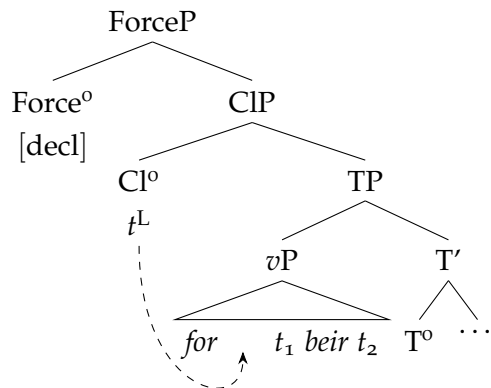
- (134) *uor eti e beret*
 PV DECL it increase.3SG.PRES

‘(s)he increases it’



- (135) *for t^L beir* (fort·beir)
 PV it increase.3SG.PRES

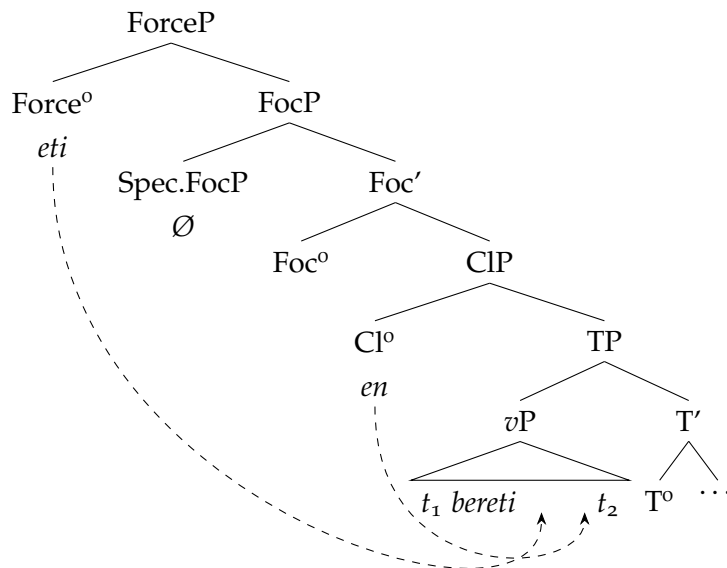
‘(s)he increases it’



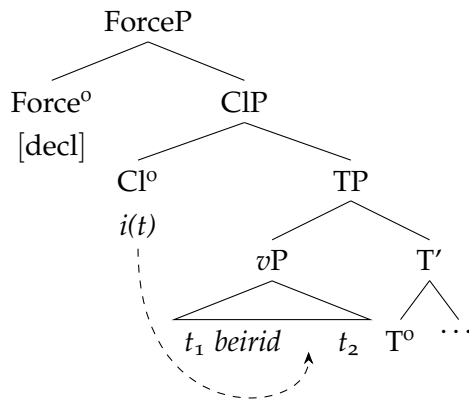
The suffixed pronouns work basically in the same way except for the fact that they are placed at the end of the verbal complex. Example 131, as already mentioned, shows the PIE structure for object pronouns. The pOI and OI forms can be seen in examples 136 and 137.

- (136) *bereti eti en*
 carry.3SG.PRES DECL him

‘(s)he carries him’



- (137) *beirid* *i* (*beirthi*)
 carry.3SG.PRES it
 ‘(s)he carries it’



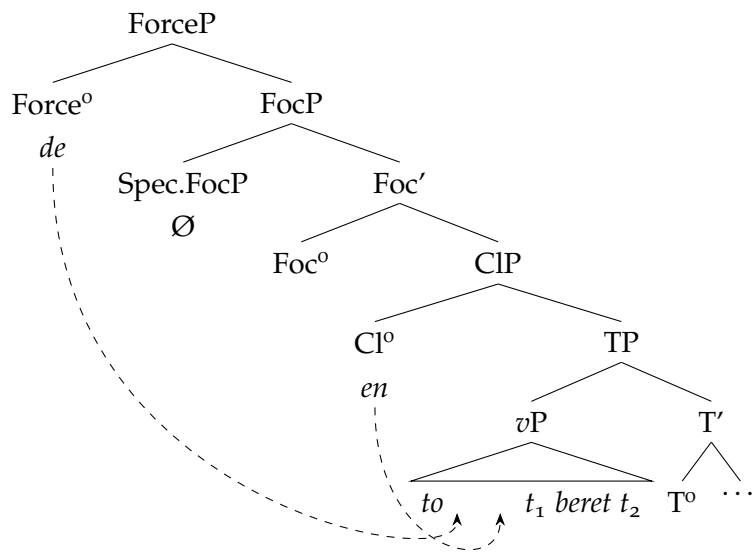
Class C presents a more complex picture. It is assumed to have originated in a combination of the object pronouns preceded by the conjunction **de*. **de* could, with phrasal instead of sentential scope, also be used in pronominal complexes outside the Verbal Complex, where it expressed the fact that the pronoun did not correspond to a possible antecedent directly preceding the pronoun but to one that was mentioned earlier, i.e., it marked contrast. The combination of these two uses (sentential **de* + infixed pronoun that merged phonologically and contrastive **de* in pronominal complexes structurally not directly associated with the verb) led to the possibility of contrastive pronominal **de* also in the VC, which led to a spread of the contrastively used Class C pronouns to contexts where other declarative and relative marking particles were already present.¹⁴³ Thus, the way for co-occurrence of **io* or reanalysed *(s)a^N* and contrastive **de* was cleared. If this had not happened by now, the forms that developed out of **de* + pronoun in contexts where **de* was a conjunction/relative marker and those where it was a contrastive particle now were confused with each other and later on seen as one set of forms because of their identical phonological development. Schrijver (1997) shows that this contrastive **de* could also be present in the third-person forms of the class B pronouns to indicate that the pronoun was not reflexive.¹⁴⁴ The trees displaying this development are given in examples 138 (showing sentential **de* before reanalysis), 139 (showing reanalysed pronominal **de* in combination with relative **io*) and 140 (showing the direct OI descendant of the pOI structure in example 139). The corresponding PIE tree already shown in example 128 will not be repeated here.

¹⁴³ In section 4.2.1 it is explained that it is possible to imagine this development in two ways. Either sentential **de* and the pronoun merged and the newly formed class of pronouns could then be used side by side with declarative and relative markers, or sentential **de* was reanalysed as some kind of WL_1 clitic placed in a CIP above the pronoun and was univerbated with the latter at some time afterwards. If the former scenario were true we would not need the CIP in our trees but could just place the pronouns in the lowest head of the left periphery (see the discussion in section 7.2.1). In this thesis, however, the latter scenario is modelled.

¹⁴⁴ A counterargument is that the class C pronouns are sometimes used as reflexive pronouns. Further research has to be done on the question how this came to be. Maybe the contrastive meaning, which the class C pronouns originally expressed, was lost as the transparent system of relative marking collapsed more and more due to phonological developments and was replaced by an intransparent system of initial mutations, special relative endings and all the other ways to mark relative semantics in OI.

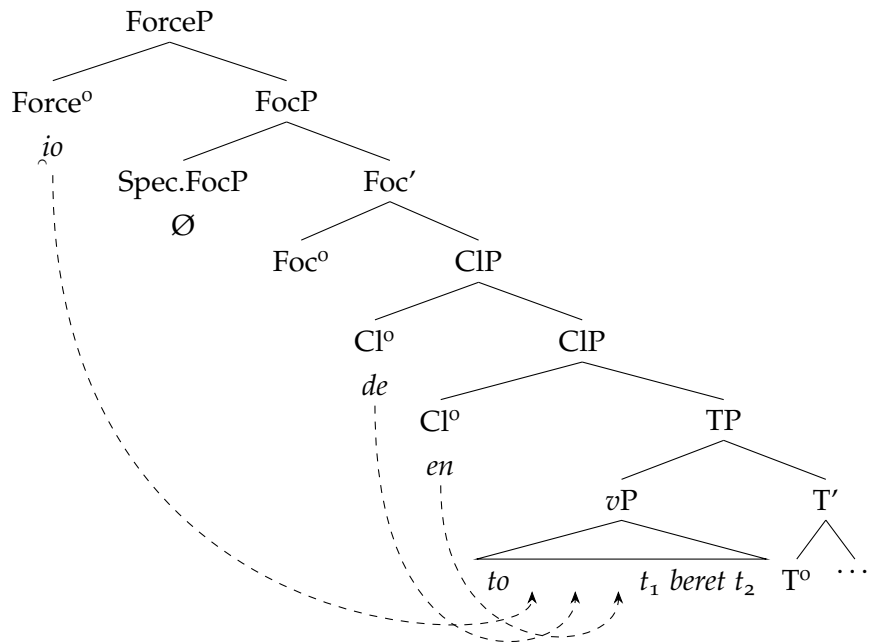
- (138) *to de en beret*
 PV REL him carry.3SG.PRES

‘who carries him’

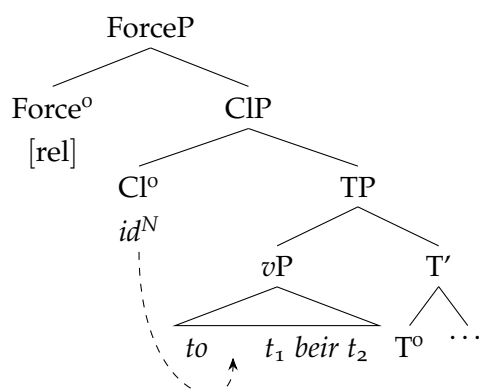


- (139) *to io de en beret*
 PV REL CONTR him carry.3SG.PRES

‘who_i carries him_j’



- (140) *to id^N beir* (dod·mbeir)
 PV him carry.3SG.PRES
 ‘who_i carries him_{i/j}’



9 Conclusion

In this thesis a thorough examination of Wackernagel's Law in the prehistory of Old Irish is conducted. This is a topic that in its entirety has not been paid much attention to by researchers. Although there are many publications on specific aspects (for example studies concerning the particle theory, see section 4.1.1, studies concerning the object pronouns, for example Schrijver (1997), Griffith (2011), studies concerning other Wackernagel clitics, for example Binchy (1960), Ó hUiginn (1986), once again Schrijver (1997) and many more), an examination bringing together all the information that can be found about the syntax of Wackernagel's Law in the prehistory of Old Irish has been missing up to now. This thesis proposes an analysis intended to fill this gap. In addition, a minimalist analysis of the syntactic processes underlying the phenomenon with a broad discussion of alternative analyses and their problems is provided.

This Master's thesis is divided in two parts. The first part comprises a discussion of the historical-comparative side of the topic, the second is concerned with its theoretic linguistic analysis. Let us go through the conclusions now.

Section 2 opens the first part with a discussion of Wackernagel's Law. First, the original article by Wackernagel (1892) is summarised, followed by a critical discussion and an overview of subsequent research and important developments in the examination of clitic-related phenomena. The generalisation proposed by Wackernagel (1892) that clitics occupy the second position in a sentence is shown to be partly inaccurate concerning the data and also not tenable from a theoretical point of view. Modern interpretations of the phenomenon are discussed, mostly based on the work of Mark Hale, showing that at least in a syntax-based approach like the one discussed here, the law has to be split up into several different mechanisms leading to the observed effects.

Section 3 then provides the base for the second important topic underlying the research question of this thesis. It gives an overview of Old Irish grammar with a focus on the verbal system. The complex verbal structures attested in Old Irish were much influenced in their development by several Wackernagel clitics. In this section, however, it is mostly the synchronic structures that are discussed and the diachronic explanations are only mentioned as far as they do not concern Wackernagel's Law, as the latter is discussed in the following chapters. The section starts with an overview of phonology and orthography in order to make the subsequent discussion easier to follow. Next, the Old Irish Verbal Complex is examined with a discussion of all the elements and grammatical features influencing its form and functions. Much attention is paid to those elements that directly interacted with Wackernagel clitics and to those characteristics that only arose through the influence of Wackernagel's Law. In the last subsection, section 3.3, a template for the Old Irish Verbal Complex is proposed showing the linear order of syntactic elements to be found in there.

After all the basic information has been provided, the third section of the first part, section 4, turns to the main question of this thesis: Which effects of the phenomenon normally called Wackernagel's Law are discernible and reconstructable for the prehistory of Old Irish?

The discussion starts with the most influential but also the most controversial Wackernagel element that can be postulated for this language, the so-called main-clause particle **eti*. This

particle is nowhere directly attested in Old Irish but only visible through the reflexes it left behind. Part of these reflexes is the absolute-conjunct distinction in simple verbs, following Schrijver (1997), the form of the class B infixed pronouns and the lack of mutation of the element following the first preverb in a compound. A discussion of the various theories proposed to explain these phenomena is provided and the form of the particle theory by Schrijver (1994) and Schumacher (2004) is then identified as the most powerful explanation so far. Following this discussion, the various ways to form relative clauses in Old Irish are examined. These are all, in one way or the other, related to some Wackernagel enclitics and thus provide an interesting topic for examining the various effects these clitics had in different contexts. The subsection is again subdivided into those discussing relative clauses whose antecedent is their subject or object, adverbial relative clauses, prepositional relative clauses and relative negation. The next Wackernagel clitic that is discussed is the former PIE conjunction **kʷe*, which developed into a relative marker following negative particles but remained a conjunction, ‘and’, until shortly before the attested stage of Old Irish. It is still to be found in the form of *-ch* in especially archaic texts. Following this, another PIE conjunction, **de*, is discussed. The function of this element is difficult to ascertain. It is certainly connected to relative semantics but also fulfils contrastive functions. It is more difficult to interpret, as it is often phonologically amalgamated with other elements, and also because it turns up as a sentential as well as a phrasal clitic (it is the only phrasal clitic in the prehistory of OI). One of the elements it phonologically merged with is the class C object pronouns. This requires a brief excursus: Old Irish has a system of four classes of affixed pronouns. Three of them, class A, B and C infixed pronouns occur after a pretonic element and the rest of the verb, while the suffixed pronouns appear at the end of the verbal complex but only in very restricted contexts. The latter, as well as class A, are assumed to directly derive from the PIE object pronouns, whereas class B and C are regarded, as already mentioned, as a combination of the particles **eti* and **de* with the PIE pronouns, respectively.

This overview, discussion and summary of already existing literature on Wackernagel clitics in the prehistory of Old Irish is followed by a section discussing some new proposals concerning these elements. The first subsection, section 4.2.1, is concerned with the identity and function of **de*. It is argued that at some point in pre-Old Irish, the element **de* in the verbal complex was reanalysed from a sentential clitic, marking conjunction of clauses, to a phrasal element occurring together with infixed pronouns and marking them for contrast with a possible antecedent directly preceding it. That is, **de* + pronoun means that the pronoun does not refer to this antecedent. This led to a change in the number of clitics allowed in Wackernagel position in pre-Old Irish, as it could be placed there in addition to a relative or a main-clause marker and an object pronoun, being inserted between them. This topic then leads on to a discussion of the development of the prepositional relative clauses. The form of these clauses as well as the morphology they trigger on following verbs were explained by reanalysis of an element as a Wackernagel clitic. Section 4.2.2 deals with the irregular, non-initial word stress that is found in several contexts and tried to establish an explanation. This topic is further discussed in section 7. In the same way as the following section discussing the Old Irish verbal system this one is also concluded by a template of the

beginning of a pre-Old Irish clause, showing the relative position of the elements which can turn up there.

The second part takes up the information accumulated in the first part and proposes a generative analysis for the structures found in Old Irish and its prehistory. It starts with an overview of important theoretical concepts of minimalist analysis. First, the concept of Merge and the structure of syntactic trees are explained. This is followed by a discussion of the opposition of functional and lexical elements, of the layers of syntactic structure, VP, TP and CP, the operations Move and Agree and the concept of Spell-Out. The next section introduces the framework of Distributed Morphology, followed by a discussion of cartographic approaches to syntax with a focus on an articulated CP. The section is concluded by a discussion of diachronic and historical syntax, the problems a syntactician encounters when working with corpus languages and solutions for these including the methods one can apply.

The second section of the second part, section 6, is concerned with three analyses of Old Irish syntax that have been proposed in previous literature, Carnie et al. (2000), Adger (2006) and Newton (2006). It is shown that all have theoretical shortcomings as well as problems accounting for the data in its entirety.

Based on this discussion, in section 7, a new analysis is proposed. First, the descriptive data that must be accounted for is shown in the templates already given in sections 3.3 and 4.3 and repeated there, accompanied by a discussion and template of a third, preceding language stage, PIE. Thus, subsequently, an analysis of the development from PIE through pre-Old Irish to Old Irish is attempted. Following this, several simple approaches to a minimalist analysis are examined and it is laid out why they cannot be maintained. Then, a different analysis focussing on verb-first syntax and thus connecting Old Irish to other V1 languages is proposed. This analysis is a so-called *v*P-remnant analysis assuming that the subject and object move out of the *v*P which is subsequently fronted, which allows for a better understanding of what happens, for example, with preverbs and in the copula. This analysis is combined with the concepts and mechanisms proposed for Wackernagel's Law and introduced in section 2.

In the fourth section of the second part, finally, syntactic derivations for the assumed structures in all three language stages (PIE, pre-Old Irish and Old Irish) are given for all the Wackernagel clitics discussed in section 4.

There are, however, still many open questions. Some of them concern the theoretical analysis of Old Irish. More indepth research into the theoretical nature and processes of Spell-Out would be very interesting and would help shed more light on the exact derivation of the structures that were examined in this thesis. The cases that have been discussed here are the most basic structures but Old Irish syntax does not stop at this point with posing fascinating challenges. Therefore, research on more complex structures will also be rewarding. Concerning the Wackernagel clitics, further research could examine them in other Celtic languages and provide a broader context for the conclusions at which this thesis has arrived, in order to test and, if necessary, reevaluate them. A more fine-grained picture of the development of the different elements could thus be achieved and maybe research in other

languages could increase the number of possible Wackernagel clitics that can be found in Celtic.

This thesis is an attempt to discuss a topic that has gone somewhat unnoticed in Celtic and Indo-European studies and tries to bridge a gap: on the one hand, there is all the research that has been and is being carried out on Old Irish and on the reconstruction of its previous language stages. On the other hand, there is the extensive work on clitics and Wackernagel's Law from a theoretical perspective as well as from the perspective of Indo-European Studies. In this thesis, these two fields are connected with the aim to yield results that each one on its own would have been unable to produce. Moreover, the thesis combines methods from traditional historical-comparative linguistics with theoretical analyses, in the hope of providing a better understanding of both sides.

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