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Preface

The linguistic literature concerning the Celtic languages, both past and present, is so immensely rich that one might assume that nothing particularly new can be discovered either in those languages which are still used or those which are part of history. Nevertheless, numerous scholars around the world still conduct fruitful research and produce papers of great quality. Such articles refer to both contemporary tongues as well as those which were spoken in the distant past and have to be partly or completely reconstructed.

The present collection, in accordance with the policy of *Lublin Studies in Celtic Languages* (*LSCL*), includes papers dealing with various aspects of Celtic linguistics. In a departure from the previous two volumes (edited by Bloch-Rozmej 2008 and Bloch-Trojnar 2009), here relatively more space is devoted to the history and prehistory of the Celtic tongues. This results from the fact that an increasing number of scholars who publish mostly in strictly philological periodicals such as *Ériu*, *Celtica*, *Études Celtiques* and *Zeitschrift für Celtische Philologie*, are starting to perceive our series as a new forum for discussion – a development welcomed by the board.

As already mentioned, this volume contains articles covering a wide spectrum of linguistic interest, all connected more or less strictly with the Celtic languages. Fifteen authors have generously contributed papers in which we find approaches to chronology, etymology, phonology, morphology and syntax as well as formal, theoretical and sociolinguistic considerations.

Cormac Anderson addresses the issue of how similar the Irish language is to English in terms of a highly restrictive phonological typology model proposed by Scheer (2007).

Katarzyna Bednarska deals with quantity in Welsh vowels and consonants with a view to establishing the factors which govern their distribution.

Václav Blažek looks for traces of the 1.sg. personal pronoun, thought to be lost in Celtic tongues, in his detailed analysis of relevant prehistoric inscriptions.

Anna Bloch-Rozmej considers the possibility of employing the theoretical notion of headedness of phonological elements in different functions in Irish and German.

Maria Bloch-Trojnar attempts to recognize the specific nature of constraints which determine the derivation of imperfective denominal verbs in Irish.

Anna Bondaruk, using Landau's (2000) theoretical model, tackles the problematic issue of whether Non-obligatory Control in Irish corresponds to a logophor or to a pronoun.

Andrew Breeze furnishes readers with an indepth and picturesque analysis of two names of places in England whose etymology may arguably be Celtic.

Michael Hornsby, on the basis of his own fieldwork and the sociolinguistic literature, examines the linguistic behaviour of speakers of Breton in the presence of those using the majority language.

Graham Isaac, using material from the Brittonic languages, offers a set of principles to define the relative degree of diagnosticity of various types of features for the genetic relationships of tongues.

Krzysztof Jaskuła shows how and when the processes of compensatory lengthening in the prehistory of Irish started, how they developed and what they were triggered by.

Frederik Kortlandt defends his vintage relative chronology of prehistoric Celtic sound changes against the arguments proposed by Isaac (2007).

Tatiana Mikhailova deals with the question of why verbs in the present tense were repeatedly and consistently employed instead of preterit forms in Old Irish sagas.

Natalia O'Shea, using Old Irish data and comparing them with material from other ancient languages, attempts to reconstruct Indo-European strong athematic amphikinetic verbal presents.

Kevin Rottet, after a careful corpus-based study, addresses the issues of how the conjunctive pronouns are used in the Welsh language and how their use differs from other independent pronouns.

Piotr Stalmaszczyk scrutinizes selected prepositional constructions in the Goidelic languages with special importance attached to pronominal possessive structures.

All the authors of the papers included in this volume deserve my greatest thanks both for contributing such valuable pieces of research and for cooperating with me on an author-editor basis with extraordinary friendliness and understanding. I am very grateful to Professors Anna Bloch-Rozmej, Anna Bondaruk, Eugeniusz Cyran, Sabine Heinz and Anna Malicka-Kleparska for reviewing all the articles. I also appreciate the financial support of the Cultural Division of the Department of Foreign Affairs of Ireland.

As a final point, filled with grief still unconsoled, I would like to say goodbye to the late Professor Edmund Gussmann and express my gratitude to him for establishing the Celtic Department at KUL, for shaping the minds of generations of phonologists and linguists of different specializations, for participating in the Editorial Board of *LSCL* since its inception and… just for being there.

Krzysztof Jaskuła

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How English is Irish?
The typology of Irish initial consonant clusters

Cormac Anderson

1. The typology of initial consonant clusters

Recent studies within the framework of Government Phonology (henceforth GP: Cyran 2003; Harris 1994; Kaye *et al.* 1985; Gussmann 2007) have examined the distribution of consonants in clusters with a view to establishing both language-specific rules of consonant distribution and cross-linguistic typological patterns.

In his essay *How Semitic is Slavic?* Scheer (2007) examines the typology of initial consonant clusters across human languages. He uses the cover symbol T to stand for a member of the class of obstruents and R for a member of the class of sonants. A 'TR-cluster' is thus a cluster beginning with an obstruent and followed by a sonant, e.g. the first two sounds in Eng. *train*. An 'RT-cluster' is defined by Scheer as any cluster other than a TR-cluster, i.e. a cluster of the form TT, RR or RT.

It appears that no language has just word-initial RT-clusters. Some languages permit no word-initial consonant clusters whatsoever, e.g. Modern Persian; some permit only TR-clusters but not RT-clusters, e.g. English or French; and some languages permit both TR and RT-clusters, e.g. Slavic languages or Morrocan Arabic. On the basis of these facts Scheer proposes a binary typology: TR-only languages vs. anything-goes languages. He illustrates this typology with the diagram reproduced below. Languages to the left of the curve are 'TR-only' languages, in which TR-clusters are the only initial clusters that occur. Languages to the right of the curve are 'anything-goes' languages, in which both TR-clusters and RT-clusters occur in initial position.

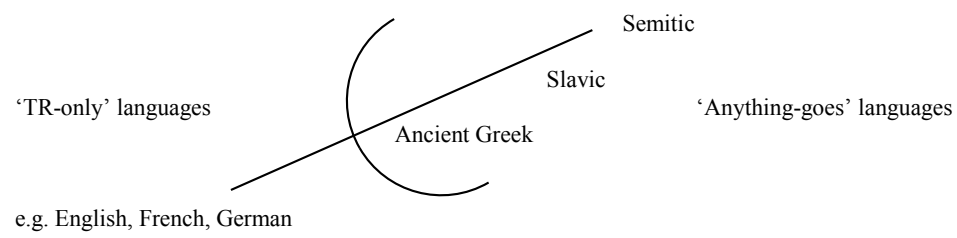

Fig. 1 *Typology of initial consonant clusters (after Scheer 2007)*

Scheer (2007: 2) states quite clearly that this is a gradient typology. In Moroccan Arabic all possible combinations of consonants occur in initial position. In Slavic languages only some initial RT-clusters occur, but there is no clear pattern to the distribution. RT-clusters in Slavic languages result exclusively from the historic loss of yer vowels.

The consonant clusters that are absent are termed 'accidental gaps', clusters that do not violate the grammar of the language but happen to not exist. Scheer (2007: 2) thus maintains that Slavic has essentially the same grammar as Semitic. Both are 'anything-goes' in that their grammars permit both TR-clusters and RT-clusters in initial position. Similarly, Ancient Greek, which had a very limited number of RT-clusters but no systematic pattern allowing some types of clusters and not others, is also considered an anything-goes language in this typology and the many initial RT-clusters that do not occur in Ancient Greek are likewise considered accidental gaps. English, French and German, in contrast to the above, are TR-languages, in which initial RT-clusters are ungrammatical. These languages only permit TR-clusters in initial position.

There are a two issues with the diagram above (Fig.1) which, while not undermining the substantive argument, must be addressed. Firstly, Scheer himself casts doubt on the anything-goes status of certain Slavic languages (Scheer 2007: 5). Substituting 'Polish' for 'Slavic' would remove the potential for any ambiguity in this regard. Secondly, although Moroccan Arabic is clearly an anything-goes language this does not appear to be the case for the other Semitic languages. Biblical Hebrew is normally assumed to have had no syllable-initial consonant clusters whatsoever and the same is generally considered true of Standard Arabic and this seems to be a general feature of many Semitic languages since early times (Garr 1985: 47-48). There is also modern literature on the difficulties encountered by Arabic speakers in learning to pronounce English initial consonant clusters (e.g. Jayaraman 2010). In fairness Scheer (2004: 460) is more careful about making this distinction and speaks of 'Moroccan Arabic' or 'occidental Arabic'. In Fig.1 above it would be better to substitute 'Moroccan Arabic' for 'Semitic'.

As Irish has not been classified by Scheer and it seems a potentially fruitful testing ground for this theory the current article aims to examine the place of Irish within the typology laid out by Scheer, attempting to determine whether it is a TR-only language or an anything-goes language. Emphasis is placed on Old Irish, particularly as regards the examples given. Based on the results obtained in the analysis of the Old Irish consonant clusters, a revision of the status of Ancient Greek is also briefly considered in section 2.4.

For comparative reasons, it is useful to look at English as a case study of a TR-only language. English has been chosen because it exhibits behaviour quite

typical of TR-only languages and because it is the language with which Modern Irish is most closely in contact.

2. Case studies in the typology of initial consonant clusters

2.1. Case study of a TR-only language: the case of English

Modern English admits a good number of initial consonant clusters, all of the TR type. The table below shows the combinations of stop plus sonant that occur in initial position in English. Combinations that do not occur are shaded and examples are added where the clusters in question do occur.

	m	n	l	r
p			*play*	*pray*
t				*tray*
k			*clay*	*crayfish*
b			*blue*	*brew*
d				*drew*
g			*glue*	*grew*

Fig. 2 *English initial stop + sonorant clusters*

As can be seen above English admits all combinations of stop + /r/ as well as the combination of a labial or velar stop with /l/. It can be safely determined from this evidence that the stops belong to the class T while /l/ and /r/ belong to the class R. By this reasoning /tl-/ and /dl-/ are accidental gaps, although Scheer does mention the rarity of their distribution (Scheer 2007: 2). The phonemes /m/ and /n/ do not occur in initial consonant clusters in English, except after /s/ and /ʃ/, which are dealt with below.

However, in languages related to English, such as German, clusters of stop + /n/ do occur e.g. *Knie* 'knee', and it is assumed that in Old English this was also the case (the etymological spelling suggests as much). As a consequence it appears reasonable to class /n/ with /l/ and /r/ in the sonant class R. The initial clusters of T + /n/ must be considered likely accidental gaps. No equivalent clusters with /m/ occur in English. It is also worth noting at this point that in some words originally derived from Greek e.g. *pterodactyl*, *pneumatic*, *psychology*, English has simplified /pt/, /pn/, /ps/ to /t/, /n/, /s/ in initial position, in contrast

to German, French or Italian, where the etymological pronunciation has survived. However, Dressler (1985: 39) cites evidence for strategies to avoid such clusters in some Italian dialects.

Having looked at the combinations of stop + sonant in English clusters of fricative + sonant are now examined. These are laid out in the table below.

	m	n	l	r
f			*fly*	*fry*
θ				*throw*
v				*vroom*
ð				
z				
ʒ				

Fig. 3 *English initial fricative + sonant clusters*

As can be seen from the table above the clusters /fl/, /fr/, /θr/ and /vr/ occur in initial position in English e.g. *fly, fry, throw, vroom*. However, one only has to turn on the English language news to hear that politician Vladimir Putin and footballer Zlatan Ibrahimović have the initial clusters of their names pronounced without difficulty. It is safe to assume therefore that the fricatives pattern with the stops and should be included in the class T.

As a consequence of the above, combinations of fricative + /l/, /r/ that do not occur in English must be considered accidental gaps, although language-specific structural factors favouring combinations beginning with a voiceless fricative over those beginning with a voiced one have seen some exploration within the framework of GP (Cyran 2003: 31). The complete absence of clusters of dental + /l/ in English corresponds to Scheer's observations on its pervasive absence (Scheer 2007: 2).

Of the remaining English consonant phonemes /s/ and /ʃ/ are dealt with later while /tʃ/, /dʒ/ and /ŋ/ do not occur in initial clusters at all. As has been made clear above /m/ and /n/ do not occur in initial clusters either, except after /s/ or /ʃ/. Apart from the case of /n/, discussed above, these non-occurring consonants must be considered as unclassifiable for the moment, although it would be entirely reasonable to assume that /tʃ/ and /dʒ/ at least belong to the class T, given their manner of articulation.

This concludes the discussion of initial consonant clusters in English. The evidence given above clearly establishes English as a TR-only language.

The complete absence of dental + /l/ and issues regarding the relative distribution of voiceless vs. voiced fricative + /l/, /r/ are interesting, but for reasons of space are not further analysed here. Rather the initial consonant clusters that occur in Old Irish are now examined with a view to establishing their distribution in that language.

2.2. Initial consonant clusters in Old Irish

The discussion below draws its data primarily from Old Irish, the language of circa 800, described masterfully in Thurneysen's (1946) *Grammar of Old Irish* (henceforth GOI). Reference is also made to the phonology of the modern language, described in a series of monographs in the mid-twentieth century (Breathnach 1947; de Bhaldraithe 1945, 1953; de Búrca 1958; Mhac an Fhailigh 1968; Ó Cuív 1944; Sjoestedt-Jonval 1938; Wagner 1959). The term *Irish* is used when the phenomena or forms in question apply equally to both stages of the language. When a form is specific to one language or the other it is clearly marked as such.

There are twelve basic consonant graphemes in Irish: <p, t, c, b, d, g, f, s, m, n, l, r>. Each of these has two distinct pronunciations, referred to in native grammars as *leathan* (broad) and *caol* (slender).[1] The former series are typically velarised while the latter are distinctively palatalised. As all members of a consonant cluster agree in being either *leathan* or *caol*, with the exception of /s/ + consonant, dealt with below, the distinction between broad and slender is irrelevant in the context of this article. Stress in Irish is overwhelming word-initial, while slender (palatalised) consonants are conventionally transcribed with a following mark, i.e. broad /C/ as opposed to slender /C'/. The one exception is *s*, which is transcribed /s/ when broad and /ʃ/ when slender.

Irish has a system of sound changes in initial position known as consonant mutations. These mutations are of consequence to the arguments presented here. The consonant clusters that occur in unmutated environments are examined in 2.2.1. An overview of consonant mutation is given in 2.2.2 and the clusters occurring as a result of each of the two main types of consonant mutation, lenition and eclipsis, are analysed in 2.2.3 and 2.2.4 respectively.

[1] The early twentieth century grammars of Old Irish (Thurneysen 1946; Pokorny 1913) recognised three distinct consonant qualities in the language but this view has since been discarded and the majority of modern scholars posit two distinct series, as has been followed here.

2.2.1. Consonant clusters in Old Irish: unmutated environments

The combinations of stop or fricative + sonant that occur in unmutated environments in Old Irish are given below.

	m	n	l	r
p			*plágaid*	*pridchaid*
t		*tnúth*	*tláith*	*tracht*
k		*cnáim*	*claideb*	*crann*
b			*bliadain*	*briathar*
d			*dliged*	*druim*
g		*gním*	*glanad*	*grád*
m		*mná*	*mleith*	*mrath*
f			*flaith, fleteg*	*frecor*

Fig. 4 *Table of Old Irish initial clusters in unmutated environments*

The examples given in the table above are citation forms of the words in question, i.e. nominative singular in the case of the nouns and absolute third person singular present indicative in the case of the verbs. The forms are listed below, with a phonetic transcription and a gloss. The phonetic reconstruction of Old Irish is not without its problems and the quality of vowels in unstressed syllables in particular is not entirely clear. Those unfamiliar with Old Irish orthography should note that there are no discrete graphemes for the representation of voiced fricatives and that one element of a vocalic cluster may be an unarticulated marker of consonant quality. Fortis sonorants are transcribed /N, L, R/ and their lenis counterparts /n, l, r/ as is customary in Irish linguistics.

(1)
a. *plágaid* /pla:ɣað'/, ‘tortures’
b. *pridchaid* /p’r’ɪðxað'/, ‘preaches’
c. *tnúth* /tnu:θ/, ‘jealousy, passion’
d. *tláith* /tla:θ'/, ‘weak, feeble’
e. *tracht* /traxt/, ‘shore, strand’
f. *cnáim* /kna:ṽ'/, ‘bone’
g. *claideb* /klað'ev/, ‘sword’
h. *crann* /kraN/, ‘tree’
i. *bliadain* /b’l’i:əðan'/, ‘year’

j. *briathar* /b’r’i:əθar/, ‘word’
k. *dliged* /d’l’ɪɣ'eð/, ‘law, principle’
l. *druimm* /drum’/, ‘back’
m. *gním* /g’n’i:ṽ/, ‘doing, acting, deed’
n. *glanad* /glanað/ ‘cleaning, purification’
o. *grád* /gra:ð/, ‘(religious) orders, grade’
p. *mná* /mna:/, ‘of-woman’
q. *mleith* /m’l’eθ'/, ‘attrition’
r. *mrath* /mra:θ/, ‘betraying, treachery’
s. *flaith* /flaθ'/, ‘soveregnty, rule’
t. *fleteg* /flet(t’)eɣ/, ‘banqueting house’
u. *frecor* /f’r’egor/, ‘answer’

It can safely be determined on the evidence given here that /m/ belongs to the class T, as it is followed by sonorants in (1p, 1q, 1r). The clusters that occur in Irish appear to exhibit a basically TR-only pattern, although a good number of combinations, such as stop + /n/ (1c, 1f, 1m) and dental + /l/ (1d, 1k) occur that are accidental gaps in English. The initial clusters /pn/, /bn/, /dn/ and /fn/ must be considered accidental gaps at this stage, as it is clear that they do not violate the grammar of the language.

It must be noted that the initial cluster /mn/ is highly marked, occurring only in forms derived from *ben* ‘woman’.[2] The clusters beginning /ml/ and /mr/ become /bl/ and /br/ in Middle Irish (from the 11th century), hence *mleith* > *bleith*; *mrath* > *brath*. A much later change also converts the /n/ of the clusters /kn, gn, mn/ into /r/ in the dialects of the northern half of the country. O’Rahilly (1976: 22) remarks that this change is unknown before the seventeenth century.

These facts suggest that Irish is a TR-only language with a bare handful of accidental gaps. However, it is also necessary to look at the initial consonant clusters that occur in mutated environments. A brief overview of consonant mutation in the language is given first, after which the two main processes of mutation are looked at in turn.

2.2.2. Consonant mutation in Old Irish

Irish has a system of sound changes in initial position known as consonant mutation. Such initial consonant mutations are common to all Insular Celtic languages, although the specific mutations vary considerably from tongue to tongue. In Irish two main types of consonant mutation are distinguished, traditionally referred to as lenition

[2] The *mn-* of *mná* derives from *bn-*, the *b* of which in turn derives from PIE g^w (GOI §190).

and eclipsis (or nasalisation). Various terminologies have been used to describe these two archiphenomena, each of which comprise in reality multiple phonological processes. Lenition consists in the spirantisation of stops and /m/, the disappearance of /f/, the passage of /s/ to /h/ and the lenition of fortis sonorants into lenis ones. Eclipsis consisists in the voicing of voiceless obstruents and the transformation of voiced stops into the homorganic nasals. The segments /m, N, L, R, s/ are not generally considered to undergo eclipsis at all. These processes are dealt with in greater detail in sections 2.2.3 and 2.2.4. In lieu of an alternative terminology that captures the actual processes involved the traditional terms are used here, without prejudice to the actual phonological processes under consideration.

Consonant mutation is grammaticalised, marking for example verb forms, gender and number in nouns, types of relative clauses etc. A straightforward example is the third person possessive pronoun *a*, shown below.

(2)
a. a cat /a kat/ ‘her cat’
b. a chat /a xat/ ‘his cat’ (lenition)
c. a gcat /a gat/ ‘their cat’ (eclipsis)

In the table above the word *cat* in (2a) is unmutated, while in (2b) and (2c) it is subject to the processes of lenition and eclipsis respectively, these being realised as spirantisation and voicing respectively for this segment. In Modern Irish the spelling indicates the presence of lenition by adding a <h> after the stop or fricative in question. Eclipsis is shown orthographically by the prefixing of the new sound to the word. In Old Irish lenition is marked only on voiceless segments, thus <p, t, c> become <ph, th, ch>. Lenition of <s, f> early came to be shown by the placing of a dot (punctum delens) over the letter in question, although this is not consistent in the earliest sources. Conversely, eclipsis in Old Irish is shown for voiced segments but not voiceless ones, through the prefixation of a homorganic nasal, thus eclipsis of <b, d, g> is shown as <mb, nd, ng>.

The processes of mutation sketched in (2) above are addressed in the subsequent sections, considering firstly the initial consonant clusters that occur in lenited environments and then those that occur in eclipsed environments.

2.2.3. Irish initial clusters under lenition

Under the process of lenition stops are mutated into the corresponding fricatives. Phonologically this is a process of spirantisation. Thus voiceless /p, t, k/ > /f, θ, x/; and voiced /b, d, g/ > /v, ð, ɣ/. Developments subsequent to the Old Irish period

have seen /θ, ð/ be replaced by /h, ɣ/. Concording with the situation in mutated environments /m/ patterns with the stops, becoming the labial nasal fricative /ṽ/ under lenition, further weakening to /v/ from the Middle Irish period onwards. As regards the fricatives, /f/ becomes mute and is not considered further, while the lenition of /s/ to /h/ is dealt with later. As regards the sonorants, the unlenited variants are considered fortis, the lenited ones predictably lenis, transcribed /N, L, R/ > /n, l, r/. The table below displays the initial consonant clusters that occur in lenited environments in Old Irish (disregarding for the moment those beginning with /s-/).

	m	n	l	r
f			*phláig*	*phroidech*
θ		*thnuthaib*	*thláith*	*thracht*
x		*chnamai*	*chlaideb*	*chrunn*
v			*bliadna*	*briathraib*
ð			*dligeth*	*druim*
ɣ		*gnímaib*	*glanad*	*gráid*
ṽ		*mnái*	*mlith*	*mrath*
0			*laithi*	*frecru*

Fig. 5 *Irish initial consonant clusters in lenited environments*

From the above it is clear that in Old Irish as in English the fricatives in Irish pattern with the stops and belong to the class T. No RT-clusters emerge under lenition. The examples given in the table are taken from the Old Irish glosses where possible and from later material where no suitable form in the glosses could be found. The sources in question are the Würzburg glosses (Wb: circa 700); the Milan glosses (Ml: early 9th century); the St. Gall glosses (Sg: mid-9th century); the *Book of Armagh* (Arm: compiled in the early 9th century from earlier material); *Cáin Adamhnáin* (CA: 7th century); *Saltair na Rann* (SR: compiled in the year 987); the *Book of Leinster* (LL: compiled in the 12th century, mostly from earlier material); the *Book of the Dun Cow* (LU: compiled in the 11th century but linguistically much older) within which is found *Fled Bricrenn* (FB) and the *Táin Bó Cuailgne* (TBC); the *Ancient Laws of Ireland* (Laws); and the *Book of Fermoy* (Ferm: compiled in the 14th century).

The examples are set out in detail below. The actual form that occurs is given first, followed by an approximate phonemic transcription, the source, the explanation

and translation of the form and finally the context that triggered the lenition. As was noted briefly above Old Irish orthography only indicates lenition in the case of the voiceless stops, by use of the digraphs <ph, th, ch> for /f, θ, x/ respectively. The lenition of <f> is inconsistent. In one example below the lenition is not marked (3t), while in the other (3s) the <f> is omitted altogether. Another convention, not listed here, was to put a dot above the letter i.e. <ḟ>. For all other examples below (3i-3r) the lenition must be deduced from context.

(3)

a. *phláig* /fla:ɣ'/ (LL33a40), perfect 3rd singular of *plágaid* 'tortures', lenited after the perfect marker *ro*.
b. *phroidech* /froð'ex/ (Wb 10c20), perfect 3rd singular of *pridchaid* 'to preach', lenited after *ro*.[3]
c. *thnuthaib* /θnu:θev'/ (TBC 1015), dative plural of *tnúth* 'jealousy, passion', lenited after the preposition *di* 'of, from'.
d. *thláith* /θla:θ'/ (SR 7615), nominative singular of *tláith* 'weak, feeble', lenited after perfect 3rd singular of copula *-bo*.
e. *thracht* /θraxt/ (SR 5511), nominative singular of *tracht* 'strand, shore', lenited after *cech* 'each, every'.
f. *chnamai* /xnaṽi/ (Ml 41d9), nominative plural of *cnáim* 'bone', lenited after first person singular possessive pronoun *mo* 'my'.
g. *chlaideb* /xlað'ev/ (Ml 36d9), dative singular of *claideb* 'sword', lenited after third person singular masculine possessive pronoun *a* 'his'.
h. *chrunn* /xruN/, (Sg 61b8), dative singular of *crann* 'tree', lenited after second person singular possessive pronoun *do* 'to'.
i. *bliadna* /v'l'i:əðna/ (FB 63), genitive singular of *bliadain* 'year', lenited after numeral *da* 'two'.
j. *briathraib* /v'r'i:əθrev'/ (Ml 23a1), dative plural of *bríathar* 'word', lenited after preposition *o* 'from, by'.
k. *dligeth* /ð'l'ɪɣ'eð/ (Sg 26b7), nominative singular of *dliged*, 'law, principle', lenited after possessive pronoun *mo* 'my'.
l. *druim* /ðrum'/ (SR 6053), nominative singular of *druim*, 'back' lenited after *a* 'his'.
m. *gnímaib* /ɣ'n'i:ṽav'/ (Wb 23c11), dative plural of *gním* 'deed', lenited after *a* 'his'.
n. *glanad* /ɣlanað / (Ml 71c19), nominative singular of *glanad* 'cleaning, purification', lenited after *mu* 'my'.

[3] The sound /p/ was lost in the Celtic languages and was only reintroduced into Irish shortly before the earliest Old Irish attestations. Lenition of <p> is inconsistent in earlier manuscripts (GOI §231.5).

o. *gráid* /ɣra:ð'/ (Wb 16d7), genitive singular of *grád* '(religious) orders, grade', lenited as second element of genitive construction (Wb 16d7)
p. *mnái* /ṽna:i/ (Cáin Adamhnáin 25), nominative dual, lenited after numeral *dí* 'two'.
q. *mlith* /ṽ'l'iθ'/, dative singular of *mleith* 'attrition', lenited after *on* 'from the' (Ml 23a20)
r. *mraith* /ṽraθ'/ (Ml 72b1), genitive singular of *mrath* 'betraying, treachery', lenited after genitive singular article *in*.
s. *laithi* /laθ'i/(Wb 1a3), nominative plural of *flaith* 'sovereignty, rule', lenited after adjective.[4]
t. *frecru* /r'egru/ (Wb 25b14), dative singular of *frecor* 'answer', lenited after preposition *do* 'to'.

2.2.4. Irish initial clusters under eclipsis

Under the process of eclipsis voiceless stops and /f/ mutate into their voiced counterparts, thus /p, t, k, f/ > /b, d, g, v/. Voiced stops however mutate into the corresponding nasal /b, d, g/ > /m, N, ŋ/. Other segments are not normally considered to undergo eclipsis, although in eclipsed positions /m/ is often written double <mm> in Old Irish sources and is included here for that reason. The chart below gives the consonant clusters that occur under eclipsis in Old Irish.

	m	n	l	r
b			*plága*	*pridchabat*
d		*tnuth*	*tlathugud*	*trachta*
g		*cnamae*	*claiter*	*cride*
v			*fledtigib*	*frecre*
m			*mbliadna*	*mbriathar*
N			*ndliged*	*ndruimm*
ŋ		*ngnimae*	*nglanad*	*ngrad*
mm		*mnái*	*mmlith*	*mrath*

Fig. 6 *Irish initial consonant clusters in eclipsed environments*

The examples given in the chart above are laid out, transcribed and glossed below. The orthography of eclipsis is in some ways the inverse of that of lenition insofar

[4] The lenition of <f> is not shown consistently in the earlier sources. Here the letter is omitted entirely.

as the eclipsis of voiceless segments i.e. voicing in (4a-h, 4s, 4t) is not graphically marked, whereas the nasalisation of the voiced stops (4i-4o) is, through the prefixation of the relevant nasal grapheme. Where /m/ is eclipsed geminate spellings with <mm> are common and this occurs in (4q) and (4r). However, for the purposes of this article it is assumed that gemination is not phonemically distinctive and the transcription reflects this.

(4)

a. *plága* /bla:ɣa/ (SR 3941), accusative plural of *plág* 'plague', eclipsed after numeral *deich* 'ten'
b. *pridchabat* /b'r'ɪðxavad/ (Wb 13a13), future 3rd plural of *pridchaid* 'to preach', eclipsed after interrogative particle *in*
c. *tnuth* /dnu:θ/ (Ferm 181a, cf. Ériu Vol.11, 1932 p. 189), dative singular of *tnúth* 'jealousy, passion', eclipsed after preposition *i* 'in'
d. *tlathugud* /dlaθuɣuð/ (LU 8622, FB 43), verbal noun of *tláthaigid* 'softens, appeases', eclipsed after preposition *co* 'with'
e. *trachta* /draxta/ (Ml 67d24), genitive plural of *tracht* 'strand, shore', eclipsed after genitive plural article *inna*
f. *cnamae* /gnaṽe/ (Ml 44d3), genitive plural of *cnáim* 'bone', nasalised after genitive plural article *inna*
g. *claiter* /glat'er/ (Laws i 188.x), passive 3rd singular present indicative of *claidid* 'to dig', eclipsed after relative particle *a*
h. *cride* /g'r'ɪð'e/ (Wb 16a30), nominative singular of *cride* 'heart', eclipsed after third person plural possessive pronoun *a* 'their'
i. *mbliadna* /m'l'i:əðna/ (TBC 731), nominative plural of *bliadain* 'year', eclipsed after numeral *secht* 'seven'
j. *mbriathar* /m'r'i:əθar/ (Ml 46a19), genitive plural of *briathar* 'word', eclipsed after genitive plural article *inna*
k. *ndliged* /N'l'iɣ'əð/ (Wb 23c11), accusative singular of *dliged* 'law, principle', eclipsed after accusative singular article *a*
l. *ndruimm* /Nrum'/ (Arm 17a2), dative singular of *druim* 'back', eclipsed after *i* 'in'
m. *ngnimae* /ŋ'n'i:ṽe/ (Ml 13d15), genitive plural of *gním* 'deed', eclipsed after genitive plural article *inna*
n. *nglanad* /ŋlanað/ (Ml 105d4), nominative singular of *glanad* 'cleaning, purification', eclipsed after first person plural possessive pronoun *ar* 'our'
o. *ngrad* /ŋra:ð/ (Wb 31b4), nominative singular of *grád* '(religious) orders, grade', eclipsed after *re* 'before'
p. *mnái* /mna:i/ (Wb 10a10), accusative singular of *ben* 'woman', eclipsed after accusative singular article *in*

q. *mmlith* /m'l'ɪθ/ (Ml 118b3, dative singular of *mleith* 'attrition', nasalised after *co* 'with'
r. *mmrath* /mraθ/ (Ml 33a8), nominative singular of *mrath* 'betraying, treachery', eclipsed after nominative singular article *a*
s. *fledtigib* /v'l'et(t')iɣ'iv'/ (Ml 86b5), dative plural of *fletech* 'banqueting house', eclipsed after *i* 'in'
t. *frecre* /v'r'egre/ (Wb 30a20), nominative singular of *frecor* 'answer', eclipsed after nominative singular neuter article *a*

As can be seen from the examples above the eclipsis of voiceless consonants is unproblematic, although it does reintroduce the cluster /dn/ into the system. The eclipsis of /b/ > /m/ considerably increases the number of /ml-/ and /mr-/ clusters that occur. The eclipsis of /g/ > /ŋ/ creates a new phoneme, which patterns with the stops. Initial clusters such as /ŋn/, while unusual, are not RT-clusters. The change /d/ > /N/ is problematic as it introduces the RT-clusters /Nl/ and /Nr/ from the eclipsis of /dl/ and /dr/.

Although the examples above are taken from Old Irish exactly the same problem occurs in the modern language. The situation thus exists whereby Irish *n* commonly acts as a sonant, R, e.g. Modern Irish *cnoc* /knok/ 'hill', but also appears as an obstruent, T, under eclipsis, e.g. Modern Irish *a ndlí* /ə Nli:/ 'their law'. Irish thus has what appears to be two RT-clusters (RR-clusters) in its inventory – it must be considered a very liminal case in Scheer's binary topology. If, as is desirable, the binary typology is to be maintained then two options present themselves at this point: either Irish is accepted as an anything-goes language with an incredibly limited number of RT-clusters or a solution is sought to reestablish Irish as a TR-only language. These two approaches are examined in the subsequent sections.

2.3. The typology of Irish

2.3.1. The behaviour of loan words in Irish

A good way to assess what initial consonant clusters are permitted in a language is to look at the behaviour of loan words with 'unusual' clusters. Speakers of a language tend to adopt borrowings to the phonology of their language. If the word being borrowed does not conform to the phonology of the destination language various stratagems are used to adapt the word. One solution is to introduce an epenthetic vowel between the two consonants. This is a productive process in Modern Persian, which does not permit initial consonant clusters at all, e.g. فرانسه /færanse/ 'France', کلاس /kela:s/ 'class'.

Another possibility is to affix an initial vowel. This occurred in the passage from Latin to Spanish and can be easily seen by comparing the Italian words with their Spanish cognates e.g. It. *studiare*, Sp. *estudiar* 'study'; It. *stazione*, Sp. *estación* 'station'. A similar difference exists within the Celtic languages with respect to Latin borrowings: Latin *scribere* > Irish *scríobh*, Welsh *ysgrifenuu* 'write'. Yet another strategy is to eliminate one element of the cluster altogether. Reduction of English borrowings from Greek has already been mentioned. Examples here include the reduction of the clusters /ps-/ > /s-/, e.g. *psychology*; /pt-/ > /t-/, e.g. *pterodactyl*; and /mn-/ > /n-/, e.g. *mnemonic*.

Vowel epenthesis in non-initial clusters is common in Modern Irish, being for example obligatory between a sonorant and voiced stop in final position, e.g. *dearg* /dʲærəg/ 'red'. This even transfers to the English language that is spoken in Ireland, with bisyllabic pronunciation of words such as *film* standard. However, epenthesis is not the strategy that Irish uses to deal with words of Greek origin. Instead, a system identical to the English one is used, with initial *ps-*, *pt-* and *mn-* not even surviving in the spelling in Modern Irish. Modern Irish *siceolaíocht* translates 'psychology' and *neamónach* translates 'mnemonic'. The latter is especially unusual as the cluster *mn-* does actually occur in the language, a fact that might lead to believe that the suppression of this cluster is a modern phenomenon resulting from English influence, or even that these words were borrowed into Modern Irish through English. A chronology of Greek borrowings into Irish would be necessary to clarify this question.

The initial clusters *pt-* and *mn-* in Greek borrowings do not crop up in the Old Irish sources as far as I am aware. However, there are two very common borrowings arriving from Latin that do occur in Old Irish that originally contained initial *ps-*: *psalm* and *psalter*. In the glosses the spellings of these are always *salm* and *salt(a)ir* indicating unequivocally that the Old Irish pronunciation was /s/ and not /ps/. The variants *psalm* and *psaltair* do occur in later sources but never oust the spellings with *s-*. On this evidence it can be stated without doubt that /s/ rather than /ps/ was the standard pronunciation of these words in all stages of Irish.

This alone would suggest that Irish cannot be considered an anything-goes language but an additional issue relevant to the question is the behaviour of lenited /s/ + consonant. This topic, which has been avoided until now, is dealt with in detail in the subsequent section.

2.3.2. Initial consonant clusters involving /s/ and /ʃ/

It has been noted that consonant clusters beginning with /s/ and /ʃ/ behave differently than other clusters cross-linguistically and have to be dealt with separately. This is explicitly recognised by Scheer (2007: 2) and has seen some exploration in the

GP literature (e.g. Kaye 1996). The clusters involving /s/ that occur in English are set out in the table below.

	p	t	k	b	d	g	f	v	θ	ð	z	ʒ	m	n	l	r
s																
ʃ																

Fig. 7 *English initial clusters of /s/, /ʃ/ + consonant*

From the data above it is clear that English permits the various clusters /s/ + voiceless stop (or fricative); /s/ + /m/ and /s/ + sonant. Native clusters other than /ʃr-/, e.g. *shred*, do not occur, but the clusters /s/ + voiceless stop (or fricative), /ʃ/+ /m/ and /ʃ/ + sonant occur in borrowings, usually from Yiddish or German e.g. *schmaltz, schnitzel*. English also permits three consonant clusters of the structure /s/ + voiceless consonant + /l/, /r/.

The situation in Old Irish is not dissimilar, as may be seen below.

	p	t	k	b	d	g	s	f	m	N	L	R
s												

Fig. 8 *Old Irish initial clusters of /s/ + consonant*

Much as English, Irish allows the initial clusters /s/ + voiceless stop and /s/ + /m/, /n/, /l/, /r/. There is a certain orthographic fluctuation between voiced and voiceless graphemes in these clusters e.g. *sg-* sometimes occurs for *sc-*, and this is the common spelling in Scottish Gaelic. This no doubt occurs because voiceless stops occurring after /s/ are typically deaspirated in both Irish and English, thus neutralising the major featural distinction between the voiced and voiceless series.

The lenition of /s/ results in /h/ but this lenition only occurs before the sonorants. Examples of Old Irish clusters beginning /s/ +consonant are laid out below, along with their variants in lenited position.

(5)

a. *spirut* /sp'irut/ (Wb 4a6), nominative singular of *spirut* 'spirit'
b. *spirto* /sp'irto/ (Wb 6d11), genitive singular of *spirut* 'spirit', lenited position after genitive article *in*
c. *stoir* /stor'/ (Ml 14d7), nominative singular of *stoir* 'history'
d. *stoir* /stor'/ (Ml 44b4), dative singular of *stoir* 'history', lenited position afte *du* 'to'
e. *scel* /sk'e:L/ (Ml 35b20), nominative plural of *scél* 'story, tale'

f. *scelaib* /sk'e:lav'/ (Wb 30d10), dative plural of *scél* 'story, tale', lenited position after *do* 'to'
g. *smachtaib* /smaxtəv'/ (Ml 105 a 5), dative plural of *smacht* 'rule, ordinance'.
h. *smachtu* /smaxtu/ (Wb 19d11), accusative plural of *smacht* 'rule, ordinance', lenited position after *fo* 'under'
i. *snáthat* /sNa:θad/ (Sg 107b3), nominative singular of *snáthat* 'needle'
j. *shnáth* /hna:θ/ (TBC 2716), nominative singular of *snáth* 'thread', lenited after adjective
k. *sluag* /sLu:əɣ/ (Sg 20b1), nominative singular of *slóg*, *slúag* 'host'
l. *slog* /hlo:ɣ/ (Ml 55c1), dative singular of *slóg*, *slúag* 'host',[5] lenited after dative singular article *int*
m. *sruth* /sRuθ/ (SR 7047), nominative singular of *sruth* 'stream, torrent'
n. *sruth* /hruθ/ (Ml 2b3), dative singular of *sruth* 'stream, torrent', lenited after dative singular article *int*

As can be seen from the examples above lenition of /s/ was not shown orthographically in the older sources. The lenited status of /s/ can be inferred by the fact that subsequent to the earliest period a superscript dot (or occasionally a postposed *h*) was added to the *s*. Also a special form of the article is used before lenited *s* in the feminine nominative singular, masculine and neuter genitive singular and masculine, feminine and neuter dative singular, i.e. *(-)int* not *in(d)* in all cases.

The examples above clearly show that the lenition of *s* is blocked before stops and *m*. Before /N/, /L/ and /R/ lenition takes place as usual but also appears to lenite the sonorant, giving the initial clusters /hn/, /hl/ and /hr/. In Modern Irish lenition also occurs only before sonants, never before stops, with the additional fact that lenition does not occur before /f/ either (no clusters of *sf* occur in Old Irish). The phoneme /h/ thus acts as if it is a member of the class T. It must therefore be assumed that the blocking of the lenition of /s/ before the stops is a systematic phonological phenomenon that prevents the creation of an 'unpronounceable' RT-cluster. This phenomenon, along with the treatment of Greek borrowings described above, casts serious doubt on the classification of Irish as an anything-goes language.

2.3.3. Is Irish a TR-only language?

If Irish is not an anything-goes language, as seems likely given the above, then is there a solution that enables us to classify it as a TR-only language? In order to answer this question an examination of the behaviour of the sonants is necessary.

[5] The long vowel *ó* /o:/ is in free variation with orthographic *úa* /u:ə/ in Old Irish.

Traditionally the fortis sonorants are considered to become lenis under lenition (N>n, L>l, R>r). This system no longer survives with both broad and slender variants in any dialect but reduced variations of it are common even today. As Thurneysen (1946 §120) points out it is the lenis versions which are pronounced as the corresponding phonemes in other European languages, while their fortis counterparts are pronounced with a more emphatic articulation. Given this, McCone (1996: 87-88) interprets /N/, /L/ and /R/ as arising from a historical process of fortition, with /n/, /l/ and /r/ being the original sounds. The Welsh evidence would appears to support this, with the Soft Mutation of /ɬ / > /l/ and /r̥/ > /r/ in that language.

Another point of note is that sonorants are lenited under different circumstances than other Irish consonants. The unlenited forms are used after /s/, /n/, /l/, /r/ and before /t/, /d/, /s/, /n/, /l/, /r/. while the lenited forms are used before and after all other consonants (GOI, §120). This means that the /n/ occurring as the second element of an initial cluster (excepting those beginning /s-/) is always lenited /n/, never unlenited /N/. The same logically applies to /l/ and /r/. Given that the two /n/ phonemes occur in different environments it would not be unreasonable to equate unlenited /N/ with the problematic /N/ that arises from the eclipsis of /d/ and seems to belong to the class T.

While this equation squares with the assumptions of traditional grammar it does not necessarily tally with recent research within the field of GP (Jaskuła 2006: 94) where the /N/ arising from the eclipsis of /d/ is assumed to have a different structure to that of the ordinary fortis nasal (Jaskuła 2006: 34). For the two to have an identical structure would seriously complicate element models of consonant mutation.

Furthermore, Thurneysen (1946 §131) proposes that after lenited /s/, i.e. /h/, the sonorants become voiceless. This approach is followed for the modern language by Ó Cuív (1944), Breathnach (1945) and de Bhaldraithe (1945) for the West Muskerry, Ring and Cois Fhairrge dialects respectively but forms no part of Mhac an Fhailigh's (1968) work on the Irish of Erris nor Wagner's (1959) *Gaeilge Theilinn*. Thurneysen's (1946 §131) Old Irish examples of *dírrugeddar* and *dírruidiguth* as the prototonic and verbal noun of the verb *di-sruthaigedar* 'dervives' suggest, with the geminate <rr>, that sonorants in this position were not lenited, although the spelling of Old Irish is inconsistent and more examples would be necessary to clarify this question.

Either way, it is clear that /n/ is a member of the class R and the segment that occurs as a result of the eclipsis of /d/ is a member of the class T. The question of whether the latter segment is structurally identical to the tense nasal /N/ requires further research, as does the exact status of the sonorants following /h/. The formal

distinction between the sonant /n/ and the obstruent /N/ resulting from the eclipsis of /d/ appears to solve the problem of the classification of Irish quite cleanly and firmly establishes Irish as a TR-only language, albeit at the extreme end of the scale, with the only accidental gaps being /p, b, d, f/ + /n/.

Having examined the theoretical issues of classification of Old Irish and proposed a solution to the problem that occurs it is interesting to consider if a similar linguistic sleight of hand might be used with other languages that appear to be liminal within the binary typology. The most liminal anything-goes language mentioned by Scheer in this context is Ancient Greek and the following section briefly examines the consonant clusters that occur in that language.

2.4. Problems in the classification of Ancient Greek

The initial consonant clusters that occur in Ancient Greek are laid out below. The data is taken from Liddell and Scott's (1940) *A Greek-English Lexicon*.

(6)

a. stop + coronal: πτ- /pt/, κτ- /kt/, βδ- /bd/, γδ- /gd/, φθ- /p^ht^h/, χθ- /k^ht^h/
b. dental + /m/: τμ- /Tm/, δμ- /dm/
c. stop + /n/: πν- /pn/, κν- /kn/, δν- /dn/, γν- /gn/, φν- /p^hn/, θν- /t^hn/, χν- /k^hn/, μν- mn/
d. stop + /l/: πλ- /pl/, τλ- /Tl/, κλ- /kl/, βλ- /bl/, γλ- /gl/, φλ- /p^hl/, θλ- /t^hl/, χλ- /k^hl/
e. stop + /r/: πρ- /pr/, τρ- /Tr/, κρ- /kr/, βρ- /br/, δρ- /dr/, γρ- /gr/, φρ- /p^hr/, θρ- /t^hr/, χρ- /k^hr/
f. /s/ + stop, /m/: σπ- /sp/, στ- /st/, σκ- /sk/, σβ- /sb/, σγ- /sg/, σφ- /sp^h/, σθ- /st^h/, σχ- /sk^h/ σμ- /sm/
g. labial or velar stop + /s/: ψ /ps/, ξ /ks/

The clusters in (6c), (6d), (6e) and (6f) are unproblematic, being as they are typical TR-clusters or in the case of (6f) clusters beginning with /s/. These clusters also occur in English and Irish, the languages already discussed. The two clusters in (6g): ψ /ps/ and ξ /ks/, would appear to be RT-clusters but as has already been stated /s/ is quite a special case, and clusters including it do not follow the normal rules, as seen above. Both French and Italian retain initial /ps/ in pronunciation of Greek borrowings. Would that justify them being classified as anything-goes languages too? The answer is clearly negative.

This only leaves the clusters in (6a) and (6b) to be accounted for within a TR-framework. The phoneme distribution of the clusters in (6a) suggests that a formal solution similar to the Irish one might be possible here. A solution would

be to propose that the letter <τ> represents both a coronal sonant /t/ and a coronal obstruent /T/, in much the same way that Irish <n> represents either /n/ or /N/ depending on context. The sonant /t/ agrees in voicing and aspiration with the preceding stop and is a member of the class R. The obstruent /T/ is a member of the class T and behaves as such in that it can be followed regularly by members of the class R in initial position.

At this point only the clusters of dental + /m/ in (6b) remain to suggest that Ancient Greek is an anything-goes language. The cluster τμ- /Tm/ is quite common, but it should be noted that τν - /Tn/ does not occur at all. All other possible combinations of obstruent + /n/ appear in the distribution. This suggests that τμ- /Tm/ is the reflex of all instances of /T/ + nasal. If these proposals, i.e. the formal splitting of τ and the hypothesis that all clusters of /T/ + nasal surface as /Tm/, are accepted then only the rare initial cluster δμ- /dm/ appears to violate the sonority constraints of a TR-only language. One marginal cluster does not seem to be enough to prevent the reclassification of Ancient Greek, like Irish, as a TR-only language, but more research is necessary to clarify this point.

3. Summary and conclusions

This paper departs from Scheer's (2007) discussion of initial consonant clusters. Scheer argues that cross-linguistically there is a gradient typology of what initial consonant clusters are grammatically permitted but that when a language does permit initial clusters there are only two types – TR-only languages, which permit clusters only of the form TR and anything-goes languages, which permit permutations other than TR in initial position.

In section 2.1 the initial consonant clusters of English were analysed and shown to exhibit a typically TR-only pattern. In 2.2.1 the base initial consonant clusters that occur in Old Irish were examined. They too showed a TR-only pattern, although they permitted a far larger range of initial clusters than English, such as stop + /n/, dental + /l/ and /m/ + sonorant. However, when the initial consonant clusters that occur under the morpho-syntactically induced phonological process of consonant mutation (2.2.2) were examined (2.2.3 and 2.2.4) it was discovered that nasals could occur as either the first or second element of a consonant cluster, thus appearing sometimes as a member of the class T and other times as a member of the class R. This created a problem for the classification of Irish as a TR-only language.

This problem was discussed in detail in 2.3 and it was found that there was convincing evidence against the classification of Irish as an anything-goes language.

This evidence came from the strategies used to transform RT-borrowings into a TR-type and the strange behaviour of the lenition of /s/, which appears to be systematically blocked before a stop to prevent the occurrence of RT-clusters.

A solution was proposed whereby it was argued that the two cases of /N/ are structurally distinct, the one occurring under eclipsis being designated /N/ and the other /n/, the first being a member of the class T, the second of the class R. This appeared to solve the problem and allow Irish to be classified as a maximally TR-only language, with a bare handful of accidental gaps in its inventory.

On the basis of the solution proposed for Irish the initial consonant clusters occurring in Ancient Greek were also examined. In this case it was found that only a small number of RT-clusters existed, the overwhelming majority of which involved the grapheme <τ>. This phoneme sometimes appeared as a member of the class T, sometimes as a member of the class R, in much the same way as Irish <n>. For this reason a similar solution was proposed, whereby τ is considered to represent two structurally distinct segments: an obstruent /T/ and a sonorant /t/. This solution reduces the number of problematic RT-clusters in Ancient Greek to just one or two and seriously calls into question its status as an anything-goes language.

In conclusion, it is clear that Irish is a TR-only language, although it is a very liminal case within the binary typology proposed by Scheer (2007). The number of accidental gaps in the language is very limited and the nasals exhibit behaviour somewhat atypical for a TR-only language. Furthermore, the status of Ancient Greek within the binary typology appears to be under question, although more research is ultimately necessary to clarify this question.

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Quantity issues in Welsh

Katarzyna Bednarska

1. Introduction

Vowel and consonant quantity is one of more interesting problems in Welsh. At first sight, the distribution of vocalic length may be regarded as random; however, the present article attempts at its interpretation by referring to the concepts of Government Phonology (GP).

First, the paper presents the data from South Welsh (SW) and proposes that vowel length in this dialect depends on the quantity of the next consonant. Secondly, an analysis is provided to account for the behaviour of certain consonant clusters. Further, the findings are confronted with the North Welsh (NW) data.

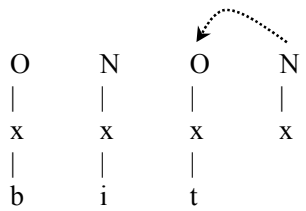
2. Theoretical assumptions

As the main concepts of Government Phonology can be found in various publications (see e.g. Kaye, Lowenstamm and Vergnaud 1990: 193-231), let us present only the concepts of final empty nuclei (FEN) and Proper Government, which will be crucial for our hypotheses.

2.2. FEN and Proper Government

One of the most important assumptions of Government Phonology is that every consonant and every governing domain must be licensed by the following vowel. This constraint is not without further consequences, namely it predicts the existence of word-final empty nuclei. Therefore, in words such as English *bit*, *bent* or Polish *kadr* ‘frame’, the final consonant or a consonantal cluster must be followed by an empty nucleus. This is illustrated below in (1):

(1) a.



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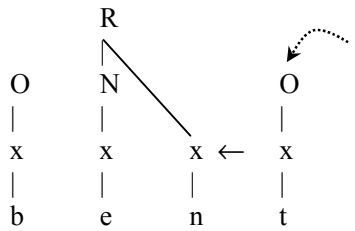

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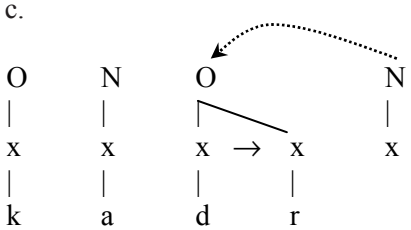


licensing ⇠
government ←

In (1a), according to Government Phonology principles, the onset is licensed by the following nucleus, which is empty. In (1b) the cluster must be licensed to maintain the governing relation. The same situation takes place in (1c), where the onset head, in order to be able to set up a governing relation with its complement, must be licensed by the final (empty) nucleus.

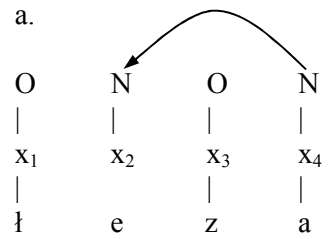
Empty nuclear positions may also appear word-internally. Their distribution, however, is strictly regulated by other principles, namely by Proper Government (PG). Proper Government is a special type of government relation and is contracted between two nuclei. It is formulated in Kaye (1990: 313) as follows:

(2) Proper Government
A nuclear position α properly governs a nuclear position β iff
a) α is adjacent to β on its projection
b) α is not itself licensed
c) no governing domain separates α from β

As results from (2), an empty nucleus remains inaudible if it is properly governed by another nucleus which is itself neither properly governed nor licensed. Additionally,

the governing nucleus must immediately follow its governee. Let us illustrate this problem with the example of a Polish word *łza – łez* ‘tear N. sg./G. pl.’

(3) a.



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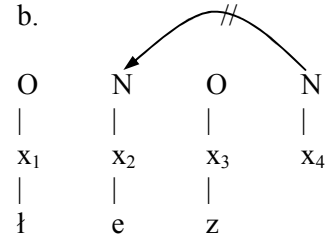


Proper Government ←

In (3a) the nucleus x_4 is phonetically realized, hence it is able to properly govern x_2, which in turn remains silent. In (3b), on the other hand, PG cannot be contracted because the nucleus x_4 is itself licensed word-finally. Therefore, the nucleus x_2 must be vocalized.

Having established the theoretical background for our discussion, let us now proceed to the analysis of Welsh data.

3. Quantity in South Welsh

The southern variety of Welsh distinguishes short and long vowels, whose distribution is strictly subordinated to context. First of all, long vowels appear only when stressed. Further, their length depends on the following consonant.

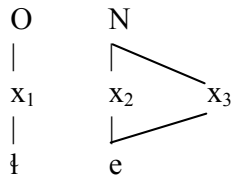
3.1. Long vowels

Vowels are normally long in stressed final syllables (4).

(4) *lle* [łe:] ‘place’
ci [ki:] ‘dog’
da [da:] ‘good’
tŷ [ti:] ‘house’
du [di:] ‘black’
te [te:] ‘tea’
to [to:] ‘roof’

Consider the representation of *lle* [łe:] ‘place’

(5) *lle* [łe:] ‘place’



The diagram in (5) shows a word-final stressed vowel. The vowel in this context is long and occupies two nuclear positions (x_2-x_3). Long stressed vowels may also precede voiced stops, sonorants and fricatives. The data are presented below:

(6) *lludw* [‘łi:du] ‘ashes’
edau [‘e:de] ‘thread’
cadair [‘ka:der] ‘chair’
mwdwl [‘mu:dul] ‘haycock’
cigoedd [‘ki:goð] ‘meats’
buddai [‘bi:ðe] ‘churn’
meddwl [‘me:ðul] ‘to think’
hafau [‘ha:ve] ‘summery’
tafod [‘ta:vod] ‘tongue’
ifanc [‘i:vaŋk] ‘young’
yfed [‘i:ved] ‘to drink’
rhaffau [‘r̥a:fe] ‘ropes’
iechyd [‘je:χid] ‘health’
achos [‘a:χos] ‘cause’
pethau [‘pe:θe] ‘things’
talu [‘ta:li] ‘to pay’
tanau [‘ta:ne] ‘fires’
arall [‘a:rał] ‘other’

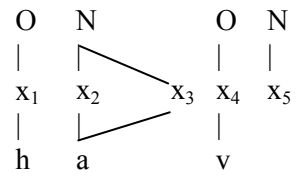
It has to be noted that the sounds in question such as [d, g, ð, v, f, χ, θ, l, n, r] permit long vowels to precede them both word-finally and medially; moreover, voiced stops, sonorants and fricatives behave comparably in that respect. Consider the data below:

(7)

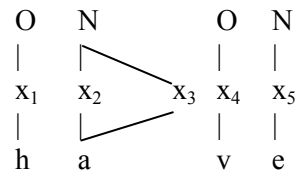
a.	b.
haf [ha:v] ‘summer’	*havau* [‘ha:ve] ‘summers’
cig [ki:g] ‘meat’	*cigoedd* [‘ki:goð] ‘meats’
lled [łe:d] ‘width’	*lledau* [‘łe:di] ‘to widen’
peth [pe:θ] ‘thing’	*pethau* [‘pe:θe] ‘things’
chwith [χwi:θ] ‘left’	*chwithig* [‘χwi:θig] ‘awkward’
hoff [ho:f] ‘favourite’	*hoffi* [‘ho:fi] ‘to like’
rhaff [r̥a:f] ‘rope’	*rhaffau* [‘r̥a:fe] ‘ropes’
chwech [χwe:χ] ‘six’	*chweched* [‘χwe:χed] ‘sixth’
bach [ba:χ] ‘hook’	*bachau* [‘ba:χi] ‘to hook’
tâl [ta:l] ‘payment’	*talu* [‘ta:li] ‘to pay’
tân [ta:n] ‘fire’	*tanau* [‘ta:ne] ‘fires’
hen [he:n] ‘old’	*henach* [‘he:naχ] ‘older’

Long vowels in (7) are stressed and they precede single consonants. The structure of these vowels is presented below:

(8)



(9)



The similarity between the above representations and the one in (5) is seen immediately: a long stressed vowel (x_2-x_3) is a branching nucleus. In (8) and (9), it precedes a single onset which is filled with melody (x_4).

Therefore, it may be concluded that stressed vowels which precede single onsets must occupy two nuclear slots. Consequently, we may say that long vowels are found in open syllables, i.e. when a vowel is not followed by a coda. On the other hand, they will never appear in unstressed syllables or before voiceless stops [p, t, k], or the sonorants [m] and [ŋ].

3.2. Short vowels

Unstressed vowels in South Welsh are invariably short. However, under certain circumstances, also a stressed vowel may be short. The data below illustrate the situation where a short stressed vowel precedes coda-onset clusters (also called RT clusters).[1]

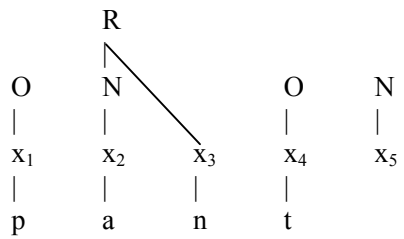
(10) *asgwrn* [‘a**sk**urn] ‘bone’
milltir [‘mɪɬ**t**ir] ‘mile’
dangos [‘daŋ**g**os] ‘to show’
gwndwn [‘gʊ**nd**un] ‘open space’
anferth [‘a**nv**erθ] ‘huge’
talcen [‘ta**lk**en] ‘forehead’
casglu [‘ka**sk**li] ‘to collect’

Medial clusters of falling sonority are consistently preceded by short vowels. This does not change when the coda-onset clusters appear word-finally, a situation which is illustrated below by the data in (11) and by the diagram in (12):

(11)

cant [kant] ‘hundred’	*barn* [barn] ‘opinion’
pant [pant] ‘valley’	*carn* [karn] ‘cairn’
plant [plant] ‘children’	*mewn* [mewn] ‘in’
pump [pimp] ‘five’	*darn* [darn] ‘piece’
cwsg [kʊsk] ‘sleep’	*ffwrn* [fʊrn] ‘oven’
gardd [garð] ‘garden’	
gwerth [gwɛrθ] ‘value’	
tarth [tarθ] ‘mist’	
golch [gɔlχ] ‘wash’	

(12) *pant* [pant] ‘valley’



[1] RT clusters are clusters of falling sonority, where R indicates a sonorant and T an obstruent. TR clusters, on the other hand, stand for clusters of rising sonority.

The vowel (x_2), although stressed, is short because it is a part of a branching rhyme (x_2-x_3), i.e. it is followed by a coda. We presume therefore that short stressed vowels are found in closed syllables, where a vowel precedes a coda-onset cluster.

There are cases, however, where short stressed vowels appear in seemingly open syllables, as in e.g. *allan* [‘ałan] ‘out’, *prennau* [‘prɛne] ‘trees’, *llongau* [‘ɬɔŋe] ‘ships’, etc. Other examples are shown in (13):

(13) *caseg* [‘kaseg] ‘mare’
crasu [‘krasi] ‘to parch’
nesaf [‘nesa] ‘next’
allan [‘ałan] ‘out’
colli [‘kɔɬi] ‘to lose’
dillad [‘dɪɬad] ‘clothes’
tonnau [‘tɔne] ‘waves’
talach [‘talaχ] ‘taller’
tamed [‘tamed] ‘piece’
torri [‘tɔri] ‘to cut’

Note that the medial consonants which are preceded by stressed – and short – vowels are the two fricatives [s] and [ɬ], and sonorants. The two fricatives, then, behave differently to the rest of their group (cf. 7). Furthermore, we have seen sonorants pattering as the majority of fricatives and voiced stops in that they can be preceded by stressed long nuclei, e.g. *tâl* [ta:l] ‘payment’ (7). The problem is further complicated when we confront words with final [s] and [ɬ] with those with final sonorants. Compare the columns in (14) and (15):

(14)

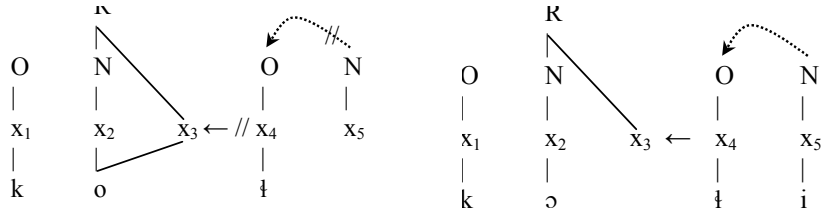
a.	b.
gwell [gwe:ɬ] ‘better’	*gwella* [‘gwɛła] ‘to improve’
coll [ko:ɬ] ‘loss’	*colli* [‘kɔɬi] ‘to lose’
blas [bla:s] ‘flavour’	*blasau* [‘blase] ‘flavours’
plas [pla:s] ‘mansion’	*plasau* [‘plase] ‘mansions’

(15)

a.	b.
ton [tɔn] ‘wave’	*tonnau* [‘tɔne] ‘waves’
pren [prɛn] ‘tree’	*prennau* [‘prɛne] ‘trees’
man [man] ‘place’	*mannau* [‘mane] ‘places’
cam [kam] ‘step’	*camau* [‘kame] ‘steps’
tal [tal] ‘tall’	*talach* [‘talaχ] ‘taller’
ing [ɪŋ] ‘suffering’	*ingol* [‘ɪŋɔl] ‘agonishing’
rheng [ˌrɛŋ] ‘row’	*rhengau* [‘ˌrɛŋe]
llong [ɬɔŋ] ‘ship’	*llongau* [‘ɬɔŋe]

While word-finally [s] and [ɬ] are preceded by long vowels (14a), the situation changes when an additional syllable is added: now the stressed vowel is short (14b). To put it differently, when the word is a monosyllable, the vowel seems to behave as though it is in an open syllable. However, as soon as another vowel follows, the two fricatives act as if they create closed syllables. In fact, it is possible if we assume that [s] and [ɬ] are geminates; only then is it clear why the stressed vowel is short in this context. The suggested representations of the words are presented below:

(16) a. *coll* [koːɬ] ‘loss’ b. *colli* [‘kɔɬi] ‘to lose’

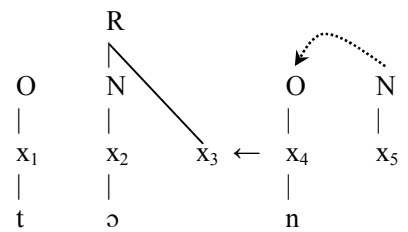


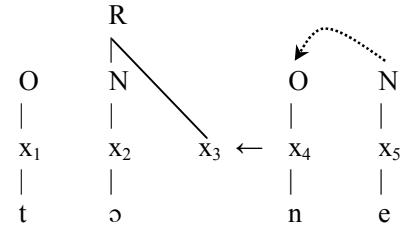
Notice that when the final nucleus (x_5) is empty (16a), the branching rhyme contains vocalic melody (i.e. a long vowel). If, however, the final nucleus is filled with melody (16b), the vowel can occupy only one skeletal position, namely (x_2), thus leaving the coda melodically empty. This kind of a geminate has been called a ‘virtual geminate’ (Cyran 1997; Sègèral and Scheer 2001: 311-337) and has been applied in the discussion of similar phenomena in Breton (Bednarska 2009: 13-27). The crucial role here seems to be played by the final nucleus: if it is empty (16a), it cannot license the geminate (x_4-x_3) and leaves the coda open for vocalic melody. If, on the other hand, the final nucleus is a full vowel (16b), it licenses the geminate and the coda is controlled by its onset (x_4). What is central to the above reasoning is the fact that the coda of the geminate is not attached to any melody but remains under the influence of its onset. As a more thorough analysis of the phenomenon has been presented elsewhere,[2] suffice it to say that the final nucleus is a decisive factor that determines whether the coda of the geminate is or is not governed – and therefore controlled – by the onset.

[2] Bednarska (2009).

As for the sonorants, (15) shows that the geminate is maintained also word-finally because the stressed vowel in e.g. *ton* [‘tɔn] ‘wave’ is short. The suggested representation is thus as follows:

(17) a. *ton* [tɔn] ‘wave’ b. *tonnau* [‘tɔne] ‘waves’





The sonorant is geminated both finally and medially (x_3-x_4). Consequently, in contrast to the fricative geminates, the sonorant ones can be licensed by empty nuclei. Notice that also [n], [l] and [r] can keep the preceding vowel short, which suggests that apparently there are two sets of these sonorants: single (cf. 7) and geminated (cf. 13). They can be recognized solely by the length of the preceding stressed vowel.

To conclude, the behaviour of vowels before [s], [ɬ] and one set of the sonorants [n], [l], [r], as well as [m] and [ŋ], does not refute our previous hypothesis that short stressed vowels appear in closed syllables. As has been shown above, the ‘virtual geminates’ create closed syllables as well, although the coda is devoid of melody.

Up to this point we were dealing with sonorants, voiced stops, and fricatives. Voiceless stops, in turn, present a behavior similar to [m] and [ŋ] in that they can be preceded only by short vowels (18)[3]:

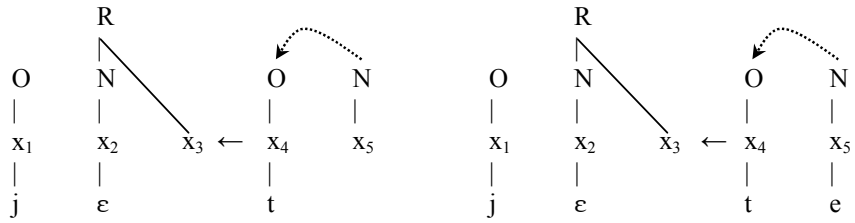
(18) *toc* [tɔk] ‘slice’
tap [tap] ‘tap’
twp [tʊp] ‘stupid’
cloc [klɔk] ‘clock’
iet [jɛt] ‘gate’
lloc [ɬɔk] ‘sheepfold’
crwt [krʊt] ‘boy’

As far as voiceless stops are concerned, it appears that gemination in this case is more stable. That is, while the codas of the final [s] and [ɬ] had to give place for

[3] Long vowels before final voiceless stops are possible only in loanwords from English, e.g. strôk [stroːk] ‘stoke’, côt [koːt] ‘coat’, tâp [taːp] ‘tape’.

the lengthened vowel, voiceless stops are licensed strongly enough to maintain the control over their codas. The process is represented below:

(19) a. *iet* [jɛt] 'gate' b. *ietau* ['jɛte] 'gates'



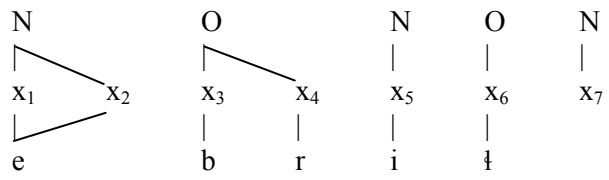
Accordingly, an empty nucleus following a voiceless stop appears to function similarly to a full vowel in that it is able to license the governing relation within the geminate. Thus, there is no difference in vowel length between mono- and polysyllables.

To sum up the discussion so far, we may assume that short stressed vowels in South Welsh appear in closed syllables, including geminates (voiceless stops and sonorants). Long vowels, on the other hand, occur in stressed open syllables, that is, before a single onset.

4. Clusters of rising sonority

Having proposed the above view, we should expect that long vowels will appear also before clusters of rising sonority (TR clusters) such as, e.g. *br* or *kl*, which do not create closed syllables. Thus, we should expect that the representation of e.g. *Ebrill* 'April' should look like that in (20):

(20) *Ebrill ['e:briÒ] 'April



As no coda follows the vowel (x_1-x_2), the latter is expected to be long: not only is it stressed but it also precedes a branching onset, i.e. occurs in an open syllable. The actual data, however, are quite different:

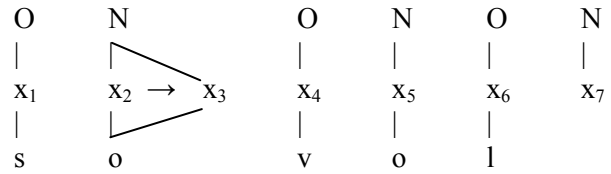
(21) *Ebrill* ['ɛbriɬ] 'April'
edrych ['ɛdrɪχ] 'to look'
Rhagvir ['r̥agvɪr] 'December'
adnod ['adnod] 'Biblical verse'
eglwys ['ɛglus] 'church'
pedwar ['pɛdwar] 'four'
patrwm ['patrum] 'pattern'
anadlu [a'nadli] 'to breathe

Notice that the stressed vowels in (21) are all short even though they appear before alleged branching onsets. It has to be borne in mind, however, that in Welsh such clusters invariably undergo epenthesis when word-final:[4]

(22)	*soflyn* ['sɔvlɪn] 'stubble'	*sofl* ['so:vol] 'stubble'	*[sovl]
	gwadnau ['gwadne] 'soles'	*gwadn* ['gwa:dan] 'sole'	*[gwadn]
	cefnau ['kɛvne] 'backs'	*cefn* ['ke:ven] 'back'	*[kevn]
	ochri ['ɔχri] 'to side'	*ochr* ['o:χor] 'side'	*[ɔχr]
	ofnau ['ɔvne] 'frears'	*ofn* ['o:von] 'fear'	*[ɔvn]
	gwddgau ['gʊðge] 'necks'	*gwddwg* ['gu:ðug] 'neck'	*[gʊðg]
	helmau ['hɛlmi] 'cornstacks'	*helm* ['he:lem] 'cornstack'	*[hɛlm]

The clusters which are regularly broken by an epenthetic vowel are thus supposed to contain an empty nucleus. The latter separates not only TT and RR clusters but also TR clusters which are usually regarded as branching onsets.[5] The structure of the words in (22) may be as follows:

(23) *sofl* ['so:vol] 'stubble'

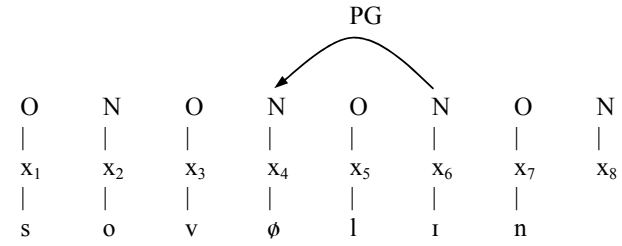


[4] There are other strategies to eliminate TR clusters from final position in Welsh. In the North-East, for example, clusters [vl] and [vr] undergo metathesis (>[lv], [rv]); in Pembrokeshire, in turn, the labiodental fricative is lenited to [w]: *cefn* [kewn] 'back' (Awbery 1984: 90).

[5] An attempt at redefining branching onsets in Polish as sequences of single onsets has been proposed by Cyran (2003).

The word-final cluster [vl] is broken by an epenthetic vowel x_5 (the quality of the vowel is a copy of the previous one). In [‘sɔvlɪn] the situation changes. As soon as the cluster is followed by a full vowel, the epenthetic vowel does not appear. Compare:

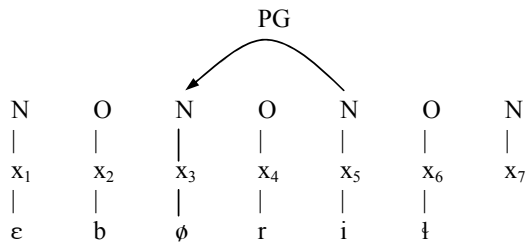
(24) *soflyn* [‘sɔvlɪn] ‘stubble’



The full vowel (x_6) Properly Governs the empty nucleus within the TR cluster (x_4). At the same time, the stressed vowel – although seemingly in an open syllable – remains short.

Thus, it seems that TR clusters in Welsh contain an empty nucleus which must be Properly Governed by a following full vowel; otherwise it has to be pronounced. Consider the cluster [br] in Ebrill [‘ɛbrɨɬ] ‘April’.

(25) *Ebrill* [‘ɛbrɨɬ] ‘April’



The reason why the stressed vowel is short is that the following cluster is in fact not a branching onset but a cluster of two onsets separated by an empty nucleus (x_3), where the latter is Properly Governed by the following full vowel. It seems then that in Welsh a vowel followed by such bogus clusters must be short.

5. Summary

The analysis of South Welsh has provided us with some ideas that may help to discover the mechanisms behind the distribution of vocalic length in this dialect. Firstly, it has been suggested that long vowels may appear in stressed open syllables and before a single onset. Secondly, short vowels appear before coda-onset clusters and before clusters of consonants that are broken by a nucleus which is properly governed. Consequently, short vowels occur in closed syllables, that is, before a rhymal complement (either melodically full or empty). Melodically empty codas are observed if their onsets are voiceless stops or the sonorants [n], [l], [r], [m] and [ŋ]. As has been advocated, in that case we are dealing with so called ‘virtual geminates’.

Further, attention has been paid to the role of final empty nuclei. In South Welsh, they seem to play an essential role in maintaining the geminates. If the analysis is correct, it is apparent that voiceless stops and some sonorants create the most stable geminates. In the case of word final voiceless lateral fricative [ɬ] and voiceless alveolar sibilant [s], in contrast, final empty nuclei cannot support geminates.

Finally, the notion of Proper Government has been applied to account for the vowel shortening before clusters of rising and level sonority. It has been proposed that these clusters are separated by empty nuclei which have to be properly governed in order to remain silent. Vowels that occur before such clusters must remain short.

6. Quantity in North Welsh

In this section we will analyze the distribution of vowel length in the dialect of North Wales and attempt to compare it with its southern variety.[6]

North Welsh long vowels occur in monosyllables, i.e. under stress. The data in (26) are similar to those of South Welsh.

(26)

a.	b.
ci [ki:] ‘dog’	*rhaff* [r̥a:f] ‘rope
tŷ [tɨ:] ‘house’	*hoff* [ho:f] ‘favourite’
du [dɨ:] ‘black’	*peth* [pe:θ] ‘thing’
te [te:] ‘tea’	*bach* [ba:χ] ‘hook’
	haf [ha:v] ‘summer’
	lled [ɬe:d] ‘width’
	cig [ki:g] ‘meat’

[6] Data based on Awbery (1984).

In (26), the stressed vowel is long whether or not a consonant follows. Notice, however, that if another syllable is added to the words in (27b), the vowel is short. Compare:

(27)

a.	b.
rhaff [ɾa:f] ‘rope	*rhaffau* [‘rafe] ‘ropes
hoff [ho:f] ‘favourite’	*hoffi* [‘hofi] ‘to like’
peth [pe:θ] ‘thing’	*pethau* [‘pɛθe] ‘things’
bach [ba:χ] ‘hook’	*bachau* [‘baχi] ‘to hook’
haf [ha:v] ‘summer’	*hafau* [‘have] ‘summers’
lled [ɬe:d] ‘width’	*lledu* [‘ɬɛdɪ] ‘to widen’
cig [ki:g] ‘meat’	*cigoedd* [‘kigoð] ‘meats’

In (27a), the vowel is long under stress and before final voiced and voiceless fricatives, and before final voiced stops. When the vowel occurs in a stressed penult, however, it is short (27b). Stressed vowels in monosyllables are short if a voiceless stop follows, e.g. *crwt* [krʊt] ‘lad’, *lloc* [ɬɔk] ‘fold’. Therefore, while South Welsh had long vowels before voiced stops and before fricatives in monosyllables and in penults, North Welsh has long vowels only in monosyllables. As far as the fricatives are concerned, there is one exception, namely the voiceless lateral fricative [ɬ]. If it occurs as final in a monosyllable, the preceding vowel is short:

(28) *llall* [ɬaɬ] ‘other’
gwell [gwɛɬ] ‘better’
coll [koɬ] ‘loss’

Bear in mind that in South Welsh the word final lateral fricative could be preceded by a long vowel; in the North, [ɬ] behaves not like the rest of its group but rather like voiceless stops.

Further, it appears that North Welsh does not distinguish different sets of sonorants (i.e. single and geminated ones). As is shown below in (29b), all North Welsh sonorants are preceded by short nuclei.

(29)

a	b	
South Welsh	North Welsh	
arall [‘a:raɬ]	['araɬ]	‘other’
seren [‘se:ren]	[‘seren]	‘star’
talu [‘ta:li]	[‘talɪ]	‘to pay’
canol [‘ka:nol]	[‘kanol]	‘middle’
tanau [‘ta:ne]	[‘tane]	‘fires’

Additionally, while in South Welsh final clusters of rising or level sonority were banned, North Welsh permits them to appear in that context. Compare:

(30)

a. South Welsh	b. North Welsh	
ovn [‘o:von]	[ɔvn]	‘fear’
sovl [‘so:vol]	[sɔvl]	‘stubble’
gafr [‘ga:var]	[gavr]	‘sheaf of corn’
cefn [‘ke:ven]	[kɛvn]	‘back’

However, the only TR clusters permitted word-finally are those with a voiced labiodental fricative [v] as a first component. Other clusters (such as, e.g. [dn] or [br]) are still not possible even in North Welsh and must undergo epenthesis.

One may assume that it is rather consonantal than vocalic quantity that lost distinction in NW. To put it differently, North Welsh does not distinguish voiced single consonants and voiceless geminates. In stressed syllables, all consonants (stops as well as sonorants) that come before a full vowel have the structure of virtual geminates.[7]

It would be interesting to research which dialect is in an earlier stage of development and which is innovative; that is to say, whether it is South Welsh that has its voiced geminates simplified or North Welsh which has its single consonants re-geminated. On the one hand, Watkins (1993: 298) claims that ‘[M]ost northern varieties seem to be moving towards complete loss of long quantity (and therefore length contrast) in the penultimate’, which would mean that this system has imposed gemination on single segments. On the other hand, as stated in Awbery (1986: 24) and Watkins (1993: 298), vowel length distinction in Colloquial Welsh is disappearing. Specifically, fricatives [f], [θ] and [χ] tend to require a preceding short vowel, so e.g. *hoffi* ‘to like’ is more and more often pronounced as [‘hofi]. If this is the case, SW may be strengthening the division between voiced single obstruents (and single sonorants) and voiceless geminate obstruents (and sonorants).

7. Conclusion

South Welsh and North Welsh dialects have been compared with respect to the distribution of vowel length. It has been proposed that in South Welsh long vowels appear word-finally and before single consonants, while short vowels before clusters and geminates. In North Welsh, long vowels may occur only under stress in monosyllables. In other contexts only short ones are attested.

[7] It is interesting to notice that in the area of Mid Wales vowel length is in free variation before all types of consonants (Awbery 1984: 74). Thus, *arall* ‘other’ can be either [‘a:raɬ] or [‘araɬ], *cadair* ‘chair’ – [‘ka:der] or [‘kader], and *ateb* ‘to answer’ – [‘a:teb] or [‘ateb] (Awbery 1984: 75).

Geminates in South Welsh include voiceless stops and the sonorants [m] and [ŋ]. As for the sonorants [n], [l] and [r], SW seems to distinguish two sets of these: single and geminated ones. In North Welsh, on the other hand, all obstruents and all sonorants have the form of geminates (excluding word-final context).

The differences in the distribution of long and short vowels in both dialects have been credited to the role of final empty nuclei. In SW they are capable of licensing only those geminates that are composed of voiceless stops and sonorants, while in NW final empty nuclei can license also lateral fricative geminates and some of the final TR clusters.

The interpretation of quantity phenomena in Welsh required the application of the notion of Proper Government. It has been stated that this kind of phonological government is necessary to control empty nuclei enclosed within clusters of rising sonority.

As the article has touched upon only the most striking problems, further research is certainly needed. One of the more interesting questions is that of language change that Welsh seems to be undergoing; particularly in the colloquial variety, both voiced and voiceless obstruents and sonorants tend to require preceding short vowels. A question arises whether this process employs shortening of long vowels or perhaps gemination of consonants. Furthermore, it is interesting to investigate different varieties within South and North Welsh, which may shed light on quantity issues.

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On the lost personal pronoun of the 1st person sg. in Celtic

Václav Blažek

1. Introduction

One of the specific features of the Celtic branch is the absence of continuants of the personal pronoun **(H$_1$)eĝoH/*(H$_1$)eĝH(om)* 'I'. In both Insular and Continental Celtic (with the exception of Celtiberian where no personal pronouns are known at all) there are only the forms in *m*-, reflecting the originally oblique cases. The same process is well-described in some modern Indo-Iranian languages:

Indo-Aryan: Romani *me*, Punjabi, East Rajasthani, Kumauni, Awadhi *mi*, Nepali *ma, mə*, Hindi *mãĩ*, Assamiya *mɔi*, Marathi *mī*, Sinhalese *mama/ə*, Maldivian *ma* 'I'.
Dardic: Maiya *mə̃*, Kanyawali, Phalura *ma*, Shina *ma(h)*/*mă* 'I'.
Iranian: Persian *man*, Tat *me(n)*, Azari Harzandi *man*, Gilaki *mən*, Mazendarani *mɛn* 'I'.

But in all old, middle and numerous modern, Indo-Iranian, languages the continuants of the Indo-Iranian protoform **aźʰam* are preserved. So it is a challenge to try to find traces of this pronoun in some more archaic stages of Celtic, i.e. in Continental Celtic.

2. Inscription from Voltino

The funerary text of the inscription of Voltino by Lago di Garda contains both Latin (A) and Celtic (B) parts. The Latin part is written in the Latin alphabet, the Gaulish part is written in the Sondrio variant of the North Etruscan script in *scriptio continua* (Eska and Weiss 1996: 289). Let us compare the segmentation and interpretation of (a) Thurneysen (1923: 8-10) and (b) Eska and Weiss (1996: 290-91):

(A) TETVMVS SEXTI DVGIAVA SAŚADIS
'Tetumus, [son] of Sextus, and Dugiava, [daughter] of Saśid[ia] [are buried here]' vel sim.

(B) **TOMEDECLAI OBALDANATINA**

(a)

to	*med*	*ec-*	*lā-*	*-i*
connective	1 sg. acc. pron.	perf. preverb	'put'	3 sg. perf.

(b)

to	*me*	*de-*	*ec-*	*lā-*	*-i*
connective	1 sg. acc. pron.	perf. preverb	perf. preverb	'put'	3 sg. perf.

'[and] Obalda, [their] daughter, set me [i.e. the monument] up.'

The only difference consists in the interpretation of the segment *med*. Thurneysen saw in this form the acc. sg. corresponding to Old Latin *med*. Eska and Weiss (1996: 290-91) reject this and offer the complex of two perfective preverbs *de-* and *ec-*. Let us mention that the existence of the form *med* may be supported by a newly identified Gaulish form *met* attested in the syntagm *met-ingi-set-ingi* 'between me (and) between her' in the inscription from Châteaubleau (Lambert 2001: 112). On the other hand, in Gaulish only the prefix *ex-* is attested (cf. Delamarre 2001: 142-45). But it is not the only possibility to interpret the complex *tomedeclai*. Thurneysen as well as Eska and Weiss see in *-lai* the 3rd person perfect of the verb **lā-* 'to put' (Schumacher 2004: 443-46; LIV 399: **leH$_1$-*). But with the same probability it can be the 1st person perfect of the same verb (Lambert 2002: 182), cf. the form *ievri* attested in the inscription on the clay dish from Lezoux, see §3, and maybe also ειωραι (Nîmes) < **e-or-ai* < **pe-por-ai* 'I have devoted/sacrificed' (Lambert 2003: 65, 104; Delamarre 2001: 158-59; de Bernardo Stempel 2008: 'Anche per me ho fatto io Obalda, la figliola').[1] With regard to this alternative, the segment *ec* should be the 1st person pronoun. In this case it remains to determine the function of the initial sequence which can be segmented as (i) *tomed*; (ii) *to med*; (iii) *tom ed*.

[1] 'Also for me I have made (it); I, Obalda, the daughter.'

(i) The form **tomed* could be interpreted as the ablative **to(s)med* ± 'for him'[2] from the demonstrative **so-*, obl. **to^{o}*. In Celtic the pronominal forms with medial *-m-* are reliably attested in Celtiberian, where *somei* and *somui* have been interpreted as the loc. and dat. sg., respectively, from the demonstrative root **so-*, and dat. sg. *iomui* from the interrogative-relative **i̯o-*. Similarly, e.g. Sanskrit abl. sg. *tásmād*, dat. sg. *tásmai*, loc. sg. *tásmin*, and abl. sg. *yásmād*, dat. sg. *yásmai*, loc. sg. *yásmin*, Avestan (Young) *yahmāṯ*, (Old) dat. sg. *yahmāi*, loc. sg. *yahmī*, Mycenaean *to-me* /*tohmei*/, Gothic dat. sg. *þamma*, Prussian dat. sg. *stesmu* etc. (Wodtko 2000: 342-43). Schrijver (1997: 14) mentions the scarcity of the *t-*pronouns in Italo-Celtic. But it does not mean that there are no traces of them here. In Latin e.g. the adverb *tum* 'at that moment, then' < acc. sg. **tom*; in Insular Celtic e.g. Old Irish *tó* 'yes', Welsh *do* 'indeed' < **tod* 'that (is)' (Schrijver 1997: 15). In Gaulish the *t-*demonstrative even with the *m-*extension may be identified in the form *teme* (Châteaubleau), perhaps the loc. sg. m. (Lambert 2001: 93).

(ii) The segmentation **to med* was already applied by Thurneysen in his solution (1923: 8-10). But the interpretation *ec lai* 'I have put' excludes the function of the oblique case of the 1st person sg. pronoun ascribed to the segment *med* by Thurneysen.

(iii) The segmentation **tom ed* can correspond to Latin *tum id* 'then it', cf. Gaulish *^{o}ton-id* in the syntagm *lungetutonid* attested in the inscription from Larzac (Lambert 2003: 64, 68, 169). Concerning the form **ed*, cf. Gaulish *ed* (plate of Lezoux) in the syntagm CORIIOSED (McCone 1996: 107, 111), Old Irish *ed* 'it' < **ed-e(d)*, *-e* in *seche* 'past him' < **sek^{u}os-ed* (Schrijver 1997: 15, 56, 66).

[2] With the exception of the forms *met* and *set* from the inscription from Châteaubleau no similar case forms are known in Gaulish. More archaic is the situation in Celtiberian. The ablative in *-ð* is reliably attested in the nominal declension (examples from Wodtko 2000):

stem	ending	late IE projection	examples
-o-	*-uð*	**-ōd*	*ruðimuð*, *karaluð*, *usamuð*
-ā-	*-að*	**-ād*	*lakað*, *sekotiað*
-i-	*-ið*	**-īd*	*bilbilið*
-u-	*-ueð*	**-eu̯-ed*	*karaueð*
-n-	*-uneð*	**-ōn-ed*	*barskuneð*, *oilauneð*
consonant	*-C-eð*	**-C-ed*	*sekobirikeð*

Although it is impossible to expect the same reflexes in Gaulish, it is probable the abl. sg. from the pronominal root **so-/*to-* would be extended by the ending of the *o-*stems, namely **somud* or **tomud*. The same can be said about Indo-Iranian abl. and dat. sg. But the loc. sg. *tásmin* indicates the consonant stem inflection (Schrijver 1997: 12-13). If the consonant inflection was generalized in the early Gaulish pronominal paradigm, the form **tomed* is quite regular.

But there is one objection: it seems, in Cisalpine Gaulish the final *-*m* changed into -*n*, cf. the forms **LOKAN** 'urna' known from the inscription from Todi, probably the acc. sg. f. **longām* (see McCone 1993: 248, who supports this reconstruction based on such examples as Old Irish *long* 'vase, vaisseau', Welsh *llong* 'vaisseau'), or **TEUOXTONION**, attested in the inscription of Vercelli, representing the gen. pl. of the compound **dēuo-gdonion* < **deiu̯-dʰĝʰomi̯om* 'of gods and people', in the parallel Latin text the dat. pl. 'deis et hominibus' was used (Lambert 2003: 78-80). But in the same inscription the counter-example appears in the word in nom. sg. A^{N}TOM 'campus' (the transcription ATOŚ is also possible, reflecting the acc. pl. **antons*). Further, the final -*n* in the sequence LOKAN.KO[I]SIS in the inscription from Todi can be explained via sandhi directly from *LOKAM KOISIS. And finally, the Gaulish equivalent to Latin *deis et hominibus* in the inscription from Vercelli is alternatively transcribed as **TEUOXTOM**, reflecting **dēwo-gđōm*^{o} according to de Bernardo Stempel (2008). These interpretations exclude any witness of the development **-m* > **-n* in Cisalpine Gaulish. The question of the final nasal may also be eliminated, if the complex *tomed* is interpreted as the loc. sg. **tome* < **to(s)mi* ± 'here' or 'there' and nom.-acc. sg. ntr. **ed* 'it'.

Summing up, both new solutions, (i) and (iii), can be interpreted as follows:

(i) **TOMED[1] EC[2] LAI[3] OBALDA[4] NATINA[5]**
'For him[1] I[2] have put[3], Obalda[4], a daughter[5]'.

(iii) **TOM[1] / TOME[2] ED[3] EC[4] LAI[5] OBALDA[6] NATINA[7]**
'Then[1] / (t)here[2] I[4] have put[5] it[3], Obalda[6], a daughter[7]'.

3. Inscription from Chamalières

The inscription from Chamalières (near Clermont-Ferrand) was unearthed in 1971. The text is written in the Latin italics on the lead tablets, which were preferred in communication with the other world. The interpretation follows K.H. Schmidt (1981: 260):

ANDEDÍON UEDIÍUMI DIÍIUIION RISU NARITU MAPON[ON] ARUERNATIN.
'By the magic tablet, I honour the divine Maponos Arvernatis, in whom a god dwells.
LOTITES SNÍ EDDIC SOS BRIXTÍA ANDERON
Quicken us [in the attack] and the following [men] by the magic of the Anderoi:
: C.LUCION, FLORON NIGRINON ADGARION, AEMILION PATERIN,
the invoker C. Lucios Floros Nigrinos, Aemilios Paterin(os),
CLAUDION LEGITUMON, CAELION PELIGN[ON], CLAUDION PELIGN[ON],

Claudios Legitumos, Caelios Pelign(os), Claudios Pelign(os),
MARCION UICTORIN ASIATÍCON. ADDEDILLI
Marcios Victorin(os), Asiati(cos), the son of Ađđedillos
ETIC SECOUI TONCNAMAN TONCSIÍONT-IO.
and the Segovii, who will swear the oath.
MEÍON, PONC SESIT, BUET-ID OLLON.
The small thing will become great, when he has sown it.
REGU-C CAMBION EXSOPS PISSÍIU-MI ISO-C CANTÍ RISSU
I straighten the bent one. Though blind, I will see so by means of the song tablet.
ISON SON BISSÍET.
He will strike that one [the enemy].
LUGE DESSU-(M)MI-ÍIS. LUGE DESSU-MÍ-IS. LUGE DESSU-MÍ-ÍS.
I prepare them for Lugus. I prepare them for Lugus. I prepare them for Lugus.
LUXE
Swear!'

For the final -*c* in the form *reguc* the following explanations have been proposed thus far (see Rubio Orecilla 1997: 39, fn. 6):

(i) Fleuriot (1981: 106-07) explained it through the influence of the enclitic **is* added to the verb in the 1st person sg. and following *sandhi* process: **regu+is kambion* >**regus kambion* > **reguh kambion* > **reguc cambion.*

(ii) Similarly de Bernardo Stempel (2010) thinks about the phenomenon of sandhi: **regō-m(i) kambiom* > **reguN kambion* > *reguccambion.*

(iii) Kowal (1987: 251) identified in -*c* the conjunction 'and' apocopated from **-kᵘe* (cf. Lambert 2003: 67) and associated with the verb in the 1st person sg.: **regu+ kᵘe kambion* > **regu- kᵘ kambion* > *reguc cambion.*

(iv) Lambert (1996: 61; 2003: 159) sees in *reguccambion* a compound and seeks in the first component the noun **regut-s* formed from the adj. **regu-* 'direct', cf. Old Irish *di-riuch* 'direct'; Lambert finds an analogous dental derivation in the semantically rather distant Old Irish *rig*, gen. *riged* 'forearm': **reguts kambion* > **regut kambion* > *reguc cambion.* His translation of the line 9 (Lambert 2002: 279)

BUETID OLLON REGUCCAMBION
'qu'il soit guéri, bras et jambes'[3]

differs from all other interpretations. Most scholars see in the form *regu* the first person sg. of the verb 'to straighten, make straight' *vel sim*., also appearing in

[3] 'Let him be cured, arms and legs.'

the form *regu* in the inscription on the plate from Lezoux; cf. Old Irish *a-t:reig* 'rises', *rigid* 'stretches, distends' (McCone 1996: 111).

The fourth solution consists in a hypothesis identifying in *-c* the enclitic 1st person sg. pronoun, i.e. *regu-c cambion* < **regō eg kambion* < **(H)reĝō eĝ(H) km̥bi̯om* 'I make straight the bent one'. A similar syntax is well-known in Germanic languages, e.g. the Old Runic enclitic *-eka* and *-ika* (Antonsen 1975: 55, 65, 37, 81, 85):

hateka 'I am called' (Lindholm, Sweden; 300 AD);
tojeka 'I prepare' (Noleby stone, Sweden; 450 AD);
haitika 'I am called' (Sjælland, Denmark; 450-550 AD);
rAisodokA 'I raised' (Krogsta stone, Sweden; 550 AD);
felAhekA 'I commit' (Stentoften stone, Sweden; 600-650 AD).

or in Old English *-ic* and *-iġ* (Sievers 1942: 283, §355; 344, §409.2):

wēnic < *wēne ic*, *willic* < *willo ic*, *forġeldiġ* < *forgeldo ic*, etc.

The difference between the expected **-g* and the actually attested *-c* can be explained from sandhi with the following *c-*, but also thanks to the so-called *c/g/q*-convention in the Latin alphabet, causing *g* to be frequently written as *c*, e.g. Old Latin *ECO* 'ego' (Caere; 630-600 BC). The letter *c* instead of *g* appears directly in the inscription from Chamalières, where the word **SECOUI** may reflect the tribal name *Segovii* (Schmidt 1981: 260). Similarly **TEXTORICI** (Néris-les-Bains) for *Textorigi* (Lambert 2002: 382; Lejeune 1988: 95), **TROUCI**... (Le Gué-de-Sciaux à Antigny) for *Trougi*... with regard to Old Irish *truág* 'miserable' (Lambert 2002: 198), etc.

Some scholars, e.g. Schmidt (1981: 265), Evans (1983: 39-40), Kowal (1987: 252), Lambert (2003: 64), ascribe to the particle *-mi(-)* appearing in such verbal forms of the 1st person sg. as *uediiu-mi* 'I honour', *pissiiu-mi* 'I will see', *dessu-mi-is* 'I prepare them', the function of the enclitic of the 1st person sg. This assumption is not compatible with the present hypothesis, proposing the same function for the enclitic *-c*. But it is not the only explanation. Fleuriot (1976-77: 176) and, a little skeptically, Lambert (2003: 64) saw in these forms a conglomerate of the thematic ending in **-ō* and the athematic ending in **-mi* of the type found in the Sanskrit word *bharāmi*. McCone (1991: 119-20) developed this idea, assuming that *-mi* was added to the indicative to eliminate homophony with the subjunctive (cf. Rubio Orecilla 1997: 39). One of the latter solutions leaves room for the present

interpretation of *-c* as the 1st person sg. enclitic. And this conclusion confirms the translation of Schmidt *et alii*.

4. Inscription from Lezoux [L 67]

The inscription on the clay dish from Lezoux [L 67] consists only of four words:

E[..]O IEURI RIGANI ROSMERTIAC.

The first word is incomplete – the medial sign is almost totally unintelligible. Lambert (2002: 179) thinks about *s* or *r*, Lambert (2003: 147) admits only *s*. Following Lejeune, he reconstructs the neuter pronoun **eso(d)* or **e(d)-so(d)* (2002: 182). Lejeune and Marichal (1976-77: 153f) offered the interpretation:

'I have sacrificed it to Queen and Rosmerta'

In spite of the alternative solutions of Szemerényi (1978), Villanueva Svensson (2001) or de Bernardo Stempel (p.c. 2010: 'To Esos I dedicated, and to the Queen Rosmerta') the idea of Lejeune should be supported. He saw in *rigani* and *rosmerti-ac* datives and in the final particle a postpositional conjunction corresponding to Welsh *ag*, Breton *hag*. The Cisalpine Gaulish gen. sg. **RIKANAS** (cup of d'Oleggio) represents a convincing witness to the *ā*-stem, whose dat. sg. should be **-āi* > **-ī*, cf. dat. sg. βηληαμι in the inscription from Vaison, corresponding to the Latin dative in the dedication *Mineruae Belisamae* (CIL XIII, 8; Lambert 2003: 58, 86-87). Similarly the dative function of the form **RO-SMERTI** is confirmed by the parallel theonym in the dat. sg. **CANTI-SMERTI** (Vannes) and with the Latin dat. sg. *CANTI-SMERTE* (CIL XII 131) – see Lambert (2003: 149-50). It is important to determine the function of the initial word *e...o*. The slant line appearing under the lower border of the breach which caused the second sign to be unknown, narrows the choice. It may actually be *s*, or less probably *r*. But the damaged sign may also be 'x'. In the hypothetical form *+exo* a lenited variant of the expected **ego* may be identified. The question of lenition in Gaulish is discussed by Lambert (2003: 47-48). According to him, the coin legend **ARXANTI**, coined by Suessiones, reflects the stem **argant-* 'silver'. In this perspective it is possible to interpret the form *axat*, known from the sentence *in mon derco marcos axat ison* appearing in the medicine compendium written by Marcellus of Bordeaux (4th-5th cent. AD), as **agāt* which corresponds to Old Irish *·aga* (cf. Fleuriot 1974: 65; Meid 1996: 45; Schumacher 2004: 189, 192).

5. *De medicamentis liber* by Marcellus Empiricus de Burdigala

Most courageous is the identification of the 1st person sg. pronoun in *+exu*, again with lenition **g* > *x*, extracted from the magic formula XV, 106 of the medicine compendium written by Marcellus of Bordeaux: *xi exucricone xu criglionaisus scrisumiovelor exucrione xu grilau*. There are various unambiguous interpretations, e.g. *xi exu cricon, exu criglion, Aisus, scri-su mio velor exu gricon exu grilau* 'Rub out of the throat, out of the gullet, Aisus, remove thou thyself my evil out of the throat, out of the gorge' (Must 1960: 193-98), or *exugri con-exugri glion! Aisus, scrisumio uelor! Exugri con-exugri lau.* 'Fuis, va-t-en, chose collante! Aisus, je veux cracher! Fuis, va-t-en, mal!'[4] (Fleuriot 1974: 63). In both cases *exu* is interpreted as the preposition/preverb 'out', corresponding to Greek ἔξω. If *exu* meant 'I', the following words should be the verbs in the 1st person sg., viz. *exu crico n[e] exu criglio ... exu grico n[e] exu grilau*, while *n[e]* could be the conjunction 'or' (cf. *ne-* from the inscription from Larzac and Insular Celtic **ne-u̯e* > Irish *nó*, Welsh *neu* 'or' – see Lambert (2003: 68) or 'nor ... neither' (cf. Delamarre 2001: 196-97). In this case the final vowels could develop as follows: **-o* > *-u* (**eĝo* > *exu*) and **-ō* > *-o* in the assumed 1st person sg. verbal ending. It does not agree with expected reflexes of **-o* and **-ō* in Gaulish, namely *-o* and *-ū*. But e.g. in the inscription from Châteaubleau the verbal ending of the 1st person sg. is *-ou* (*cluiou*, *gniíou*, *siaxsiou*). And so it is possible to admit the development **-ō* > *-ou* > *-o* in the latest stages of Gaulish, cf. the monophthongisation *-ou-* > *-o-* in the proper name *Bodiaca* (plate of Lezoux) – see Lambert (2002: 383).

Note: It is not the first attempt seeking the 1st person sg. pronoun in this formula of Marcellus of Bordeaux. Meid (1996: 62) reconstructed the fragment **exu scrisum io velor*, translating it 'aus dem Schlund befehle ich'. The lost pronoun should be *io*. But the same scholar himself offers an alternative solutions too, **exu scrisu mio velor* 'aus meinem Schlund befehle ich',[5] in both cases with the deponent verb in the 1st person sg., corresponding to Latin *velle*.

6. Conclusion

If at least two out of the present four interpretations are valid, the attestation of continuations of IE **(H$_1$)eĝoH / *(H$_1$)eĝH(om)* 'I' is comparable with attestations of other personal pronouns in Gaulish.

[4] 'Disappear, go away, persistent! Aisus, I would like to spit out. Disappear, go away, evil!'
[5] 'From the gullet I order' vs. 'From my gullet I order', respectively.

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Acknowledgments

This study originated in cooperation with the Centre for the Interdisciplinary Research of Ancient Languages and Older Stages of Modern Languages (MSM 0021622435) at Masaryk University, Brno, and thanks to the grant No. IAA901640805. The deepest thanks belong to Stefan Zimmer (Bonn) who led my first steps in interpretation of Gaulish inscriptions, to Patrizia de Bernardo Stempel (Vitoria-Gasteiz) for her extraordinary valuable studies from the recent time, unknown to the author, and to John D. Bengtson (Minneapolis) for correction of English.

Language-specific interpretations of ‘headedness’ in Irish and German

Anna Bloch-Rozmej

1. Introduction: the aims and theoretical fundamentals

The aim of this article is to address the issue of ‘headedness’ as a phonological dimension, its role in melodic structure and language-specific interpretations. In the forthcoming discussion, we shall focus on the selected phenomena from Irish and German.

1.1. Melodies, elements and heads

The structure of the sub-segmental plane, as perceived by Government Phonology[1] (Kaye, Lowenstamm and Vergnaud 1985, 1990; Harris 1994; Cyran 2003; Gussmann 2007; Bloch-Rozmej 2008), hinges on the recognition of two fundamental concepts: phonological elements and segmental headedness. Elements are cognitive entities which code lexical contrasts. The primes are phonetically definable with reference to their articulation, acoustics and auditory perception. Thus, they can be treated as ‘pattern templates’ which serve as reference for both articulatory output and auditory input. Elements are autonomous in the sense of possessing unique phonetic interpretations, being able to combine with one another to form more complex structures and submitting themselves to phonological processing independently of the remaining primes belonging to a given segment. Phonological elements reside on their own autosegmental tiers and each of them is directly synchronised with a skeletal point, which secures its phonetic manifestation.

Within multi-element structures, element fusion yields the admixture of acoustic patterns. More precisely, each prime belonging to a particular melody contributes the property it defines to the overall manifestation of the segment. Yet, it has to be underlined that the salient property of the segment is defined by the element which functions as its *head*. Further, the relation between the head and dependent primes is asymmetric. As observed in Bloch-Rozmej (2008: 45),

[1] Henceforth GP.

> 'This brings about both phonological and phonetic consequences. In terms of phonetics, as already demonstrated, the head-dependent relation will express the preponderance of one element over another in the manifestation of a melody. Phonologically, this dependency bond can account for a number of intra-segmental restrictions, including prohibition on certain prime combinations or the inability of particular elements to capture the dominant positions in melodic structures.'

Significantly, not only segmental headedness but also *headlessness* will bring about concrete consequences. A headless melody possesses no active prime in the head position. This causes various language-specific repercussions.[2] One example of the phonological implementation of headlessness is the representation of the distinction between short and long vowels in English, with the former being structured as headless and the latter as headed.

It has to be acknowledged that in spite of its promising explanatory potential, the notion of headedness remains a debatable issue. Above all, it has to be borne in mind that the very definition of the concept admits two alternative readings. On one interpretation, headedness can be understood as a property of an element itself, whereas on the other, it can be treated as a property of the tier on which the element resides. Moreover, as will be depicted below, headedness, beside underlying the interpretational preponderance of the headed prime, can itself possess an additional realisational property. We shall explore the more tangible consequences of this approach to headedness with regard to the phenomena of [g]-spirantisation and final devoicing in German as well as the representation of fricative segments in Irish. In detail, we shall consider a possibility of providing a uniform account of two apparently distinct processes of German: final obstruent devoicing and spirantisation by treating them as manifestations of consonantal weakening, effected through the loss of elements. Segmental decomposition, in turn, will be perceived as triggered by the lack of autosegmental licensing potential.[3] In a brief analysis of the process of spirantisation in German we will formulate a hypothesis that in German, its northern dialect in particular, the occurrence of the manner element in the head position of a segment is interpreted as voicing.

[2] Language-specific interpretations of headedness are explored in, for example, Cobb (1995), Ritter (1996, 1997), Cyran (1997) or Bloch-Rozmej (2003, 2008).

[3] The notions of segmental weakening and autosegmental licensing potential will be dealt with in more detail in a section below.

1.2. The elemental repertoire of the model

Element Theory is considered part of the Government Phonology framework. It emerges as the outcome of various contributions, of which the works of Harris (1990, 1996), Harris and Lindsey (1995), Backley (1993), Brockhaus (1995), Cyran (1996, 2003), Ritter (1996) and Nasukawa (2005) deserve special attention. The theory recognises three vocalic elements: **I**, **U** and **A**. These also define certain aspects of consonantal articulations. More specifically, **U** defines labiality, **A** – coronality and **I** – palatality. The table in (1) below summarises the elements recognised by the mainstream of GP together with the phonetic properties they define.

(1) *Vocalic and consonantal elements in GP* [4]

Prime	Acoustic Pattern	Articulatory Pattern
I	Dip: low F1 coupled with high spectral peak (convergence of F2 and F3)	Maximal constriction of oral tube, maximal expansion of pharyngeal tube
U	Rump: low spectral peak (convergence of F1 and F2)	Trade-off between expansion of oral and laryngeal tubes
A	Mass: central spectral energy mass (convergence of F1 and F2)	Maximal expansion of oral tube, maximal constriction of pharyngeal tube
ʔ	Edge: abrupt and sustained drop in overall amplitude	Occlusion in oral cavity
h	Noise: aperiodic energy	Narrowed stricture producing turbulent airflow
N	Nasal: low frequency of first resonance, broad resonant peak at lower end of the frequency range	Lowered velum; airflow through the nasal passage
H	High tone: raised pitch on vowels; VOT lag (aspiration) in obstruents; high fundamental frequency	Stiff vocal cords
L	Low tone: lowered pitch on vowels; VOT lead (full voicing) in obstruents; low fundamental frequency	Slack vocal cords

[4] This presentation of elements is based on Cyran (2003: 17) whose tables implement the information from Harris (1996: 314).

The inventory of elements, as already indicated, can be employed by linguistic systems to represent melodic units. However, not all systems will use the full range of primes. Some will implement segmental headedness to express particular phonetic properties. Below, we outline the Irish-specific interpretation of headedness as advocated by Cyran (1997, 2003).

2. Headedness in Irish: problematic friction

Based on the exploration of the Munster Irish and Welsh data, Cyran (1997) postulated that the headedness of the resonance element can bring about friction. This, in turn, meant that the phonological dimension of headedness can result in the phonetic effect of narrowing. In this way, the same phonological aspect of segmental structure yields identical interpretational consequences for both vowels and consonants. Notice that [ATR] vowels (tense vowels) are close and as such are commonly represented as headed (e.g. in Harris 1994). As a result, the element of noise, normally responsible for friction, is no longer needed in the representation of obstruents. In many GP-rooted studies, the noise element **h** is assumed to define all released stops and fricatives. Its phonological status is supported by the analyses of consonant lenition phenomena (e.g. Harris 1994). However, Cyran (1997) proposes that the occurrence of the noise element in linguistic systems should be parameterised. In consequence, some systems may lack it altogether, even in released stops. The noise parameter which we quote in (2) below is rooted in the conviction that not all universally recognised phonological primes have to be used in individual languages.

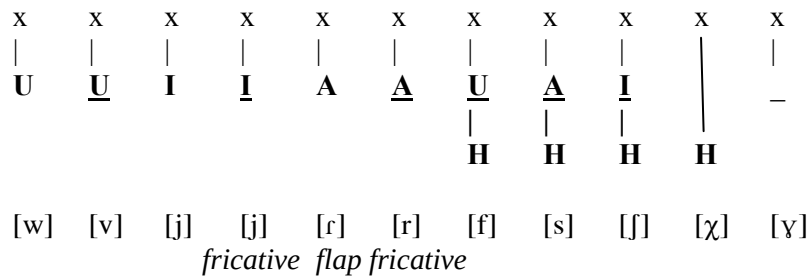
(2) *The 'h'-parameter*
The occurrence of **h** in languages is parameterised (ON/OFF)

In systems where the above parameter is employed, the function of noise is taken over by the dimension of headedness. Cyran formulated his conclusions on the basis of his analysis of the initial mutations in Irish and Welsh.[5] Also, his parameter accounts for the absence of affricates and voiced fricatives in the two languages. Significantly, with Cyran's new approach, mutations can be defined as tonal effects. Below we shall quote certain arguments in favour of the noise-parameter based on the evidence from Irish.

[5] Welsh consonant mutations and their account in terms of the **h**-less structures can be found in Cyran (2003).

A closer look at the Irish spirants allows us to discern their various distributional aberrations. Noticeably, only the voiceless segments can be proved to have independent phonological status. Their voiced counterparts arise due to either morpho-phonological alternations or eclipsis (e.g. [v]). Further, neither [s] nor [ʃ] have any regular voiced counterparts. When we compare the two velars [ɣ] and [x], we can observe that the former is found exclusively at the beginning of words. Interestingly, this asymmetry with respect to the voiced/voiceless opposition characteristic of fricatives is not mirrored in the class of Irish plosives. The solution offered in Cyran (1997) consists in the elimination of the noise element from the structures of the Irish consonants. Such a hypothesis seems to be supported by the relationship between fricatives and glides. With respect to this, Cyran (1997: 190) argues that the Irish [v] and [w] are not contrastive, as substantiated by the form such as *uaim* 'from me' which has two alternative pronunciations: [wuɪm] and [vuɪm]. By the same token, the glide [j] is realised as a palato-velar fricative (Ó Cuív 1975: 42). A similar situation can be observed in the case of the Irish [r] which has two variants: a trill and a flap. Cyran draws a parallel between the spirantised glides and the fricative realisation of [r] and puts forward a proposal that both types of segments are *headed* structures. The trilled variety of the coronal, will thus be represented as the headed place element **A** – the only resident of the segment**.** In this way, the glide/fricative distinction in Irish will not be expressed through the use of the noise element. Instead, headedness will be interpreted as friction. Below in (3), we reproduce the **h**-less representations of the Irish fricatives and glides:

(3) *Cyran's (1997) representations of fricatives and glides in Munster Irish*



The above structures render the distributional properties of the Irish fricatives and the attested consonantal alternations possible to analyse. What is more, the noiseless

representations account for the response of fricatives and other segments to the process of lenition. In accordance with the representation of [v] offered in (3), for example, the lenition of this segment to zero in intervocalic positions will be analysed as the loss of the place prime, instead of two primes: **U** and **h**. Similarly, the lenition of [m] to [v] will be more convincingly represented as the loss of occlusion and **N**, without presupposing the presence of the noise element in the structure of the nasal. This is possible thanks to the headedness-based solution. Likewise, the lenition targeting coronal nasals after plosives, whereby [n] changes into [r] (e.g. in *cnoc* [kruk] 'hill') will be effected as **N** and ʔ loss.

Another advantage of the noiseless structures emerges when we consider the behaviour of [s]. More precisely, the representation of the coronal fricative [s] as an (**A**·**H**) compound allows us to issue a uniform treatment of such historical processes as rhotacism ([s]>[r]) and the Verner's Law ([s]>[z]). Importantly, in Irish, the voiced counterpart of [s] is not [z] but [r], providing the voice contrast is represented as the presence versus absence of the laryngeal prime. Both changes of [s]>[z] and [s]>[r] can be attributed to the loss of the **H** element.

Cyran (1997) argues that in Munster Irish the noise parameter is set at the OFF position. As a result, plosives will also lack the **h** element in their lexical structures. Without noise, the voiced series will be inherently weaker than their voiceless counterparts. This, in turn, might account for their response to lenition. In detail, the weakening of a voiceless plosive yields a fricative, as in *an chéad truip* [əˈχ ˊeːd tripˊ] 'the first trip'. On the other hand, voiced plosives when lenited turn up as glides, e.g. [gˊ]>[j].

We have seen that Cyran's noise parameter interacts with the phonological dimension of headedness. The absence of the element **h** from the structure of Irish obstruents does not eliminate the effect of friction. It is still achieved through the headship of the resonance element in the structures of consonants. As observed in Cyran (1997), noise as a separate phonological category has to be employed in some systems. Headedness alone is not a sufficient mechanism to define consonantal systems. We have seen that in Irish, headedness-based representations of friction produce defective systems. More specifically, Irish lacks the symmetrical voice contrast in the case of fricatives. Further, it does not possess affricates. By contrast in Polish, a full range of voice oppositions and the presence of affricates can be attested. Without the noise element as an independent phonological prime defining friction, the typological distinction between Irish and Polish would be impossible to express.

Another interesting phenomenon which exposes the significance of segmental headedness can be found in German. We shall now turn to the description and analysis of [g]-spirantisation in this language with a view to discovering the specific role of headedness in conditioning the process.

3. Headedness in German

3.1. The evidence on [g]-spirantisation

In German the process of [g]-spirantisation interacts with *Final Obstruent Devoicing* (FOD). The change appears to be position-sensitive. The data presented in (4a) below demonstrate that [g] is converted into a palatal fricative after the vowel [i] and word-finally. The set of forms in (4b) includes the alternations which clearly depict that the lexical input for the palatal fricative must be [g] (Wiese 1996). The evidence clearly reveals that German possesses two palatal fricatives, of which one is lexical (4c) and the other arises due to spirantisation (4a).

(4)	a.	*Köni*[ç]	*Köni*[ç]*s*	b.	*Köni*[g]*e*	'king/gen./pl.'
		weni[ç]			*weni*[g]*e*	'little'
		beliebi[ç]			*beliebi*[g]*e*	'any/infl.'
		Tei[ç]			*Tei*[g]*e*	'dough/pl.'
		Zwei[ç]			*Zwei*[g]*e*	'branch/pl.'
		but				
	c.	*Tei*[ç]			*Tei*[ç]*e*	'pond/pl.'
		Lei[ç]e			*Lei*[ç]*nam*	'corpse/corpse'

The role of the high front vowel [i] seems to be crucial for the change to be effected. The transformation of the velar stop into a homorganic voiceless fricative is restricted to a context in which [i] immediately precedes [g]. The above data reveal that it would be unjustified to suggest that the change is reserved for the suffix /-ig/. In the formal register of Modern Standard German spirantisation after the non-syllabic [i̯] *Teig*, *Zweig*) is not found. However, in northern colloquial speech, the narrow context for spirantisation includes also the non-syllabic [i̯], other vowels than [i] and even consonantal contexts. Consider the examples in (5) below:

(5)	*Tal*[ç]	*Tal*[g]*e*	'tallow/dat.'
	We[ç]	*We*[g]*e*	'way/pl.'
	lü[ç]	*lü*[g]*en*	'tell a lie (imp.)/to lie'
	zo[χ]	*zo*[g]*en*	'he pulled/they pulled'
	Ta[χ]	*Ta*[g]*e*	'day/pl.'
	Sar[χ]	*Sär*[g]*e*	'coffin/pl.'
	Zu[χ]	*Zü*[g]*e*	'train/pl.'

As depicted above, in certain words the outcome of spirantisation is the velar variant [χ] and not [ç]. We shall return to this issue later in the analysis. In sum, it appears that the crucial condition for spirantisation to operate is for [g] to appear in the syllable-final position. The examples quoted in (4) and (5) above also demonstrate the interaction between spirantisation and final devoicing. Compare the realisation of the voiced stop in the intervocalic position (e.g. in *Wege*) and the manifestation of the voiceless fricative in the word-final position in *Weg* for instance (see (5) above).[6]

Concluding the discussion of the context, it should be noted that Northern Standard German (NSG) differs from Hochlautung with respect to the spirantisation of devoiced velar stops. While Hochlautung appears to have no truly general spirantisation process, NSG speakers 'systematically spirantise all those underlyingly voiced velar stops which occur in FOD environments' (Brockhaus 1995: 252).[7] Importantly, lexical voiceless velar plosives are never subject to spirantisation, regardless of the dialect. This situation can be substantiated by the examples in (6) (Brockhaus 1995: 253):

(6)	*Werk*	[vɛ̟k]	'factory'
	schrak	[ʃraːk]	'(he/she/it) shrank (back)'
	buk	[buːk]	'(he/she/it) baked'
	Pik	[piːk]	'spades' (cards)

On the face of that, Brockhaus (1995) advocates the introduction of an underlying distinction between truly voiced plosives and those that are phonologically voiceless. To wit, the former should be assigned the element **L,** whereas the latter are to be endowed with the **H** prime. Recall that the two laryngeal elements code the phonation contrasts in the lexical structures of segments. With such melodic make-ups of the consonants in question, the weakening process will target segments which contain the **L** element and occur in the word-final position.[8] In the present analysis, we shall formulate the hypothesis that in a system where spirantisation interacts with final devoicing, the employment of the laryngeal element **L** can be dispensed with. This move enables us to issue a coherent and yet simpler account of the two phenomena. Thus, we shall propose that truly voiced segments in NSG are headed by a manner

[6] For the discussion of Final Obstruent Devoicing in German, see Brockhaus (1995).

[7] For an in-depth study of this phenomenon, with the discussion of the existing dialectal differences, see Brockhaus (1995) as well as Gussmann (2002) for a more general perspective.

[8] In *Government Phonology* **L** stands for 'slack vocal folds' and defines truly voiced segments, while **H** stands for 'stiff vocal folds' and resides in voiceless consonants.

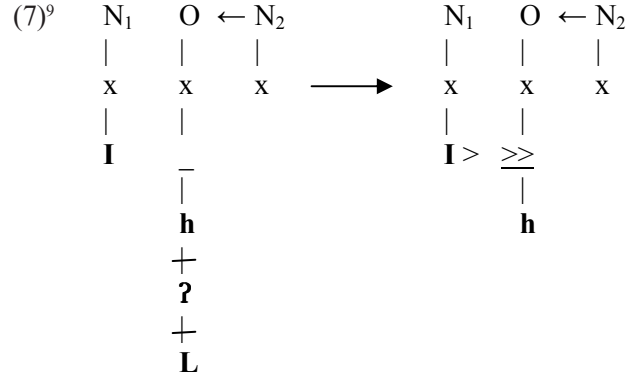
element and do not need to be specified for **L**. In other words, headedness will be interpreted as an additional effect of voicing. Let us construct a government-based analysis implementing this assumption and see how effectively the data provided in the foregoing section can be accounted for.

3.2. Spirantisation as element loss

Consonant lenition manifests itself as an opening of consonantal stricture. The development of a stop into a fricative, called spirantisation, is due to the loss of the non-continuant gesture.

In terms of the Element Theory, spirantisation can be perceived as a weakening process which consists in the delinking of elements from the lenited segment (Harris 1994). Supposing that lexically we are dealing with the voiced obstruent [g], its change could be depicted as in (7) below. Notice that for the time being we employ the source element **L** to specify voicing in accordance with the classical model of GP.

(7)[9]



The structure in (7) depicts that the operation of *Final Devoicing* brings about the suppression of **L**. Simultaneously, the detachment of the occlusion element has been enforced. The loss of the primes can definitely be interpreted as a manifestation of the lenition process. Furthermore, the element **I** present in the preceding vowel has become doubly linked, or has spread to the following empty head position of the

[9] The element **h** specifies 'noise', ʔ stands for 'occlusion' and **I** defines 'frontness and palatality'.

obstruent. At this point, it has to be observed that in GP the velar place of articulation is represented as the absence of any active resonance element from the structure of the segment. In our structure in (7), this empty head position is captured by the palatal prime. Hence, now the salient property of the newly-arisen consonantal unit is palatality. Put differently, the outcome of all these operations is the realisation of the palatal fricative [ç] – a segment deprived of occlusion and voicing. It can be maintained that the spreading of the palatal element is spontaneous, even though the onset dominating the fricative and the preceding nucleus, the donor of the **I** prime, do not constitute any domain. It is noteworthy that GP assumes that phonological events occur primarily within either licensing or governing domains. The stretch of the phonological structure encompassing the relevant N_1O sequence is neither a licensing nor a governing domain. Thus, admittedly, the expansion of the palatal prime has to have a different motivation. We propose that it has to do with inter-nuclear licensing involving N_1 and N_2.[10]

3.3. Velars and the concept of segmental strength.

A question that emerges in the context of [g]-spirantisation in German is why it is the velar stop that undergoes lenition? With respect to that, Brockhaus (1995: 257) argues that 'there is a general consensus that segments which are most susceptible to weakening processes (such as spirantisation) tend to be the weakest segments in a particular system or, perhaps, even universally'. The exploration of the weakening phenomena occurring in the world's languages has lead phonologists to setting up scales or hierarchies of phonological strength. For example, Foley (1977: 28) introduces a scale which 'refers to the propensity to spirantisation, with the weakest element being most inclined to spirantisation'.

(8)

g	d	b	→
1	2	3	

[10] Phonological representation is unified thanks to the mechanism of licensing. It is structured as a sequence of onsets and rhymes headed by nuclei. Nuclei universally license preceding onsets. Inter-nuclear licensing is a kind of projection licensing (occurring at a higher level of projection). Within a domain, the head nucleus is the source of licensing potential for the whole domain and distributes it first to nuclei, then to onset heads. This 'distribution path' is, among other things, through inter-nuclear licensing domains.

According to the hierarchy in (8), lenition first targets velar consonants as the weakest segments. Consequently, we can find languages where only velars undergo weakening, others with velars, coronals and labials lenited but none where only coronals are affected by weakening. Northern German definitely fits this pattern as do Czech, Sanskrit, Modern Greek, Danish, Spanish and French (Foley 1977). The susceptibility of velars to weakening was also captured by a similar scale proposed in Escure (1977). More precisely, the author put forward a universal hierarchy of cavity features. Further, Kenstowicz (1981) quotes Chen (1975: 433) who maintains that 'weakening of consonants… seems to invariably proceed from the back of the oral cavity towards the front so that velars are most susceptible to weakening'. The approach to the lenition of velars just outlined perfectly harmonises with the facts from German. Not surprisingly, it is the voiced velar stop [g] that subdues itself to the process of spirantisation.

However, the evidence on consonant lenition is far from admitting just a single interpretation. In contrast to Foley, as quoted in Brockhaus (1995), Lass and Anderson (1975: 184) point out that the Proto-Uralic [*k] remained unchanged in Hungarian while [*p] and [*t] were lenited. Likewise, in Hungarian velars are strong in the intervocalic position but undergo weakening at the end of words. Further, in English dialects frequent lenition of the coronal [t] can be attested (Harris 1990, Harris and Kaye 1990). With reference to that Clements (1990) rightly observes that the universal hierarchy of strength based on the place of articulation will always fail to accommodate the evidence from all human languages. Thus, it seems reasonable to look for certain tendencies within particular language groups instead of one universal pattern (Brockhaus 1995: 259). In Germanic languages, for instance, velars tend to be the weakest, whereas coronals emerge as the strongest. Also 'actual hierarchies by position are language-specific' (Lass and Anderson 1975: 184).

In conclusion, it must be emphasised that Government Phonology in its approach to the weakening processes makes no reference to the dimension of the place of articulation. Instead, the concept of segmental complexity is employed and the lenition process is analysed in terms of the loss of elements.[11] The complexity of segments is calculable in terms of the number of elements, whereas lenition is analysed in terms of decomplexification, i.e. delinking of primes from a skeletal slot.

[11] Recall that in GP segments are analysed as composed of elements, of which one is the head and the others are dependents. The phonetic interpretability of elements depends on their being autosegmentally licensed (a-licensed) by their position. The autosegmental licensing potential of an onset is inherited from its nuclear licenser (Harris 1994).

3.4. Headedness as voicing in the analysis of spirantisation

When we take a closer look at the context in which spirantisation is attested, we see that the onset dominating the plosive which undergoes lenition is licensed by a domain-final empty nucleus.[12] It has to clarified that in GP a phonological representation is a sequence of onsets and their nuclear licensers. In consonant-final words, the word-final nucleus is melodically empty. In the framework, the context of an onset licensed by an empty nucleus features among the primary lenition sites. An empty nucleus is inherently deficient in terms of its licensing capacity. Yet, its actual licensing strength is also language-specific. In some languages an empty nucleus appears to be a stronger licenser than in others. Furthermore, the kind of licensing responsibility it is required to discharge also matters. Namely, it is important whether an empty nucleus is to license a given domain directly or indirectly.[13] In this respect Connemara Irish differs for example from the Munster dialect of Irish as in the former an empty nuclear position can confer more autosegmental licensing potential onto its onset licensee (Bloch-Rozmej 1999). In the case of [g]-lenition, however, the onset that dominates it is licensed directly.

Returning to the spirantisation process as attested in German, the change of the voiced velar plosive into a voiceless palatal fricative can be analytically broken down into three operations: devoicing, spirantisation and palatalisation. In the light of the observations concerning the correlation between the presence of the laryngeal element **L** (subject to devoicing) and the loss of the occlusion element (spirantisation), it can be stipulated that the weakening operations are the result of the same mechanism. Namely, both elements can be claimed to get delinked from the onset position when it is licensed by an empty, domain-final nucleus.[14] In other words, an empty nucleus does not transfer enough autosegmental licensing potential onto its onset licensee, as a result of which **L** and ʔ are lost from the internal composition of the obstruent. The less licensing potential a position possesses (or inherits from its licenser), the fewer elements it is capable of sustaining. Recall the representation in (7) above.

The number of elements that undergo suppression in German is two. This does not seem odd as similar phenomena can be observed in other languages as well. For example, in English [t] may be subject to vocalisation, which is effected through the loss of the manner elements **h** and ʔ. Thus, the withdrawal of autosegmental licensing may result in the suppression of several elements. However, Government

[12] In German domain-final nuclei are licensed by parameter and hence inaudible (empty).
[13] For a discussion of this distinction, see Harris (1994).
[14] An element that undergoes delinking cannot be manifested phonetically.

Phonology awards extensive autonomy to elements in the sense of allowing them to reside on separate tiers. Also, elements respect the integrity of other elements when they are themselves affected by phonological processes. In other words, the theory predicts that when targeted by deletion, an element will not affect the autonomy of any other primes belonging to the relevant segment. Similarly, an element that spreads will not drag with itself any other elements.

Moreover, we need to add that the Element Theory, especially its version advocated by Harris (1994) and Bloch-Rozmej (2008), assumes that in the sub-segmental plane, elements are organised under the so-called class nodes. This arrangement of elements expresses the functional unity of groups of elements, e.g. similar response to phonological processing. In short, manner-defining elements are gathered under the Root node, place primes under the Resonance node and the source elements are arranged under the Laryngeal node. Phonological processes target either a single element or the whole class node. In the light of these facts, it needs to be observed that in the case of spirantisation of [g] whereby occlusion and **L** are lost, its analysis consisting in mere prime delinking appears to be problematic. Notice that occlusion is licensed by the Root node, while the phonation element is dominated by the Laryngeal node. Yet both undergo detachment.

On the face of the above considerations, we need to admit that the situation found in Northern Standard German appears a little disturbing. Recall that spirantisation manifested as the delinking of the occlusion element will only be found in the context for final obstruent devoicing. Put differently, ʔ will be suppressed only if **L** is also suppressed. This intimate interdependence between the two elements with respect to the process of delinking, coupled with their organisation under different class nodes, can be perceived as a violation of the autosegmental mode of representation. Clearly, the suppression of occlusion seems to be conditioned by the loss of the laryngeal element. This might be the case unless the relationship between the occlusion and **L** in NSG is so intimate that in fact the two elements are fused. More specifically, it could be proposed that the presence of the occlusion element in the head position of a particular segment is automatically interpreted as both stopness and voicing. This German-specific parameter is formulated in (9) below.

(9) *NSG voice parameter*
In NSG, headedness of the manner prime is interpreted as voicing.

Consequently, in NSG the phonetic effect of voicelessness can arise due to two phonological factors: either a segment is lexically marked for the **H** element, or it does not possess **H** altogether but its occlusion prime is not headed. Put differently, in NSG voicing could be the absence of **H** on the one hand, and the headedness

of the manner element on the other. Let us illustrate these theoretical conclusions with the contrast among [k]/[g] and [χ].

(10) a.

O	O	O	b.	O
|	|	|		|
x	x	x		x
|	|	|		|
H	**ʔ**	_		**ʔ**
|	|	|		|
ʔ	**h**	**h**		**h**
|				
h				
[k]	[g]	[χ]	devoiced	[*k*]

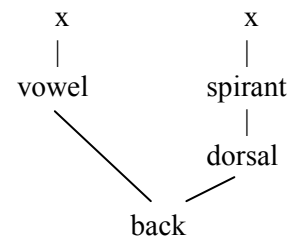
In Northern Standard German voiced consonants will be deprived of the **H** element and one of the manner elements will have to occupy the head position. Such segments will be found in contexts other than those characteristic of FOD since in FOD environments, spirantised variants are attested. Given the representation of the voiced velar plosive in which the headedness of the manner element ʔ is interpreted as voicing, both devoicing and spirantisation can be accounted for by means of one operation. Namely, the withdrawal of a-licensing from the occlusion element, due to its being licensed by a parametrically-licensed empty nucleus, causes the delinking of this prime, which in turn yields a spirant and simultaneously deprives the segment of its voicing characteristics as the manner element ceases to be the head.

It also has to be borne in mind that in NSG spirantisation occurring in the FOD contexts, unlike devoicing, is optional, depending on the degree of formality accompanying the utterance. The structure provided in (10) above allows us to accommodate this fact as well. Specifically, in cases where only devoicing occurs to the absence of spirantisation one can claim that the depleted a-licensing potential granted to the onset will manifest itself as the demoting of the manner element to the dependent status without actually delinking it. This will produce a headless and hence voiceless plosive.

Finally, let us turn to the realisation of the palatal fricative [ç]. The segment is the outcome of spirantisation (see (4) above). In fact, German has two dorsal spirants [ç] and [χ]. The former is invariably found after a palatal glide or a front vowel, whereas the latter follows a back vowel or glide. Thus, the velar fricative

seems to be more severely restricted in its distribution and hence its dependence on the preceding back vowel must be captured by a phonological backness sharing generalisation. In fact, such a principle is formulated in Gussmann (2002: 61) under the name of *German Backness Sharing*.

(11)



Since the palatal fricative is basically found in the remaining contexts, it can be maintained, as in Gussmann (2002), that [ç] is merely a phonetic effect. This effect arises due to spontaneous propagation of the palatal prime specified in the preceding nucleus.

4. Conclusion

In this article attempt has been made to consider language-specific implementations of the phonological aspect of headedness. A headed prime has the greatest impact on the ultimate phonetic shape of the segment. Additionally, as documented by Irish and German, this phonological dimension of melodic structure can perform further system-organising functions. One such function is language-specific assignment of a certain phonetic interpretation of the headed status of melodic structures. Put differently, headedness can be interpreted as either friction or voicing, depending on the language-specific choice. In Irish, as proposed in Cyran (1997), headedness is manifested as noise, whereas in Northern Standard German, the headed status of the manner prime brings about the voicing effect.

The analysis of [g]-spirantisation in Northern Standard German reveals that both final obstruent devoicing and spirantisation are weakening processes. Both of them target obstruents that occur before domain-final parametrically-licensed empty nuclei. These nuclear licensers have a diminished licensing capacity and hence are unable to license headed segments. In turn, segments whose manner elements have been deprived of the head status are interpreted as devoiced. We have hypothesised that expressions headed by a manner-defining element are manifested as voiced. NSG speakers usually interpret the final empty nucleus as a very weak licenser

incapable of sustaining the head element in its onset licensee. In consequence, the occlusion element becomes either demoted to the status of a dependent or delinked from the skeletal slot. The former operation yields a devoiced segment, whereas the latter a spirant.

In conclusion, the phonological dimension of headedness appears to be a powerful theoretical tool with extensive explanatory capacity. Its language-specific employment often allows us to abandon some phonological element. In Irish, this spurious prime is noise, while in NSG it is the laryngeal low tone **L**. However, in each case, such additional interpretations of headedness have to be regarded in the full context of the phenomena and structural settings typical of this system. In the cases addressed in the present article we hope to have demonstrated that proposals concerning language-specific interpretations of headedness enable us to put forward more coherent and simpler accounts of the processes described above.

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Derived imperfectiva tantum in Modern Irish

Maria Bloch-Trojnar

1. Introduction

The purpose of this paper is to identify constraints which govern the derivation of imperfective denominal verbs in Modern Irish, a topic which has thus far received little attention (Wigger 1972: 209-212; Ó Sé 2000: 477-8; Bloch-Trojnar 2008a). A general presentation of theoretical problems involved in the analysis of denominal verbs and the identification of the class of imperfectiva tantum will pave the way for the discussion of this category in Irish. Examples cited throughout come from Ó Dónaill (1977), de Bhaldraithe (1959 [1992]), Dinneen (1927) and word lists such as for example Ó Cuív (1947) and de Bhaldraithe (1985).

2. Formal and semantic properties of denominal verbs

Both formal and semantic analysis of denominal verbs is fraught with difficulty. According to Hopper and Thompson (1984: 745) 'languages tend to have special nominalizing morphology but no special productive verbalizing morphology'. In other words, the shift from verb to noun is more prototypical than vice versa (cf. Szymanek 1988: 31-37). This state of affairs is corroborated by data from English and Polish, which represent an analytic and a synthetic language, respectively.

(1)

Noun	**Verb**
pilot 'pilot'	*pilot-owa-ć* 'to pilot'
butelka 'a bottle'	*butelk-owa-ć* 'to bottle'
korek 'cork'	*kork-owa-ć* 'to cork'

As is evident form the glosses in (1), nouns in English may be used as verbs without any overt morphological marking. Such pairs are analysed by making recourse to the much debated concepts of conversion or zero derivation.[1] In

[1] For a detailed discussion of these and other terms used with reference to this phenomenon the reader is referred to Cetnarowska (1993: 14-19) and Bauer and Valera (2005).

Polish this process involves the addition of stem-forming elements to the root, of which *-owa-* is prevalent (Grzegorczykowa *et al.* 1999: 576). This operation is viewed as paradigmatic derivation, i.e. change of paradigm whereby nominal inflection is supplanted by conjugational endings. Szymanek (2010: 186) argues that 'both in English and in Polish, the verbs in question are formed by the method of conversion, since 'paradigmatic derivation' is conversion in disguise, i.e. conversion plus replacement of inflectional material.'

The semantic relation existing in N → V pairs is far more difficult to pinpoint than in pairs where the direction of motivation is reversed. Analyses of paraphrases characterizing the verbs in question have yielded lists of various semantic categories. Marchand (1969: 368) claims that 'denominal verbs are verbalised sentences'. He distinguishes four semantic patterns characteristic of N → V conversion, depending on the role played by the nominal base of the zero derived verb in the sentential analogue: predicate-subject complement type (e.g. *to father*), predicate-object complement type (e.g. *to cripple*), predicate-adverbial complement type (e.g. *to butter*), and predicate-object type (e.g. *to blot*). Clark and Clark (1979) classify denominal verbs into eight fundamental sense groups, namely: Locatum (e.g. *to blanket*), Location (e.g. *to kennel*), Duration (e.g. *to summer*), Agent (e.g. *to butcher*), Experiencer (e.g. *to witness*), Source (e.g. *to piece (together)*), Goal (e.g. *to fool*), Instrument (e.g. *to handcuff*), and a ninth group of miscellaneous verbs. Aronoff (1980) is sceptical about the possibility of devising an exhaustive list of available readings and voices the opinion that the meaning of a denominal verb can be determined pragmatically on the basis of context. In line with this proposal, Beard (1995: 184-185) argues that the specific semantic output of the derivation is predictable from the semantic representation of the base and the diversity of semantic interpretations of denominal verbs stems from the variety of lexical meanings denoted by their bases. For example, verbs derived from nouns which are lexically instruments: *to hammer*, *to brush*, *to knife*, have very predictable meanings: 'to use X, X = some instrument, in accord with its natural function'. This approach will be adopted here.

3. Denominal verbs in Irish

Verb forming operations in Irish reflect the cross-linguistic tendencies since they involve stem extension and paradigmatic derivation, each of which will be briefly discussed in section 3.1 below. However, there are also verbs which appear only in the present participle form and whose status is counterintuitively considered nominal. These forms, which are the focus of this paper, are introduced in section 3.2.

3.1. Stem extension and paradigmatic derivation

Verbs in Irish are generated by two productive derivational processes, both of which employ the same root/stem forming element *-ál.* The first uses English verbs as bases and almost any English verb not exceeding three syllables in length (Doyle 1992: 99) can be borrowed into Irish by adding [ɑːl] (2a). The second operates on nouns (Wigger 1972: 207-210), as depicted in (2b).[2]

(2)

a.	**English Verb**	**Verbal Root**	**Citation form**
	bake [ˈbeɪk]	*bácál-* [bɑːkɑːl]	*bácáil* [bɑːkɑːlʲ]
	pack [ˈpæk]	*pacál-* [pɑkɑːl]	*pacáil* [pɑkɑːlʲ]
b.	**Noun**		
	vóta [voːtə] 'vote'	*vótál-* [voːtɑːl] 'vote'	*vótáil* [voːtɑːlʲ]
	lód [loːd] 'load'	*lódál-* [loːdɑːl] 'load'	*lódáil* [loːdɑːlʲ]
	planda [plɑndə] 'plant'	*plandál-* [plɑndɑːl] 'plant'	*plandáil* [plɑndɑːlʲ]

The resulting verbs belong to the 1st conjugation. The element *-ál* is an integral part of the verbal stem since it appears both in inflected (3a) and derived forms (3b).

(3)

a. ***vótál**aim* 'vote, 1stsg.ind.', ***vótál**ann tú* 'vote, 2nd sg.ind.', ***vótál**ann sé* 'vote, 3rd sg.ind.'
b. ***vótál**aí* 'voter'; *vótáil* 'voting, poll', *lucht **vótál**a* 'lit. people of voting, voters'[3]

Wigger (1972: 207-210) underlines instrumental semantics of denominal derivatives. However, the resulting verb shows many of the semantic patterns characteristic of

[2] There is an interesting parallel between the suffix *-ál* in Irish and the Polish *-owa-*. When desribing the thematic element *-owa-* Szymanek (2010: 188-9) notes that it is put to a variety of uses, whose common denominator is a verb forming function. Namely, *-owa-* is a stem-forming element in some synchronically native, lexical verbs (*got-owa-ć* 'to boil, cook', *kier-owa-ć* 'to drive'), it is used to nativize (adapt) foreign verb stems, including recent borrowings (*prefer-owa-ć* 'to prefer', *surf-owa-ć* 'to surf') and is a paradigmatic marker, used in noun-to-verb derivation with both native and foreign input forms (*zima* 'winter' – *zim-owa-ć* 'to winter', *email* 'email' – *email-owa-ć* 'to email').

[3]The exponent involved in the formation of the action nominal *vótáil* is palatalization. The base is *vótál-* as is evident form the genitve form *vótála*.

N→V derivation and can best be paraphrased as 'make, do X or have something to do with X'.

Traditional grammars (e.g. Ó hAnluain 1999: 250) also mention the suffix *-(a)igh* and zero, which in fact should be classed together as devoid of any overt marking.

(4)

	Noun	**V (Citation form)**
a.	*dath* 'colour'	*dathaigh* 'colour, dye, paint'
	stán 'tin, tin vessel'	*stánaigh* 'tin, coat with tin'
	tairbhe 'benefit'	*tairbhigh* 'benefit'
b.	*úsáid* 'use, usage'	*úsáid* 'use'
	speal 'scythe'	*speal* 'mow, scythe'
	measc 'jumble, confusion'	*measc* 'mix, mix up'

The element *-(a)igh* in the citation form of verbs listed in (4a) is the marker of 2nd singular imperative of 2nd conjugation verbs. There are no free-standing roots of verbs belonging to the second conjugation except those terminating in a palatalised coronal or nasal sonorant (e.g. *aifir* 'rebuke'). That is why whenever we wish to refer to the verbal lexeme *dath-* with the structure $[[X]_N]_{[V, Class 2]}$, we use its word-form *dathaigh*. The only effect of the WFR is syntactic relabelling of the root and the assignment thereof to one of the two available conjugations. Consequently, the same formal exponent (zero) is involved in (4a) and (4b).[4] The process should now be considered unproductive (cf. Wigger 1972: 206). The formation of denominal verbs involving paradigmatic derivation is unpredictable and lexically determined, which is supported by the existence of doublets such as those in (5), where *deasc* and *deascaigh* are variants.[5] A verb forming operation enatils the assignment to a given lexical class and this arbitrary setting determines further affixation.

[4] This is also the case in, for example Hebrew, where derivational rules responsible for the formation of verbs do not involve any affixes and their only effect is an abstract inflectional class marker (Aronoff 1994: 123-169).

[5] The same string of phonemes, i.e. *deasc* may be interpreted as having either of the two structures:
$[[X]_N]_{[V, Class 1]}$ or $[[X]_N]_{[V, Class 2]}$. There is some scope for variation within non-derived verbs as well. For some speakers (or dialects) a given lexeme may be Class 1, for others Class 2, e.g. *creim – creimigh* 'gnaw', *coip – coipigh* 'ferment', *ciap – ciapaigh* 'vex, annoy', *siúil – siúlaigh* 'walk'.

(5)

Noun	**Verb Class 1**	**Verb Class 2**	**Gloss**
deasc 'sediment'	*deasc*	*deascaigh*	'settle, leave sediment'
sciúch 'throat'	*sciúch*	*sciúchaigh*	'throttle'
maidhm 'break, burst'	*maidhm*	*maidhmigh*	'break, burst, errupt'
roc 'wrinkle, ruck'	*roc*	*roicnigh*	'wrinkle, crease'
dáil 'apportionment'	*dáil*	*dáiligh*	'portion out'

Notably, the same means are resorted to in the formation of deadjectival causative and inchoative verbs (Wigger 1972; Ó hAnluain 1999: 250; Bloch-Trojnar 2006: 163-170), e.g.

(6)

	Adjective	**V (Citation form)**
a.	*fuar* 'cold'	*fuaraigh* 'cool'
	lán 'full'	*lánaigh* 'fill'
b.	*glan* 'clean'	*glan* 'to clean'
	dearg 'red'	*dearg* 'redden'

Sometimes in may be difficult to adjudicate whether we are dealing with a denominal or deadjectival fomation, e.g. *masla* 'insult', *maslach* 'insulting' – *maslaigh* 'insult'.

3.2. Progressive verbs

Wigger (1972: 209-212) distinguishes a separate class of progressive verbs. These verbs appear only as verbal nouns (VNs), since the progressive is expressed periphrastically in Irish by means of a verbal-noun construction. A general confusion with regard to the categorial status of VNs is reflected in the following contradictory statement: '(f)rom the point of view of surface syntax, however, these processes are, in fact, noun derivations, in the same sense that the formation of verbal nouns from fully inflectible verbs can be regarded as part of the morphology of nouns rather than verbs' (Wigger 1972: 209).[6] Wigger argues for the process of abstract

[6] Surface homonymy has led some linguists to regard VNs as occupying 'a mid-position on a hierarchy between noun and verb' (Stenson 1976: 23) or being 'halfway between nominal forms and belonging to the inflectional system of the verb' (Ó Siadhail 1989: 195).

noun formation and subsequent use of these nouns as VNs, i.e. N → Abstract Noun 'acting as a/having to with …' → VN. The fact that some formal markers attested in progressive verbs coincide with 'abstract noun derivators' such as /əχt/, which is used to derive deadjectival abstract nouns, is taken as evidence in support of this interpretation.

The proposed direction of derivation is controversial. Normally verbs give rise to abstract nouns of activity, i.e. N → V(VN) → Abstract Noun. Given that verbs can be formed form nouns and adjectives with the use of the same formal markers (cf. (4) and (6) above), the coincidence of suffixes employed in the formation of Nomina Essendi and VNs does not necessarily speak in favour of deriving the former from the latter. They can be derived in a parallel fashion by means of the same formal markers. The term VN is a blanket term for three distinct but homophonous categories, i.e. the infinitive, the present participle and the deverbal nominalization. The form employed in the progressive should be regarded part and parcel of the inflectional paradigm of the verb (McCloskey 1983; Doyle 2002; Bloch-Trojnar 2003, Bloch-Trojnar 2006: 67-95). Ó Corráin (1997) describes the progressive as the generalized category of imperfectivity (an introspective aspect) which contrasts with inflected forms of the verb, e.g.

(7)

a. *Bhí sé ag scríobh litreach.*
was he PRT write-VN letter-gen.
'He was writing a letter.'

b. *Scríobh sé litir.*
write-past he letter
'He wrote a letter.'

As is evident from (7a), the progressive is a construction made up of the substantive verb *bí*, which acts as an auxiliary verb carrying tense and person distinctions, followed by the preposition/particle *ag*, which is an aspectual marker, and the VN, which provides semantic information in the sentence (Ó Dochartaigh 1992: 46). In what follows the term VN will be used in the sense of the present participle.

The contrast finite verb (perfective) – periphrasis (imperfective) is not devoid of exceptions. There are forms which feature only in the progressive. If required, a non-durative meaning is expressed by complex predicates made up of a light verb and a nominal (Ó Siadhail 1989: 304):

(8)

Perfective	**Imperfective**
Lig sé fead. 'He whistled (once).'	*Bhí sé ag feadaíl.* 'He was whistling.'
**D'fhead sé.*	
Rinne sé obair. 'He did work.'	*Bhí sé ag obair.* 'He was working.'
**D'obair sé.*	
Rinne sé meangadh. 'He smiled.'	*Bhí sé ag meangaireacht.* 'He was smiling.'
**Mheangair sé.*	

We shall argue that we have to do here with defective verbs which feature only in the present participle form.

Wigger (1972) offers a few remarks on the semantics and formal derivation of progressive verbs. He considers VNs derived from three classes of nouns, as depicted in (9) below.

(9)

	Base	**Abstract Noun**	**VN**
a.	bádóir /bAdOr´/ 'boatman'	*bádóireacht* /bAdOr´əχt/ '(act of) boating'	*ag bádóireacht*
	maor /mIr/ 'water-bailiff'	*maorseacht* /mIrs´əχt/ 'acting as a water-bailiff'[7]	*ag maorseacht*
	saothraí /sIhərI/ 'labourer'	*saothraíocht* /sIhrIχt/ 'working hard'	*ag saothraíocht*
b.	*spailpín* /spaĺ´pʹ´In´/ 'hired farm labourer'	*spailpínteacht* /spal´pʹ´IN´tʹ´əχt/ 'working as a spailpín'	*ag spailpínteacht*
	croisín /kros´In´/ 'tool for collecting seaweed'	*croisínteacht* /kros´IN´tʹ´əχt/ 'working with a croisín'	*ag croisínteacht*
	cleitín /kʹ´letʹIn´/ 'feather, dim.'	*cleitínteacht* /kʹ´letʹIN´tʹ´əχt / 'fiddling'	*ag cleitínteacht*
c.	*fead* /f´ad/ 'whistle'	*feadaíl* /f´adIlʹ´/ 'whistling'	*ag feadaíl*

[7] Wigger (1972: 210) draws attention to unpredictable stem extensions, i.e. 'nouns ending in /n/ or /l/ are extended in /t/ before /Orʹ/. The 'intrusive' /s´/ in /mIrs´əχt/ may be unpredictable, in the same way as the selection of the variant /dOr´/'.

Agent nouns (9a) can be derived and morphologically simplex, in which case they may additionally require consonant extension. Diminutive nouns (9b) terminate in /In´/ and are followed by a transitional consonant /t/ before the nominalizing suffix. In terms of semantics three patterns are available. Nouns denoting persons (*spailpín* 'hired farm labourer') give rise to verb readings such as those in (9a). Nouns denoting instruments refer to activities carried out with an instrument in question. Verbs derived from other diminutive bases are interpreted as 'repeated or reduced action' or 'fiddling, fingering'. Nouns denoting emission of sounds (9c) take the suffix /Il´/ and resulting verbs should be regarded as 'a semantically determined ('expressive') phonological variant of the more common derivations in /Al´/'.

Ó Sé (2000: 477-9) describes various endings which are used to denote activities/nouns of activity. He says that 'it is possible to use these forms like VNs, which do not have corresponding finite verb forms. Some of these endings are used to form VNs from verbal stems' (translation mine M.B.-T.). The endings are as follows: *-acht* [əχd] *aoire* 'shepherd' – *aoireacht* 'herding', *-áil* [ɑ:l´] *dorn* 'fist' – *doirneáil* 'boxing', *-aíl* [i:l´] *fead* 'whistle' – *feadaíl* 'whistling', *-adáil* [ədɑ:l´] *lapa* 'paw, flipper' – *lapadáil* '(act of) paddling, splashing', *-adaíl* [ədi:l´] *boladh* 'smell' – *bolathadaíl* 'smelling, sniffing', *-astaíl* [əsdi:l´] *cam* 'bend' – *camastaíl* 'crookedness, fraud', *-íocht* [i:χd] *bradach* 'thief' – *bradaíocht* '(act of) thieving, pilfering', *peata* 'pet' – *peataíocht* '(act of) petting', *-ínteacht* [i:n´t´əχd] *sceamh* 'yelp' – *sceamhínteacht* 'yelping'. Forms which terminate in *-ach* may function as verbal nouns with or without undergoing palatalization (e.g. *béiceach* 'yelling' – *ag béicigh*, *méanfach* '(act of) yawning' – *ag méanfach*). In some cases either of the two is acceptable (e.g. *glioscarnach* '(act of) glistening' – *ag glioscarnaigh*, *ag glioscarnach*).

According to de Bhaldraithe (1953: 251) the following endings of abstract nouns can also characterize VNs: *-áil*, *-ínteacht*, *-aireacht*, *-óireacht*, *-éaracht*, *-aíl*.

In subsequent sections we are going to scrutinize each of these classes with a view to identifying the formal exponents involved and demonstrating that the resulting derivatives are best described as a class of denominal verbs which are inherently imperfective. We shall put forward a general rule of derivation $N \rightarrow V_{[\text{-perfective}]}$, which is realized by various exponents whose attachment is phonologically, morphologically, semantically and lexically conditioned. In other words, we adopt an approach to morphology in which the rules determining the phonological representation of bound grammatical morphemes are independent of the rules determining their lexical or morphosyntactic representation, which is known as the Separation Hypothesis (Beard 1976, 1985). The lack of isomorphism between morphological spell-out and the abstract information that it expresses is also argued for by Laskowski (1981), Szymanek (1985, 1988), Malicka-Kleparska (1985), Aronoff (1994), Beard (1995) and Bloch-Trojnar (2006).[8]

4. Imperfectiva tantum

4.1. The interaction of lexical and grammatical aspect

It should be emphasized that the contrast perfective – imperfective need not be available for all verbal stems, as aspectual distinctions directly interact with the semantics of the base verb and thus making certain combinations incompatible. In other words, Aspect, which is a grammatical category expressed by verbal inflection and periphrases, should be kept distinct from *Aktionsart*, which expresses the intrinsic qualities of a situation, whether it is static, dynamic, punctual, durative, telic etc. (Comrie 1976, Brinton 1988). Co-occurrence restrictions on aspectual forms can be explained in terms of the semantic properties of verbs. The discussion of this interaction in English and Polish will shed new light on the Irish material.

All accounts of English grammar point out that certain English verbs are non-continuous verbs, i.e. they never occur in the progressive (verbs of perception such as *feel*, *hear*, *see*, *smell*, verbs of (emotional and intellectual) cognition such as *believe*, *think*, *imagine*, *like*, *hate* and verbs of relation or state including *be*, *have*, *own*, *resemble*). The progressive is also incompatible with punctual verbs such as *find* or *recognize* and verbs which are purely 'perfective', i.e. *accept*, *forgive*, *recognize*, *result*. Brinton (1988) concludes that verbs incompatible with the progressive bear the following *Aktionsart* properties: non-dynamicity or punctuality (non-replicability).[9]

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[8] Beard (1995: 51) illustrates this approach on the basis of English Nomina Essendi (*warm-th, intelligen-ce, readabil-ity, slow-ness, white-∅*). On the derivational (abstract) plane the operation is simple: it consists in transposing the underlying adjective into a noun. The only constraint that the rule must conform to is that the underlying adjective be qualitative. The conditions on affixation are more complicated. The spelling rules must have access to '(a) the current category of the stem, (b) some evidence of its previous category, (c) the phonology of the final syllable of the stem for /-iti/ and /-s/ and (d) the semantics of the colour terms for the (optional) null marking'.

[9] Biber *et al.* (1999: 471-474) discuss lexical associations of the progressive aspect in English. Verbs that refer to activities or communication activities and stative verbs describing physical situations have a strong lexical association with the progressive aspect. Verbs referring to mental, attitudinal and perceptual states tend to be rarely attested. Verbs such as *bleed, shop, chase, starve, chat, joke, kid, moan* occur over 80% of the time with the progressive, whereas verbs such as *arrest, award, thank, see, incline* have a very weak association with the progressive (less than 2% of the time).

By parity of reasoning, we should recognize the existence of verbs which are inherently imperfective, i.e. incompatible with the perfective aspect. However, English grammars make no mention of these. According to Brinton (1988: 16) in English, where the simple verb form (present and past) is a marker of perfective aspect, there seem to be few restrictions on the use of simple forms with different verb classes. The perfective of a telic situation includes the process (*the writing*) and the attainment of goal (*the letter*). The perfective of an atelic situation includes the process (*the running*) and some arbitrary endpoint. Punctual situations seem to be most natural with the perfective aspect since it is possible to portray a single instance of such a situation.

Aspect in Polish is a grammatical category in that every verb (form) occurring in a syntactic structure is either imperfective or perfective (Wróbel 2001: 138), which is marked on the stem. Not every verb/verbal root has both the perfective and the imperfective form. A large number of Polish verbs are mono-aspectual (cf. Grzegorczykowa *et al.* 1999: 166-167; Laskowski 1999). Only telic verbs referring to processes and causation occur in both the perfective and imperfective aspect, e.g. *leczyć* 'cure', *pisać* 'write'. Otherwise, we distinguish *imperfectiva tantum* – verbs which have only imperfective aspect such as those referring to states, e.g. *leżeć* 'lie', events – *kapać* 'drip', and actions – *mówić* 'talk', *tańczyć* 'dance', *dotykać* 'touch'. Verbs denoting accidental actions, e.g. *spotkać* 'meet' and acts, e.g. *zaniemówić* 'become speechless' are classed as *perfectiva tantum*, i.e. verbs which have only perfective aspect. This distinction holds for both underived and derived verbs.[10] Szymanek (2010: 133) points out that present (adjectival) participles are based on imperfective stems exclusively (*pis-a-ć* 'to write' > *pisz-ąc-y*), whereas past (adjectival) participles can take both perfective and imperfective stems (*pis-an-y* vs. *na-pis-an-y*). 'Contemporary' adverbial participles are formed from imperfective stems only (*pisz-ąc*) while 'anterior' adverbial participles are based on perfective stems (*na-pis-aw-szy*).

[10] Willim (2006: 178) illustrates it as follows: the underived perfective *paść* 'perf., to collapse/fall down' has an imperfective counterpart *padać* 'imperf., to be collapsing/collapse'. The underived perfective *rzec* 'perf., to say' does not have an imperfective counterpart. The underived imperfective *mieć* 'to have' is inherently imperfective and cannot be perfectivized. The derived *owdowieć* 'perf., to become a widow' is inherently perfective and does not have an imperfective counterpart. The derived perfective *przepisać* 'perf., to copy by writing' has an imperfective partner *przepisywać*. The derived denominal imperfective *sąsiadować* 'imperf., to neighbour/border with' cannot be perfectivized while the denominal imperfective *mordować* 'to murder' can. What this shows is that some verbal roots are inherently specified for grammatical aspect, i.e. they are perfective only or imperfective only, and that other verbal roots have variable aspect and two stems, perfective and imperfective.

It appears that Irish is like English in that the grammatical distinction perfective/imperfective is expressed by means of a contrast of inflected verbal stem vs. periphrastic progressive. English has a prominent class of *perfectiva tantum* (non-progressive verbs), whereas Irish is like Polish in that some verbal stems are inherently imperfective, and therefore feature only in imperfective contexts. The rich inflectional system shows restrictions on the formation of participles, i.e. in contradistinction to *perfectiva tantum*, imperfective verbs have corresponding present participles and 'contemporary' adverbial participles. In Irish where verbal inflection is a marker of perfectivity the only form which can manifest the imperfective status of the verbal stem is the present participle after the particle *ag*, as in (7a) above and its positional variant following a noun, i.e. the present adjectival participle.[11]

In sum, aspect in Irish is both grammatical and lexical. It is grammatical since there is a regular opposition for the majority of verbs between the inflected and periphrastic form. It is lexical since some verbs do not participate in this opposition, i.e. they are lexically set to be imperfective.[12] Therefore, it is plausible to expect that the Word Formation Rule (WFR) component will generate not only perfective verbs, which can feature in finite contexts, like those presented in 3.1, but also verbs which are inherently imperfective and will produce participles.

[11] In traditional grammars such as de Bhaldraithe (1953) and Ó hAnluain (1999) this form is regarded as the genitive case of the VN, even though it has a distinct ending which does not follow any of the five declension patterns. It is a form which terminates in *-ta*/*-te* or *-tha*/*-the* and it is identical to that of the past participle of the verb from which they are derived. VNs in *-áil* are marked with *-a* accompanied by depalatalization of the final consonant. The form in question is found in contexts where the VN occurs together with an object, e.g.

(i.) *lucht* ***ólta*** *poitín*
people drink-VN-gen. whisky-gen.
'people drinking home-distilled whisky'

(ii.) *fear* ***pábhála*** *sráide*
man pave-VN-gen. street-gen.pl.
'a man paving streets'

Arguments for regarding this form as a positional variant of the present participle are offered in Bloch-Trojnar (2006: 80-90, 2008b).

[12] Apart from Aspect, also nominal number can be considered both a morphosyntactic category which is relevant to syntax and a morpholexical category used in generating new lexemes. In English the category of number is obligatory since we are usually forced to choose between singular and plural when we use a noun. However, this distinction is not applicable to pluralia tantum and singularia tantum (cf. Corbett 2000). Pluralization has all the hallmarks of inflection, whereas recategorization phenomena are regarded as semi-productive derivational operations (cf. Copstake and Briscoe 1995).

4.2. WFR deriving denominal imperfective verbs in Irish

Before we turn to a more detailed presentation and discussion of the Irish data let us take a look at the classification of denominal verbs in Polish since it offers a striking parallel with some conclusions drawn by Wigger (1972). In Polish a distinction is made between *formacje stanowe* (state formations), e.g. *królować* 'be/act as king' and *formacje zdarzeniowe* (event formations), e.g. *koncertować* 'concert + ować, give a concert' (Wróbel 1999: 574-576). State formations express the predicative function of their bases. In derivatives based on names of professions and positions the structure *be X* is interpreted as 'perform duties/actions characteristic of X', e.g. *burmistrzować* 'be/act as/hold the position of mayor', *gospodarzyć* 'be/perform the duties of a farmer', *matkować* 'be/act as a mother'. Some of these denominal formations can be interpreted as 'X has some of the features of Y' so their meaning is roughly 'behave like X', e.g. *ślimaczyć się* 'to be/act like a snail/do things at a snail's pace'. Willim (2006: 179) points out that atemporal predicates, which express characteristic qualities and dispositions, are typically imperfective. In event formations the base noun is interpretable as an argument of the derived verb, e.g. *wiec* 'a mass meeting' → *wiecować* 'to take part in a mass meeting', *concert* 'a concert' → *koncertować* 'to give a concert', *bal* 'a ball' → *balować* 'to take part in a ball'. This class also includes verbs derived from names of events (even though the usual direction of derivation is the opposite, i.e. we derive names of actions from verbs), which are themselves deverbal formations, e.g. *czaić się* 'lurk, lie in wait' → *czaty* 'watch, wait' → *czatować* 'be on the look-out'; *warczeć* 'to whirr' → *warkot* 'whirr, throb' → *warkotać* 'to whirr, throb'. This group includes verbs referring to sound effects, e.g. *stukotać* 'to rattle', *klekotać* 'to clatter, chatter', *tupotać* 'to stamp'. The resulting verbs are imperfective and denote durative and atelic situations.

4.2.1. State and event formations in -Vcht[13]

Bloch-Trojnar (2008a) analyzes the Irish counterparts of Polish state formations, i.e. imperfective verbs arising on the basis of agent nouns, as in (10).

(10)

Agent Noun	**Present Participle**
siúinéir 'joiner, carpenter'	*ag siúinéireacht* 'doing joinery work'
ceardaí 'craftsman'	*ag ceardaíocht* 'working as a craftsman'

[13] -V*cht* is used to refer to both *-(e)acht/íocht.*

A detailed examination of over 3000 forms terminating in the relevant string in Doyle and Gussmann (1996) leads to the conclusion that the majority of attested -V*cht* forms featuring in verbal contexts are denominal (about 147 forms) and about 100 of these nominal bases denote an agent,[14] which can be lexical or derived.[15] Morphologically complex agent nouns which serve as input to the rule are derived from nouns and verbs by means of the same formal markers.[16]

(10)

Deverbal Agent	**Denominal Agent**
foghlaim 'learn' → *foghlaime**oir*** 'learner'	*feirm* 'farm' → *feirme**oir*** 'farmer'
scaip 'scatter' → *scapa**dóir*** 'scatterer'	*aill* 'cliff' → *aillea**dóir*** 'cliff-climber'
dornáil 'box' → *dornála**í*** 'boxer'	*scéal* 'story' → *scéala**í*** 'storyteller'
snámh 'swim' → *snámh**aire*** 'swimmer'	*beach* 'bee' → *beach**aire*** 'bee-keeper'

Deverbal agents are far less likely to serve as bases for the derivation of verbs,[17] which is due to the operation of blocking. However, the derivational history of the base has no bearing whatsoever on the application of the affixation rule producing VNs, which is conditioned by the (morpho)phonological make-up of the input. The suffix *-(e)acht* is attached to bases which terminate in suffixes with a typically agentive function such as *-óir* (e.g. *turasóir* 'tourist' → *ag turasóireacht* 'journeying'), *-oir* (e.g. *doirseoir* 'doorkeeper' → *ag doirseoireacht* 'acting as doorkeeper'), *-(a)ire* (e.g. *diúgaire* 'parasite, sponger'→ *ag diúgaireacht* 'sponging'), *-éir* (e.g. *siúinéir* 'joiner' → *ag siúinéireacht* 'doing joinery work'), *-úir* (e.g. *dochtúir* 'doctor' → *ag dochtúireacht* 'practicing medicine') *-ach* (e.g. *graostach* 'lewd person' → *ag graostacht* 'talking smut'), and suffixes which are considered diminutive/expressive *-ín* (e.g. *maistín* 'rude, unmannerly person' → *ag maistíneacht*

[14] The remaining formations in *-(e)acht/íocht* refer to the category of deadjectival nominalizations (Nomina Essendi). A detailed analysis of this category is available in Doyle (1992: 26-69).

[15] In English and Polish a similar verbalization rule operates solely on lexical agents (cf. secondary verbs discussed by Szymanek (1989: 184) exemplified by *doctor* → *to doctor*, *pilot* → *to pilot*).

[16] The same phenomenon can be observed in English, e.g. $write_V$ → *writ**er*** and $farm_N$ → *farm**er*** as well as in Polish, e.g. $pisać_V$ 'write' → *pis**arz*** 'writer' and $piosenka_N$ 'song' → *piosenk**arz*** 'singer' (Szymanek 1989: 185-188).

[17] About 20 VNs are based on deverbal agents whereas about 80 on denominal agents.

'acting the bully'), *-án* (e.g. *streancán* '(fiddle)scraper' → *ag streancánacht* 'playing on a stringed instrument'), *-óg* (e.g. *stáróg* 'staring, gawking woman' → *ag stárógacht* 'staring'), and to a handful of lexically marked items (e.g. *sagart* 'priest' → *ag sagartacht* 'performing duties of a priest'). In cases where the nominal form ends in *-ach* [əχ] the following ending [əχt] absorbs it, which could be regarded as semi-vacuous rule application (Stremberger 1981).[18] In addition, there is an optional alternant [təχt] if the input ends in [n]. The suffix *-íocht* can be regarded as a contextually conditioned allomorph of *-(e)acht* in cases where it is appended to bases terminating in *-í* (e.g. *ceardaí* 'a craftsman' → *ag ceardaíocht* 'working as a craftsman'). The final string *-íocht* in the VN can be viewed as resulting from the fusion of a word final vowel of the base and the initial vowel of the formative, i.e. [əχt]. However, we are forced to recognize the existence of a separate formal exponent *-íocht* since there are forms such as *burla* 'burly person' → *ag burlaíocht* 'wrestling', *file* 'poet' → *ag filíocht* 'lyricizing', *diabhal* 'devil' → *ag diabhlaíocht* 'making mischief' or *leanbh* 'child' → *ag leanbhaíocht* 'acting childishly'. This suffix displays a preference for lexical agents.

The following WFR is a slightly modified version of a rule proposed in Bloch-Trojnar (2008a):[19]

[18] The same phonological effect can be observed in the formation of Nomina Essendi, e.g. *cancrach* [kauŋkərəχ] 'cranky' – *cancracht* [kauŋkərəχt] 'crankiness' (Doyle 1992: 35).

[19] In the model adopted here, Word Formation Rules (WFRs) are viewed as operations creating lexical items (lexemes) from other lexical items. They operate on two levels: an abstract (grammatical) level, which encompasses semantic and syntactic changes observable in the derivative with respect to the input item and a formal level which is connected with actual morpho-phonological modification. We adopt the notational devices of Malicka-Kleparska (1985). The rule consists of the following elements:

∀ : – Quantifier 'for every X', X – symbol to be replaced with a lexical item possessing the feature complex,

$[\,[X]_{[N,\ Subject]} + suffix]_{[VN]}$ – the derivational operation which specifies that nouns capable of functioning as subjects of related predicates are changed into imperfective verbs by means of suffixation.

This abstract derivational operation is then realized by means of affixation rules, which specify the identity of the formal elements involved and the conditions on their attachment.

(12)

$$\forall : [X]_{[N,\ Subject]} : [X] \rightarrow [\,[X]_{[N,\ Subject]} + suffix]_{[VN]}$$

∃ Z: Z = [[X] + (e)acht]	if X = [Yóir]	e.g. *turasóireacht*
/there is such/	if X = [Yaire]	e.g. *diúgaireacht*
	if X = [Yéir]	e.g. *siúinéireacht*
	if X = [Yán]	e.g. *streancánacht*
	if X = [Yoir]	e.g. *doirseoireacht*
	if X = [Yúir]	e.g. *dochtúireacht*
	if X = [Yach]	e.g. *graostacht*
	if X = [Yín]	e.g. *maistíneacht*
	if X = [Yóg]	e.g. *stárógacht*
	if X = [Yaí]	e.g. *scéalaíocht*
	in lexically marked items	e.g. *sagartacht*
∃ Z: Z = [[X] + íocht]	if X = simplex item	e.g. *leanbhaíocht*

Apart from verbs which denote activities characteristic of agents, e.g. *ag siúinéireacht* 'doing joinery work', *ag doirseoireacht* 'acting as doorkeeper', *ag sagartacht* 'performing duties of a priest',? *ag beachaireacht* 'keeping bees', ?*ag feirmeoireacht* 'working as a farmer', ?*ag cócaireacht* 'cooking',[20] we find verbs referring to talking nonsense, using foul language, being impertinent, loafing, cheating and cajoling, acting childishly, rambling, being violent or abusive towards others. Some examples are given in (13) below.[21]

[20] '?' marks a potential form. The fact that Ó Dónaill (1977) (henceforth ÓD) does not provide a VN usage, does not mean that it is not possible to use the forms in -V*cht* in this way. Scrutinizing sources other than ÓD seems to corroborate our interpretation. For instance, de Bhaldraithe (1953: 197) uses *ag spailpínteacht a bhí tú ó mhaidin agus codladh a bheith ort* 'you were sleeping and scamping from morning'. We also find *ag guinéaracht* 'aiming' (de Bhaldraithe 1985: 122), *ag síofróireacht* 'talking precociously' (Dinneen 1927: 842) or *ag leadaíocht* 'idling' (de Bhaldraithe 1992: 401).

[21] For more examples the reader is referred to Bloch-Trojnar (2008a).

(13)

WORK: *ag slapaireacht* ‘doing sloppy work ’, ?*ag spailpínteacht* ‘working as a migratory farm worker’, ?*ag jabaireacht* ‘cattle-jobbing, doing jobs’, ?*ag spidireacht* ‘pottering’
TALKING: *ag bolscaireacht* ‘crying aloud’, *ag bolmántacht* ‘bragging’, *ag stangaireacht faoi luach ruda* ‘haggling over the price of sth’, *ag dodaireacht* ‘stuttering’, *ag pápaireacht* ‘pontificating, talking nonsense’, *ag gráiscínteacht* ‘using foul language’, *ag glagaireacht (chainte)* ‘talking nonsense’, *ag óráidíocht* ‘orating, speech-making’, *ag scéalaíocht* ‘telling stories’, ?*ag gibideacht* ‘prattling’, ?*ag gláimíneacht* ‘bawling, squalling’, ?*ag gleosíneacht* ‘babbling’, ?*ag geabaireacht* ‘chattering’
MOVING SLOWLY (walking/loitering): *ag bonnaireacht thart* ‘walking, trotting about’, *ag sráideoireacht thart* ‘walking about the streets’, *ag feadóireacht thart* ‘sauntering, strolling’, *ag rámhóireacht thart* ‘wandering about’, *ag crochadóireacht thart* ‘loafing’, *ag drádánacht thart* ‘loitering about and accosting people’, *ag codaíocht thart* ‘loafing about’, *ag snagaíocht* ‘dawdling’, ?*ag bruachaireacht* ‘lounging’, ?*ag ráigíocht* ‘wandering’
ANNOYING or REPREHENSIBLE BEHAVIOUR: *ag rógaireacht* ‘cheating, playing the rogue’, *ag cocaireacht le chéile* ‘sparring at each other’, *ag maistíneacht* ‘acting the bully, deliberately misbehaving’, *ag teallaireacht (le)* ‘giving impertinence to’, *ag bobaireacht* ‘playing tricks’, *ag deithireacht (magaidh) faoi dhuine* ‘ribbing, teasing sb’, *ag maoirseacht orainn* ‘overseeing us, bossing us’, *ag cleasaíocht orm* ‘playing tricks on me’, ?*ag bligeardacht* ‘playing the blackguard’, ?*ag lúbaireacht* ‘practicing deceit’, ?*ag míolcaireacht* ‘cajoling, wheedling’

These verbs are colloquial and they are stylistically or emotionally coloured. Some of them have a clear derogatory tinge. Their expressive character could be held accountable for the fact that they are confined to the progressive and the failure of the mechanism of blocking (Aronoff 1976: 43-45; Rainer 1988). The perfective on the whole is not found in atemporal contexts, e.g. habitual statements (Willim 2006: 179). In English habits in the progressive receive an emotional colouring, they are so frequent as if continuous and the progressive expresses disapproval or irritation (Brinton 1988: 41). As far as blocking goes,[22] the actual occurrence of an innovative

[22] Potential complex words may be blocked, i.e. they will fail to appear in actual speech if there exists an institutionalized synonymous form (based on the same root). Expressive derivatives are not subject to the mechanism of blocking, e.g. *ręka* ‘hand’ in Polish is related to the following diminutive formations: *rączka*, *rączyna*, *rączuchna*, *rączusia*, *rąsia*.

VN derived from a Nomen Agentis is blocked if there exists a corresponding verb whose regular verbal noun serves as the base for the derivation of the agent. Thus, *buailteoir* ‘striker’, *niteoir* ‘washer’ and *ceannaitheoir* ‘buyer’ do not give rise to VNs due to the existence of *buail* ‘hit’, *cáin* ‘punish’, *nigh* ‘wash’ and *ceannaigh* ‘buy’. Note the semantics of VNs which are not blocked.

(14)

Verb	**Regular VN**	**Agent**	**V (VN in -(e)acht/ -(a)íocht)**
croch, ‘hang’	*ag crochadh* ‘hanging’	*crochadóir* ‘hangman, gallows bird, loafer’	*ag crochadóireacht* ‘loitering, hanging around’
diúg, ‘drain, drink to the dregs, suck, sponge on’	*ag diúgadh* ‘draining (of liquid, of vessel), sponging’	*diúgaire* ‘drinker, tippler, parasite, sponger’	*ag diúgaireacht* ‘draining of liquid, drinking, tippling, sponging, wheedling, scrounging, whimpering, crying for favour’
can, ‘chant, sing’	*ag canadh* ‘chanting, singing’	*cantaire* ‘chanter, chorister’	*ag cantaireacht* ‘complaining’
bearr, ‘cut, clip, trim’	*ag bearradh* ‘cutting, trimming’	*bearrthóir* ‘trimmer, sharp-tongued person’	*ag bearrthóireacht* ‘addressing cutting remarks to each other’

If the restricted usage of VNs in *-(e)acht/-(a)íocht* was only a matter of a strong lexical association with the progressive aspect, we would still expect finite forms.

For example, *bobaireacht* which is derived from *bobaire* ‘trickster’ can be used as a VN (15a) but if we append inflections to the ‘potential’ verbal root obtained by cutting off the derivational affix -V*cht* we come up with a form which is ungrammatical, never attested (15b). The perfective meaning entails using a light verb construction (15c).

(15)

a. *Bhí sé ag bobaireacht.* ‘He was playing tricks.’
b. **Bhobair sé.* ‘He played a trick.’
c. *Rinne sé bob.* ‘He played a trick.’

There are sound semantic and systemic reasons for regarding the verbs in question as imperfective. Verbs listed in (16) below are apparent counterexamples, since VNs in -V*cht* have corresponding verbal entries in ÓD. However, their status is controversial since they occur mostly in their VN forms and only *tairngir* 'foretell' exhibits the whole range of inflectional forms. Furthermore, for each of them we can identify a potential nominal base and these verbs could be interpreted as backformations, i.e. N →VN → V.

(16)

Verb	**VN**	**Noun**
***aoir**igh* 'herd'	*aoireacht*	*aoire* 'shepherd, *Ecc:* pastor'
tairngir 'foretell, phophesy'	*tairngreacht*	*tairngire* 'prophet, wise man, sage'
cinnir 'lead by the head'	*cinnireacht*	*cinnire* 'person leading an animal by the head, guide, attendant'
***máistr**igh* 'master'	*máistreacht*	*máistir* 'master, person in control, teacher, skilled person'
giollaigh 'lead, guide'	*giollacht*	*giolla* 'youth, page boy, attendant, man-servant, messenger, fellow'
***cois**igh* 'walk, travel on foot'	*coisíocht*	*coisí* 'walker, infantryman'
***rámh**aigh* 'row'	*rámhaíocht*	*rámhaí* 'oarsman', *rámh* 'oar'
***tór**aigh* 'pursue'	*tóraíocht*	*tóraí* 'pursuer'
***roth**aigh* 'cycle'	*rothaíocht*	*rothaí* 'cyclist', roth 'wheel'
***marc**aigh* 'ride'	*marcaíocht*	*marcach* 'horseman', *marc* 'horse'
***ráth**aigh* '(of fish) shoal'	*ráthaíocht*	*ráth* 'shoal of fish'

Let us now examine VNs whose base nouns do not denote agents. There are about 15 such forms in *-(e)acht* and about 10 such forms in *-íocht* in ÓD and they are listed in (17a) and (17b) respectively.

(17a)

Noun	**VN**
circín 'chicken-dim.'	*ag circíneacht le* 'pecking at'
cloigín 'bell-dim.'	*ag cloigíneacht* 'bell-ringing, crying out, scolding'
cáirín 'little mouth, grimace'	*ag cáiríneacht ar a chéile* 'making faces at each other'
geidimín 'flutter, flighty creature'	*ag geidimíneacht (thart)* 'fluttering about'
blaisín 'smack, flavour'	*ag blaisínteacht ar bhia, ar dheoch* 'tasting food, drink, on lips' *Níl tú ach ag blaisínteacht air.* 'You are only nibbling at, sipping it.'
sróinín 'nose-dim., nose-ring'	*ag sróinínteacht thart* 'nosing about'
ailpín 'lump, chunk-dim.'	*ag ailpínteacht le rud* 'taking bites, chunks out of sth'
cleitín 'feather-dim.'	*ag cleitínteacht le* 'fingering lightly, fiddling with'
mínín 'smooth, fine thing-dim.'	*ag míníneacht* 'niggling, splitting hairs'
streachlán 'straggling thing, tattered, untidy thing'	*ag streachlánacht thart* 'dragging one's feet around'
stócán 'post, stake'	*ag stócántacht orm dul leis* 'pressing me to go along with him'
goineog 'stab, cutting remark'	*ag goineogacht (chun a chéile)* 'making stinging remarks'
seanmóir 'sermon'	*ag seanmóireacht ón altóir* 'preaching from the altar'*ag seanmóireacht le duine* 'preaching to sb'
cóisir '(wedding) feast'	*ag cóisireacht* 'attending parties, social gatherings'

(17b)

Noun	**VN**
seal 'turn'	*ag sealaíocht le chéile* 'relieving, spelling each other'
cairdeas 'friendship'	*ag cairdeasaíocht le duine* 'fraternising with sb'
uain 'time, interval'	*Bhí siad ag uainíocht ar a chéile.* 'They were taking turns.'
aer 'air'	*ag aeraíocht* 'taking the air'
grian 'sun'	*ag grianaíocht leis an leanbh* 'amusing the child'
méar 'finger'	*ag méaraíocht ar ghruaig* 'passing fingers through hair' *Níl sé ach ag méaraíocht ar a chuid.* 'He's only fiddling with his food.'
ganfhios 'secrecy'	*ag ganfhiosaíocht* 'acting surreptitiously'
gar 'service, turn'	*ag garaíocht do dhuine* 'doing turns, odd jobs for sb'
cuairt 'visit'	*ag cuartaíocht* 'visiting'
comhar 'partnership'	*ag comhairíocht le chéile* 'cooperating with each other'

Diminutives prevail as base nouns in (17a). However, there are also nouns characterized by the same final phonetic strings as those to which the affixation rule in (12) is sensitive. It is not possible to identify any formal or semantic characteristics of base nouns in (17b) which could be held accountable for the selection of *-íocht*, only that it shows a preference for simplex bases.[23]

[23] In the case of *-íocht* affixation only *cairdeas* and *ganfhios* are morphologically complex. The situation is reversed where *-(a)cht* is appended since only two bases are morphologically simplex, i.e. *seanmóir* and *cóisir*.

We can observe a similar failure of the blocking mechanism as in the case of forms based on Nomina Agentis. A potential VN is blocked as expected if there is a verb possessing the same root and meaning (18a). It is not blocked despite the existence of the verb if there is a difference in meaning (18b), which can have an expressive function.

(18)

	Verb / regular VN	**Noun**	**VN in -Vcht**
a.	*ceadaigh*, *-ú* 'permit, allow'	*cead* 'leave, permission'	#
	logh, *-adh* 'remit, forgive'	*logha* 'indulgence allowance, loan'	#
b.	*sáraigh*, *-ú* 'violate, thwart, overcome'	*sár* 'violation, outrage'	*ag sáraíocht* 'contradicting, arguing'
	grian, *-adh* 'sun'	*grian* 'sun'	*ag grianaíocht leis an leanbh* 'amusing the child'
	bolaigh, *-lú* 'smell, scent'	*boladh* 'smell, scent'	*ag bolaíocht ar rud* 'smelling, sniffing at sth' *ag bolaíocht thart* 'nosing about'

Forms in (17) resemble Polish event formations. The imperfective verbs describe actions, states, situations somehow connected with the base noun. They frequently amalgamate the meanings of the noun and the verb with which it collocates, e.g. *goineog* 'stinging remark' – *ag goineogacht* 'making stinging remarks', *seanmóir* 'sermon' – *ag seanmóireacht* 'delivering a sermon, preaching', *cóisir* 'feast' – *ag cóisireacht* 'attending parties, social gatherings', *gar* 'service, turn, favour' – *ag garaíocht* 'doing turns, odd jobs for sb', *cuairt* 'visit' – *ag cuartaíocht* 'paying a visit, visiting'.

We shall argue that the rule where the base for the derivation of Vs is a volitional Agent or an animate entity or any noun capable of functioning as the subject of a related predicate, is part of a very general transpositional rule N → V, where the resulting verb is inherently imperfective.

(19)[24]

$\forall : [X]_{[N]} : [X] \rightarrow [\,[X]_{[N]} + \text{morphophonological modification}\,]_{[V, \text{-perfective, (VN)}]}$

$\exists$ Z: Z = [[X] + (e)acht]	if X = [Yóir]	e.g. *turasóireacht*, *seanmóireacht*
/there is such/	if X = [Yaire]	e.g. *diúgaireacht*
	if X = [Yéir]	e.g. *tincéireacht*
	if X = [Yán]	e.g. *streancánacht*, *streachlánacht*
	if X = [Yoir]	e.g. *doirseoireacht*
	if X = [Yúir]	e.g. *dochtúireacht*
	if X = [Yach]	e.g. *graostacht*
	if X = [Yín]	e.g. *maistíneacht*, *circíneacht*
	if X = [Yeog/óg][24]	e.g. *stárógacht*, *goineogacht*
	if X = [Yaí]	e.g. *scéalaíocht*
	in lexically marked items	e.g. *sagartacht*
$\exists$ Z: Z = [[X] + íocht]	in lexically marked items (preferably simplex)	e.g. *leanbhaíocht*, *uainíocht*

Phonological, semantic and morphological constraints on the [əχt] affixation rule overlap upon one another. The vast majority of agent nouns terminate in palatalized [r], but so do other nouns undergoing this rule (e.g. *seanmóir* 'sermon'). Therefore, the phonological aspect seems to be overriding here. Base final strings such as [iːnˊ], [aːn] and [oːg] are diminutive suffixes in Irish, of which [iːnˊ] is still productive (cf. Doyle 1992).[25] Hence bases terminating in [iːnˊ] are prevalent and they refer both to people and things as depicted in (20a) and (20b) respectively.

24 *-óg* is spelt *-eog* after a palatalized consonant, e.g. *cnap* [knap] – *cnapóg* [knapoːg] but *cis* [kˊiʃ] – *ciseog* [kˊiʃoːg] (Doyle 1992: 115).

25 The suffixes *-án* and *-óg* should be considered unproductive. Occasionally, they can be found on the same base since the former is augmentative whereas the latter diminutive, e.g. *cnap* 'lump' – *cnapóg* 'small lump' and *cnapán* 'big lump' (Doyle 1992: 113-32).

(20)

	Noun	**VN**
a.	*spailpín* 'migratory worker'	*ag spailpínteacht* 'working as a migratory farm labourer' (de Bhaldraithe 1953: 197)
	maicín 'little boy, spoilt brat'	*ag maicín(t)eacht* 'acting like a spoilt child, playing the brat'
	déircín 'beggarly, importunate person'	*ag déircínteacht* 'asking importunately' (Dinneen 1927: 326)
b.	*cipín* 'little stick, twig'	*Níl mé ach ag cipínteacht inniu.* 'I am only fiddling with work today' (de Bhaldraithe 1985: 49)
	gráín 'love-dim., cuddle'	*ag gráinteacht (leis an leanbh)* 'fondling, cuddling (the child)'
	deilín 'rigmarole'	*deilínteacht* 'talking in a sing-song fashion, constant begging' *ag deilínteacht ar an gcomharsain* (de Bhaldraithe 1985: 78)
	méirín 'finger-dim.'	*ag méirínteacht le rud* 'fingering, fiddling with' (de Bhaldraithe 1985: 99)
	soipín 'small straw'	?*soipín(t)eacht* 'gathering bits of straw (for nest, bed, storage), migratory work'
	fidín 'dry filling, small stones'	*ag fidínteacht oibre* 'fiddling with work', *ag fidínteacht ghháire* 'tittering, giggling' (de Bhaldraithe 1985: 99)

The suffix *-án* can occasionally be used in the formation of Nomina Agentis, which are natural input to our WFR, e.g. *spadán* 'sluggish, lethargic person' – *ag spadántacht* 'acting sluggishly'. De Bhaldraithe (1959: 250) notes that the suffix *-(ach)án* is used to name a person in a way showing contempt. It looks as if in some cases agentive and expressive meanings of the input go hand in hand. The use of expressive bases as input partly accounts for the

expressive character of the resulting derivative. On the other hand, agents regardless of their formal marker whose semantics has pejorative overtones will produce affectively marked verbs. Agent noun formation in Irish involves a lot of variation (cf. Bloch-Trojnar 2008b) and for each variant form of an agent we expect a variant form of a verbal nominal, e.g. *crochadóir* (*croachaire*) 'loafer' – *ag crochadóireacht* (*crochaireacht*) 'loitering' (Ó Dónaill 1977: 320), *leadaí* (*leadaire*) 'idler' – *ag leadaíocht* (*leadaireacht*) 'lounging about' (de Bhaldraithe 1992: 425). In cases where the expressive function of language is very conspicuous, the dictionary may list one (institutionalized) form, which is employed as a VN and there are no hard and fast rules for preferring one form over another, as illustrated in (21) below.

(21)

Agent (variant forms)	**VN (variant forms)**
spadaire, *spadaí*, *spadán* 'sluggish, lethargic person'	*ag spadántacht* 'acting sluggishly' (Ó Dónaill 1977: 1137)
bromaire 'boaster, boor', *bromán* 'farter, boaster', *bromach* 'big, strong youth'	*ag bromaireacht* 'complaining irascibly' (de Bhaldraithe 1985: 31)
breall 'fool', *breallaire* 'silly talker, fool' (var. *breallálaí*), *breallán* 'ragged person, blunderer, fool' (var. *breallachán*)	*ag breallaireacht (chainte)* 'talking nonsense' (var. *breallaí*, *brealláil*), *breallántacht* '(act of) talking nonsense' (Ó Dónaill 1977: 136)[26]

According to Jurafsky (1996) and Schneider (2003) the category of diminutives combines aspects of small size and the attitude of appreciation or depreciation. Schneider (2003: 15) argues that a narrow sense of diminuition, i.e. 'small', 'young' or 'dear' is applicable solely to nouns. When applied to verbs 'diminuition' results in an action of sub-normal intensity combined with an evaluation. Pei and Gaynor (1960) define 'diminutive aspect' as follows: 'A verbal aspect, expressing that the action or state denoted by the verb is of a minor degree, intensity or

[26] In ÓD the form *breallántacht* is listed only as an abstract noun glossed as '(act of) V-ing'. Other such cases include, for example *buinneachán* 'scutterer, sickly looking animal, mean despicable person' – *buinneachántacht (chainte)* 'silly nonsense', *gaisecoir (gaisceachán)* 'boaster, swank' – *gaisceoireacht* '(act of) swaggering, swashbuckling,', *falsóir (falsán)* 'lazy person' – *falsóireacht* '(act of) lazying, idling'. Such forms should be treated as potential VNs. For example in de Bhaldraithe (1992: 425) we find *ag falsóireacht* 'lounging (about)'.

importance'. Derived imperfectiva tantum based on expressive bases in Irish convey the meaning of reduced intensity, as was rightly observed by Wigger (1972). They also produce depreciative readings involving the general metaphor 'small is insignificant'. They most commonly reveal annoyance, contempt, reproach, condescension, e.g. *ag iarraidh na déirce* means 'seeking alms, begging' whereas *ag déircínteacht* implies being importunate. However, we need to bear in mind that the intended affective meaning can only be fully understood relative to the linguistic and situational context. It is not immediately evident how *aggráinteacht (leis an leanbh)* 'fondling, cuddling (the child)' is to be understood. The fact that emotionally coloured nouns devoid of diminutive markers can also give rise to expressive verbs supports our general transpositional rule, whereby the meaning of a resulting derivative is to be interpreted pragmatically on the basis of the input.

Consequently, the rule deriving progressive verbs need not be restricted to agent nouns. Any noun may be turned into a verb providing that a verb with the same root does not already exist, or if it does the new formation must be different in meaning. The appearance of -V*cht* is predictable form the phonological, morphological and semantic properties of the base. Nouns which do not end in any of the specified strings and are not lexical agents and yet take *-íocht* (e.g. *uain* – *uainíocht*) have to be lexically marked. There are also some lexically marked items for *-(e)acht* affixation.

4.2.2. The suffix -áil

Of all forms in *-áil* listed in Doyle and Gussmann (1996) about 270 have corresponding verbs (cf. (2) above). As pointed out by Ó Cuív (1980: 128) there are about 100 abstract nouns for which no corresponding verbs are attested, e.g. *slabáil* '(act of) puddling, sloppy work'. There are about 50 forms such as, for example *boirbeáil* '(act of) threatening, gathering, heightening' which Ó Dónaill (1977) lists as a nominalization capable of discharging the function of the VN, i.e. *ag boirbeáil* 'threatening'.

Bloch-Trojnar (2006: 137-58, 2010) argues that whenever we encounter a form ending in *-áil* in the dictionary glossed as '(act of) verbing' it means that there exists a verb which serves as the base for this particular nominalisation. This statement has be modified. There is sufficient evidence to argue that whenever we encounter a form ending in *-áil* in the dictionary glossed as '(act of) verbing' it presupposes an imperfective verb. The existence of a corresponding perfective root is borne out once inflected forms are attested. Interestingly, forms which lack finite verbs, i.e. the 100 abstract nouns (ANs) and the 50 VNs show similar imperfective semantics, as in (22) below.

(22)

WORK
VN: *ag crácáil* 'toiling', *ag giurnáil* 'doing odd jobs', *ag rábáil* 'slogging'
AN: *slabáil* '(act of) puddling, sloppy work', *foraiseáil* '(act of) hurrying with work', *slibreáil* 'slipshod work, (act of) pottering'

NOISE
VN: *ag gleothái*l 'making a noise, fussing'
AN: *fothramáil* '(act of) making noise'

MESSING
VN: *ag slaimiceáil* 'messing', *ag méiseáil* 'messing'
AN: *spoitseáil* '(act of) botching messing'

STRIKING
VN: *ag fadhbáil* 'striking', *ag spreotáil* 'hacking', *ag tiortáil* 'knocking about', *ag cáibleáil* 'knocking about', *ag traiseáil* 'thrashing, beating'
AN: *leidhceáil* '(act of) beating', *smúcháil* '(act of) beating'

GROPING, FUMBLING
VN: *ag paidhceáil* 'poking', *ag méarnáil* 'groping', *ag gliúmáil* 'fumbling, groping', *ag prócáil* 'probing, poking', *ag mútáil* 'fumbling, pottering', *ag útamáil* 'fumbling, groping, bungling, pottering'
AN: *póirseáil* '(act of) groping rummaging, searching,'

STRUGGLE
VN: *ag iomrascáil* 'wrestling', *ag trasnáil* 'contradicting, interrupting, crossing', *ag cargáil* 'jostling, wrestling', *ag strácáil* 'striving, struggling', *ag ciapáil* 'contending'
AN: *rúcáil* 'commoting, wrangling'

TALKING
VN: *ag rífáil* 'fussing, silly talk' , *ag margáil* 'bargaining, haggling', *ag praghsáil* 'pricing, bidding'
AN: *scaitseáil* '(act of) telling lies', *strucáil* '(act of) trucking, bargaining', *cadráil* '(act of) chattering, chatter', *sifleáil* 'silly talk'

MOVING QUICKLY OR SLOWLY
VN: *ag séirseáil* 'hurrying', *ag réachtáil* 'running', *ag slabhráil* 'shuffling, trudging', *ag dromadáil* 'walking backwards', *ag stampáil* 'stamping with feet, jerking spasmodically, struggling along', *ag peilteáil* 'pelting', *ag righneáil* 'lingering', *ag fáinneáil* 'circling, fluttering about', *ag máinneáil* ' loitering', *ag siobáil* 'pottering', *ag múitseáil* 'mooching'
AN: *seilmideáil* '(act of) dawdling, going at a snail's pace', *sleaingeáil* '(act of) lurching, staggering', *raimleáil* '(act of) rambling, pub-crawling', *fadáil* '(act of) delaying', *gúngáil* '(act of) swaying, staggering, awkward walk'

The existence of agent nouns can be the key argument for a uniform treatment of VNs and ANs above and the recognition of potential verbs. Given that agent nouns are normally derived from verbal roots and participles (Bloch-Trojnar 2008b, 2008c), attested morphologically complex agent nouns have to be related to attested or potential verbal sources.

One type of agent nouns is formed by adding *-í* to the adjectival active participle marked with the depalatalizing suffix *-a*.[27]

(23)

Verb (citation form)	**VN-gen.**	**Nomen Agentis**
bácáil 'bake'	*bácál**a***	*bácál**aí***
caill 'lose'	*caillún**a***	*caillún**aí***
troid 'fight'	*trod**a***	*trod**aí***

If abstract nouns listed in (22) are indeed derived from potential verbs, these potential verbs should be capable of functioning as bases for the derivation of agentive nouns. More than 60 Nomina Agentis can be related to potential VNs.[28]

(24)

Potential VN	**Nomen Agentis**
slabáil 'puddling, sloppy work'	*slabálí* 'sloppy worker'
buaiceáil 'showing off"	*buaiceálaí* 'swagger'
scuaideáil 'spattering'	*scuaideálaí* 'spatterer, sloppy person'
strucáil 'bargaining'	*strucálaí* 'bargainer'
gloinceáil 'rocking, swaying'	*gloinceálaí* 'person of unsteady gait'

It is a matter of arbitrary choice of lexicographers that certain forms are listed as nouns and others as VNs. For example, some abstract nouns have corresponding VNs if other sources are consulted. In Ó Dónaill (1977) we find *slabáil, -ála* '(act of) puddling, sloppy work' and *tiargáil, -ála* '(act of) preparing, preparatory work' whereas Dinneen (1927) provides VN usage, i.e. *ag slabáil agus ag slobáil* 'working in a careless manner' and *ag tiargáil chum iascaigh* 'getting ready to go fishing'.[29] The existence of imperfective verbs is also borne out by the fact that the resulting Nomina Agentis can hardly give rise to imperfective verbs. Thus forms such as *#ag slabálíocht*, *#ag buaiceálaíocht* or *#ag scuaideálaíocht* are blocked and virtually unattested.

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[27] In traditional grammars the adjectival active participle is referred to as the genitive case of the VN.
[28] For a full list the reader is referred to Bloch-Trojnar (2006: 155-6).
[29] More such examples can be found in Bloch-Trojnar (2006: 157).

Forms in *-áil* are different from those ending in *-íocht/-eacht* in that we can talk about potential verbal roots not just potential participles. For example, Dinneen (1927: 1055) provides the finite form of *slibireáil*, which Ó Dónaill (1977: 1111) lists only as an abstract noun of activity – *slibireálaim*, *-eáil*, v. intr. 'I hang around, do odd jobs, apart from regular work'. Yet, the bulk of the 150 forms under consideration features (or has the potential of featuring) in imperfective contexts and their semantics is inherently durative, atelic and dynamic (cf. (22) above).

The data prompt an analysis in which *-ál* is an element involved in the formation of perfective verbal roots, as in (2) above and *-áil* is a suffix involved in the formation of imperfective verbs.[30] Nouns that serve as bases for the derivation of imperfective verbs are morphologically simplex and may be native or of English origin.[31] We shall regard this marker as the general or elsewhere case, which is pre-empted by prior application of *-ach*, *-áil* and ∅.

4.2.3. -aíl [iːlʹ] formations

The number of *-aíl* formations functioning as VNs or nominalisations with the regular semantics '(act of) V-ing' approximates 90 in ÓD. Doyle and Gussmann (1996) list over 200 such items. The discrepancy between the two sources is connected with the fact that Doyle and Gussmann list all possible variants. Thus, the same lexical item can be listed twice or even thrice, e.g. *puthaíl – puthadaíl*; *glugaíl – glugarnaíl*; *bíogaíl – bíogadaíl*; *srúmaíl – srúmataíl*. Wigger (1972: 211) suggests that forms in *-aíl* could be regarded as phonological variants of those in *-áil* and they are semantically determined and expressive. Expressive character could account for the variety of shapes, i.e. *-aíl*, *-daíl*, *-taíl*, *-naíl*. However, only about 20 *-aíl* formations in Doyle and Gussmann are listed as forms in *-áil* in ÓD. In addition to this, according to Doyle and Gussmann forms in *-aíl* function as variants of *-ach* (29 cases) and *-Vcht* (39 cases) VNs and nominalizations. The existence of doublets or sometimes even triplets based on the same stem may suggest that apart from dialectal variation we may have to do here with overlapping rather than complementary domains of affixation. In the majority of cases, *-aíl* formations, can be related to morphologically simplex nouns. So are

[30] The variant *-dáil* is not phonologically conditioned and it frequently appears in cases where *-áil* has an equivalent form in *-aíl*, e.g. *lapa* 'paw, flipper' – *lapadáil*, *lapáil* '(act of) paddling, splashing'. For more examples see the discussion in 4.2.3. below.

[31] Ó Cuív (1980: 143) suggests 'a possible connection between the *-áil* ending in *gíostáil* and the *-ing* ending of English'. This would explain why the VN form is so prevalent: the source may be English V-ing along with English V and N.

derivatives in *-ach* and *-áil*. We shall investigate in greater detail those which can discharge the function of VNs.

Forms in (25a) are listed in ÓD with corresponding verbal entires. However, they are never inflected and only constructions with light verbs seem to be available in finite contexts (25b), which strongly suggests that we are dealing here with back-derived verbal roots (cf. (16) above).

(25)

a.	**Verb**	**VN**	**Noun**
	glam [glɑm] 'bark'	*glamaíl* [glɑmiːlʹ]	*glam* 'deep bark, bay, howl'
	osnaigh [osnəgʹ] 'sigh'	*osnaíl* [osniːlʹ]	*osna* 'sigh'
	sceamh [ʃkʹav] 'yelp'	*sceamhaíl* [ʃkʹaviːlʹ]	*sceamh* 'yelp, squeal'

b.	**Light Verb Construction**		
	Lig sé glam orainn.	*osna a ligean*	*sceamh a ligean*
	let out he bay on-us;	sigh PRT let out-VN	yelp PRT let out-VN
	'He bellowed at us.'	'to sigh'	'to yelp, to squeal'

There is about a dozen *-aíl* VNs in ÓD which can be related to a noun. Their semantics is characteristic of event formations and many refer to sound events (cf. Wigger 1972: 211). 66 items in Gussmann and Doyle (1996) refer to the emission of sounds such as sounds made by animals, which are metaphorically extended to refer to different ways of talking, involuntary sounds especially those relating to bodily processes (hiccup, sneeze, breathe) and sounds produced by water. However, we also find forms referring to different ways of talking, movement, involuntary reaction, work and other concepts.[32]

[32] There are about 50 simplex nouns related to nominalizations with the semantics '(act of) V-ing'. We think that these nouns, in fact, give rise to imperfective verbs. Similar semantic areas can be distinguished, i.e. sounds made by animals (*grág* 'hoarse, raucous cry, caw, croak, bray' – *grágaíl* '(act of) cawing, croaking, braying', *gadhar* '(hunting) dog' – *gadhraíl* '(act of) snarling, fighting (like dogs)', manner of speaking (*déad* 'tooth' – déadaíl '(act of) clenching the teeth, talking through one's teeth'), uncontrollable bodily reactions (*puth* 'puff, whiff' – *puthaíl* '(act of) puffing', *sciúg* 'gasping, choking, hissing sound' – *sciúgaíl* '(act of) gasping for breath, choking, hissing', *triuch* 'whooping cough' – *triuchaíl* '(act of) whooping, coughing convulsively') or aimless behavior (*feam* 'tail' – *feamaíl* '(act of) gadding, frisking'). Actually, we find *ag grágaíl* '(of crow) cawing' in de Bhaldraithe (1992: 107), *ag puthaíl* 'puffing' in de Bhaldraithe (1985: 32), *ag feamaíl* 'gadding' in de Bhaldraithe (1992: 286).

(26)

Noun	**VN**
fead ‘whistle’	*Ní féidir le duine a bheith ag feadaíl agus ag ithe mine.* ‘A man can’t whistle and drink at the same time.’
glór ‘voice’	*ag glóraíl* ‘making sounds’, *gadhair ag glóraíl* ‘dogs giving tongue’
cuach ‘cuckoo, falsetto voice’	*ag cuachaíl* ‘whinnying’ (de Bhaldraithe 1985: 67)
víog (bíog) ‘chirp’	*ag víogaíl* (de Bhaldraithe 1985: 240) ‘chirping’, (*bíogaíl*, *bíogadaíl*, *bíogarnach*, *bíogarnaíl*)
geoin ‘drone, hum’	*ag geonaíl* (de Bhaldraithe 1992: 843) ‘(of dog) whining’
srón ‘nose’	*ag srónaíl* ‘talking through the nose, snuffing’
tulca ‘flood’	*ag tulcaíl báistí* ‘pouring rain’
múr ‘shower’	*ag múraíl* ‘showering’
lapa ‘paw, flipper’	*ag lapadaíl san uisce* ‘splashing about in the water’
racht ‘pent-up violent emotion, paroxysm’	*Bhí said ag rachtaíl gháire.* ‘They were laughing loudly.’
tocht ‘deep emotion, stoppage’	*ag tochtaíl goil* ‘weeping with stifled sobs’
bruach ‘bank, brink’	*ag bruachadaíl ar (imeacht, fhearthainn)* ‘on the verge of (departure, rain)’
fiataíl ‘coarse grass, sedge’	*ag fiataíl* ‘(of animals) picking at coarse grasses, foraging’
cluas ‘ear’	*ag cluasaíl* ‘eavesdropping’ (de Bhaldraithe 1992: 214)

If in addition to a noun there exists a verb based on the same root the generation of a denominal VN is constrained by the mechanism of blocking. Hence, there are only 3 such cases in ÓD and VNs attested in actual usage have a different meaning.

(27)

Verb	**Noun**	**VN**
amharc ‘look, see’*ag amharc uaim* ‘looking around me’	*amharc* ‘sight, view’	*ag amharcaíl oíche* ‘groping in the dark’
guthaigh ‘voice, vocalise, sing’ *ag guthú* ‘voicing, singing’	*guth* ‘voice’	*Tá siad ag guthaíl ar a gcuid.* ‘They are calling to be fed.’
lúb ‘loop, bend’ *ag lúbadh siar agus aniar* ‘bending backwards and forwards’	*lúb* ‘loop, link, twist’	*ag lúbarnaíl le pian* ‘writhing in agony’
smeach ‘flip, flick, click, gasp’ *ag smeachadh* ‘flipping, flicking’	*smeach* ‘fillip, flip, click (of tongue)’	*Tá mé ag ceapadh go bhfuil J. ag smeachaíl léithí sin.* ‘I think that J. is courting her.’ (de Bhaldraithe 1985: 204)
sclog ‘gasp, choke’ *ag sclogadh* ‘gasping, choking’	*sclogadh* ‘gasping, choking’	*ag sclugaíl ghháirí* ‘chuckling’, *Bíonn an chearc ag sclugaíl* ‘The hen is cackling’ (de Bhaldraithe 1985: 190)

Furthermore, the use of VNs in *-aíl* may be constrained by the existence of VNs in *-(e)acht*, *-áil* and *-ach*. Interaction between *-ach* and *-aíl* manifests itself in the semantic area of emission of sounds, where they are frequently used interchangeably.[33]

[33] The same is observed where only abstract nouns are attested, e.g. *srannfach* (*srannfaíl*) ‘(act) of snoring’, *glugarnach* (*glugaíl*, *glugarnaíl*) ‘squelching, gurgling sound’, *meamhlach* (*meamhlaíl*) ‘(act of) mewing, meowing’, *glagarnach* (*glagarnaíl*) ‘(act of) cackling’, *cogarnach* (*cogarnaíl*) ‘(act of) whispering’, *díogarnach* (*díogarnaíl*) ‘(act of) gasping for breath’, *fluparnach* (*fluparnaíl*) ‘(act of) flopping, splashing’. Some agents in *-ach* have corresponding *-aíl* VNs, e.g. *bacach* ‘lame person’ – *Bhi sé ag bacadíl leis*. ‘He was limping along.’ (de Bhaldraithe 1992: 415), *bradach* ‘thief’ – *bheith ag bradaíl* ‘trespassing’ (Breatnach 1984: 54).

(28)

Verb/VN in -ach	**Variant VN in -aíl**
amhastraigh, -ach ‘bark’	*ag amhastraíl*
cnead, -ach ‘pant, groan’	*cneadaíl*
scread, -ach ‘scream’	*screadaíl*
scréach, -ach ‘screech’	*scréachaíl*
gárthach ‘(act of) crying, shouting’	*ag gárthaíl* (de Bhaldraithe 1985: 109)
ag méanfach ‘yawning’ (Ó Sé 2000: 478)	*méanfaíl*
lubarnach	*ag lubarnaíl (le gáirí)* ‘twisting, writhing (with laughter)’ (de Bhaldraithe 1985: 142)
bogadach ‘movement, stir’ *ag bogadach* ‘stirring, rocking’	*bogadaíl*
bogarnach ‘(act of) dangling’ (*bogaireacht*)	*ag bogarnaíl* (de Bhaldraithe 1985: 24)
clagarnach ‘clatter’ *ag clagarnach ar an díon* ‘clattering, pattering on the roof’ (ÓD 1977: 237)	*clagarnaíl*
bheith ag slaparnach ‘flopping about’ (de Bhaldraithe 1992: 263)	
ag tórmach ‘increasing gathering’	
ag glioscarnach ‘glistening’ (Ó Sé 2000:478)	

There is a handful of lexically marked items acting as VNs which contain the suffix *-ach*. The corresponding finite verb does not exist or if it does its VN acts as the base for the imperfective verb.

(29)

Verb	**Noun**	**VN**
–	*brionglóid* ‘dream’	*ag brionglóideach* ‘dreaming’
–	*casacht* ‘cough’	*ag casachtach* ‘coughing’ (Ó Sé 2000: 478)
–	*pramsa* ‘prance’	*ag pramsach ar fud an tí* ‘prancing, romping all over the house’
blasaigh $_{V}$ – *blasacht* $_{VN}$ ‘taste’	*blasacht* ‘(act of) tasting’	*ag blasachtach ar bia* ‘testing food on lips’ *ag blasachtach ar an im* ‘nibbling at the butter’

Forms in *-aíl* can appear as variants of those in *-áil*. In section 4.2.2 above we identified the following prominent sense groups of *-áil* VNs: verbs relating to manner of talking, verbs of hurrying and loitering, work and non-goal-oriented behavior (messing, fumbling, fighting, frolicking). The domains of application overlap where activities involve sound production. Doublets such as those in (30) corroborate this intuition.

(30)

VN in *-áil*	**VN in *-aíl***
ag plubaráil ‘speaking incoherently, blubbering, messing’ (de Bhaldraithe 1985: 167)	*ag plubarnaíl chainte* ‘talking unclearly’ (de Bhaldraithe 1985: 167)
ag plobáil agus ag plabáil san uisce ‘floundering about in the water’	*plobaíl, plabaíl (plabaireacht, plabarnach)*
lapáil, lapadáil	*ag lapadaíl (lapaíl) san uisce* ‘splashing about in the water’
ag griothál ‘grunting’	*griothaíl*
Ná bí i gconaí ag trasnáil orm. ‘Don’t be contradicting me all the time.’	*ag trasnaíl*

Triplets or even quadruplets such as *grág* 'hoarse, raucous cry, caw croak' – *gragaíl*, *gragadaíl*, *gragáil*, *gráglach* demonstrate that in the domain of sounds *-aíl*, *-áil* and *-ach* are applied in a parallel fashion.

The situation is even more complex in cases where in addition to a simplex noun there exists an agent noun (either denominal or deverbal) which can also act as the base, e.g. *píopa* 'pipe', *píopaire* 'squeaker, wheezer, hoarse person' – *ag píopáil* 'piping, wheezing, panting, choking, stifling' (*píopaíl*, *píopaireacht*, *píoparnach*). The fact that there can be more than one agent noun based on the same root is another complicating factor (cf. (21) above). In such cases the VN based on the agent is usually attested. The overlapping semantic areas include: manner of talking, walking, working, as illustrated in (31) below.

(31)

Noun/Verb	**Agent Noun**	**VN**
cab 'mouth'	*cabaire (cabaí)* 'chatterbox, babbler'	*bheith ag cabaireacht (cabaíl, cabaíocht)* 'chattering'
pioc 'bit' *pioc, -adh* 'pick'	*piocaire (piocadóir)* 'picker, nibbler'	*ag piocaireacht* 'picking, nibbling' (de Bhaldraithe 1992: 475) (*piocadóireacht, píocadíl*)
snag 'gasp, convulsive sob'	*snagaire* 'gasper'	*ag snagaireacht, snagaíl* 'sobbing, stammering'
dod 'sullenness, anger'	*dodaire* 'sullen, sulky person'	*ag dodaireacht le fearg* 'stuttering with anger' (*dodaíl*, *dodarnaíl*)
glafadh 'bark'	*glafaire* 'barker, inarticulate speaker, prater'	*ag glafaireacht* 'barking, speaking inarticulately, prating' (de Bhaldraithe 1985: 114) (*glafaíl*)
meangadh 'smile'	*meangaire* 'smiling person, deceitful person'	*ag meangaireacht ghaire* 'smiling faintly' (*meangaíl*)
bonn 'sole', *bonnaigh*, *-ú* 'walk, trot'	*bonnaire* 'walker, trotter'	*ag bonnaireacht (bonnaíl)* 'walking, trotting'
stad 'stop, cessation' *stad* 'stop, pause, halt'	*stadaire* 'stammerer'	*ag stadaireacht* (de Bhaldraithe 1992: 698) (*stadaíl*, *stadarnáil*)

4.2.4. Zero derivation/conversion and lexical imperfectiva tantum

In section 3.1 we presented examples of denominal verbs whose formation involves no phonological exponents (cf. (4) above). Lack of overt morphological marking creates the problem of establishing the direction of derivation. In principle it could be *úsáid*$_N$ → *úsáid*$_V$ and *úsáid*$_V$ → *úsáid*$_N$. A number of procedures have been devised in synchronic studies to disentangle this problem (Marchand 1969; Cetnarowska 1993: 24-39). The primary member in the conversion pair exhibits more specific meanings and has a wider semantic rage. It is in common usage, may be irregular and serves to further derivation more easily. The derivative may show restrictions on usage (e.g. verb *neighbour* occurs mainly in the *-ing* form) and may be stylistically marked (e.g. it may be restricted to informal language or slang). Let us consider the form *leigheas*. There are two entries in the dictionary, one for a noun and one for a verb. While the verb means 'heal, cure, remedy', the semantic range of the noun is wider as it means 'art of healing (medicine), treatment, cure'. As for derivatives, the denominal forms *leigheasach* 'healing, curative' and *leigheasra* 'cures, medicines' are attested. We may say that *leigheas* belongs to the group of denominal verbs, because the semantic range of the noun is wider and it serves more readily as an input to affixation. There is no room for doubt in the case of *scríobh*. The verb has more meanings than the noun: 'write, fill in, compose' vs. '(hand)writing'. There is only one deverbal derivative – *scríobhaí* 'scribe'. In practice, however, establishing the direction of derivation in conversion pairs may be an arduous task, which in consequence leads to arbitrary choices.

We encounter exactly the same problem in the case of numerous VNs (i.e. imperfective verbs), which are of the same form as corresponding nouns, many of which are abstract.

The occurrence of typically nominal noun terminations in a verb is indicative of its derived status. Forms in (32a) show typical abstract noun endings.[34]

[34] Doyle (1992) enumerates the following markers of Nomina Essendi: -V$^{(-P)}$, *-íocht*, *-acht* and *-as*. Also forms terminating in *-aíl* appear in that function, e.g. *stalcaíl* (*stalcacht*, *stalcaíocht*) 'sulkiness, stubbornness', *iomarcaíl* (*iomarcaíocht*) 'excessiveness, arrogance' or *suaraíocht* (*suaraíl*) 'meanness'. However, we cannot rule out the possibility that we are dealing here with deadjectival rather than denominal verbs. In a few cases the abstract noun which is homonymous with a VN can be related to a less complex adjective, e.g. *dalbacht* 'boldness, audacity' (<*dalba* 'bold, bad-tempered') – *ag dalbacht* '(of child) petting, sulking', *coimhdeacht* 'accompaniment, companionship' (< *coimhdeach* 'accompanying, attendant') – *ag coimhdeacht* 'accompanying, escorting'. After all, perfective verbs can be derived from nouns and adjectives with the use of the same formal exponents (cf. (4) and (6) above). In Polish there is transpositional derivation of this kind. The resulting deadjectival transpositions referred to as *formacje stanowe* (state formations) express verbally the predicative function of adjectives, e.g. *X jest chory* 'X is ill' = *X choruje*, where *choruje* is 3rd person sg. ind. of the de-adjectival verb *chor-ow-ać* 'be ill'. Grzegorczykowa *et al.* (1999: 570) point out, however, that pure deadjectival transpositions with the semantics equivalent to 'be + adjective' are few and far between.

The VN *ag ciotaí* can be regarded as secondary with respect to the noun *ciotaí* since it has got variant forms, which are phonologically more complex with respect to the base (*ciotaíl*, *ciotaíocht*).

The situation is less evident where the noun is simplex (32b). If it has a concrete referent it is likely to be primary, e.g. *fearthainn*, *báisteach* 'rain', due to the fact that deverbal nouns refer to actions and concrete referents (results) arise in the final stages of the process of lexicalization. In this group we find verbs which refer in most general terms to the concepts we distinguished for other derived denominal imperfective verbs (cf. (13) and (22) above), namely work (*obair*, *saothar*), speech/verbal communication (*caint*, *béadán*, *cantal*, *seafóid*) and sound production (*amhrán*, *batalach*, *léithireacht*, *torann*). Most intricate are cases where the only noun available is glossed as '(act of)' (32d). They denote acts, actions and states, a pattern typical of V to N transposition. This, in turn, might lead us to the conclusion that in some such cases we are dealing with lexical imperfective verbs, i.e. the VN is the primary member in the conversion pair and it gives rise to a deverbal nominalization. On the other hand, we cannot rule out the possibility that nominals with the semantics 'act of V-ing' act as bases for VN formation, since in the course of our discussion it has transpired that such nominals can be put to this use with the help of overt markers (cf. *blasacht* '(act of) tasting' – *ag blasachtach*). In this group verbs referring to movement (*sodar*, *fálróid*) and communication activities (*magadh*, *ceisneamh*) are fairly prominent. Forms in (32c) can be related to simplex nouns or to nouns of activity. From the semantic point of view the former option seems more plausible. However, it necessitates positing another ending *-adh* [ə], whose attachment is lexically conditioned.

Zero derivation/conversion is not a productive means of deriving verbs in Irish. The purpose of this section is to show some data speaking in favour of recognizing this exponent in the formation of imperfective verbs. The task of specifying the precise direction of motivation in particular cases definitely merits further investigation and exceeds the scope of this paper.

(32)

	Noun	**VN**
a.	*ciotaí* 'left-handedness, awkwardness' (<*ciotach* 'left-handed, awkward')	*ag ciotaí do dhuine* 'making things awkward for sb' (var. *ciotaíl, ciotaíocht*)
	amaidí 'folly' (<*amaideach* 'foolish')	*ag amaidí (le)* 'fooling, playacting with'
	ábhaillí 'playfulness'	*ag ábhaillí* 'tinkering with things'
	suairceas 'pleasantness, gaiety'	*ag suairceas* 'passing the time pleasantly, having fun'
	súgachas 'merriness, tipsiness'	*ag súgachas* 'making merry'
	bruíonachas 'quarrelsomeness'	*ag bruíonachas* 'quarrelling, causing trouble'
	forcamás 'watchfulness, attention'	*ag forcamás ar* 'looking to, attending to'
	cránán 'grief, annoyance'	*ag cránán* 'grieving, complaining'
	dordán 'deep sound, hum, buzz'	*ag dordán* 'humming, buzzing, murmuring'
	ábhacht 'drollery, jest'	*Ní raibh mé ach ag ábhacht.* 'I was only joking.'
	gearaíl 'restlessness'	*ag gearaíl* 'be restless, uneasy'
b.	*cnáfairt* 'bones, remains of food'	*ag cnáfairt a mhéar* 'sucking his fingers'
	fearthainn 'rain'	*ag fearthainn* 'raining'
	báisteach 'rain'	*ag báisteach* 'raining'[35]
	obair 'work'	*ag obair* 'working'
	saothar 'work, labour, toil'	*ag saothar* 'labouring, toiling'
	gnó 'business'	*ag obair is ag gnó* 'working hard'
	caint 'speech, talk'	*ag caint* 'talking'
	amhrán 'song'	*ag amhrán* 'singing'
	batalach 'bullying shouts'	*ag batalach ar dhuine* 'threatening, bullying sb'
	léithireacht 'slight dry cough'	*ag léithireacht* 'coughing, hacking'
	béadán 'gossip, slander'	*ag béadán* 'prating, gossiping'
	doghra 'misery, sorrow'	ag doghra 'sorrowing'; *Bhí siad ag caoi agus ag doghra.* 'They were weeping and lamenting.'
	cantal 'plaintiveness, peevishness'	*ag cantal go coilgneach* 'complaining irascibly' (de Bhaldraithe 1985: 31)
	iomaidh 'rivarly, competition'	*ag iomaidh (le)* 'competing, vying with'

[35] ÓD gives a verbal entry *báistigh*, but I know of no examples of finite forms.

	seafóid 'nonsense'	*ag seafóid* 'talking nonsense'
	forrachtadh 'violence, oppression'	*ag forrachtadh ar dhaoine* 'oppressing people'
	costadh 'provisions, maintenance'	*ag costadh síthe* 'maintaining place'
	torann 'noise'	*ag torann* 'making a noise'
c.	*iomlacht* 'ferry, passage' – *iomlachtadh* '(act of) ferrying'	*ag iomlachtadh thar an bhfarraige* 'plying across the sea'
	stáca 'stake, post', *stácadh* '(act of) staking, beating with stakes'	*ag stácadh a chéile* 'trouncing each other'
d.	*fochaid* 'mocking, derision'	*ag fochaid ar/faoi* 'mocking, ridiculing'
	magadh '(act of) mocking, ridicule, mockery'	*Ní raibh mé ach ag magadh.* 'I was only joking.'
	staidéar '(act of) studying'	*ag staidéar go dian* 'studying hard'
	iomarbhá '(act of) contending, dispute'	*ag iomarbhá leis an mbás* 'struggling with death'
	iarratas '(act of) asking, petitioning, begging'	*ag iarratas* 'begging'
	ceisneamh '(act of) complaining, complaint'	*ag ceisneamh ar an saol* 'grumbling about (the hardships of) life'
	fálróid '(act of) sauntering'	*ag fálróid thart* 'wandering about'
	longadán '(act of) swaying, rocking'	*Bhí sé ag longadán anonn is anal.* 'He was swaying back and forth.'
	súr '(act of) searching, seeking'	*ag súr troda* 'looking for fight'
	tormas '(act of) carping, sulking'	*ag tormas ar bhia* 'carping at food'
	gnóthachan '(act of) winning'	*ag gnóthachan (ar rud)* 'winning, gaining by sth'
	únfairt '(act of) wallowing, rolling, tossing, pudding, messing'	*ag únfairt le rudaí* 'messing about with things'
	tónán '(act of) moving on one's bottom'	*ag tónán thart* 'moving clumsily about'
	sodar '(act of) trotting, trot'	*ag sodar i ndiaidh duine* 'trotting after sb'

5. Conclusion

Traditional accounts recognize the existence of progressive verbs but are limited to giving lists of suffixes with some constraints on their attachment. No attempt is made at specifying their place and role in the overall system, which in part stems from the mistaken tradition of treating VNs as a hybrid category. The majority of verbs in Irish are perfective, i.e. capable of showing a full range of inflectional forms. There are also lexical and derived imperfectiva tantum, which are confined to progressive contexts. The lexical component makes it possible to enrich both classes. There are WFRs expanding the stock of perfective verbs (cf. 3.1 above) and there is a general transpositional rule deriving imperfective verbs from nouns. The meaning of the resulting verb is a function of the input noun. Hence, emotionally coloured nouns give rise to expressive verbs. Nouns denoting agents are especially prone to serve as bases. Morphologically complex agent nouns take the suffix *-(e) acht* [əχt], whereas lexical agents favour *-íocht* [iːχt]. It is not possible to delimit complementary scopes of application in the case of inanimate inputs, especially if the nouns in question are morphologically simplex. Morphologically complex abstract nouns do not undergo any morphophonological modification. If the nouns are simplex, some items featuring with zero, *-íocht*, *-ach* and *-aíl* have to be lexically marked. Nouns referring to sounds are likely to be appended with *-ach* and *-aíl*. The suffix *-áil* acts as a default marker.

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Non-Obligatory Control in Irish

Anna Bondaruk

1. Introduction

The paper aims at analyzing two aspects of non-obligatory control (henceforth, NOC) in Irish, namely the Super Equi structures and the question of whether NOC PRO represents a logophor or a pronoun. NOC is tackled within the Agree-based model of control proposed by Landau (2000), although some mention will be made of the treatment of NOC within the rivaling Movement Theory of Control (Hornstein 1999, 2001, 2003). The paper is structured in the following way: in section 2 the basic properties and distributional characteristics of NOC in Irish are listed and compared with NOC in English, section 3 focuses on Landau's (2000) account of Super Equi constructions in English, which is subsequently followed by an analysis of the corresponding structure in Irish, put forward in section 4. Afterwards, in section 5 an attempt is made to check whether NOC PRO in Irish behaves like a logophor or rather like a pronoun. The paper ends with the conclusion.

2. NOC in Irish – The basics

Since the properties and distribution of NOC in Irish are thoroughly examined in Bondaruk (2004, 2006a), we do not want to repeat them here, but will only signal those that have some bearing on the analysis proposed in the further part of this paper.

First of all, Landau (2000: 31) proposes the following criteria for distinguishing obligatory control (henceforth, OC) from NOC in English:

(1)
a. Arbitrary control is impossible in OC, possible in NOC
b. Long-distance control is impossible in OC, possible in NOC
c. Strict reading is impossible in OC, possible in NOC
d. *De re* reading is impossible in OC (only *de se*), possible in NOC.

(Landau 2000: 31)

When the above diagnostics are applied to Irish, they point towards the observation that NOC in Irish shows the same properties as NOC in English. This conclusion is supported by the data below:

(2)
a.
Creideann Seán go bhfuil sé tábhachtach [PRO$_{arb}$a bheith sláintiúil].[1]
believes John C is it important PRT be-VN healthy[2] 'John believes that it is important to be healthy.'

b.
Creideann Seán$_1$ go síleann Máire$_2$ go bhfuil sé tábhachtach [PRO$_1$ é$_1$ féin a bheathú gceart].
believes John C thinks Mary C is it important him self PRT feed-VN properly
'John believes that Mary thinks that to feed himself properly is important.'

c.
Creideann Seán$_1$ go bhfuil sé leadránach/tábhachtach [PRO$_{1/arb}$ bonn a fháil].
believes John C is it boring /important medal PRT get-VN
'John believes getting a medal is boring/important.'

(2a) shows that Irish NOC PRO does not need to have an antecedent, (2b) demonstrates that the antecedent of NOC PRO does not need to be local and finally, (2c) illustrates the fact that NOC PRO in Irish can have a *de re* reading. The ellipsis test in (1c) cannot be applied to Irish, because VP-ellipsis is not possible in non-finite clauses in this language (Jim McCloskey, p.c.). Consequently, it seems that Irish NOC complies with the diagnostics posited by Landau (2000) and reproduced in (1) above.

[1] In addition to being arbitrary, PRO in (2a) may be controlled by *Seán* 'John'. There exist cases where PRO can be arbitrary in the absence of any potential controller, as in (i):
(i) *Ní féidir [PRO$_{arb}$ imeacht].* (Ó Siadhail 1989: 256)
not can leave-VN
'One cannot leave.'

[2] The following abbreviations will be used throughout the paper: COP – copula, IMPERS – impersonal, PA – past, PRT – particle, VN – verbal noun.

3. Landau's Analysis of Super Equi in English

The Super-Equi construction has been first analysed by Grinder (1970) and covers sentences such as (3) below:

(3)
a. *Eve believed that it would worry Mark [PRO to vote for himself/*herself].*
b. *Eve believed that it would ruin Mark [PRO to vote for himself/herself].*
c. *Eve believed that [PRO voting for himself/herself] would worry Mark.*
d. *Eve believed that [PRO voting for himself/herself] would ruin Mark.*

In the above sentences, short distance control is the only option in (3a), all the remaining sentences allowing long distance control.

Landau argues that the choice of the controller in these structures seems to be sensitive to the following factors: 1) the predicate type, namely psychological, i.e. *worry*, vs. non-psychological, i.e. *ruin*, and 2) the sentence position of the infinitival clause, i.e. extraposition (cf. (3a) and (3b)) or intraposition (cf. (3c) and (3d)). Psych-predicates allow only short distance control if the infinitival clause is extraposed (cf. (3a)), whereas non-psych-predicates trigger either short or long distance control in the same context (cf. (3b)). The distinction between these predicate types gets neutralised in instances of intraposition, such as (3c) and (3d), where only long distance control is possible. The control patterns found in (3) are generalised by Landau (2000: 96) in the following way:

(4)
a. In a structure
[…X…[it Aux Pred Y [$_S$ PRO to VP]]], where Y and S are arguments of Pred:
i) If Pred is psychological, Y must control PRO.
ii) If Pred is non-psychological, either X or Y may control PRO.
b. In a structure […X…[$_S$ [$_S$ PRO to VP] Pred…Y]]], either X or Y may control PRO.

In order to account for the Super Equi pattern found in (3) Landau makes the following assumptions:

(5) Extraposition
VP-internal clauses must be peripheral at PF.

(6) Chain Interpretation
Any link in a chain may be the LF-visible link.

(7) Argument Projection
a. Experiencer is generated above Causer.
b. Causer is generated above Goal/Patient/Theme.

(5) expresses the fact that embedded clauses tend to undergo Extraposition, which is regarded as adjunction to VP, where the adjoined material lies outside the c-command domain of the VP. (6) predicts that at LF either the silent copy of the extraposed infinitival clause or the pronounced one is interpreted, which, as we shall see soon, accounts for the possibility of having either short distance or long distance control in Super-Equi structures like (3b). Finally, (7) imposes a hierarchical order on argument projection within a VP and thus contributes to explaining why psych-predicates differ in control patterns from non-psych-verbs.

Landau (2000) suggests that it is not locality of the controller that distinguishes OC from NOC in Super-Equi structures like (3) but rather the syntactic position of the non-finite clause. He puts forward the following generalisation:

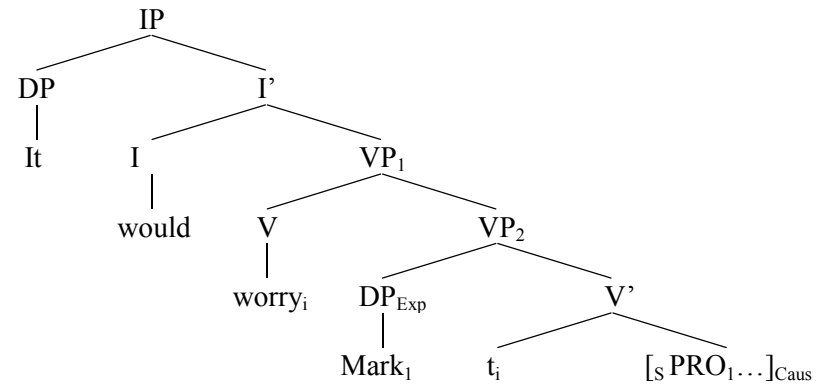
(8)
In a configuration […DP_1…Pred…[$_S$ PRO_1…]…], where DP controls PRO: If, at LF, S occupies a complement/specifier position in the VP-shell of Pred, the DP (or its trace) also occupies a complement/specifier position in that VP-shell. (Landau 2000: 99)

The generalisation in (8) fixes the domain of OC, but it does not determine controller choice. By (8), an infinitive in the complement position requires a local controller, i.e. one within the minimal VP-shell containing its predicate. On the other hand, an extraposed or intraposed infinitive occupies a position outside the maximal projection containing its predicate and hence, by (8), allows NOC. Thus, the locality of the controller in OC on the one hand, and the non-locality of the controller in NOC on the other, follow directly from (8). It is also worth emphasising that the infinitive position relevant for the generalisation in (8) is its LF-position.

Let us now apply the assumptions in (5)-(8) to the data in (3). First of all, let us examine cases like (3a), whose representation is schematised in (9):[3] [4]

[3] The symbols IP and TP are used interchangeably here.
[4] Following Landau (2000: 101) we abstract away from the little v analysis of causative constructions.

(9)

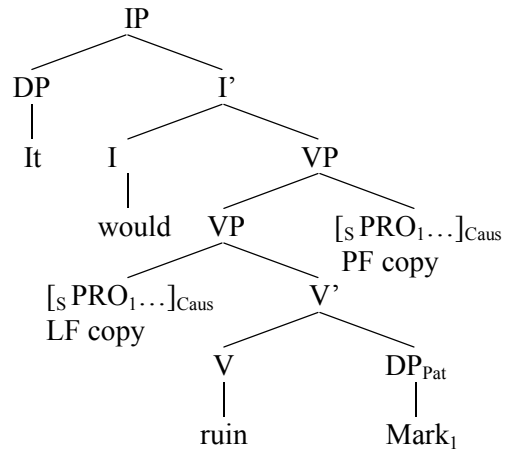


In (9) the infinitival clause does not extrapose, as it is already VP-peripheral, instead, it remains within the VP and in accordance with (8), its PRO subject requires OC within the minimal VP-shell. In this case, the Experiencer argument *Mark*, generated higher in the VP structure than the Causer argument in compliance with (7), acts as the controller of PRO.

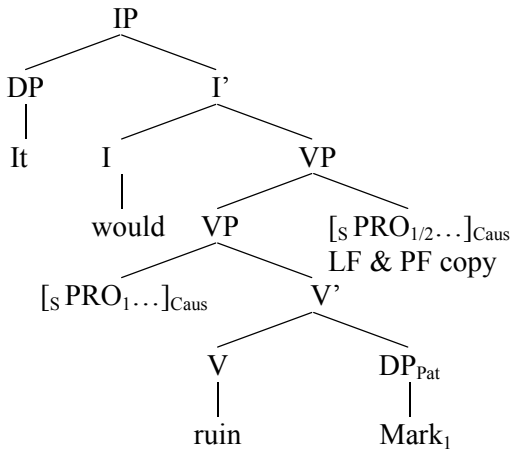
The LF representation of Super-Equi structures with non-psychological predicates, as in (3b), is illustrated in (10a) and (10b).

(10)

a.



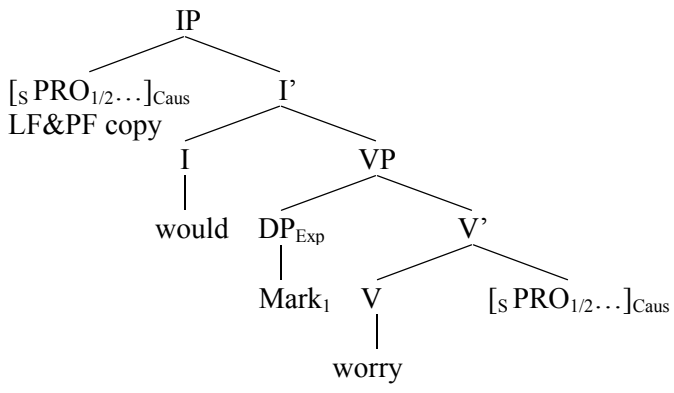
b.



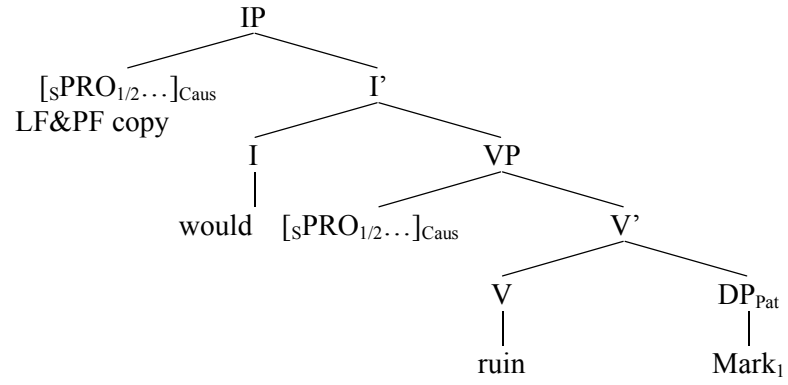
In (10a) and (10b) the infinitive, being Cause, is generated higher in the structure than the Patient argument and for this reason it is not VP-peripheral. In accordance with (5), it undergoes Extraposition and thus at LF its two copies are present. If the base position is interpreted, as in (10a), the non-finite clause is VP-internal at LF and by (8) the direct object *Mark* serves as an obligatory controller of PRO. If the VP-external (i.e. adjoined) copy is interpreted, as in (10b), then (8) fails to affect it and NOC results. Consequently, sentences like (3b) are ambiguous between OC and NOC, which, as we shall see, has some structural consequences.

Finally, the LF representations of the intraposition cases, i.e. (3c) with the psychological predicate and (3d) with the non-psychological predicate, are reproduced in (11a) and (11b), respectively:

a.



b.



In both (11a) and (11b) the infinitival clause moves to [Spec, IP] to satisfy the EPP. This is an instance of A-movement and therefore it is always the higher copy that gets interpreted. This way the infinitive in (11a) and (11b) escapes the domain of OC as specified in (8) and hence triggers only NOC.

The analysis of OC and NOC in Super-Equi structures just outlined might seem problematic, especially for cases like (3b), since they are treated as triggering either OC or NOC depending on which copy of the non-finite clause is interpreted at LF. Landau notes, however, that the analysis along these lines gets support from extraction facts. Only on OC reading do sentences like (3b) allow extraction from within, which suggests that they are VP-internal, whereas on the NOC reading they resist extraction, which indicates that they occupy a position outside the VP and hence act as islands.[5] [6] These two cases are illustrated in (12) and (13):

(12)
a. *It would help Bill$_1$ [PRO$_1$ to introduce himself to these professors].*
b. *To whom$_2$ would it help Bill$_1$ [PRO$_1$ to introduce himself t$_2$]?*

(13)
a. *It would help Bill$_1$ [PRO$_{arb}$ to introduce him$_1$ to these professors].*
b. **To whom$_2$ would it help Bill$_1$ [PRO$_{arb}$ to introduce him$_1$ t$_2$]?* (Landau 2000: 106)

[5] Similarly, intraposed clauses, being subjects, are islands. Extraction out of such clauses is impossible, as shown in (i):
(i) a. *[PRO$_1$ Buying himself those shares] would worry/ruin Mark$_1$.*
b. **What$_2$ would [PRO$_1$ buying himself t$_2$] worry/ruin Mark$_1$?*

[6] Landau notes that generally infinitives are very weak islands and hence arguments can be extracted out of them without triggering any severe violation. What matters in the text are contrastive judgements, showing that extraction out of a locally controlled infinitive is better than extraction out of a non-locally/arbitrarily controlled one.

Although (12) and (13) are string identical, they differ in that OC reading holds in the former, whereas the NOC reading obtains in the latter. Extraction out of the infinitival clause is allowed only in (12), but not in (13). This clearly shows that the non-finite clauses in (12) and (13) must occupy different structural positions at LF, though they do not differ at PF.

Likewise, extraction is banned out of long distance control constructions with non-psychological predicates, as in (14):

(14)

a. *Hillary$_1$ thinks it damaged Bill [PRO$_1$ to talk about herself on the Dave Letterman show].*

b.**That's the talk show$_2$ that Hillary$_1$ thinks that it damaged Bill [PRO$_1$ to talk about herself on t$_2$].*(Landau 2000: 104)

However, OC structures with psych-predicates do not block extraction, as shown in (15):

(15)

a. *Eve believed it would worry Mark$_1$ [PRO$_1$ to buy himself those shares].*

b. *What$_2$ did Eve believe it would worry Mark$_1$ [PRO$_1$ to buy himself t$_2$]?*

The contrast between NOC cases such as (14a) and OC ones such as (15a) gets a natural explanation under the analysis just presented. The non-finite clause in (14a), being an adjunct, resists extraction from within, whereas extraction out of the non-finite complement as in (15a) is perfectly legitimate.

To sum up, by relying on a difference between psychological/non-psychological predicates and the intraposed/extraposed position of a non-finite clause, combined with the restriction that NOC is found in the position external to the VP only, Landau's analysis can successfully account for the Super Equi paradigm found in English. Let us now check how well Landau's model can be applied to Irish.

4. Super Equi construction in Irish

Irish Super-Equi constructions are distinct from their English counterparts, in that they always trigger NOC, regardless of the type of predicate they contain, as can be seen in (16) below:

(16)

a. *Creideann Máire$_1$ go bhfuil sé pianmhar do Sheán$_2$ [PRO$_{1/arb}$ é$_2$ a cheartú go poiblí].*
believes Mary C is it painful to John him PRT correct-VN in public
'Mary believes that it is painful for John to be corrected in public.'

b. *Creideann Máire$_1$ go bhfuil sé díobhálach do Sheán$_2$ [PRO$_{1/arb}$ é$_2$ a mholadh].*
believes Mary C is it harmful to John him PRT praise-VN
'Mary believes that it is harmful for John to be praised.'

Although sentence (16a) contains a psych-predicate *pianmhar* 'painful' and sentence (16b) displays a non-psych one, i.e. *díobhálach* 'harmful', they both allow either PRO controlled by the more distant controller, i.e. *Máire* 'Mary', or an arbitrary one.[7] In other words, in both (16a) and (16b) PRO is non-obligatorily controlled.

Furthermore, Irish, in contradistinction to English, disallows intraposition, as confirmed by the ungrammaticality of the following example:

(17)

**Dhéanfadh [PRO$_{*1/arb}$ drochnuacht a insint dó$_1$] dochar do Sheán$_1$.*
would-do bad news PRT say-VN to-him harm to John
'Telling him bad news would harm John.'

Example (17) becomes grammatical only if the bracketed clause gets extraposed, as in (18):

(18)

Dhéanfadh sé dochar do Sheán$_1$ [PRO$_{*1/arb}$ drochnuacht a insint dó$_1$].
would-do it harm to John bad news PRT say-VN to-him
'It would harm John to tell him bad news.'

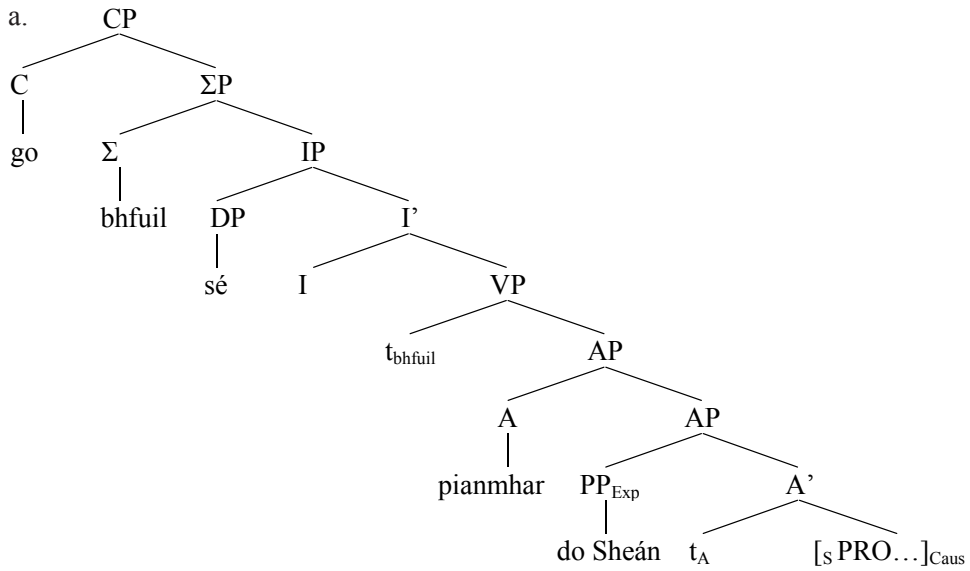
Let us now apply Landau's (2000) assumptions in (5)-(8) from section 3 to the Irish data in (16). For the relevant portions of (16a) and (16b), the representations in (19a) and (19b), respectively, can be proposed:[8]

[7] In (16a) and (16b) *Seán* 'John' can control PRO only if the pronoun within the bracketed clause is disjoint in reference from *Seán* 'John'.

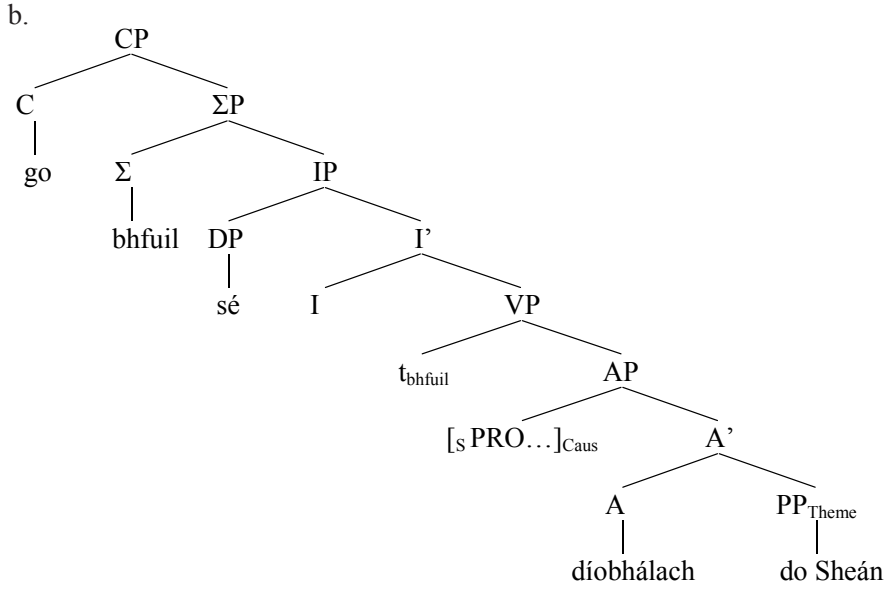
[8] The representations in (19) are highly simplified. In (19a) the higher AP projection should probably correspond to an AP-shell. ΣP has been postulated by McCloskey (2002), who argues that dative subjects found in Irish non-finite clauses appear in [Spec, ΣP], since they are structurally higher than other non-finite clause subjects in this language.

19

a.



b.

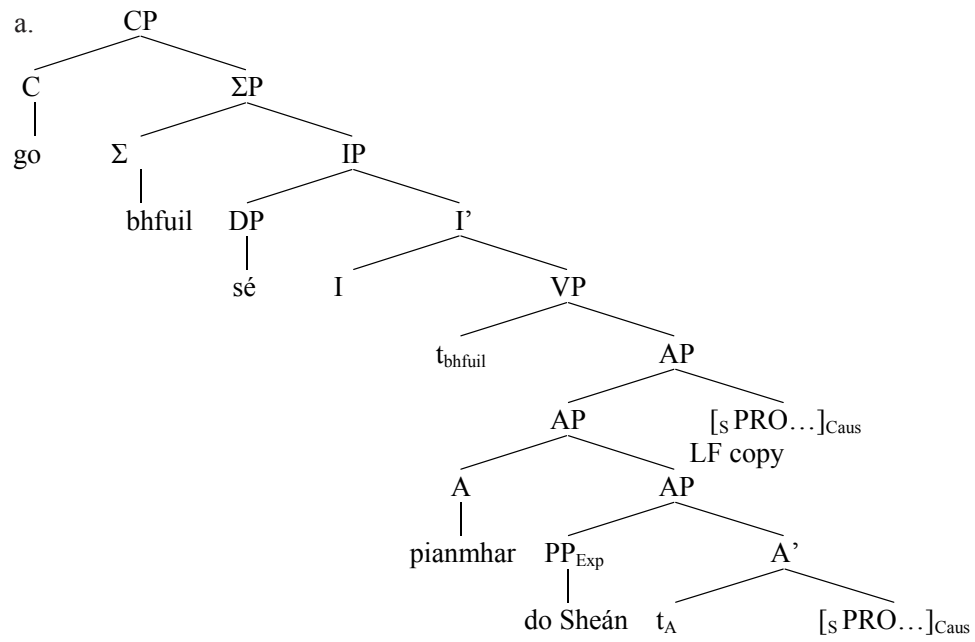


In (19a) the clause is AP-peripheral, while in (19b) it is AP-internal. If one adapts (5) to make it applicable not only to VPs, but also to other predicates, then

extraposition will have to apply in (19b), but not in (19a).[9] If extraposition does not affect (19a), then by (8), adapted to be applicable also to adjectival predicates, we derive OC in (16a), contrary to fact. We would like to suggest that in Irish the clause in (19a) undergoes a string vacuous extraposition. The representations in (19a) and (19b), after the application of extraposition, are presented in (20a) and (20b), respectively.

20

a.



[9] Verbal predicates behave in a way analogous to adjectival predicates, but are subject to dialectal variation. In Northern dialects sentences like (ia) and (ib) below correspond to (16a) and (16b), however, in Southern dialects there is a tendency to use finite clauses under the same circumstances, as evidenced by (iia) and (iib) below.

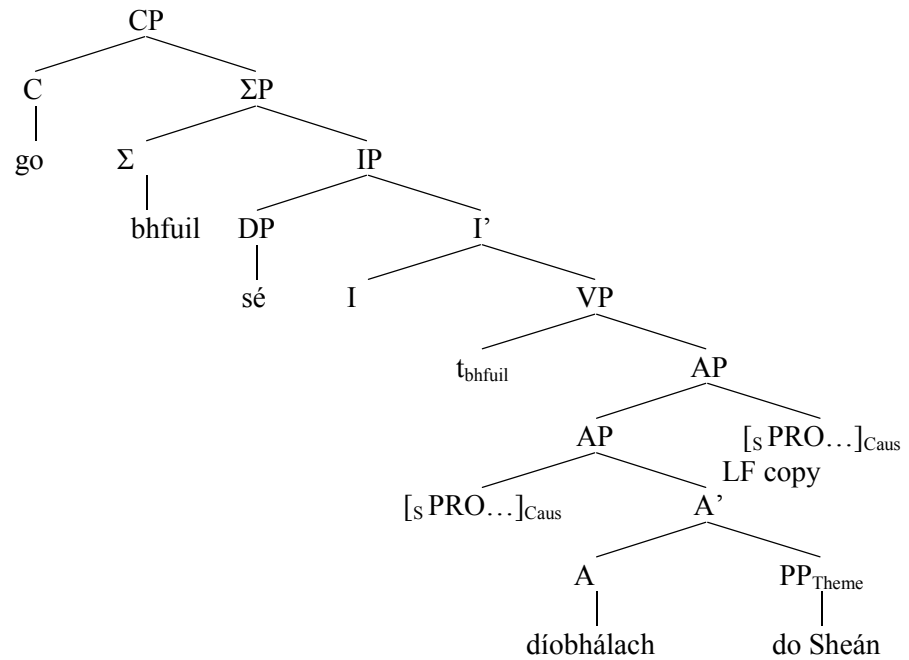
(i) a. *Chuir sé isteach ar Sheán$_1$ [PRO$_{*1/arb}$ seanríomhaire a cheannach dó$_1$].*
put it annoyance on John old computer PRT buy-VN to-him
'It annoyed John that someone bought him an old computer.'

b. *Chuidigh sé le Sheán$_1$ [PRO$_{*1/arb}$ ríomhaire nua a cheannach dó$_1$].*
helped it with John computer new PRT buy-VN to-him
'It helped John that someone bought him a new computer.'

(ii) a. *Chuir sé isteach ar Sheán$_1$ [gur ceannaíodh seanríomhaire dó$_1$].*
put it annoyance on John C buy-PA-IMPERS old computer to-him
'It annoyed John that someone bought him an old computer.'

b. *Chuidigh sé le Sheán$_1$ [gur cheannaigh duine éigin ríomhaire nua dó$_1$].*
helped it with John C bought someone computer new to-him
'It helped John that someone bought him a new computer.'

b.



In (20a) and (20b) the AP-peripheral copies are interpreted at LF and hence, in accordance with (8), NOC arises in cases like (16a) and (16b). Thus, it has been shown that NOC in Irish Super-Equi constructions can be derived in the way suggested for English by Landau (2000) provided that we assume that extraposition is necessary even for clauses peripheral to psych-predicates (cf. (16a)).

As regards extraction out of non-finite clauses, it seems that Irish mimics the behaviour of English as it allows *wh*-movement from within complement clauses and never tolerates this kind of movement out of extraposed subject clauses. The following example illustrates this point:

(21)
Cén rud atá tábhachtach do Sheán$_1$ [PRO$_{*arb/1}$ a thaispeáint dó$_{*1/2}$]?
what thing is important for John PRT show-VN to-him
'What is it important for John to show him?'

The sentence above is grammatical only if the DP *John* controls PRO, and the pronoun within the embedded clause is disjoint in reference from it. In other words, the extraction in (21) is possible only if PRO is obligatorily controlled. This, in turn, indicates that the non-finite clause occupies the complement position

and therefore is not an island for extraction. However, if the arbitrary reference is imposed on PRO by using the pronoun co-referential with *John* in the non-finite clause in (21), then *wh*-extraction is banned. This indicates that the non-finite clause in this case must be outside the VP and therefore is an island for extraction. Exactly the same extraction patterns can be found if a *wh*-word is extracted out of a non-finite clause following a psych-predicate, as demonstrated in (22):

(22)
Cén rud a bheas pianmhar do Sheán$_1$ [PRO$_{*arb/1}$ a insint dó$_{*1/2}$]?
what thing PRT will-be painful to John PRT tell-VN to-him
'What will it be painful for John to tell him?'

Just like in (21), sentence (22) is grammatical only if PRO is obligatorily controlled by *John*, otherwise the non-finite clause is an island for extraction. This, again, argues for the respective complement vs. extraposed position of the non-finite clause in (22).

To recapitulate, it has been demonstrated that Irish Super-Equi constructions trigger NOC regardless of whether they contain a psych or non-psych predicate. This has been shown to follow from the fact that Irish non-finite subject clauses are extraposed and hence situated outside VP. Since they occupy a position external to VP, non-finite subject clauses, unlike non-finite complements, function as islands for extraction.

5. Irish NOC PRO – logophor or pronoun?

Landau (2000) treats NOC PRO in English as a silent logophor, as it is licensed by discourse factors such as focus, perspective, centre of consciousness or communication. On the other hand, Hornstein (1999, 2001, 2003) within the Movement Theory of Control argues for regarding NOC PRO as *pro*. He notes that NOC PRO occurs in complementary distribution with OC. Unlike OC, NOC can be found in those contexts where movement is impossible, i.e. within islands. Thus, Hornstein views the insertion of a pronoun in the case of NOC as a last resort strategy when movement fails.[10] Let us check which of the options presented above is true for Irish NOC PRO.

First of all, it is worth noting that Irish non-finite subject clauses, just like non-finite complement clauses, can host an overt subject, as can be seen in (23):

[10] The problems for regarding NOC PRO as *pro* are outlined by Boeckx, Hornstein and Nunes (2010: 202-204) and the solutions are offered in terms of parsing strategies.

(23)
Creideann Seán go bhfuil sé tábhachtach [é a bheith sláintiúil].
believes John C is it important him PRT be-VN healthy
'John believes that it is important for him to be healthy.'

The extraposed non-finite subject clause in (23) displays the overt subject, i.e. *é* 'him'. However, this fact cannot be taken as an indication that NOC PRO corresponds to an empty pronoun, since OC PRO in Irish can also appear in the same context as pronouns or overt DPs (for an extensive analysis of this type of structures cf. Bondaruk 2006b). The only conclusion to be drawn from the data like (23) is that PRO and overt DPs are not in complementary distribution in non-finite subject clauses, just like in other non-finite clauses.

Evidence against treating NOC PRO as a pronoun can be obtained from the following examples:

(24)
a.
Síleann cairde Sheán$_1$ go bhfuil sé díobhalach dóibh [é$_1$ a bheith ag ól].
think friends John's C is it harmful to-them him PRT be-VN PRT drink-VN
'John's friends think that it is harmful for them for him to be drinking.'

b.
**Síleann cairde Sheán1 go bhfuil sé díobhalach dóibh [PRO1 a bheith ag ól].*
think friends John's C is it harmful to-them PRT be-VN PRT drink-VN
'*John$_1$'s friends think that it is harmful for them PRO$_1$ to be drinking.'

The above examples differ only in that sentence (24a) exhibits an overt pronoun in the subject position of the bracketed non-finite clause, whereas in (24b) the same position is left unexpressed. (24a) is grammatical, while (24b) is not, which indicates that NOC PRO and overt pronouns do not always overlap in their distribution and therefore argues against subsuming the former under the latter.[11]

Another pair of examples supporting the conclusion that NOC PRO cannot correspond to a pronoun in Irish is given in (25) below:

[11] Sentence (24b) is grammatical if PRO is controlled by the matrix subject, i.e. *John's friends*. Then this sentence is an instance of OC, not of NOC.

(25)
a.
D'fhág Sheán$_1$ Máire$_2$ mar gur phianmhar dó$_1$ [í$_2$ a bheith ag labhairt go dona faoi$_1$].
left John Mary because C painful o-him her PRT be-VN PRT speak-VN badly about him
'John left Mary because it was painful for him for her to speak badly of him.'

b.
**D'fhág Sheán$_1$ Máire$_2$ mar gur phianmhar dó$_1$ [PRO2 a bheith ag labhairt go dona faoi1].*
left John Mary because C painful to-him PRT be-VN PRT speak-VN badly about-him
'* John$_1$ left Mary$_2$ because it was painful for him PRO$_2$ to speak badly of him$_1$.'

In (25b), PRO cannot refer to *Máire* 'Mary', unlike the overt pronoun in (25a). This strongly argues against treating NOC PRO and pronouns on a par.

Another possibility is to treat NOC PRO as a logophor. In order to test whether this is a viable option for Irish, let us consider the following sentences:

(26)
a.
Dúirt Seán$_1$ le Máire$_2$ go mbeadh sé díobhálach [PRO$_{2/arb}$ piollaí go leor a thabhairt dó$_1$]
said John to Mary C would-be it harmful tablets a lot PRT give-VN to-him
'John$_1$ said to Mary that it would be harmful to give him$_1$ a lot of tablets.'

b.
Dúirt Seán$_1$ faoi Máire$_2$ go mbeadh sé díobhálach [PRO$_{*2/arb}$ piollaí go leor a thabhairt dó1]
said John about Mary C would-be it harmful tablets a lot PRT give-VN to-him
'* John$_1$ said about Mary$_2$ that it would be harmful PRO$_2$ to give him$_1$ a lot of tablets.'

Sentence (26a) is grammatical if PRO is either controlled by *Mary* or is arbitrary, whereas in example (26b) *Mary* cannot act as a controller for PRO and hence PRO can only be arbitrary. The grammaticality contrast illustrated in the above sentences can be explained in the following way: in (26a) *Mary* is the centre of communication and hence can control PRO, while in (26b) *Mary* ceases to have this function and consequently, can no longer control PRO. Since the account of the control facts illustrated in (26a) and (26b) is based on such notions as centre of communication, it seems justified to claim that NOC PRO in Irish shows logophoric properties.

To sum up, it has been argued that NOC PRO, though often found in contexts typical of pronouns, should not be regarded as an empty pronoun, as the overlap in their distribution is not complete. It has been suggested that it might be justified in some cases to treat NOC PRO as a logophor.

6. Conclusion

The paper has aimed at analysing one subtype of NOC in Irish, i.e. the Super Equi construction within Landau's (2000) model. It has been argued that this model is well suited to account for Irish Super Equi structures. The only modifications that have to be made relate to the fact that, unlike in English, in Irish Super Equi structures the predicate type – psychological vs. non-psychological – does not seem to bear on the control type available, as in both cases NOC ensues. Secondly, non-finite subject clauses in Irish are always extraposed, so, again, in contradistinction to English, Super Equi structures in Irish never occur in intraposition. Thirdly, an appeal has been made to string vacuous extraposition in order to block OC in Irish Super Equi construction. The second aim of the paper was to test whether Irish NOC represents a logophor or a pronoun. It has been argued that NOC PRO differs in its distribution from pronouns and secondly, its licensing is dependent on discourse factors, which supports the claim that Irish NOC PRO corresponds to a logophor.

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Two Celtic Toponyms: Segelocum and Hailes

Andrew Breeze

1. Introduction

Segelocum and *Hailes* refer to two places in England, both small, but each with a place in history. *Segelocum* was the British-Latin name of Littleborough in Nottinghamshire, where the Roman road from Doncaster to Lincoln crosses the river Trent. *Hailes* takes us to Gloucestershire, where Hailes Abbey was a famous pilgrimage destination, even being mentioned in Chaucer's *Canterbury Tales*, although now (thanks to Henry VIII) only a few scraps of masonry allow visitors to guess at its former glory. So the spots are historic. Of their past we shall be able to say more if we can interpret their names, which have puzzled philologists. Let us take the Roman settlement first.

2. Segelocum

Littleborough (at national grid reference SK 8282), on the west bank of the Trent, is a quiet place. It has a church and a few houses on a lane that now goes nowhere. Yet it was once a staging post on the Roman road from Doncaster to Lincoln at a point where the Trent could be forded. (The ford's stone paving, of Hadrian's time, was seen in the drought of 1933, when the Trent was abnormally low.) Lying on a main route from London to York, Littleborough saw many later events. It was there, when it was called *Tiowulfingacaestir* 'Roman fort of Tiowulf's people', that Paulinus baptized converts in the days of King Edwin (d. 632), as described by Bede (Stenton 1971: 116). It was also there that King Harold and his army, after news of the Norman invasion reached York, advanced southwards in October 1066 to meet catastrophe at Hastings. Now the ford is abandoned, and Littleborough sleeps.

This note deals with *Segelocum*, given by the Antonine Itinerary as the British-Latin name of the place. The first element here is related to Middle Irish *seg* 'force, vigour' and Welsh *hy* 'daring, bold', going back to a Common Celtic root meaning 'to hold firm, to triumph', which is cognate with German *Sieg* 'victory' (Vendryes 1974: 68). It is likely that *Segelocum* is a mere colloquial form of *Segolocum*, as with Gaulish leaders called *Segomaros* 'one great in

strength' or 'one daring and great', who are commemorated in inscriptions from the Rhône Valley and Provence (Jackson 1953: 645; Evans 1967: 111, 256). As for the second element, this is linked to Welsh *llwch* 'pool' (as at Amlwch 'by a pool' on Anglesey, Wales) and Irish and Scottish Gaelic *loch*. So the meaning has been taken, somewhat hesitantly, as 'violent pool', perhaps used of a 'pool on the Trent with a rapid current' (Rivet and Smith 1979: 453).

The name is repeated by later writers but without further comment. *Segelocum* occurs (untranslated) in the standard dictionary of English toponyms (Watts 2004: 375). *Segelocum* also figures amongst forms where an association with Common Celtic SEGO- 'power: bold' is described, somewhat timidly, as 'formally admissible' (Sims-Williams 2006: 108). But nobody has explained why the place should be called 'violent pool', though there is a special reason that will be obvious to many people in the Midlands of England.

There is no difficulty in linking British *Sego-* with turbulent water. The obvious example here is *Segontium* 'place on (a river called) "strong one, vigorous one"', the name of the Roman fort at Caernarfon in north-west Wales. In the *Mabinogi* tale of the Welsh heroine Branwen this is called *Caer Seint* 'fort on (a river called) "strong one"', showing the survival of a British name into the middle ages (Davies 2007: 28, 250-1). The river, flowing down from Snowdonia, is still (in modern spelling) called 'Saint', where the form can be traced back for two millennia.

Yet as regards Littleborough the sense is hardly that of 'pool with a rapid current'. Surrounded by low-lying meadows, the Trent is here placid, not swift. It seems the reference is, rather, to the eagre or tidal bore which is a feature of the Trent, Humber, Ouse, Severn, Wye, Solway Firth, and (amongst others) the Amazon. As regards the last of these, the *Oxford English Dictionary* entry for 'eagre' quotes the nineteenth-century explorer J. D. Dana, who described eagres on the Amazon of five or six waves, each twelve to fifteen feet high.

The eagre on the Trent is less than that of the Amazon or even the Severn. (This is the biggest eagre in Britain, with a wave sometimes attaining a height of six feet and speed of 13 miles an hour. It occurs about 250 times a year in February to April and August to October, when high tides reach their maximum at the equinoxes.) Yet all eagres are noisy, strange, and intimidating. The Trent eagre, which is easy to observe at Littleborough, moves as far upstream as Averham (SK 7654), near Newark-on-Trent. *Averham* itself is explained as '(settlement) at (the) floods', from *egrum* in the Anglian dialect of Anglo-Saxon Nottinghamshire, where the word was used of the Trent's tidal bore or eagre (Watts 2004: 27).

Having this local knowledge, we see *Segelocum* with new eyes. The sense will not be 'pool with a rapid current', as if the Trent were some mountain

torrent. The meaning will be, rather, 'rushing pool, violent pool, turbulent pool, agitated pool', with waters that were twice a day thrown into commotion by an incoming tidal surge. That would be a dangerous moment for any traveller on the ford. The Trent eagre was so famous that it was known even in Wales, being mentioned in the ninth-century *Historia Brittonum* formerly attributed to Nennius. In a list of wonders of Britain is 'the estuary of the river Trahannon, for it reaches the shore in a single wave, like a hill, in the Bore (*instar montis ad sissam*), and ebbs like other seas', where *Trahannon* is Old Welsh for 'Trent' (Morris 1980: 40, 81). So it seems that *Segelocum*, from unrecorded *Segolocum*, can be understood as 'rushing pool, agitated reach of water', with reference to the Trent's twice-daily eagre or tidal surge.

After the above was written, further information came to hand from websites. These claim that the second element of *Segelocum* is Latin *locus* 'place' and that the meaning is 'stronghold, strong defensive place'. To this there are four objections. First, no professional philologist accepts this etymology. Second, hybrid formations in British-Latin toponyms are rare or unknown. Since most such place-names are of Celtic origin, it is reasonable to see them as entirely Celtic, and not as a mix of languages. Even stronger is a third objection: Roman defences at Littleborough are imperceptible. To call the place a defensive site of any kind, let alone a 'strong' one, flies in the face of reason. Fourthly, *Segontium* in North Wales shows the element SEGO- used of moving water, as has been stated above. One may add that translation of *Tiowulfingacaestir* as 'Roman fort of Tiowulf's people' is also somewhat misleading. There was no Roman fort at Littleborough, which was a mere settlement, as archaeological excavations confirm. To translate Old English *caestir* as 'Roman fort' merely dignifies whatever domestic walls of brick or stone the Anglo-Saxons found there.

However, in contrast to the translation 'stronghold' is the identification by websites of *Segelocum* with *Segloes* in the corrupt Ravenna Cosmography, where it occurs between *Manavi* (unidentified) and *Daunoni* (taken as Doncaster, otherwise recorded as *Danum*). This is an attractive suggestion. *Segloes* and *Daunoni* have been understood as the Selgovae and Dumnonii, peoples of southern Scotland (Rivet and Smith 1979: 212). But it is easier to refer the forms to neighbouring places on the old Lincoln-Castleford road, especially since emendation of *Segloes* to *Segelocum*, with the letter-sequences SEG and LO retained, does less violence to the reading than does emendation to *Selgovae*.

Reference to its bore thus confirms a Celtic etymology for *Segelocum* as the 'violent pool, turbulent pool' that in spring and autumn was agitated, twice each day, by the tidal surges of the Trent.

3. Hailes

After a name from Roman Britain, one from the high middle ages, Hailes in Gloucestershire is famous for its former Cistercian abbey, founded in 1246 at a spot (national grid reference SP 0529) below the edge of the Cotswold hills. Almost nothing remains of it except for the shell of its cloister, and tiles and roof-bosses in the site museum. Yet it was once amongst the great pilgrim destinations of Europe. It was established after Richard, brother of Henry III, made a vow during a near-shipwreck in 1242. It became a prime resort of pilgrims in 1270, when it was presented with a phial of the Holy Blood (Gray 1972: 133). The relic's power is underlined by Chaucer's *Pardoner's Tale* (Mann 2005: 462), where a blaspheming dicer refers to throws of seven against five and three (and where Chaucer's line shows medieval pronunciation of the toponym as a bisyllable).

> By Goddes precious herte, and by his nailes,
> And by the blood of Crist that in Hailes,
> Seven is my chaunce, and thin [thine] is cinq and treye!

Its power was shown further when the inveterate traveller Margery Kempe, on coming to see it, gave way to 'lowde cryes and boystows [violent] wepynges' (Knowles 1955: 202). At the Reformation, however, it suffered inevitably as a 'feigned relic' and was destroyed by government agents (Duffy 1992: 79, 412).

This note deals with the earlier history of Hailes and its name, which has been problematic. Ekwall long ago gave the attestations *Heile* in Domesday Book, *Heilis* in 1114, and *Hailes* in 1173 and 1221. Citing *Haylebrok* from a record of 1256, he took the form as an ancient river-name meaning 'dirty one' (cf. Welsh *halog* 'defiled, polluted'), which he believed was also found at Hail Weston, near St Neots, Cambridgeshire (Ekwall 1936: 201). This etymology was doubted by one scholar (Jackson 1953: 519). Yet 'dirty one' continued to appear as a possible meaning, referring to the stream at Hailes (Mills 1991: 153). Despite this, scepticism has deepened. Coates and Breeze were sure the form was Celtic, but preferred to take it as just possibly a British tribal name, later applied to a stream (Coates and Breeze 2000: 298). The English Place-Name Society's dictionary also lacks confidence, calling the derivations 'uncertain'. It gives the twelfth-century attestation *Helis* (in a copy of 1253), describes the place as an ancient settlement with nearby hillforts and a salt-way (also a 'Salter's Lane' and 'Salter's Hill'), and suggests a possible derivation from hypothetical British *Salenses* 'salters, the salt people' or equally hypothetical 'people living by a stream called *Salia*, the dirty one' (Watts 2004: 498).

The purpose of this note is radical. It maintains that these explanations are baseless and that the correct derivation is other. Let us first dispose of 'salt'. This mineral is found not at Hailes but at Droitwich, in the neighbouring county of Worcestershire, where it was exploited from Roman times onwards (Loyn 1962: 106-9; Bassett 2008: 3-27). The result was a system of 'salt-ways' radiating from Droitwich, because salt was essential in early times to preserve meat (and fish) in winter, when lack of fodder meant the slaughter of cattle each November. But there is no evidence to suggest that Hailes has any link with a factitious local Celtic people called *Salenses* 'salters'. Second, there is no reason to think that the stream near the abbey, emerging from the foot of a limestone escarpment, was notoriously foul, so that the Britons called it *Salia*. If it were, its banks would be a poor place to found a monastery (which would show a dingy kind of royal largesse).

There is a quite different and (it seems) compelling explanation. Let us compare Hailes with Brailes 'hill court' (SP 3139) in the southern tip of Warwickshire, Liss 'palace, estate centre' (SU 7727) near Petersfield in Hampshire, and Treales 'court homestead' (SD 4433) near Preston in Lancashire (Watts 2004: 78, 375, 625). The three toponyms here are of British origin and contain the element represented by modern Welsh *llys* 'court, palace'. In various forms this is familiar from ancient times (Sims-Williams 2006: 253 n. 238). In the Wirral of Cheshire is Liscard, from Irish *lios na carraige* 'hall of the rock', a home of Norse-Irish settlers (Harding 2002: 43). In Ireland are many places with *lios*, including Lismore 'great court' near Waterford and Yeats's Lissadell 'court of the blind man' near Sligo (O'Connell 1979: 59).

By Stranraer in south-west Scotland is Leswalt 'court of grass, grassy courtyard', where the form is not Irish but Cumbric (Watson 1926: 180). In Cornwall another such local capital or Celtic *caput* was Liskeard, perhaps 'Cerwyd's court' and presumably called after some long-forgotten Cornish kinglet (Padel 1988: 110).

Yet it is two other places in Cornwall that are of special significance for Hailes: Helston (SW 6527) in the Lizard Peninsula (itself with a Cornish form meaning 'court of a height') and Helstone (SX 0881) west of Bodmin Moor. Both have Cornish elements meaning 'old court', with the English element *tun* 'settlement' added. Their first parts are exactly equivalent to Welsh *Henllys* 'old court', but soon lost original *n*, so that we have *Hellys* for the former in 1336 and *Helleston* for the latter in 1297. Helstone 'settlement of an old court' can be contrasted with Lesnewth 'new court' six miles north of it. The original actual court had been two miles south of Helstone, at Helsbury Castle, a stronghold with earthen ramparts. Presumably it was deserted for Lesnewth, conveniently situated

near the sea (Padel 1988: 96, 123). In Wales itself is Henllys near Newport (perhaps home to the legendary Teyrnon Twrf Liant in the *Four Branches of the Mabinogi*) and another Henllys near Nevern in north Pembrokeshire (Owen and Morgan 2007: 192). Although early records from Brittany mention no 'old court', there is a Lis-neweth 'new court' in the province of Vannes (Koch 2007: map 24.4). Also relevant for Hailes are three places in Cornwall called *Helland* 'ancient church site', which corresponds to Welsh *Henllan* (instances in Denbighshire and Dyfed). With these Cornish forms *n* was lost early on, as with Helston(e) and Helsbury (Padel 1988: 96). This is vital for present arguments, because the attestations *Hellys* and *Helles(ton)* for Helston(e), together with those for Helland, seem to explain the early forms *Helis*, *Heilis*, and *Hailes*. They would make sense as an equivalent of Welsh *Henllys* or Cornish *Hen-lys* 'old court', with *n* again lost in the first syllable. It would be no surprise if so, since the name would be borrowed by English as far back as the sixth century, when Bath, Cirencester, and Gloucester were captured by the West Saxons in 577 (Stenton 1971: 29).

If the name of Hailes is a British one meaning 'old court', which was borrowed by the invading English of the late sixth century, this accords with aspects of its situation. Hailes is in a sheltered spot on a spring-line at the foot of hills. It lies on ancient roads. On the hill above are the remains of British forts, suggesting that the locality saw ancient tribal gatherings and was a centre of government. When we first have records of it we find the region was a royal estate. If it had previously belonged to a Celtic king, its acquisition by new English rulers would make sense. (Brailes in Warwickshire was in Anglo-Saxon times also an English royal estate, suggesting similar appropriation from a British ruler.) This 'old court' was replaced by a 'new court' on a better site, possibly at Winchcombe, which was an early centre of English power. Presumably Hailes was a place of British government in the post-Roman period, being deserted for a 'new court' at that date, and not in pre-Roman times. It would be interesting to know whether there is archaeological evidence for a Celtic court at Hailes itself, which is now a farm by a stream west of the old abbey.

Two final points. As regards phonology, one may note that initial *h* here would have developed from original *s* by the later sixth century, and so before English annexation of the Gloucester region in 577 (Jackson 1953: 517-21). The borrowing would be best represented by twelfth-century *Helis*, with *Heilis* and *Hailes* showing development of a glide vowel and lowering. Second is what the present derivation tells us about sixth-century Gloucestershire. Our information for the period is limited. Yet it has been argued that the West Saxons did not settle the region, perhaps doing little more than render captured lands tributary

(Smith 1965: 56-65). Evidence from the time of Cenwulf, king of Mercia in 796-821, shows that Winchcombe was the *caput* of its region, which even then had a special administrative status, long before it became a full-blown shire with twelve hundreds (Whybra 1990: 11, 131). The bounds of the medieval diocese of Worcester coincided with those of the seventh-century kingdom of the Hwicce, and perhaps even those of the Celtic realm of the Dobunni (Dark 1994: 107-9). At Winchcombe defences have been found by excavation, though it seems of the ninth century rather than the eighth (Williams 2001: 295-309). Clearly, there is room for reconsideration of both Winchcombe and Hailes as the sites of British courts, not least given arguments that relate fifty-hide units elsewhere in the kingdom of the Hwicce, as at Leominster or Evesham, to the fifty *trefi* or settlements of pre-existing British commotes (Hooke 2001: 160-72).

Other sources, which include archaeology, Celtic law, and narrative, tell us much on the dimensions, functions, and activities of a Celtic *llys*, whether fortified or not (Alcock 1963: 54-73; W. Davies 1990: 83, 87, 90; S. Davies 2007: 5). They suggest that Hailes, which was for centuries a place of religious resort, was visited from afar long before that, being where British kings feasted, received dues, made legal judgements, and took council. One thus looks on it with new interest. The royal connections of Hailes Abbey are familiar enough. But its name implies that it had royal links in post-Roman as well as medieval times, when Hailes was the *lis* 'court', later a mere *hen-lis* 'old court', of a prince of the Dobunni, the Celtic people who lived in the Vale of Gloucester.

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‘English to strangers, Gaelic to locals’; the thwarting of the linguistic subordination norm among speakers of Celtic languages

Michael Hornsby

1. Introduction

Many speakers of minority languages (Celtic ones included) feel duty-bound by social norms not to speak the minority language in question to, or in front of, speakers of the majority language of a given region/country. This expectation is very often shared by speakers of the majority language:

> ‘My friend and I had gone in to the local Spar shop at Abersoch, and we were chatting together and waiting our turn to pay at the till, when an English woman turned to us and said, “Do you mind not speaking that stupid language in front of me?” ’
>
> (*Cymuned* website)

This article examines what has been termed the ‘linguistic subordination norm’ in such situations and how, conversely, a different, reactive type of linguistic behaviour is now emerging, one which defensively asserts the minority language speaker’s rights to use the minority language in all the domains the majority language occupies. As well as examples taken from the literature, I document data from fieldwork carried out in 2005-2007, collected for inclusion in my PhD thesis (2009). The tensions which emerge as a result are discussed in the concluding sections of this paper and are analysed from a critical sociolinguistic perspective (Heller 2002), a framework capable of taking into account power relations and stakes underlying language use, issues of collective and individual identity, and the link between representations and social behaviour. Critical sociolinguistics adds to traditional questions on language use: ‘Where? Why and how? Who stands to gain or lose? What are the stakes?’

2. The linguistic subordination norm

The principle of linguistic subordination, in which language varieties associated with socially subordinate groups are viewed as linguistic deficits rather than neutral linguistic differences (Lippi-Green 1997), gives rise to the so-called 'linguistic subordination norm'. The concept has been researched particularly in Catalan sociolinguistics where it is known as the *Catalan subordination norm* (Vila 1996: 185). Traditionally in Catalonia, the rule that has prevailed between members of the two predominant linguistic groups is the convergence towards Spanish. This is so because both groups perceive Spanish as the neutral code, one that everyone understands and speaks, and so, it is the language that offers more guarantees for success in interpersonal communication (de Rosselló i Peralta 2003). This situation is mirrored in many situations of linguistic minoritisation in Europe and elsewhere (Gal 1979: 165-6; Woolard 1989: 68-82; Trosset 1986: 169). The interpersonal accommodation theory of Giles et al. (1973) usefully explains how interpersonal adaptation, or in other words, linguistic convergence, follows social approval in such circumstances.

In a Celtic context, the focus of the present article, this behaviour is variously known as the 'Courtesy Rule' in Scotland (Coleman 1975: 74-94) where

> '[t]o speak Gaelic … in the presence of a non-Gaelic speaking stranger is widely and unequivocably considered to be extremely bad manners, even if the stranger is situationally peripheral.'
>
> (Coleman 1975: 80)

Coleman theorized that such behaviour was a means of boundary enforcement – a Gaelic-speaking 'space' is maintained while at the same time wider cultural norms of politeness and inclusivity are also adhered to, much of the time in an unconscious fashion (Coleman 1975: 84).

In Wales, this 'ethic of politeness' as Trosset (1986: 170) terms it, leads native Welsh speakers, even when dealing with people who are attempting to learn Welsh, to speak 'English so as not to leave anyone out or to make them feel lost, and while admitting that immersion in a language is the best way to learn it, they describe such a process as "cruel"'.

3. The thwarting of the linguistic subordination norm

In some cases, however, some speakers are not seeking social approval in their use of the minority language and either consciously or unconsciously thwart the linguistic subordination norm. In other cases, a deliberate effort is made to subvert the linguistic hierarchy by initiating or responding to a verbal transaction in the minority language and/or insisting on its use in non-traditional domains. The case study below, drawn from my fieldwork in Brittany, illustrates some examples of such linguistic behaviour. This behaviour has led to tensions over the creation of ideologies of Breton monolingualism by some 'new Breton speakers' and a more diglossic stance on the part of traditional speakers, where French can and does have a place in the speech acts that take place, depending on factors such as age, gender, location, topic and even accent. Such tensions are particularly well commentated by Morvan (2002), as I describe below.

4. Le Monde Comme Si

Morvan's book, *Le Monde Comme Si* (2002) ('The World As If', or 'The World of Make-Believe') marks a current in French thought on attempts to revitalise Breton (and other regional languages). Morvan satirises the Breton cultural movement and the 'futility' of fighting against the 'inevitable tide' of language shift. As someone who was previously closely involved in the *Emsav* ('cultural resurgence') Morvan can offer a view based on being an insider in the movement, but also a view which no longer 'buys into' prevailing ideologies among Breton-language revitalisers. The following passage illustrates a typical stance by some critics on the use of Breton as a means of communication:

> *... combien ai-je vu de parents s'évertuer à baragouiner un breton pénible pour échanger avec leurs enfants, combien ai-je vu d'enfants contraints à une véritable schizophrénie, parlant français chez eux mais breton à l'école, sans savoir pourquoi la charge de sauver une langue qui ne leur servirait jamais à rien leur incombait à eux. Etrange inversion de la situation tant dénoncée par les militants, qui amenait des enfants, interdits de parler français comme leurs aïeux avaient été interdits de parler breton, à expier la faute des ancêtres comme un péché originel. Obéir à l'injonction de parler la langue de mon peuple, c'était, dans ma famille, le faire taire.*
>
> '... how many parents have I seen attempt to babble painfully in Breton in order to communicate with their children, how often have I seen repressed children developing what can only be called schizophrenia, speaking French at home but Breton at school, without exactly knowing why the burden of saving a language which would never prove of use to

them should fall upon their shoulders. In other words, this was a strange inversion of the situation so denounced by activists, whose children, prohibited from speaking French in much the same way as their older relatives had been prohibited from speaking Breton, were supposed to expiate the sins of their ancestors like an original sin. Obeying the injunction to speak the language of my people was, in my family, to silence it.'

(Morvan 2002: 24-25)

Morvan's title, *Le Monde Comme Si*, conjures up the daily struggle *néo-bretonnants* (as these 'new' or L2 speakers of Breton are generally known) face when using Breton: they act 'as if' Breton were a language of wider communication; 'as if' it is the done thing to transmit the language to their children; 'as if' Breton-language schooling for their children is a neutral educational choice. Morvan's stance on such 'as if's' is decidedly negative but I would argue that *néo-bretonnants* need to act in these and similar ways if they are to retain a sense of purpose in learning and using the Breton language.

Such tensions are not surprising, given the top-down emphasis on monolingual language use by the neo-Breton 'elite' and the equally powerful bottom-up pressure to communicate in an authentic way (i.e. bilingually). The Breton-language world of the activists who insist on using Breton at every opportunity, who make Breton the working language of their institutions and their homes, mirrors the conditions described by Johnson and Swain (1997: 6-8) who examined immersion programmes in Canada and who found that while the programmes were successful in creating fluent speakers of French, the use of the language was overwhelmingly confined to the classroom, which itself was dominated by the L1 (English) culture of the participants. In a similar way, *néo-bretonnants* are 'created' initially in a pedagogical setting and for some of them the language remains one used mainly or solely in the classroom (see Hornsby 2005 for more details). Other *néo-bretonnants* will carry language exposure out of the classroom and into everyday activities, whereas for yet other *néo-bretonnants*, the prevailing culture (i.e. French-speaking) will play a more central role in their language use. The result is however not a situation of language revival, with the Breton language restored to its 'rightful' place (and which was never reflected historically), but more a situation of 'hybrid bilingualism' (Heller 2000: 10). Hybrid bilingualism arises, according to Heller (2006: 24), as a contradiction 'between the stigmatized but authentic vernacular … and the emerging standard [language] which marginalizes vernacular-speakers'.

Néo-bretonnants are no different from other people involved in immersion programmes all over the world, but the resulting (and natural) tensions which

emerge because of the conflicting aims of additive and hybrid bilingualism have sometimes been seized upon by opponents to claim the world of *néo-bretonnants* is somehow 'inauthentic', as in the work of MacDonald (1989) and Jones (1995, 1998). I argue that this shows a lack of understanding of the transformations many minority languages are forced to undergo due to processes of 'High Modernity' (Giddens 1991), which result in such tensions. Neo-Breton-speakers are challenging the hegemony of French linguistic policies by playing the French state at its own game and adopting forms of monolinguistic hegemony themselves but it is disingenuous to regard their activities as 'inauthentic' as a result.

Looking further afield than Brittany, speakers of minority languages are acting in similar ways to *néo-bretonnants* and often encounter similar challenges on their language use. In a Welsh context, Trosset talks of the need of L2 Welsh speakers to 'seek to escape from their learners' status, which has now become, in effect, a social stigma … they attempt to 'become' native speakers – that is, they lie about their place and language of origin' (Trosset 1986: 187). One L2 Welsh speaker, whose experience Trosset documents, claims 'to be a first-language speaker from a part of the country where the percentage of Welsh speakers is big ... he succeeds very well and has now escaped from the unpleasantness of being considered a performing anomaly' (Trosset 1986: 188). Similarly in Scotland, Dwelly (1901-11: iv) noted that 'it is only by posing as a Highlander and one who knows Gaelic that one can ever hope to hear it spoken habitually and without restraint.' Such behaviour would not arise if there were more acceptance and a wider understanding of the nature of language revitalisation (or Revival Linguistics, Zuckermann 2010), a point I will return to in my conclusion.

Such expectations are not confined to Celtic languages of course, and students in at least one French-medium school in Ontario are expected to buy into the school's prevailing ideology of monolingualism, even though it is situated in a Canadian province where the majority of inhabitants are monoglot English speakers:

Toutes les activités, qu'elles soient purement scolaires ou qu'elles soient culturelles ou récréatives se déroulent en français. On attend également de vous que vous vous adressiez en français à vos enseignant-e-s et à vos condisciples; en classe et pendant toutes les activités scolaires et parascolaires.

'All activities, whether strictly academic, cultural or recreational take place in French. We also expect you to speak in French to your teachers and your fellow students, in class and during all school-time and extra-curricular activities.'

(Heller 2006: 84)

Heller (2006: 114) found that, despite the school's clear linguistic policy (one of 'as if' the school were in overwhelmingly French-speaking province), pupils,

> 'while they collaborate with the construction of a French monolingual public face, they act out their bilingual experience of life, their bilingual identities and the value they place on bilingualism by performing bilingualism. This means using English, or occasionally both French and English, in the spheres which they consider to be private, under their control rather than that of the school. They therefore daily attack the integrity of the monolingual 'oasis culturel' that [the school] is supposed to be, while at the same time they need it in order to become the kind of bilinguals they want to be, and the school wishes for them.'

Néo-bretonnants inhabit a similar world. Some, like the authorities of the Ontarian school above work for an 'oasis culturel breton' and others find themselves behaving more like the school pupils 'by performing bilingualism'. The difference is *néo-bretonnants* identify themselves as such by choice and the pressure to conform to a monolingual ideal is either self-imposed or indeed sometimes rejected. It is seldom negotiated.

5. The creation of a monolingual Breton world

Fieldwork was carried out during the period 2005-2007 and involved my attending courses designed for adults learning Breton at a number of sites in central and southern Brittany. The moda operandi of these courses differed according to the various approaches adopted by the organisations which were providing the courses in question. However, one point of commonality was that the working language of all the courses was consistently Breton – the courses were 'opened' in Breton, it was used as the target language in classes and it was used by the teachers amongst themselves outside the classrooms. One course organiser was a natural passive Breton speaker, in that he understood the language but used French to communicate with others. Being in his 20s and having lived in the Breton-speaking locality for the duration of his life, his passive knowledge of the language was in itself enough for him to be accepted in *néo-bretonnant* circles. He was, however, the exception in being one of the course organisers and not directly involved in language teaching activities. Many more examples of semi-speakers taking part in activities to (re)learn Breton were apparent, which in many ways goes against the description Dorian (1981) paints of them as

people brought up passively understanding the local language but not speaking it fluently but still part of the 'native speaker' community. In my fieldwork, the semi-speakers I came across were more comfortable being described as *néo-bretonnants*, possibly because of the pedagogical setting in which they found themselves.

6. Language ideologies

Language ideology played a large part in determining what language was used outside of the classroom. Only one course was largely Breton-speaking outside of lessons. All the extra-curricular activities were organised in Breton and as there was a large group of competent Breton speakers on the course, Breton was overwhelmingly used during the coffee breaks. Such linguistic practices can be said to be based on an ideology of 'fictive monolingualism' which clash with 'bilingual marginal discursive spaces' (Heller 2006: 17), such as linguistic practices on other courses being much more mixed, with French generally playing a larger part in informal transactions.

An important influence as to whether Breton was used or not in such informal situations was the presence of what I term 'lead speakers'. Such people were identified by the rest of the group as fluent (if not always accurate) speakers of Breton, who generally spoke in Breton and expected to be addressed in that language also. More research needs to be done on the psychological profile of these speakers, as there was no obvious correlation between these people's ethnic origins, gender and age and their personal language ideology. Other factors as to whether Breton or French (or occasionally English) was used outside the classroom also need to be taken into account. Some people, as beginner learners, simply did not have the linguistic skills to participate in conversations in Breton and so French was the language of choice with such people. McDonald reports that on one course she documents that 'the "Breton only" rule was not matched by teaching that provided the means to comply' leading to 'open hostility in general discussion' and criticism of 'Breton-speaking elitism' (McDonald 1989: 167).

In Welsh-speaking/Welsh-learning circles, where 'the process of learning a new language temporarily takes away people's ability to talk, and the sense of inadequacy leads them to experience shame' (Trosset 1986: 184), learners often do not participate actively in conversations with more fluent speakers of Welsh. Reverence for the act of Welsh-speaking would be shown by adopting silence. Such behaviour would not be acceptable in Brittany, where social conventions might tentatively be described as more egalitarian. Thus in such situations,

the emphasis is always content-focused, rather than medium focused, as in comparative situations in Wales.

In two of the courses I attended, there was a small contingent of English people. In two cases, these people had a parent from Brittany (though not Breton-speaking) and in one case, the participant had bought a house in the local area (but long before the current trend of British people buying a Breton *pied-à-terre* for weekend retreats) and wanted to get to know local culture better. It seemed natural for me, as a native English speaker, to communicate with these people in English, even though two of the people had high fluency levels in Breton. People seemed to be identifying a certain language with a certain individual and it was that language in which that person was generally addressed in. If it worked for the English speakers in the groups, then I am sure it worked in a similar way for people who were French dominant. The only time such linguistic boundaries were fluid was with myself and a participant who had spent a lot of time in America and was keen to practise his English, though this linguistic behaviour on his part was the subject of light-hearted teasing by other participants. They would ask him, *Ur staj a saozneg eo?* ('Is this an English course?') and we would subsequently switch back to Breton. Such boundary keeping was an important feature of maintaining the Breton-only nature of that particular linguistic environment.

Perhaps the most direct example of a linguistic ideology based on monolingualism was in a document distributed in one class about activities being organised in the local area in Breton. The document did not list such activities; rather, it was a 'call to action' for people to organise such activities themselves and to ensure that the working language was Breton. The prevailing ideology was that people in Brittany should be able to participate in activities in Breton:

> *Pet ha pet gwech all n'em eus klevet gant tud hag a vez poaniañ da zeskiñ hon yezh pegen start eo dezhe koazeal pa ne gavont den ebet evit en ober gante. E lec'h all e Breizh, eus Naoned da Vrest, en em gav an danvez brezhonegerien estroc'h e-pad ar c'hentelioù.*
>
> 'Time and time again I have heard from people who have taken the time to learn our language about how difficult it is for them to find someone to speak to. All over Brittany, from Nantes to Brest, Breton speakers meet together in order to use the language outside of classes.'

The monolingual ideal is expressed in a sentence in the document further on:

> *Un reolenn hepken zo boutin d'an oll obererezhioù-mañ: pep tra e brezhoneg!*
>
> 'There's only one rule as far as all these activities are concerned: everything has to be in Breton!'

A certain sense of reality creeps in with the recognition that not everyone has the linguistic skills to live up to this ideal:

> *Ober e brezhoneg ne dalv ket mestroniañ mat hon yezh dre ret met bezañ prest d'ober eus e seizh gwellañ evit na vefe nemet brezhoneg.*
>
> 'Using Breton does not necessarily mean mastering our language in itself but being willing to use Breton to the best of your ability.'

An interesting use is the term *hon yezh* ('our language') to designate Breton. Presumably, it is meant to make lesser competent users of the language feel part of the neo-Breton community and to encourage and empower them in their use of the language. Such a technique recalls the situation in the southern Basque country, where local radio stations employ call-signs and station identifications in Basque as 'framing devices for the ensuing talk, establishing for the radio and its audience symbolic membership in an *euskaldun* ('Basque-speaking') public even if later, Castillian might be used' (Urla 2001: 153).

Néo-bretonnants find themselves having to make assertive linguistic choices and this is a feature shared with other linguistic groups throughout the world, not least in Quebec, where language legislation in the 1970s is making itself felt with the switch to French as the working language in domains where previously English was the norm. Heller (2006: 73) points out that in such situations, speakers (or 'acteurs', as she terms them in this context) *font fonctionner ces changements dans des directions qui correspondent non seulement à ce qui est possible, mais aussi à ce qui est à leurs yeux souhaitable* ('make these changes work in directions which not only correspond to what is possible, but also to what is desirable in their eyes'). Such linguistic choices in a Breton context may sit uncomfortably with some segments of French society (not least the French minister for regional languages who, in a film documentary on the history of the Breton language (Guinard 2002), compared learning Breton to participating in a knitting circle, i.e. on the level of a hobby) and which lack, for them, any sense of authenticity, but in a world where, it is claimed, languages are increasingly endangered (Crystal 2000), such linguistic assertiveness paints a slightly more positive picture for linguistic diversity in the future.

7. Conclusions

What emerges from a study of the thwarting of the linguistic subordination norm in a Breton setting is that the linguistic situation is full of contradictions. Older native speakers employ Breton less and less and respect the diglossic hierarchy of French as the H language and Breton the L. Younger, L2 speakers tend to try and subvert this pattern by insisting on the use of Breton at all times. What is interesting in this case is that both stances are a direct reflection of dominant nationalistic ideologies inherited from the French state, which Blommaert and Verschueren (1991) have referred to as the 'dogma of homogenism'. In other words, this is 'a view of society in which differences are seen as dangerous and centrifugal and in which the "best society" is suggested to be one without intergroup differences' (Blommaert and Verschueren 1998: 195). As they point out, French homogenism arises out of a nationalist concept of 'le peuple français' based on territoriality. This concept was first constructed after the French Revolution, when French was the mother tongue of less than half the population, but the resulting linguistic ideology has 'successfully' caused the vast majority of France's regional languages to shift in the direction of French.

In a similar way, 'le peuple breton' is conceived on a territorial basis. Breton immersion schools have been established in areas where the language historically had only a tenuous (or non-existent) presence, especially in the east of the region. In the process, the existence of Gallo (an *oïl*-based Romance language) has very often been overlooked, though there are signs that Breton and Gallo language revitalisers are beginning to work together (e.g. The *Union Bretonne pour l'Animation des Pays Ruraux*, who organise camps for children in both Breton and Gallo, along the same format).

An alternative model, based on language strategies that value and promote Breton as a personalised and affective part of people's diverse language identities, rather than an instrument of regional or national identity, would go some way to reversing the power of homogenism, which Blommaert and Verschueren claim 'blanks out intrasocietal differences such as age, sex, social status, and power and equates homogeneity with social harmony' (1998: 199). What form this alternative model would take awaits further investigation, but a diversified language identity would, I presume, include negotiated, multiple and multilingual identities, with room for each of the languages spoken and transmitted in Brittany at the present time. This model would also encompass a more overt understanding of what it means to engage in the revival of a language, in which 'linguistic varieties deemed to be 'incomplete' (e.g. partially learned, code-mixed) or 'non-standard' (e.g. regionally or class-marked)' (Coupland and Bishop 2006: 47) naturally arise. In circumstances of language endangerment and revival it is, as Coupland and Bishop argue, 'highly unfortunate for an untenable bilingual ideal to be promulgated' (Coupland and Bishop 2006: 48). An ideal of balanced multilingualism, or 'a set of parallel monolingualisms' (Heller 2006: 5), is an unrealistic standard to impose on L2 speakers of Celtic and other minority language, whether this expectation is coming from within or from outside the language community in question.

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What are the parameters for postulating genetic, contact-based or typological explanations in comparative language studies? Some basic theoretical considerations

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This paper attempts to investigate, clarify if possible, questions of theoretical principle. There are no claims for new empirical results or suggestions. Nor do I claim to give a comprehensive, still less a definitive exposition. If statements made in the paper are seen in some way to have focussed discussion on some issues, even by stimulating reasoned rejection of them, then it will have served its purpose. I recognise that the generality of the paper might be regarded as a weakness by some. I have no illusions that I am venturing into uncharted territory, and there are classic studies and textbooks on some of the issues raised, for example Thomason and Kaufman (1988), Hock (1991), Nicholls (1992), Trask (1996), Lightfoot (1999), and many others. However, the presentation of a literature review is not part of the purpose of this paper.

I assume in the first place that comparative language studies of any sort all have the primary aim of explaining similarities of any kind between languages. In many cases this exercise will be predicated on obvious similarities which even a naive review of the material reveals, e.g. old Indo-European chestnuts such as Lat. *pater*, Gk. *πατήρ*, Skt. *pitā́*, Eng., *father*, OI *athair*, etc. In other instances, an essential part of the exercise will consist of identifying similarities which are not obvious, or indeed which may only be revealed by the application of a particular, already formulated theory; for instance typologies of inflexional morphology must be dependent on a pre-existing general theory of morphological structure.

It is also important to explain differences between languages. But this is argumentatively secondary to the explanation of similarities. Both historically and logically, given that English and German, by the simple test of mutual unintelligibility, are distinct languages, it is in the first instance the identification of similarities between them and the explanation of those similarities that must be the primary goal of linguistic study. Having proposed explanations for those

similarities – for English and German these will largely, but far from exclusively, be explanations of a historical nature – it undoubtedly falls to linguists subsequently to provide a systematic account of the reasons for the differences between them. The task(s) of linguistics would be quite different if all languages were the same, that is to say, if there were only one language. But linguistic diversity is a primary characteristic of the material basis for linguistics, and there can be no theory to explain what makes languages different and why before there is theory of what similarities languages share and why. The theory that there was a unitary original language is logically prior to the theory that languages are different because God sundered them as punishment for human arrogance.

Another point is that there are many general features of similarity shared by all languages. The apparent triviality of some of these general similarities – be they similarities of function or similarities of structure; the simple fact of universal inter-language translatability is obviously predicated on general universal similarities – does not remove them from interest in linguistic investigation. The language faculty is such a basic characteristic of human existence that any features of it, even the most general and obvious, can be thought potentially to cast light on important aspects of the 'human condition'.

Nevertheless, it remains the case that a high proportion of work in linguistics is rather concerned with less general similarities between small groups of languages, which might in individual instances be pairs of languages. The motivation for studying the similarities between such given pairs or groups of languages are varied. It can arise from pre-existing theoretical considerations, geographical proximity, historical tradition, the personal predilections of individual researchers, etc. This aspect of research will not be considered further here.

But whatever the reasons for such research into similarities between languages, I maintain that its goal remains, in all cases, to explain that similarity, not merely to note it and describe it. That is not to say that explanation is a necessary goal for the undertaking of an *individual piece of research*, or the presentation of the results of that research. There are many steps along the classificatory and argumentative path which are equally essential for a full account, without always actually venturing an explanation itself. By this I mean that my assumption of the explanatory goal of the discipline as a whole does not entail the imposition of that goal on every individual piece of research in the discipline. And I am not addressing the important consequent question of how the quality of the results of such research is assessed.

If language *X* and language *Y* are obviously, or found by research to be, similar in some way, there seem to be in general three classes of explanation that can be invoked or applied:

1. Genetic relationship. The languages are postulated to be descendants over time of, ultimately, a single language. The community speaking that language will have become more than one community, separated to a greater or lesser extent from each other, as a result of which, by alterations in the speech habits of the respective communities, the original language becomes more than one language.

   The diction of this explanation is full of metaphors from biological genetics, the language of familial descent. I see no reason to be concerned by the metaphorical origin of scholarly or scientific terminology. I recognise that one should be careful not to be led astray by the terminology, not to let the terminology dictate the form of the theory, but I do not believe that there is any great danger of that. As long as we know what we are talking about, it does not matter what the origins are of the terms we use to talk about it.

2. Contact. The languages are postulated to be similar as a result of their being used by communities in some form of interaction. Interaction between the communities, when they speak different languages, will trivially require a medium, or media, of communication, which will mean that the communities speaking their own languages 'at home' will be exposed in interaction to the speech habits of another community, and will, to a greater or lesser extent, perhaps usually unconsciously, in some cases no doubt deliberately, adopt some of those other speech habits. Such influences can of course in principle always go both ways. But the social contexts of such contact situations are naturally very diverse, as diverse as human society itself, and the assessment of the details of each individual contact situation must always at some level be carried out in its own terms. That is not to say that such contexts are intractable to generalisations of theory. Of course they are tractable. It must be borne in mind that the fundamental underlying principle of contact-induced language change through the adoption of 'foreign' speech habits in interaction between communities is a starting point for research, and cannot in itself constitute an adequate account of the diversity of contexts in which this can happen. But I do not believe that the validity of the fundamental principle is compromised by the fact of its inadequacy for accounting for all details of individual instances of it.

3. Typological similarity. The languages are postulated to represent a member of a certain restricted class of 'types', which may be defined in terms of any aspect of linguistic or grammatical form, in phonology, morphology or syntax, with subdivisions.

Of these three explanations for language similarity, the typological one is slightly different, in that it does not really in itself constitute an explanation. Typological similarity is strictly a phenomenon, not an explanation, and explanations for typological similarity can take various forms: general cognitive patterning, Principles and Parameters of Universal Grammar, universal pragmatic conditions of language use, etc.; naturally, genetic relationship and contact-induced change can also give rise to typological similarity. On the other hand, in cases where genetic and contact-based explanations can be excluded, for whatever reasons, typology-based explanation constitutes a real third option. Furthermore, the typological explanation can legitimately be invoked in controversial cases in opposition to alternative genetic and/or contact-based explanations for similarities. The case of the unquestionable, mainly syntactic, typological similarities between the Insular Celtic languages and certain Afro-Asiatic languages (prominently but not exclusively, Semitic) can be mentioned as an example. All question of genetic explanation being excluded in this case, the controversy around this issue can be stated in the terms of the present paper as the disagreement as to whether explanation type 2 or 3 is the correct one. I hope this statement can be seen as more than a trivial restatement of what has been discussed at length in great detail elsewhere (recent discussions and surveys, Gensler 2007, based on Gensler 1993; McCone 2006: 20-40; Hewitt 2007; Isaac 2007, 2009a; all with extensive further references to other and earlier literature). The terms of the present paper are meant to clarify that the Afro-Asiatic/Insular Celtic controversy, for example, cannot be resolved by considerations of principle in such a way that one could, say, postulate both a contact-based and a typology-based explanation for the similarities between Afro-Asiatic and Insular Celtic. I believe it is important to recognise that there is a real empirical distinction between the two explanation types, and that, in a given case such as this, one is right and one is wrong. Either the observed similarities between Afro-Asiatic and Insular Celtic are due to contact between the respective speech-communities (which could be indirect contact through unspecified mediating speech-communities), or there was no such contact, and contact-induced change cannot explain the similarities.

Note that, aside from excluding the possibility that both explanations are right in this case, I am also explicitly excluding the possibility that both are wrong, *in the specific case in question* (due to the inapplicability of the genetic explanation here). I do not exclude this possibility generally. The question must be addressed on a case-by-case basis. But I do insist that in individual cases, such an exclusivity of explanation is possible and appropriate, arising from, and dependent on, the empirical conditions in a given instance of the vast diversity of possible fields of application of the explanatory types.

However, the apparent categorical distinction between genetic explanation and explanation through contact is not strictly categorical in the real world, in that languages that are genetically related can usually be assumed to have been in contact for some period of their development, subsequent to their differentiation into distinct languages. Lexical items uniquely shared by such languages cannot usually be categorically explained by contact or common genetic innovation, as the distinction cannot be identified at the remove of millennia, or perhaps even only centuries, in some instances. This point too is not categorical. There is clearly a distinction between the case of the French vocabulary in English, say, and that of the exclusively shared vocabulary of Greek and Armenian. In the former case, both historical proximity and the exact forms of the lexical items point unambiguously to loaning from French into English, a contact-based explanation. In the case of Greek and Armenian, the question of whether their exclusive shared vocabulary is indicative of a genetic Graeco-Armenian subnode or a period of post-genetic-unity contact is a substantive issue of research (see Clackson 1994).

In order to focus discussion, I propose to introduce a set of principles that can be applied to the search for explanations of language similarity. But these principles will not be formulated for general applicability to all three explanation types. I take as my starting point the genetic explanation. There may be historical reasons for this, and such reasons can and should be subject to inquiry. Whether there are, in fact, theoretical reasons for giving some sort of principial priority to the genetic explanation, I shall not attempt to argue in detail, beyond having mentioned the possibility. Pragmatically, it is certainly convenient to assess the principles stated in this light.

The following can be called *principles of diagnosticity of features for closer genetic relationship between languages X and Y than between languages X and Z*. They constitute a proposal, not a result. While I claim no fundamental originality of content for these proposals, so expressed, I have not seen them laid out in such an explicit manner elsewhere (though I am of course glad to be corrected in this perception).

The formalism is, as always, intended to express the concepts as unambiguously as possible, without (1) assuming that the precision of expression of the concepts reflects precision in the concepts themselves, which may after all be somewhat vague, undefined terms, and without (2) assuming that the clarity so achieved, if achieved, is a guarantee of the verisimilitude of the principles.

Perhaps the most controversial concept which these principles include is that of ‘naturalness’. A paper or book on naturalness would be a very different thing from the present paper, and I will not pretend to do justice to the concept here.

But this, above all the concepts I use, needs a minimum amount of explication. I make the metaphysical assumption that all things have a 'nature', a basic set of features relating to and defining 'how they are'. I make no general assumption of immutability of nature, but for argument's sake in the present theoretical linguistic context, I assume it specifically here. I assume that a natural feature, or change of feature, is one that better realises the nature of that of which it is a feature, an unnatural feature, or change of feature, one that realises less well the nature of that of which it is a feature. Of course I do not thereby address the question of how that 'realisation of the nature of the thing' is actually assessed in real terms. But I hope that no ethical or otherwise judgmental overtones will be detected in the use of the terms 'natural', etc., here. My understanding of naturalness will be seen to be heavily influenced by the ideas of Bailey (1996: 374, summarily, reflecting extensive discussion throughout the book, especially, 279-87), while acknowledging other classic studies such as Wurzel (1984) and Dressler *et al.* (1987) in the morphological domain (though I believe the concept of naturalness to have general significance beyond the specifics of the 'Natural Morphology' paradigm). The application of the concept will in any case be illustrated in further commentary below.

Since most of the principles are formulated as inequalities, it should be stated that in most cases, no claim is being made for an absolute value of diagnosticity for a given feature or type of feature. The assignment of such a value may be possible in some cases, to which attention is drawn, but is not a general goal.

At the risk of redundancy but for the sake of clarity, the bare principles are first of all presented, then repeated with commentary of differing length, depth and detail.

A For any x_a, y_b such that $N(x_a) \approx N(y_b)$:
For any pair of features (x, y) of any grammatical domain (a, b), of approximately equal naturalness (N):

1 $D(x_+) > D(x_-) > D(x_0)$ assuming same x
The common creation (+) of any feature (x) is more diagnostic than the common loss (–) of any feature, which is more diagnostic than the common retention (0) of any feature.

2 $D(m_\pm) > D(p_\pm)$ assuming same index
The common innovation of a morphological feature (m) is more diagnostic than the common innovation of a phonological (p) feature and the common loss of a morphological feature is more diagnostic than the common loss of a phonological feature.

3 $D(m_f) > D(m_d)$
Flexional morphology (m_f) is more diagnostic than derivational morphology (m_d).

4 $D(p_0) > D(m_0)$
The common retention of a phonological feature (p_0) is more diagnostic than the common retention of a morphological feature (m_0).

5 $D(x_a) > D(l_b)$ for $x = m$ or p, and any indices
Common morphological and phonological features are more diagnostic than common lexical items, with respect to innovation, loss or retention.

6 $D(s_a) = 0$
Syntax is non-diagnostic, with respect to innovation, loss or retention, of given structures.

B For any x_a, y_b, such that $N(x_a) \not\approx N(y_b)$:
For any pair of features (x, y) of any grammatical domain (a, b), of significantly different naturalness:

1 $D(x_a) \sim (N(x_a))^{-1}$
The diagnosticity of any feature (x), with respect to innovation, loss or retention, is inversely proportional to its naturalness.

2 $[N(x_a) \gg N(y_b)] \Rightarrow [D(x_a) \quad D(y_b)]$ or $[D(x_a) < D(y_b)]$
For any feature pair in an inequality in A 1-5, if the left-hand feature is much more natural than the right-hand feature, the inequality may be nullified or reversed.

The classification of features into phonological, morphological, syntactic, lexical, is of course approximate and for convenience. Practically these categories are not impervious, as there is, in the nature of grammar and language use, interaction between these categories, forcing us to speak of morphophonology, morphosyntax, the syntax-lexicon interface, the interaction of semantics with all such categories. There are many theories of such categorisations, both of the detail of their actual forms and functions, and of their roles in language structure itself. I shall not be addressing such matters here.

The principles are now repeated with commentary and examples. Again I emphasise that there is no claim for originality in the analyses presented, many of which are old, basic results of the field, well known and reported in all handbooks and studies. But hopefully that brings with it the convenience that many of them may also be sufficiently uncontroversial to serve unproblematically as transparent illustrations of the principles.

A For any xa, yb such that N(xa) ≈ N(yb):
For any pair of features (x, y) of any grammatical domain (a, b), of approximately equal naturalness (N):

A1 D(x+) > D(x–) > D(x0) assuming same x
The common creation (+) of any feature (x) is more diagnostic than the common loss (–) of any feature, which is more diagnostic than the common retention (0) of any feature.

Contrast the comparison of W *mawr*, MCo. *mur* (*mer*), (M)B *meur* 'large, great' with that of W *byd*, MCo. *bys*, MB *bet* 'world'. In the former case, Cornish and Breton show a common innovatory vowel /ø/ against the Welsh /au/, also innovatory with respect to their sources in Celt. *$\bar{a}$ > Late British *$\bar{o}_{i}$. In the latter case, Welsh and Cornish agree, but the reflex of the British high front vowel of **bitu-* by the mid-vowel *e* in the Breton contrasts with the equal preserved height/tenseness of the Welsh and Cornish reflexes (irrespective of differences in place of articulation in the Welsh, central, and Cornish, front). This could be treated both as a case of loss – of height in the Breton vowel – or of retention – of height in the Welsh and Cornish vowels. But the principles are formulated in terms of *common* developments. What matters here is therefore the common retention of height in the Welsh and Cornish vowels. Compared with the case of W *mawr*, MCo. *mur* (*mer*), (M)B *meur*, the other contrast given carries no weight for the assessment of the relative historical closeness of relationship of Welsh, Cornish and Breton, the latter two reflecting, based on this and of course many other features, a South-West British distinct from the British dialectal ancestor of Welsh.

The low diagnosticity of common retention is illustrated by the lack of the prothetic vowel before clusters of *s* + stop in Cornish and Breton, in effect the retention of inherited word-initial structure, MCo. *speris*, MB *speret*, vs. MW *yspryt* (< Lat. *spiritus*). In such a case it is obvious that the significant event is the development of the prothetic vowel in Welsh, not its absence in Cornish and Breton.

A2 D(m±) > D(p±) assuming same index
The common innovation of a morphological feature (m) is more diagnostic than the common innovation of a phonological (p) feature and the common loss of a morphological feature is more diagnostic than the common loss of a phonological feature.

Given the caveat mentioned above of the permeability of the grammatical domains discussed here, it seems legitimate in the exact terms of the present principles to treat the grammatical initial mutations of Insular Celtic as a morphological feature. Even though no morphs are involved, it does have to do with the grammatically motivated alteration of the forms of words. In that case, the comparison of the mutation systems of Welsh, Cornish and Breton is instructive. Table 1 presents this comparison. Only the system places are recorded, irrespective of the details of the phonological realisations.

The fact that Cornish and Breton share such a complex morphological feature as this precise form of the system is more strongly diagnostic of a specific genetic link between them, exclusive of Welsh, than the phonological feature in the previous commentary, and others like it. Mutation systems will be discussed again below. (The 'nasal mutations' of Cornish and Breton, discussed by Jackson (1967: 356-60), are a distinct phenomenon, not to be confused with the nasal mutation referred to for Welsh.)

Similarly, the Cornish and Breton common loss of the substantival plural ending represented by W *-oedd* carries more weight than their common loss of the phonological distinction between lax and tense **l*, reflected later in Welsh by /l/ vs. /ɬ/ respectively. In general, however, common loss of any sort is always low in diagnosticity by inequality A 1.

Table 1. The initial-mutation systems of Welsh, Cornish and Breton compared.

	Welsh				Cornish/Breton			
Radical	Soft	Nasal	Spirant	hV	Soft	Spirant	Hard	'Mixed'
-V				x				
p	x	x	x		x	x		
t	x	x	x		x	x		
k	x	x	x		x	x		
b	x	x			x		x	x
d	x	x			x		x	x
g	x	x			x		x	x
gw	x	x			x		x	x
m	x				x			x
ll	x							
rh	x							

A 3 D(mf) > D(md)
Flexional morphology (mf) is more diagnostic than derivational morphology (md).

Thus the forms of the first and second persons singular, present subjunctive, in Breton and Cornish, e.g. MCo. *gyllyf*, *gylly*, MB *guilliff*, *guilli*, as opposed to Welsh *gallwyf*, *gellych*, are more significant than the Welsh and Breton development of a compound abstract deadjectival suffix *-oni*, absent from Cornish to my knowledge; e.g. W *daioni* 'goodness', *haelioni* 'generosity', B *druzoni* 'fat', *kasoni* 'hate'.

A 4 D(p0) > D(m0)
The common retention of a phonological feature (p0) is more diagnostic than the common retention of a morphological feature (m0).

Granted that retention is of low diagnosticity in general, by A 1, the higher diagnosticity of retained phonology than retained morphology follows from A 2, that the common innovation of morphology is more diagnostic than the common innovation of phonology. In the flow of historical language change, moderated by the unconscious consensus of the community, necessary to maintain the effectiveness of the language as a medium of argument and communication, it is in general easier for the phonological substance of expression to be altered than it is for the *morphological system* of expression to be altered, as morphology is not only the medium of the message but also contains part of the message itself. It is therefore more significant when morphology is altered than when phonology is altered, so it is somewhat more significant for *relative* diagnosticity for closer genetic relationship when phonology is retained than when morphology is retained. An example is the common retention in Brittonic of clusters of nasal + voiceless stop, lost in Irish, which is more significant for a genetic grouping (Brittonic) than the retention by Welsh and Old Irish of the morphological distinction between dependent and independent possessive pronouns (MW *fy*, *dy*, etc., OI *mo*, *do*, etc., vs. MW *meu*, *teu*, etc., OI *maí*, *taí*, etc.), lost in Cornish and Breton.

However, since retention is in general so low in diagnosticity, in practice, one would probably hardly ever be relying on this principle in argumentation to establish a genetic link between languages.

A 5 D(xa) > D(lb) for x = m or p, and any indices
Common morphological and phonological features are more diagnostic than common lexical items, with respect to innovation, loss or retention.

This is perhaps the simplest of the principles. It reduces to the fact that we rely on common grammatical features of any sort for the establishment of genetic links between languages. Individual words for individual things or concepts can come and go and cross between linguistic communities very easily, so shared words are never indicative of the origins of two languages in a unitary speech community. It is the grammatical subsystems and the substance of their expression that are the exponents of genetic linguistic heritage, notwithstanding that members of speech communities will naively be far more conscious of lexical commonalities than those in the details of grammatical structure.

A6 $D(s_a) = 0$
Syntax is non-diagnostic, with respect to innovation, loss or retention, of given structures.

The fact that syntax is treated differently in this system of principles stems from the fact that there is no syntactic 'substance'. In phonology and morphology, there are discrete, perceptible objects concerned. These may indeed be of a more concrete (phones-morphs) or more abstract (phonemes-morphemes) nature, and there are of course systems of rules governing the deployment of these objects in language. But nevertheless, there are discrete objects concerned that constitute the 'substance' of the language. No such thing applies in syntax. Syntax is a system of rules, without associated discrete objects, 'substance'. Diagnosticity of genetic relation is associated only with linguistic 'substance'.

The question of the diagnosticity syntax for genetic relationship is related to the question of the possibility of syntactic reconstruction, but it should not be lost sight of that they are nevertheless two distinct questions. Thus, even if the case for syntactic reconstruction presented, for instance, by Harris and Campbell (1995, Chapters 11 and 12) were to be considered sound, it would remain unresolved whether the patterns so reconstructed could actually be considered as diagnostic for the genetic relationship of the various languages compared, whether in fact the genetic relationship in question is actually an essential initial assumption for the reconstruction in the first place (in which case, no diagnosticity can attach to the reconstruction). On the other hand, if the case for syntactic reconstruction is flawed anyway, then so too is the case for its diagnosticity for genetic relationship. Considerations of principle undermining Harris and Campbell's case were given in Isaac (1996: 107-47, especially 139-46).

The verb-initial syntax of the Insular Celtic languages (including the typological implicational correlates for phrasal syntax and other systems) is a striking common innovation, without a doubt. My assumption is that it carries no weight at all for

the postulate of a *genetic* Common Insular Celtic. Rather it falls under the rubric of the situation mentioned above where genetically related languages remain in contact after they are differentiated into distinct languages. This position is without prejudice to the particulars of historical syntactic argumentation that may be brought to bear in explaining the origin of the innovation. Classic studies include Watkins (1963), McCone (1979), Sims-Williams (1984); for more recent perspectives, McCone (2006), Isaac (1993, 1996, 2009b).

B For any xa, yb, such that N(xa) ≈/ N(yb):
For any pair of features (x, y) of any grammatical domain (a, b), of significantly different naturalness:

B 1 D(xa) ~ (N(xa))–1
The diagnosticity of any feature (x), with respect to innovation, loss or retention, is inversely proportional to its naturalness.

Thus the high naturalness of the common Welsh and Cornish realisation of the lenition of intervocalic **g* as zero, the historically intermediate spirant **γ* being articulated with only minimal manipulation of the anatomical instruments of articulation, means that it has no diagnosticity compared with the lower naturalness of the change Late British **ō̩* > Co./B /ø/ illustrated above under A 1. I reiterate that these arguments should not be misunderstood as relating to absolute values of naturalness or diagnosticity. From the high relative naturalness of loss of **γ*, no universal principle that it must be lost follows, of course. The principles in question only guide our comparative argumentation. They do not constitute a rigid framework of absolute rules.

The example in the commentary on the next principle is also an illustration of B 1.

B 2 [N(xa) >> N(yb)] ⇒ [D(xa) ˇ D(yb)] or [D(xa) < D(yb)]
For any feature pair in an inequality in A 1–5, if the left-hand feature is much more natural than the right-hand feature, the inequality may be nullified or reversed.

This follows from B 1. Given that we are not assigning absolute but only relative values to the concepts involved in these principles, it would, I think, at this point, be too ambitious to insist that the inequalities would always be nullified or reversed under these circumstances. But there is no doubt that this principle must be taken into account in such argumentation. A good example

comes from the verbal paradigms of Welsh, Cornish and Breton. In the second person plural of some tenses, Breton has preserved the inherited dental ending, e.g. MB present indicative *queret* 'you love [pl.]' < **karVtes* (compare Old Irish *-caraid* < **karātes* (conjunct); the exact account of the vocalism in the Breton form is of no moment here), whereas both Cornish and Welsh have carried the analogical ending *-ch* through the entire paradigm, e.g. present indicative MCo. *kerough*, MW *cerwch*. As a morphological innovation, by A 1 this would carry weight for a closer genetic link between Cornish and Welsh than of either with Breton. However, the replacement of inherited **-t* by analogical *-ch* (based on the personal pronoun *chwi* 'ye'), is itself a natural development, levelling the consonantism of the verbal ending and the associated pronoun. It is further natural for that analogy to be carried through the whole paradigm (Breton has done this in some categories, not in others). To go into the detail of the argument, it is in the nature of verbal paradigms as exponents of central grammatical and information-structural features of an expression, to be as clear as possible. Clarity correlates with simplicity, and it is simpler to have unity in the means of expression of a category than to have variation. It is therefore highly natural for Cornish and Welsh to level the second person plural endings of the verb in *-ch*, and less natural for Breton to preserve inherited *-t* (in some categories). So the Welsh and Cornish levelling on *-ch* has no diagnostic value for closer genetic linkage between them than of either with Breton, against the principle of A 1.

My point in assessing the implications of these principles in argumentation for contact-induced change is that it is only where a feature is low in diagnosticity for genetic inheritance that it could possibly be taken as diagnostic of contact-induced change. And that 'could possibly' is no guarantee that it can or should be so taken. There is no doubt that it works in some instances. For example, the cases illustrated under A 3 above, can easily be reversed for contact based argument. If it is established that high diagnosticity for genetic explanation is attributable to the common flexional morphology (e.g. in the verbal forms given), then the relatively low genetic diagnosticity of the common derivational morphology leaves the way open for it to be taken as arising from contact: the complex nominal suffix *-oni* shared by Welsh and Breton can legitimately be proposed as a piece of derivational morphology innovated by speakers of Welsh and Breton under the influence of each other. (I do not confuse the *legitimacy* of the proposal with its *correctness*; the latter I leave unresolved here.) These considerations, as well as many others in the present paper, are related to comments and arguments made by Ramat and Bernini (1990).

Far more transparently the cases of A 5 and A 6 leave the way open for shared lexical items and shared syntax to be attributed to contact-induced change.

But these two cannot be treated on an equal footing. In the case of the lexicon, it is apparent that shared lexical items by borrowing must be the most obvious, commonest, and best studied example of language change through contact. The transparency of this instance calls for no further comment here. In the case of syntax, here, too, there is a degree of obviousness to, say, the contact-induced basis for the innovated shared *have*-perfect constructions of Romance and Germanic (not to dismiss the important differences in realisation and exact function between the different individual languages; see the recent discussion of Heine and Kuteva 2006: 140-82). That is a good illustrative case because of the high complexity and specificity of the lexical items involved in the construction and its function as exponent of a very specific morphosyntactic category, or, at least, group of closely related morphosyntactic categories. However, not all instances of shared syntax are so transparently attributed to one or other of the three explanation types under consideration here, genetic, contact-based and typological. In particular, the verb-initial syntactic patterning of the Insular Celtic languages is a good example of the permeability of the explanation types. There is, I think, no question of this syntactic pattern being diagnostic of descent from any genetic common ancestor. Certainly, no one has suggested that Common Celtic was characterised by verb-initial syntax, for good reasons (the non-verb-initial character of its ancient close Indo-European relatives, and, apparently, of the ancient Continental Celtic languages, to name but the most superficial reasons). It has been suggested that (areally) Insular Celtic verb-initial syntax is in fact a reflex of a genetically ancestral Common Insular Celtic verb-initial syntax (McCone 2006: 175, summarising arguments presented extensively on previous pages). But the argument there was based on the establishment of that genetic unity by other means, not on the assumed diagnosticity for that unity of the syntactic pattern itself. I therefore leave open here the correctness of the attribution of verb-initial syntax to Common Insular Celtic and the existence of that ancestral language itself.

What should be recognised is that the development of verb-initial syntax is also something that has a significant typological dimension, and that the remarkable uniformity of its realisation in the extant Insular Celtic languages would be unlikely if the languages in question had not remained in contact for centuries, at least, prior to their historical attestation. To flesh out these comments with some detail, the initial mutations of Insular Celtic can be taken as an example again.

The mutations were taken above as an example of morphology, in the context of demonstrating that the identity of their specific system in Cornish and Breton, as against that of Welsh, was indicative of an immediate genetic

ancestor for Cornish and Breton to the exclusion of Welsh. But since we have thereby explicitly attributed the development of a specific form of the system to a genetic ancestor of two of the Insular Celtic languages to the exclusion of the others, it is clear that we have already excluded a genetic origin for the principle of the mutation systems in general. I am not aware that the development of the grammatical mutation systems of Insular Celtic has ever, in recent research at least, been attributed to a genetic 'Common Insular Celtic' (the phonetic basis in sandhi phenomena might be pushed back that far, but that is not the same as the system of *grammatical* mutations). It has been argued elsewhere that the mutation systems are linked to the rise of verb-initial syntactic typology, by virtue of being a subtype of word-initial morphology, which tends to correlate with verb-initial syntax (Isaac 1993: 12-13, 2007: 59). By that token, the rise of the mutation systems is clearly given a typological explanation. However, that really only accounts for, precisely, the adoption of some form of word-initial morphology (which includes, and more usually, the type of prefixing morphemes, which is not the case in the mutation systems). So even given that the rise of the *mutation-systems-as-word-initial-morphology* ultimately has typological motivation, in the absence of a unitary system of mutations applying to all the Insular Celtic languages (which would have allowed the postulate of inheritance from a common genetic ancestor), it is clear that the realisation of *word-initial-morphology-as-alternations-in-initial-consonants* must be attributable to the fact that the languages remained in close contact. Only in the case of the identity of the actual systems for Cornish and Breton do we find a situation where we may attribute the detail of the system to a common genetic ancestor.

The mutation systems of the Insular Celtic languages are therefore an excellent illustration of the way an ostensibly singular linguistic phenomenon is amenable to explanations from the three types, *assuming that we are careful to distinguish multiple aspects of that phenomenon*.

I do not propose that the principles outlined here can be used in themselves to reach judgments on genetic or contact-based links between languages, let alone typological ones. The principles distill and summarise the sorts of arguments that are used in such studies, but it is and must remain in the details of the discussion in individual cases that the burden of argument for genetic link, contact-induced change or typological pattern lie.

If I have not answered the question of my title clearly, I hope I have gone some way in discussing it as a question. I hope also that I may be forgiven for presenting a paper of such theoretical generality, at the same time asserting my belief that such theoretical generalities must have a place in the discussion of any set or groups of languages, including Brittonic.

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Compensatory lengthenings in the prehistory of Irish – how to avoid methodological errors in diachronic investigations

Krzysztof Jaskuła

1. Introduction

Compensatory lengthening occurred at least twice in the prehistory of the Irish language. According to Kortlandt (1979, 1997), two disparate processes of this kind took place in the period preceding Classical Old Irish. In McCone (1996), we find there were three processes of this sort. As a result, some consonants disappeared while short vowels in their vicinity underwent lengthening.

In particular, the first of these lengthenings allegedly occurred in Proto-Celtic/Common Celtic and involved nasal loss before voiceless obstruents. The second one took place at the beginning of Primitive Irish and was very similar. The third process happened just before the end of Primitive Irish and then voiceless and voiced fricatives were dropped before sonorants. In all these cases we are dealing with simplifications of consonant clusters. In Kortlandt's relative chronology of changes, the first two processes are referred to as stage 5, while the third one is stage 17. McCone introduces some modifications to Kortlandt's chronology but, actually, he agrees that the sequence of events was not completely unalike.

Such phenomena are common historical developments. However, in the case of Irish, these may pose both structural and theoretical problems. In Government Phonology (Kaye, Lowenstamm and Vergnaud 1990; Kaye 1990; Harris 1994; Lowenstamm 1996; Cyran 2003; and Scheer 2004), it is assumed that consonant clusters are normally governing domains in which one segment is the governor, the other being the governee. Such domains need to be licensed by the following nuclei. Moreover, some domains are easy to license, while others are more difficult. If a combination is easy to license, it is likely to survive longer than one in which licensing is harder to be had. If licensing fails, a break-up of the governing relation occurs and a loss of a consonant can take place.

As for the prehistory of Irish, the first two compensatory lengthenings apparently involve consonant clusters which are easy to license, while the third one affects those in which this licensing is more difficult.

A logical question to be asked at this juncture is why this is possible. Since an easy-to-license governing domain is chosen to break up first, then there must be something wrong either with the theory itself or with the interpretation of linguistic facts. Given that both McCone and Kortlandt agree on the chronology of changes and no scholar has voiced objections to that, the facts are apparently indisputable. The only option remaining, if the theory is not faulty, is that the structure of the consonant combinations involved in these processes is not exactly what it seems to be at first glance.

Therefore, this paper seeks to understand the reasons for the chronology of pre-Old Irish events which led to the compensatory lengthenings mentioned above. In accordance with Jaskuła (2006), it will be proposed that the syllabic structure of Irish has been different from what is usually taken for granted and that a new interpretation of this structure can offer a new understanding of some linguistic facts. Moreover, it will be shown that interpreting only a few processes alone, ignoring the whole background, may lead to erroneous conclusions.

2. Loss of nasals before obstruents in Proto-Celtic/Primitive Irish

In the prehistory of Irish, nasals were lost in front of obstruents. McCone (1996: 61, 106) claims that there were two independent processes of losing nasals in this position, one dating back to Proto-Celtic (PC), while the other to the beginning of Primitive Irish (PI). This idea is shared by Isaac (2007 and p.c.). Kortlandt (1997: 248) has another view of these developments, namely, that no such separation is obligatory. Given that this lack of agreement has no considerable influence on the shape of the processes in question, examples representing both developments are provided below:

(1)

a.	**PC**		**OI**		**Gloss**
*kɑræns	→	*kɑrɛːs	→	[kare]	– ‘friend’
*anmens	→	*anmeːs	→	[anme]	– ‘name-gen.sg.’
b	**PI**				
*gænsih	→	*gɛːsih	→	[geːs]	– ‘goose’
*ænxtu	→	*ɛːxtu	→	[eːxt]	– ‘slaughter’

We can see that the nasal [n] was lost before spirants such as [s, x]. We should also observe that compensatory lengthening was a normal reaction to the nasal dropping and the change of vocalic quality had no impact on the development itself. Nevertheless, the effects of the process in (1a) did not survive to be observed in Old Irish, while the lengthening in (1b) remained in force. This suggests that separating these two phenomena is not totally unjustified.

From the phonetic viewpoint, it should be said that, most probably, the vowels were first perceived by the speakers as phonetically longer for some time. Then they were reinterpreted as truly long, which is a normal phenomenon occurring on a worldwide basis (Kavitskaja 2002). Additionally, these vowels must have remained nasalized for a while before becoming entirely oral.

What should also be taken into account is that nasals were lost before stops as well, and both McCone and Kortlandt apparently agree that this process was similar to nasal loss before fricatives. Let us consider the following data:

(2)

		PI				OI	Gloss
*kæntan	→	*kændan	→	*kɛːdə	→	[keːd]	– ‘hundred’
*sintuh	→	*sɪnduh	→	*sɛːdə	→	[seːd]	– ‘path’
*wintɑː	→	*wɪndɑː	→	*wɛ(d)də	→	[fed]	– ‘whistle’
*toŋketah	→	*toŋgeta	→	*to(g)geθə	→	[togəd]	– ‘fortune’

These developments are noticeably different in two aspects. First, the disappearing nasal always provides voicing to the following stop. Second, the vowels are not always lengthened. This may mean that some of the resulting voiced stops were geminates (which is why both [d] and [g] above are given in brackets). In fact, Thurneysen (1946: 126) admits their gemination, which seems to be taken for granted or ignored by Kortlandt and McCone as well. However, the cases with and without the lengthened vowels are treated in a similar way by all these phonologists.

3. Loss of fricatives before sonorants in Primitive Irish

The third process to be mentioned here is the loss of fricatives before sonorants fairly late in Primitive Irish. Consider the following examples based on McCone (1996: 111, 122ff.):

(3)

PI		OI	Gloss
*dæxr	→	[dʲeːr]	– ‘tear’
*aɣr	→	[aːr]	– ‘slaughter’
*keneθl	→	[kʲenʲeːl]	– ‘race’
*munexl	→	[munʲeːl]	– ‘neck’
*kexlaθ	→	[kʲeːləð]	– ‘will conceal’
*ɛθn	→	[eːn]	– ‘bird’
*oɣn	→	[uan]	– ‘lamb’

What we can notice in (3) is that fricatives, both voiceless and voiced, but never labial, are deleted and the original short vowels appear as long before sonorants in Old Irish. Sometimes qualitative vocalic developments can be observed, e.g. the lengthening of [æ] to [æː] and then the change to [eː] in the first case above and the diphthongization of [o] through [oː] to [ua] in the final example. These vowel changes will be ignored in this paper as they have no bearing on the present discussion.

4. Consonant groups in Government Phonology (GP)

Government Phonology is a theory of representations which views all phonological phenomena as resulting from a small number of universal principles and language-specific parameters. A phonological representation of any word is graphic and consists of three tiers: syllabic (with three, possibly branching constituents: Onsets, Nuclei and Rhymes) metrical (with x’s standing for timing) and melodic (with symbols of speech sounds). All these tiers are linked to one another with association lines. Also, it is assumed that all nuclei license the onsets they follow.

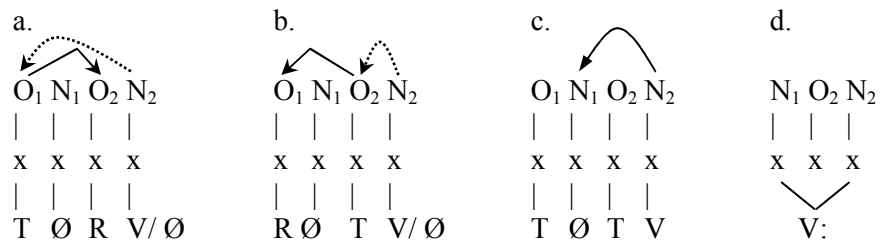
Government is perceived as an asymmetric relation between two skeletal positions. As regards groups of consonants, positions occupied by obstruents normally govern those harbouring resonants. A sequence of sounds in which government occurs is called a governing domain.

Structurally, combinations of two consonants in a row are traditionally viewed as either branching onsets (typically: obstruents+sonorants) or coda-onset sequences (usually: sonorants+obstruents). All such groups and, consequently, governing domains are supposed to be government-licensed by the following nuclei, be they melodically empty (Ø) or filled with vowels. Moreover, some

combinations are easier to government-license (e.g. sonorants+obstruents) while others are more difficult (e.g. obstruents+sonorants).

In more recent versions of the theory, e.g. Lowenstamm (1996), Cyran (2003), Scheer (2004), Jaskuła (2006), there are no branching constituents at all. Every traditional branching onset is a sequence of two onsets, the first of which is a governor, while all traditional coda-onset groups are now sequences of two onsets, the second of which governs the first one. Each couple of onsets is separated by an empty nucleus (whose silence is guaranteed by the domain) and each governing domain is government-licensed by the following nucleus, either empty or vocalic. There is also another possibility, namely, that there is no governing domain and that two consonants are separated by an empty nucleus whose muteness is secured by the following realized vowel. A long vowel is a sequence of two consecutive nuclei. All the theoretical possibilities are graphically represented below:

(4)



In (4a) we observe a governing domain consisting of an obstruent/true consonant, represented by T and a resonant R. The broken arrow indicates the direction of government. The domain is government-licensed (a curved dotted arrow) by the nucleus (N_2) which may be empty or not. In (4b) there is a resonant followed by an obstruent and the form of government-licensing is the same, the only difference being in that here the licenser (N_2) is closer to the governor and this licensing is easier. In (4c) there is no governing domain because the two consonants are either two obstruents or two resonants or they cannot contract a relation for other reasons which will be mentioned if necessary. In such a case the nucleus (N_1) is properly governed (a curved arrow) by the vowel (N_2) to its right. It is important to note that here no empty nucleus can occur under (N_2). Finally, in (4d) a structure of a long vowel is presented.

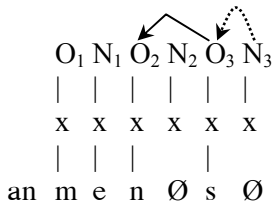
5. Pre-Old Irish compensatory lengthenings in Government Phonology

5.1. The first two compensatory lengthenings

Given the theoretical background above, we will now see how compensatory lengthening can be represented and explained within GP. The first compensatory lengthening will be represented by the word for 'name' (5a-c), while the other one by the word for 'hundred' (5d-f), both developments being compatible. Let us consider the following changes below where (some segments are left unsyllabified as unimportant here):

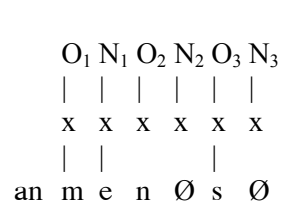
(5)

a.

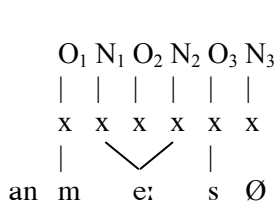


*anmens

b.

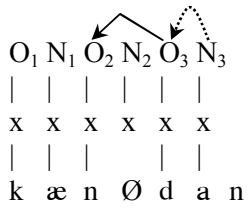


c.



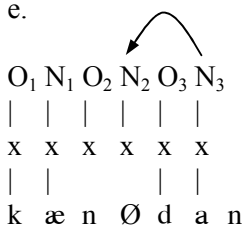
*anmeːs

d.

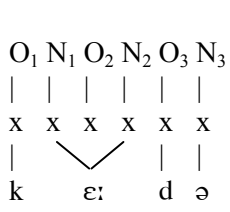


*kændan

e.



f.



*kɛːdə

What we observe above in (5a, d) is that the onset (O_3) governs (O_2) as a result of interonset-government, which is translatable into the coda-onset government in the standard version of GP. In both cases the nucleus (N_2) can remain mute because the interonset relation guarantees that. Later on (5b, e), this governor

loses its possession (no arrow) and the onset (O_2) is left stranded. In (5e) the nucleus (N_2) can be properly governed by (N_3), but in (5b) this is impossible since the final nucleus is empty. We should also note that in (5a, d) the onset (O_3) is licensed to govern by (N_3), while in the other diagrams this licensing is not granted. At this juncture, since both (O_2) and (N_2) are temporarily empty, an action has to be taken and (N_1) spreads its melody (the exact vocalic quality is of no importance here) to (N_2) in (5c, f) to satisfy syllabic and licensing requirements. Briefly, the skeletal structure and the O-N sequences remain intact. To sum up, at a particular point in time the nuclei (N_3) lost their ability to government-license the preceding obstruents to govern nasals. This point in time may have been one, but two is not an impossible diachronic proposal.

Thus, we see the incapability of (O_3) to hold a governing domain with (O_2), as a result of which the nasal disappears, the vowel undergoes lengthening, acquiring the skeletal slot of (N_2) and making (O_2) melodically redundant. What is important to note is that the cluster which suffers from simplification is easy to license by the following nucleus because this nucleus (N_3) directly follows the governor (O_3) in (5a).

When we now consider differences between the cases presented in (1a) and (1b) above and compare them with the mechanisms shown in (5), it seems that the developments in (1a) may have preceded those in (1b) for at least one phonological reason. Namely, the compensatory lengthening in (1a) occurred before word-final empty nuclei. Such positions normally have less government licensing power than full vowels. Consequently, if a process in which the government-licensing potential is involved can have two phases, phase one will happen where the government-licenser is an empty nucleus (as in (5a-c)), while phase two will occur where this licenser is a vowel (as in (5d-f)). Therefore, it may be that McCone (1996) is right in assuming that the compensatory lengthening represented in (5a-c) took place earlier than the one shown in (5d-f).

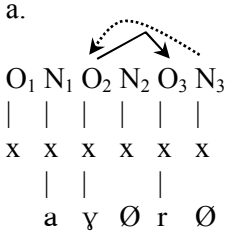
As for the cases in which there is no compensatory lengthening, we can assume that the voiced stops were geminates indeed, which is in accordance with traditional analyses.

5.2. The third compensatory lengthening

In this section we will take a look at the third compensatory lengthening. This time the fricatives disappear before sonorants. Consider the developments of the word for 'slaughter':

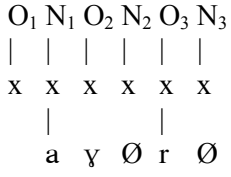
(6)

a.

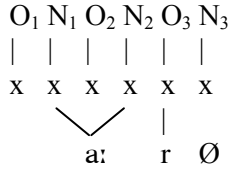


*aɣr

b.



c.



[aːr]

What we observe above is the lengthening of a short vowel at the expense of the velar fricative. Here, however, the governing relation shown in (6a) is different from that in (5a). In (6a) the onset (O_2) governs (O_3) and is licensed to govern by the empty nucleus (N_3). This cluster is difficult to license because the licenser (N_3) is far away from the governor (O_2). At some point, in (6b) no licensing from (N_3) is obtained, the spirant cannot govern any longer and it cannot be licensed to exist by (N_2), which is empty and properly ungoverned. Thus, the fricative is delinked from its skeletal position. Let us observe that (N_2) cannot be properly governed by (N_3) because this one is empty as well. Finally, in (6c) the vocalic melody spreads to the nucleus (N_2) creating a long vowel.

Thus, from the viewpoint of this framework, there is nothing technically unusual about compensatory lengthening in either (5) or (6). What provokes theoretical questions is the development in (5), which occurs before that in (6), although we are dealing with an easy-to-license cluster in (5) but not in (6). In point of fact, the order of changes should be reverse. In Cyran (2003) we find that things such as these should not occur because licensing is scalar and, if a cluster is easy to license, it must not behave as if it was not. Even if we assume that the changes described above happened in different synchronic systems, we must admit that languages have their specific trends, preferences and 'habits' which die very hard. Therefore, a solution must be sought somewhere else if we wish to salvage GP.

5.3. Other developments before Old Irish

In order to find the key to the order of the aforementioned processes of compensatory lengthening, a global look at the prehistoric developments may be necessary. When we consider relative chronologies of changes before Old

Irish, we encounter mostly reductions and lenitions. For example, in Kortlandt (1979) we find stages which contain keywords such as: lenition, loss, shortening, reduction, raising, lowering, palatalization, etc. Apart from the last three qualitative changes, which do not concern us here, it is all about simplifying or deleting something. It goes without saying that one change may trigger another at a particular moment in time, although, theoretically, one may have little in common with another at an earlier moment.

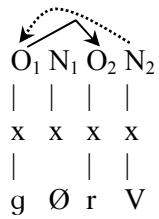
More to the point, if we look at the compensatory lengthenings in question from a wider perspective, their order may not appear so unexpected.

As regards the first two compensatory lengthenings, there is nothing to be added. At some point in time unstressed vowels or empty nuclei lost their government-licensing abilities and obstruents stopped governing sonorants. Ungoverned and unlicensed, the nasals were dropped and the vowels before them were lengthened at their expense, which is shown in (5).

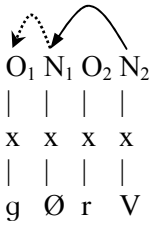
If we turn to the final process, however, a different starting point ought to be taken into consideration. In Jaskuła (2006) it is argued that the lenitions, which affected first voiced and, subsequently, voiceless stops, were a result of structural changes triggered by the inability of unstressed vowels to government-license difficult-to-license clusters. In particular, groups of consonants such as [bl, gn, dr], etc., and, later, [kl, tr] and the like, underwent changes called lenitions because they were no longer governing domains at that time. Consider the following diagrams showing the development of the cluster [gr]:

(7)

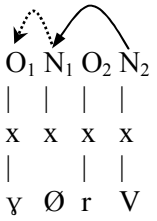
a.
PIE [gr]



b.
Proto-Celtic [gr]



c.
Proto-Celtic [ɣr]



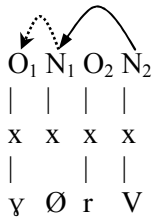
What is shown above is a hypothetical reason for the first lenition which occurred in Proto-Celtic. In (7a) we observe the Proto-Indo-European cluster [gr] in which the governor (O_1) is government-licensed by (N_2) to govern (O_2). This government-licensing is difficult because the licenser is remote. In any event,

this structure is inherited by the Proto-Celtic phonological system. At some point in time, the licenser (N_2), being an unstressed vowel, loses its potential and stops providing it to (O_1). As a result, the governing domain is broken up and the empty nucleus (N_1), previously locked within this domain, is now properly governed by (N_2) in (7b). Given that all nuclei, unless locked within an interonset domain, license the preceding onsets to exist and that empty nuclei may be weaker licensers than full vowels, the onset (O_1) loses some of its strength. In particular, what was once a stop, the strongest of consonants on the sonority scale, becomes a fricative, a slightly weaker consonant in (7c). Thus much can be said about the lenition of stops in Proto-Celtic.

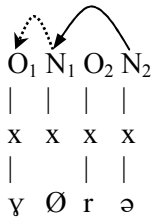
When we turn to the final compensatory lengthening in Primitive Irish, the state of affairs is, apparently, not what was shown in (6a) or (7a), but what is illustrated in (7c), with some modifications. Let us further investigate the prehistoric developments:

(8)

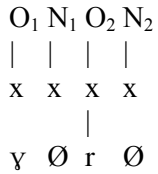
a. Proto-Celtic [ɣr]



b. Primitive Irish [ɣr]



c. Primitive Irish [r]

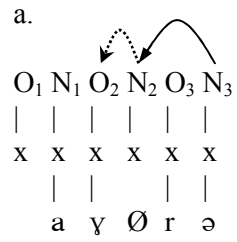


In (8a) above we see again the Proto-Celtic structure of [ɣr], repeated for convenience. The next important development in such clusters was the reduction of short vowels to schwa, as shown in (8b). This is called stage 13 in Kortlandt's (1979) relative chronology. Apparently, this reduction did not contribute to any consonant changes in obstruent-sonorant groups. However, the next major change called apocope (Kortlandt's stage 15), was dramatic. As a consequence of this process, in which the final schwas were dropped, illicit phonological structures surfaced. One is shown in (8c) where we see two consecutive empty nuclei, (N_2) unable to properly govern (N_1). (N_1) in turn, being itself unlicensed, cannot license the preceding fricative. Thus, the structure in (8b) displays two adjacent empty timing slots. Such a situation could not last long and a solution had to be found. From the viewpoint of GP, two options are available: either both empty positions

are removed from the structure due to the OCP, or one is taken over by some locally present melody. Kortlandt's stage 17 is called 'loss of fricatives before sonorants' and this is what took place here. Given these structural explanations, let us reconsider the developments of the word for 'slaughter':

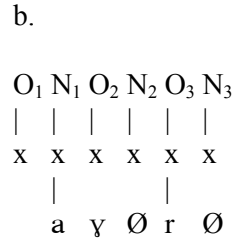
(9)

a.

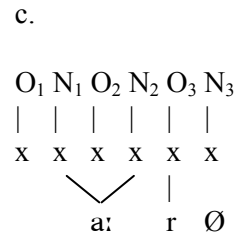


*aɣr

b.



c.



[aːr]

As is evident from (9), the point of departure must have been different than the one we assumed before. In (9a) the final schwa properly governs the empty nucleus (N_2), thanks to which it can remain silent and it is still able to license the preceding fricative to exist. In (9b) the schwa has been dropped, there is no proper governor for (N_2), (N_2) cannot license the preceding onset (O_2), and the whole structure is illegitimate. The structural problem is resolved in (9c) where the melody of the vowel spreads to the empty nucleus.

6. Summary

In this paper it has been demonstrated that the processes of compensatory lengthening which occurred in the prehistory of Irish need to be analyzed in a broader historical context of other phonological changes taking place in the same language over time. Without this context, we encounter a theoretical problem of which process should happen first and why this is not the case. Solving this problem leads us to a more detailed description of changes and the truly phonological reasons for these developments.

It has been proposed that the first two compensatory lengthenings occurred because the nuclei following certain consonant groups at some point in time became too weak to license governing relations within these groups. As regards the last process, it has been argued that the actual reasons for this development

were manifold, starting with the weak licensing abilities of vowels leading to the lenition of stops a few centuries before, through final vowel reduction to schwas and, ultimately, to apocope. In the aftermath of apocope, illicit structures surfaced and the loss of fricatives accompanied with compensatory lengthening was inevitable.

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More on the chronology of Celtic sound changes*

Frederik Kortlandt

1. Introduction

Graham Isaac's recent monograph (2007) deals with the chronology of Celtic sound changes. Remarkably, the author completely disregards the relative chronology which I published 28 years earlier (1979). In the following I shall discuss the main issues on which our views differ.

2. Loss of **p* in Celtic

Following Thurneysen (1946: 435), Isaac derives Old Irish *-ír* 'granted' from **peper-* or **pepor-* (p. 15). I have argued that **p* developed into a bilabial fricative [φ] which was preserved into the separate languages (1982: 74-76 = 2007: 53-55). It merged with **w* after **s* in Irish and coalesced with a preceding **s* into **f* in British, e.g. OIr. *seir* 'heel', dual *di pherid*, Welsh *ffer* 'ankle'. The loss of the labial articulation was obviously posterior to the lenition, as it was in OIr. *secht* 'seven', *necht* 'niece', *lassar* 'flame', Welsh *saith*, *nith*, *llachar*. The voiceless bilabial fricative [φ] merged with its voiced counterpart [β] in OIr. *-ebra* 'he will bestow' < **piprā-* and *-ebla* 'he will drive' < **piplā-* (cf. Thurneysen 1946: 403). Before **n*, the reflex of **p* merged with **u* after **o* and **a* but was lost after **e*, e.g. *súan* 'sleep' < **sopno-*, *cúan* 'harbour' < **kapno-*, *tene* 'fire' < **tepnet-*. These developments were more recent than the merger of **eu* with **au* and **ou* into **ou*, which was more recent than the loss of intervocalic **s* (cf. Greene 1976: 27) but earlier than the monophthongization of the latter into $*\bar{o}_2$, so that the merger of **p* with **u* before **n* can be dated between stages 2 and 3 of my chronology (1979: 39). Intervocalic **p* was lost, e.g. *saer* 'artificer'

< **sapero-*, *té* 'hot' < **tepent-*, *ni(a)e* 'nephew' < **nepot-*, *íar* 'after' < **epi-*. Since **epi-* shared the monophthongization of **ei* to **$\bar{e}_2$*, the loss of intervocalic **p* can be dated before stage 3 of my chronology (1979: 40). In other positions, the reflexes [h] < **s* and [φ] < **p* were preserved up to a later stage, e.g. in lenited *ph-* < **sp-*. As I pointed out earlier (1982: 75), OIr. *timme* 'heat' represents **tepsmiā*, not **tepesmiā*. The sequence **epe* merged with **ese*, yielding **$\bar{e}_3$* (cf. Kortlandt 1979: 41), not **ī*.

I have dated the hiatal raising of **e* to **i* before back vowels, e.g. in *ni(a)e* 'nephew', gen.sg. *niath*, *niad* < **nepotos*, *siur* 'sister', acc.sg. *sieir* < **swesoram*, dual *sieir* < **swesore*, between stages 3 and 6 of my chronology (2007: 140), after the lenition (1) but before the (first) palatalization (7), the raising of **e* and **o* before a high vowel in the following syllable (8), and the lowering of **i* and **u* before a non-high vowel in the following syllable (11). Isaac mistakenly posits a raising of unstressed **e* before **s* anterior to the lenition in 2nd sg. *biri* 'carry' < **berisi* < **beresi* (p. 16), ignoring the original endings of the Indo-European thematic inflection (cf. Kortlandt 1979, 1984, 1997a and 2007 *passim*). He mistakenly limits the raising of **e* to **i* to the stressed syllable (cf. Schrijver 1995: 387 and Kortlandt 2007: 140). Following McCone, he mistakenly dates the shortening of long vowels in medial syllables (my stage 10) before the raising (my stage 8) in his discussion of *niad* < **nepotos* and *cucann* 'kitchen', Welsh *cegin* < Latin *coquīna* (p. 19, cf. Kortlandt 1997b = 2007: 117-120).

3. Laryngeals in Celtic

While Isaac dates the loss of **p* and the raising of **$\bar{e}_1$* to **ī* to Proto-Celtic (p. 21), I have dated these developments to early stages of Proto-Irish postdating the lenition (1979: 40). In another study (1981: 1-16 = 2007: 25-44) I discussed the Italo-Celtic shortening of pretonic long vowels discovered by Dybo (1961) and its interpretation by Illič-Svityč (1962). I have claimed that the Italo-Celtic shortening affected pretonic **ē*, **ā*, **ō* but not sequences of resonant plus laryngeal, where the long vowel had not yet originated (1981: 13f. = 2007: 40f.), and that the long vowel never originated in pretonic sequences of laryngeal plus resonant such as **g^wHi-* 'live' and **b^hHu-* 'be' (1981: 15f. = 2007: 43f.). The discussion was continued by Schrijver (1991: 334-357, 512-536 and 1995: 168-191). Isaac rejects the derivation of OIr. *sith-* 'long', Welsh *hyd* 'length' < **sH_1i-* beside OIr. *sír*, Welsh *hir* < **seH_1-* (p. 24) in spite of such obvious parallels as PIE **$d^heH_1(i)$-* 'to suck', **$leH_1(i)$-* 'to pour', **$peH_3(i)$-* 'to drink'. He subscribes to the criticism of pretonic shortening by Irslinger and Rasmussen (p. 25). In fact, Irslinger misrepresents the issue by substituting **RH* for **HR* and by rejecting a metathesis **CeHU* > **CeUH* which nobody ever proposed (2002: 28). Rasmussen's complaint that my view 'is at variance with everything we know about IE syllabification' (1999: 170[1]) should be remedied by a conscientious study of Werner Winter's pertinent article (1965) and by abandonment of his preconceived ideas about Indo-European, followed by a discussion of my arguments. Isaac's dismissal of my reconstruction **HR* in cases of shortening as circular is mistaken because this reconstruction is supported by full grade forms with **VHR*. His peculiar comparison of Latvian *dzîvs*, Lith. *gývas* 'living' with Latvian *plâns*, Lith. *plónas* 'thin' obscures the issue because the latter word has a full grade vowel **VH*. Eventually he devises a highly unnatural, complex and unconvincing phonetic rule on the basis of a host of additional assumptions in order to explain the data without recourse to analogy. It is a typical example of paper phonetics. Isaac's proposal to derive the short vowel of Latin *vir* 'man' from nom.sg. **vĭrz* < **vīrz* < **vīros* (p. 57f.) does not explain the short vowel of the Old Irish cognate *fer*.

4. Relative Chronology

Isaac presents a relative chronology of 25 sound changes from Proto-Indo-European to Celtic (pp. 62-64). He mistakenly thinks that the circumflex of Lith. *taũras* 'aurochs' is compatible with a reconstruction ***taHuros* (p. 65), cf. acc.sg. *díeverį* 'brother-in-law' < **daHiuerm*, *píemenį* 'shepherd' < **poHimenm*. The word is an early European borrowing from Semitic. I cannot accept all stages of Isaac's relative chronology (pp. 69-74). I have dated the split of **$\bar{o}_1$* into **ā* and **ū* (Isaac 22) before the rise of **$\bar{e}_3$* (Isaac 21) and the raising of **$\bar{e}_1$* to **ī* (Isaac 17) between these two developments (1979: 39-41 = 2007: 6-9). I think that the loss of the laryngeals (Isaac 7 and 18) can largely be dated to the Italo-Celtic period. Isaac's anaptyctic shwa (5, 13a, 20) is a heterogeneous phenomenon which can partly be dated to the Italo-Celtic period (cf. Kortlandt 2007: 88). There was no phonetic reduction of **ye* to **i* between consonants (Isaac 19, cf. Kortlandt 2007: 137). The development of **p* (Isaac 12a, 14, 15, 16) was discussed above. Isaac's earlier rules are Proto-Celtic (4, 6, 10, 11), Italo-Celtic (5, 7, 8, 9), dialectal Indo-European (3), or mistaken (2, cf. Puhvel 1987). I am sorry that Isaac has found it unnecessary to discuss the arguments for the chronology which I put forward earlier.

5. The Origin of Celtic

Isaac reconstructs **ĝʰdies* > **ĝʰdʰyes* > **gʰdʰes* > Greek *χθές* 'yesterday', with loss of the dental stop in Sanskrit *hyáḥ*, Latin *herī* and German *gestern* but loss of the palatal stop in Welsh *doe* and Albanian *dje* (p. 75). He assumes metathesis in Greek **dʰĝʰomios* > **gʰdʰonyos* > *χθόνιος* 'of the earth' and its cognate OIr. *duine*, Welsh *dyn* 'man', Gaulish gen.pl. *-XTONION* (p. 78), but not in Sanskrit *kṣám-* 'earth', Gothic *guma* 'man', Latin *humus*, *homo*, Albanian *dhe* (p. 81), to which Lith. *žẽmė*, Slavic *zemlja*, Thracian *Σεμέλη* and Phrygian *ζεμελεν* can be added. It seems to me that none of these examples supports the hypothesis of an early dialectal Indo-European development or later language contact. All forms can be derived from **tḱ-*, **dʰĝʰ-*, with metathesis in Proto-Greek and Proto-Celtic. I also reject the derivation of Latin *sitis* 'thirst', *situs* 'mould' < **dʰgʷʰiti/u-* and *situs* 'located, site' < **tḱito/u-* (p. 79). The former words may be related to Sanskrit *jásate* 'be exhausted', Greek *σβέννῡμι* 'extinguish' and the latter to Latin *sileō* 'be silent' (cf. de Vaan 2008: 563f.). No conclusions can be based on the word *ursus* 'bear'.

Following Melchert (1994: 251f.), Isaac assumes three series of velar stops in Anatolian and Proto-Indo-European (p. 83). I have argued that the plain velar series developed from depalatalization of the palatovelars and delabialization of the labiovelars (e.g. 2009: 27-32, cf. already Meillet 1894 and Steensland 1973). Melchert lists three examples of plain velar **k* in Luwian, viz. *karš-* 'cut' < **krs-* (cf. Kloekhorst 2008: 455), *kattawatnalli-* 'plaintiff' < **kH₂et-* (cf. Kloekhorst 2008: 466), and *kiš-* 'comb' < **ks-* (cf. Kloekhorst 2008: 481f.), all of them with depalatalization of an original palatovelar before the following consonant. Contrary to Isaac's 'neutralisation of distinctive aspiration in the voiced occlusives' during a 'period of contact between Celtic, Balto-Slavic and Indo-Iranian around 2,000 BC' (p. 90), I assume loss of PIE glottalization in Proto-Celtic and its preservation in Indo-Iranian, Balto-Slavic, Germanic, Italic, Greek and Armenian (e.g. 1985 and 2007: 149-151). In my view, Italo-Celtic was the first branch of Indo-European which separated from the proto-language after Anatolian and Tocharian and did not therefore participate in the more recent innovations of the central dialects such as the extended development of the subjunctive, the optative and the middle voice (cf. Kortlandt 2007: 151-157). Isaac's view that the sigmatic formations 'are patent innovations of the late Proto-Indo-European period' (p. 93) is surely mistaken. Contrary to his statement, the relative pronoun **yos* was not a common innovation of Indo-Iranian, Balto-Slavic, Graeco-Phrygian and Celtic but was simply replaced by **kʷo-* in Germanic and Italic, just as it recently was in most Slavic languages. Celtic never was a central Indo-European language.

6. Palatalization in Irish

Isaac's final chapter deals with palatalization in Irish, which I have discussed earlier (1979: 41-48 = 2007: 9-17 and 1997b = 2007: 117-120). He starts from McCone's treatment (1996) without taking my criticism into consideration. Under these circumstances it seems pointless to repeat what I have said earlier about the mistakes in McCone's account and I simply refer to my earlier work. Just for the record I only mention that McCone's first, second and third palatalizations correspond roughly to my stages 7, 12 and 18 and the labialization of **i* to **u* in *cruth* 'shape' and gen.sg. *cruimthir* < *QRIMITIR* 'priest' to my stages 9 and 16, respectively. Eventually Isaac arrives at a chronology which is very close to mine (p. 102): first palatalization (7), lowering (11), second palatalization (12), apocope (15), labialization in *cruimthir* (16), third palatalization (18), syncope (19). Isaac's effort to conflate 'the various palatalisations of Proto-Irish' (p. 104), which is evidently meant to remedy the inconsistencies in McCone's account, does not contribute to a better understanding of the chronological processes. There can be little doubt that the first palatalization affected initial consonants but not **kʷr-* and **gw-* (cf. Kortlandt 2007: 119f.), just as the intervening **w* blocked palatalization of the velar obstruent by the following front vowel in Czech *květ* 'flower', *hvězda* 'star', unlike Russian *cvet*, *zvezdá*. The lowering of **e* in Old Irish *daig* 'flame', dat.sg. *taig* 'house', *laigid* 'lies', but not in gen. sg. and nom.pl. *tige*, verbal noun *lige*, is a result of palatal dissimilation and must be dated after the general raising and lowering (cf. Kortlandt 2007: 141). I conclude that Isaac's discussion has given me no reason to change my mind on any of the issues involved.

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Present/preterit verb alternation in the narrative system of Old Irish sagas

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1. Introduction

The Irish tradition of narrative is called 'epic' only conventionally, since it survives as a number of relatively short prose texts ('sagas') regularly interwoven with verses of poetry. In fact, we cannot be sure what was the ancestral form of such texts at their earlier oral stage – whether it was poetry or prose, or the mixed form of the surviving records was truly ancient. Nor is it possible to pinpoint the textual alterations at the stage where a saga was committed to writing, nor to trace how long it had been transmitted orally or how verse and prose within the saga text were related to each other at that stage. Conceivably, the Irish sagas may have taken their prosimetric form initially.[1] It is the earliest texts that share some distinct characteristics, namely:

- by their contents, pieces of verse are not duplicates of any prose sections, unlike those incorporated in Middle Irish works on history or law;
- verse sections are incorporated in the saga text as the characters' direct speech (mostly at dramatic points of the story), rather than pieces of elaborate work by professional poets, which makes them different from the *visur* uttered by skalds in Icelandic sagas;
- nevertheless, the very poems found in sagas are well paralleled by the known genres of the fili poetry or by the later bardic genres; they may also contain dialogues reminiscent of Irish folk ballads.

In the field of Irish studies, it has been traditionally assumed by many scholars that the verse interpolations stand for the more affective points of narration or express the characters' feelings (Dillon 1948: 10).

However, what is generally overlooked is the fact that the narration in Irish sagas is made up of three components rather than two, so its representation

[1] See Dillon (1948); Henry (1978); Mac Cana (1989).

as a binary structure (poetically loaded narrative prose vs. emotionally loaded poetry) is a bit over-simplistic. The third component, abundant in sagas, is prose dialogue between the characters. Such dialogues are typically written in a very vivid language retaining all the particular syntactic traits characteristic of spoken language, such as elliptical nominative clauses, affective vocabulary and uncommonly wide variation of tense. There might be, say, a present tense standing either for a hodiernal future tense, a resultative meaning, directive or alethic modality. The quasi-anomalousness of such usage is regular and well-paralleled by characteristics of oral speech in almost any language.

2. Present in Old Irish sagas

2.1. 'Historical' present?

Of more interest is another type of the present tense, used in the prose narration and as frequently as (seemingly) illogically intermingled with preterit forms which are more naturally expected to occur in a neutrally styled narration. Rudolf Thurneysen in his *Grammar of Old Irish* classified such a use of the present tense as 'historical' (Thurneysen 1946: 331). However, this classification throws little light upon the narrator's preferences or communicative intentions.

2.2. Preterit/present shifting in prose narration

Besides, the use of the historical present tense is normally more or less consistent within a certain text section, while the saga records yield an uncommon mixture of present and preterit forms, for which semantic reasons are apparently absent.[2] A not implausible explanation of such a seemingly illogical tense use would be that certain cases of the present tense use, while formally identical, may differ in the ultimate task of narrative strategy. See, e.g. in *The Hostel of Da Choca*:

[2] However, Hildegard L. C. Tristram points out that some sagas contain relatively long sections in purely present tense which can be almost undoubtedly identified as historical: ('Another group [of sagas] uses the present (almost) consistently throughout the centre portion of the narrative /…/ This group is the nearest to what one could call a true 'historical present' in the classical tradition' (Tristram 1983: 22).

(1)

Tainic (pret.) *in techtaire co Cormac* ┐ ***ro indlis*** (perf.) *do in drochfaistine* ***dorinde*** (perf.) *in Badhbh dó. /.../* ***Teit*** (pres.) *Cormac iairsin co huir in atha dia hagallaimh* ┐ ***fochtais*** (pret.) *dí cuich na fadhbha* ***bai*** (pret.) *sí do nighi* (vn) .

'Came the messenger to Cormac and **told** him of the gloomy prophecy that Badhbh **had made** for him. /…/ **Goes** Cormac to the edge of the ford for a talk with her and **asked** whose **was** the harness that she was a-washing.'

(Stokes 1900: 156)

The combination of *goes…* and *asked* is both grammatically and stylistically impossible in Modern English, yet in Old Irish narrative texts such combinations are apparently a kind of literary norm and follow a certain logic which the narrator (or the scribe recording an oral text) assumed intuitively.

The alternation of present/preterit forms in the folklore narration is hardly accidental. As Heinrich Wagner suggested, it was meant to introduce some variation in a sequence of grammatically identical verb forms:

Die traditionelle Grammatik spricht von einem Praesens historicum. Das Praesens dient aber einfach dazu, eine Folge von sachlich parallelen Verben durch Tempuswechsel zu variieren.

'Traditional grammar speaks of a historical present. But this present simply serves to vary a sequence of factually parallel verbs by a fluctuation of the tenses.'

Wagner (1959: 209)

We suggest that putting a present tense form in the middle of the past-tense narration could probably be stylistically loaded – that is, intended to give some extra information which in oral performance could be communicated through intonation or other oral means of expression. This hypothesis, however, only describes this literary device from the formal point of view, without giving much insight into *why* it was used in sagas. Presumably, the preterit-present alternation in sagas represents a specific communicative task of a narrator/scribe who knew his audience's expectations and modelled the fictitious narrating figure who was simultaneously above the time of narration (or, rather,

within both the 'epic' time *and* the course of narration). This communicative task has to be identifiable in terms of functional grammar.

The saga narrator sees the so-called 'epic' past and the present as inseparably close to each other as sometimes nearly amalgamated, creating a sort of an alternating point of view, when the distance between the narrator and the events being described varies. This allows to create a more vivid flow of narration. According to A. V. Bondarko,

> 'This interpretation of temporal modes in epic narration is supported by a variety of instances intermediate between telling a story from the recent past, immediately related to the present, and the epic narration, totally unrelated to the author's present. Even in the cases where 'the storyline time' of the text is apparently unrelated to the author's present, the narration still retains similarity to its prototype – an immediate oral story of some actual past events. <…> In narrative texts of that kind we deal with such types of temporal identification that are secondary by their nature – namely, they might be seen as a transformation of the primary time deixis based on the 'I + here + now' complex'.
>
> Bondarko (1996: 18)

3. Deictic functions of present

The texts normally convey this idea through adding demonstratives like 'here' or 'then', as, for, instance, Whitly Stokes in his translation of *Bruiden Da Chocae* did: *And then Cormac **goes** to the edge of the ford to have speech with her….* (Stokes 1900: 156).[3] As it is pointed out by Hildegard L. C. Tristram, the present/preterit shifts in the saga narration 'lie not so much in any particular author's deliberate phrasing strategy', but is a common means of making the story more dynamic and might derive from oral tradition (see Tristram 1983: 27).

Apparently, interpreting the narrator's tense or mood use in our terms such as 'stylistic device' or 'making a livelier story' cannot be fully relevant, because they give us little idea of this narrator's rhetorical strategies or his value system. Besides, functional reasons for each occurrence of preterit-present alternation may differ. Even the common definition of the present tense as referring to

[3] In French translation, Jean Gagnepain also suggested to begin the phrase with a demonstrative: 'Et voilà…' (Gagnepain 1962). In Russian, it would be, quite literally, 'I vot…'.

the moment of utterance may not be exactly the case. Compare Konstantin Krasukhin's observation on the present tense use in the Vedic hymns:

> 'One must take it into consideration that the present tense in these texts cannot be interpreted as a mere indication of an event's proximity to the moment of utterance. Since nearly all events in the texts are either direct actions of mythological characters or indirectly impelled by them, and the text is designed for multiple recitation, the deictic sense of the present tense should be interpreted as definitely identifiable and emphatic. The present tense use marks a certain action linked to a certain subject, singling it out of the chronotope. Its function parallels that of a definite article.'
>
> Krasukhin (2004: 90)

There are indeed definite articles in Irish sagas where indefinite ones are normally expected to occur – at the points where a new entity is introduced into the narration. This 'device' seems to be induced by the need of slowing down the run of the story and concentrate upon a certain detail – not unlike the task of freeze-frame shots in modern cinema.[4] Compare a typical flashback in Russian oral narratives referring to personal experiences in the past:

> *Once in the morning I went to the river to fetch water. I **see:** a girl **is sitting** on the bank and **combing** her long hair…* (a formulaic description of encountering a 'rusalka').

In Irish sagas, introducing the present tense in the past-time narration may be also aimed at slowing down the flow of the story, so that this part of the story transmutes from 'a thing being told of' into 'a thing shown' – which means re-enacting the particular *scene*.

4. 'Visualizing' function of present

These observations are in no way sensational – in fact, they are quite commonly found in research works on the narrative function of the present tense. Deborah Schiffrin, for instance, has demonstrated the 'scenic' function of the present tense in narration (Schiffrin 1981: 51 ff.), and Suzanne Fleischman has summed up the same idea of its 'visualizing' function (Fleischman 1985). This

[4] See Mikhailova (2003).

function of the present tense, especially when it alternates with other tenses, gives it some resemblance to the resultative perfect tenses: in modern Russian, we can say *Nad morem **navisla** skala* – literally, 'A rock **has overhung** the sea', while the sense is either 'A rock overhangs the sea' or 'A rock overhung the sea', depending on the general tense of the narration.

As Monika Fludernik, rather paradoxically, yet not incorrectly, formulated it, 'The historical present proper is an optional replacement of a *narrative aorist*' (Fludernik 1991: 387). [5]

Compare in *The Debility of the Ulidians*:

(2)

Desid (perf.) *in banscál i cathaír ocon ten et **ataid**.* (pres.) *tenid*
'The woman **sat down** on a seat at the fireplace and **kindles** the fire.'[6]

Hull (1968: 8-9)

The imaginary observer is, as one might suggest, merged here together with the saga's hero through whom the scene is being seen. There are many examples of that kind.

From our point of view, this well-known observation on the visualizing nature of the present tense use in narrative texts may also throw some light upon multiple cases of non-finite sentences, or, rather, non-finite clauses with prepositional relators. For instance:

(3)

Brat cas corcra fo loí chaín aicthe. Dúalldai airgdidi ccoirside de ór oibinniu isin bratt. Léne leburchulpatach isí chotutlemon dei sítiu úainide fo derginliud óir impi.

'A mantle (she has/had), curly and purple, a beautiful cloak. Silvery fringes (are/were) on this mantle and a brooch of fairest gold. A kirtle, long, hooded, hardsmooth, of green silk, with red embroidery of gold (is/was) on her.'

Knott (1963: 1)

[5] See also for bibliography and a more detailed review on the question. Free download on the Web: http://www.freidok.uni-freiburg.de/volltexte/4919/pdf/Fludernik_The_historical_present_tense.pdf

[6] Modern English translators render the whole story in the past tense. See, for instance: http://www.maryjones.us/ctexts/debility.html.

In Old Irish narrative texts descriptions of that kind – regularly lacking a finite verb – are abundant and seem to be intended to convey a special viewpoint which may be defined as 'timeless'.[7] Through such a kind of description, an event from the indeterminate mythological past is drawn as close to the recipient as possible, which re-enacts it once more and more at the moment of reading or rehearsal. This is a kind of 'cinema effect' which has been described by some scholars as one of the functions that the present tense in narration bears.

Now, what has been noted above may seem to contradict the other known function of the historical present tense – rendering briefly episodes of lesser importance – which Robert Dennis Fulk had long ago described in detail (Fulk 1987). In his comparative study involving *Commentarii de bello Gallico* and Icelandic sagas, he came to the conclusion that the present tense in narrative texts of this kind was used as the state indicator and/or narrative code shifter, rather than a descriptive of the action in the strict sense (for the latter case, preterit was usually reserved). However, this idea does not contradict the 'visualizing present tense' theory – firstly, because the same device within the narrative tradition could work in multiple ways;[8] secondly, because, on the visual level, we normally perceive an object moving at a great distance (such as a plane in the sky) as stationary.

5. Present in 'dialogue-space' as *presens scenicum*

In dialogues, abundant in Irish saga texts, the task of the present tense is quite special, that is, making the narration more 'scenic' or drama-like. It indicates the shift from the mere storytelling to the 'theatrical' realm, which changes the narrative mode automatically. Namely, a dialogue suggests giving information through the characters' own speech, and one needs to stop the action (a kind of close-up) so that the recipient's attention could be shifted to the speech itself. The present tense is exactly what carries out this task. Imagine a film with a long-shot scene featuring the hero on horseback. If

[7] The absence of actual time markers for present tense (a timeless tense) was noticed by Paul Kiparsky (Kiparsky 1968, 36 et passim).

[8] The recent PhD research by Dmitry Piotrovsky (a linguist from Petersbourg) counts as many as 11 semantic subtypes of the present tense use in Old Icelandic texts (Piotrovsky 2008: 19). Interestingly, the same number was counted for Old Irish texts by a post-graduate student of Prof. Kim McCone, National University of Ireland, Maynooth (since this information was given by McCone in a private conversation, we do not have the opportunity of comparison between the two lists of subtypes).

he is expected to give us some personal account of what is happening, the filmmaker would employ either a cut interrupting the action or a 'reaction shot' (a close-up of the face of the moving actor) – in both cases the general course of the story is, in a way, switched off. This is how the present tense in the dialogues of Old Irish epics works. We find it possible to distinguish between two subtypes – 1) truly scenic; 2) what may be defined as 'frame shift'.

It seems that at least in some cases of the saga dialogue we evidently meet the 'scenic' present tense. In modern drama, it is regularly used in stage directions to the script. Compare in *Pygmalion,* Bernard Shaw:

> THE FLOWER GIRL [protesting] *Who's trying to deceive you? I called him Freddy or Charlie same as you might yourself if you was talking to a stranger and wished to be pleasant.* [She sits down beside her basket.]
> THE DAUGHTER *Sixpence thrown away! Really, mamma, you might have spared Freddy that.* [She retreats in disgust behind the pillar.]

In sagas, a similar introduction of the present tense occurs typically alongside with the introduction of direct speech. See in *Táin bó Froech*:

(4)

> *Ba* (pret.) *imned la Fráech cen acallaim na ingine, sech ba* (pret.) *hé less nod mbert. Laithe n-and* ***atraig*** (pres.) *deud aidche do inlut dond abaind. Is hé tan dolluidsi* (pret.) *ón* ┐ *a hinailt do indlut.* ***Gaibidsom*** (pres.) *a llamsi. 'An rim acallaim' ol sé. /.../* ***Téit*** *(pres.) dano cechtar de a leth íar sin.*
>
> 'Sad was Froech, because he had not talked to the girl, and he needed it. Once in the evening **goes** he to the river to wash. At the same time she and her maids also came there to wash. He **takes** her by the hand. "Can you talk to me?", said he. /…/ After that, each of them **goes** apart.'
>
> Meid (1967: 6)

It is worth noticing that the words introducing direct speech – such as *ol*, *ar*, *bar*, etc. – are not actual verbs, but rather fixed demonstratives, and do not have 'tense', so translating them as 'said' is only conventional (Quin 1960). A kind of modern Russian parallel might be a demonstrative *takoj*, *takaja* 'like this' used in introducing direct speech in popular language: *A ja takaja*:…., *A on takoj*…. ('And I am/was like this…. And he is/was like this…' = 'I say/said….. And he says/said…').

To identify this 'scenic' kind of the present tense, we rely on the following basis: its subject must be identical to that of the direct speech below. See, for instance:

(5)

> *Luid* (pret.) *íarom co Coin Culaind* ┐ *asbert* (pret.) *fris: 'Is áil dona mnáib ind éoin ucut úaitsiu'.* ***Atetha*** (pres.) *a chlaideb do imbirt furri. 'Ní fogbat merdrecha Ulad a n-aill acht foraim én dóib…'*
>
> 'She then went to Cu Chulainn and said to him. "The women of Ulster would be pleased if yonder birds were given to them from you". Cu Chulainn **reaches** for his sword to unsheathe it against her. "Cannot the harlots of Ulster find any other but us to give them their birds…" '
>
> Dillon (1953: 2)

Or:

(6)

> *Tic* (pret.) *íarom Lí Ban dia shaigid Loíg* ┐ ***geibthi*** (pres.) *ar gúalaind. 'Ní raga ass trá, a Loíg' ol Lí Ban…*
>
> 'And Liban turned to seek for Loeg, and she **places** him beside her shoulder. "Thou wouldst never go hence, O Loeg!", said (says) Liban.'
>
> Dillon (1953: 5)

(7)

> *'Mad Anluan no-beth is taig, doberad comram ar araile duit. Is anim dún na fil is taig' – 'Atá imorro', ar Conall ic tabairt chind Anlúain assa chris, ocus* ***nos-leice*** *do Chet ar a bhruinni.*
>
> ' "If Anlúan were in the house he would offer you yet another contest. It is a pity for us that he is not in the house" – "He is though", said (says) Conall, taking the head of Anlúan from his belt and he **throws** it at Cet's breast.'
>
> Chadwick (1927: 16)

From *Aided Óenfhir Aife*:

(8)

Boí (pret.) *Cú Chulainn immurgu oca chluichiu oc dul dochum in gilla* ┐ ***lám Emire tara brágaid****. 'Ná téig sís!' ol sí.*

'Cú Chulainn was present at the time, going towards the boy**, and, then, the arm of Emer [is] over his neck**. "Do not go down!", said (says) she.'

Van Hamel (1933: 14)

(9)

... 'Is fír', ol Cú Chulainn. ***Gaibid*** *in mac iarom eter a dí láim* ┐ ***nos ucca*** *co tall ass* ┐ *na* ***mbeir*** *co tarlaic de ar bélaib Ulad. 'Aso mo macsa dúib', a Ultu' ol sé*

' … "It is true", said (says) Cú Chulainn. He **takes** the boy between his arms and **carries** him till he **brings** him down before the men of Ulster. "Here is my son for you, men of Ulster", said (says) he.' [9]

Van Hamel (1933: 15)

Such situations could well be transcribed as a kind of short plays where the present tense would stand for stage directions:

(8-1) *EMER [putting her arm around Cú Chulainn's neck]: *Do not go down!*
(9-1) *CÚ CHULAINN: *It is true.* [He **takes** the boy between his arms and **carries** him till he **brings** him down before the men of Ulster.] *Here is my son for you, men of Ulster.*

Although (8) is not exactly an actual case of the present tense, yet the clause *the arm of Emer over his neck* is a kind of non-finite construction which was quite widespread in Old Irish (in Modern Irish it is as impossible as in Modern English). Being non-finite, it can be seen as either present or preterit (compare *the arm of Emer was over his neck*), so our classifying it as a 'stage direction' is relative and depends largely on its location in the text – that is, within the dialogue. It must be also pointed out that speech parts are generally

[9] In the actual English translation, these sentences are mostly rendered into the past tense. See http://www.maryjones.us/ctexts/aoife.html .

more expressive than informative, which makes it possible to speculate that, in the course of an oral performance, a narrator would employ some acting techniques.

Case (1) – ***Goes*** *Cormac to the edge of the ford for a talk with her and* ***asked*** *whose was the harness that she was a-washing* – might be possibly seen as a shortened version of a longer text which originally included Cormac's direct speech. So, this case could be also classified as 'scenic'. There are other cases, however:

(10)

Téit (pres.) *in gilla iar sin co airm i mboí (pret.) Emer* ┐ ***adfét*** (pres.) *amal boí Cú Chulaind. 'Olc duitsiu, a gilli', for sí, 'ar is tú taithiges in síd cen féib íca do thigerna…'*

'The servant **goes** to the place where Emer was and **tells** (her) about Cu Chulainn's state. "It (is/was) bad for thou, servant", said (says) she, "that thou went from the Sid without taking with thou the master…" '

Dillon (1953: 12)

This one does not fit into the pattern outlined above – i. e. the speaker and the subject of the present-tense clause are *not* the same person – and must perhaps be identified with Fulk's category of the present tense briefly describing events of lesser importance.

6. 'Timeless' present and non-finite clauses in Modern Russian and Old Irish

What are the origins of this quite consistent 'device'? This question is hardly to be answered easily, since it can involve both the narrator's deliberate technique and his unconscious discursive and/or communicative strategies. As a deliberate literary device, introducing the present tense (either of the 'scenic' kind or not) could perhaps be intended to create the illusion of orality in the text that was taking its written form in the learned monastic milieu. On the other hand, the narrator's 'immersion' into the communication situation would make the conversations within the saga truly discursive (compare the definition of *discourse* by Nina Arutyunova as of 'speech immersed into real life' (Arutyunova 1990: 137), which, in its turn, made the set of phrases a true literary text – the former being not at all incompatible with the latter.

Introducing the present tense on a regular basis is in fact characteristic of oral narration, yet it is principal function, as we may suggest, is visualization, creating a kind of a 'camera' effect. Additionally, the Old Irish language could achieve this goal through the use of non-finite clauses, like the modern Russian does. In Russian, we can well say either (11) or (12):

(11)

Ja pomnju den', kogda ja vpervie uvidel Mashu: ona ***stojala*** *u kusta sireni, na nej bylo sinee platje.*

'I remember the day when I saw Mary for the first time: she **stood** among the lilac bushes, wearing a blue dress' (literally: 'a blue dress was on her')

(12)

Ja pomniu den', kogda ja vpervie uvidel Mashu: ona ***stoit*** *u kusta sireni, na nej sinee platje.*

'I remember the day when I saw Mary for the first time: she **stands** among the lilac bushes, wearing a blue dress' (literally: **'a blue dress on her'**)

Compare: *Brat cas corcra fo loí chaín aicthe* 'A mantle [she has/had], curly and purple, a beautiful cloak' in (3).[10]

The contents of a saga, therefore, are not only the information about the times bygone, but also a sequence of imaginary scenes which the addressee was expected to conceive *visually* while listening to the story – perhaps, this effect served as an extra means of verification. Interestingly, the later and more learned text of *The Book of Invasions* (a semi-mythological account of early Irish history) yields very few examples of such a present tense use – that is, as few as 0.9 per cent of all the verb uses (Tristram 1983: 30). This indicates a different communicative strategy and a different idea of veracity (the latter effect is achieved through references to other written records within the learned tradition, rather than through the illusion of immediacy).

[10] However, in Russian the clause like *na ney sineye platye* (word-by-word, *on her [a] blue dress*) is also a grammatically normal present tense form understood as 'a blue dress *is* on her', since the modern Russian verb *byt'* 'to be' has no present tense in modern speech and all the present-tense clauses with the meaning of 'being' are necessarily elliptical. Compare the past tense of the same clause *na ney* ***bylo*** *sineye platye* 'a blue dress **was** on her'.

7. Conclusion

The way of representing the 'epic' past as a sequence of scenes could probably be traced back to the most archaic modes of culture of which Yuri Lotman wrote: 'An important feature of spatial models, created by culture, is that, unlike other types of semiotic modelling, they are based on iconism and continuity, rather than upon verbalism and discontinuity. Their core is formed of iconic texts that are envisaged; verbalization is secondary' (Lotman 2000: 334).

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Vestiges of IE. amphikinetic presents in Celtic.

Natalia O'Shea

1. Introduction

The present article explores a body of Celtic evidence for the reconstruction of Indo-European strong athematic amphikinetic verbal presents. Old Irish is chosen as the language of analysis, due to the fact that nearly all Celtic vestiges of strong verbal structures are found in Old Irish; data from other Celtic languages are included in the discussion, as well as cognates from other Indo-European languages.

The data are organized as follows: we start with IE. verbal roots for which amphikinetic stems are attested and follow their development in Common Celtic and further in Old Irish. We first look at simpler, most straightforward cases, and then proceed to various complications.

Let us begin, so to speak, with the tools which we are going to be using in our analysis. This work is performed according to the rules and postulates of the Erlangen school of comparative linguistics and therefore employs terminology and principles of reconstruction as posited by its founder Helmut Rix and his team. We rely on *Lexikon der Indogermanischen Verben* (which will be referred to as *LIV* in the text) for the reconstruction of phonetic shapes of IE. roots, as well ablaut-accent types. It makes sense to give a short layout of these types here, using examples from the nominal system first:

Proterokinetic type. The root is stressed and displays full grade ablaut in the strong stem, while the unstressed affix and flexion are in the zero grade. The accent in the weak stem shifts onto the affix, which acquires a full grade, and the root, accordingly, assumes the zero grade, e.g. IE **swh$_2$d-u-* 'sweet'; Acc. Sg. **swéh$_2$d-u-m*, Gk. ἡδύν, Skt. *svādúm* vs. Gen. Sg. **suh$_2$d-éw-s*, Gk. *ἡδέ(ϝ)ος*, Skt. *svādós*.

Amphikinetic type. In this case the affix (if there at all) is invariably unstressed and is naturally in the zero grade (it might also, as illustrated below, show a secondary *o*-vocalism); the strong stem is manifested by the full-grade stressed root, and the weak one shows the full-grade stressed flexion, while the root, as

expected, shows the zero grade ablaut again, e.g. IE **wek-nt-* 'willing' (Participle I); Acc. Sg. **wék-ont-m̥*, Gk. ἑκόντα, Skt. *uśántam* vs. Gen. Sg. **uk-nt-és*, Gk. *ἑκόντος*, Skt. *uśatás*.

Histerokinetic type. This type always shows a zero-grade unstressed root: the ablaut-accent shift takes place between the affix and the flexion, e.g. IE **wr̥-n-* 'lamb', **uks-n-* 'bull'; Nom. Sg. **wr̥-ḗ(n)-ḱ*, Gk. *ϝαρήν*, Skt. *urā́* vs. Gen. Sg. **wr̥-n-és*, Gk. *(ϝ)ἀρνός*, Skt. *ukṣṇás*.

This neat classification can easily be applied to the verbal system, with the exception of the proterokinetic type due to the obvious reason that verbal weak stem always involves a stressed flexion. Root presents are best described as amphikinetics, as they demonstrate the ablaut-accent shift from root to flexion, e.g. IE **g^{wh}én-/*g^{wh}n̥-* 'wound, slay', Hitt. 3 Sg. *kuenzi,* 3 Pl. *kunanzi*, the Celtic reflexes of which will be discussed below. Nasal-infixed presents, on the other hand, seem to belong mostly to the histerokinetic type, where a full-grade infix is characteristic of the strong stem, e.g. IE **yu-né-g-/*yu-n-g-* 'join, bind', Skt. 3 Sg. *yunákti*, 3 Pl. *yuṇjánti*; reduplicated presents can be both amphikinetic and histerokinetic, depending on their accentuation. There is also such a thing as an acrostatic type which does not involve a shift of stress, but we need not dwell on it here (Old Irish evidence for the reconstruction of this has been discussed by us elsewhere (O'Shea 2010)).

2. Data

Reflexes of IE. athematic amphikinetic presents in Old Irish are not particularly numerous – there are less than twenty of them. Nonetheless, nearly all of them are widely used and therefore remain in the realm of strong verbs. Moreover, one of these verbs is the only Old Irish verb which retained kinetic conjugation and opposition of the strong and weak stems, and it seems fitting to start our survey with it.

2.1. 'True' amphikinetic

OIr. 3 Sg. *is*, 3 Pl. *it* 'is' (copula), class **B I** (GOI: 354; 484ff), from IE. **h$_1$es-* (IEW: 340-341; LIV: 241-242). The Old Irish copula corresponds to the main substantive verb in other Indo-European languages: Hitt. *ēszi*, *asanzi*, Skt. *ásti*, *sánti*, Av. *astĭ*, *həṇt,* Gr. ἐστί, εἰσί, Lat. *est*, *sunt*, cf. Umbr. 3 Pl. *sent* (on the development of weak stem vocalism cf. (Dunkel 1998: 84ff)), Goth. *ist*, *sind*, OLith. *esmì*, *ẽsti* 'am, is', Arm. *em* 'am', OCSl. *jesmь*, *sǫntь*, MW. *ys*, *ynt* 'is, are', Gaul. *ιμμι* 'am' (Lambert 1997: 62) etc. Let us track down the development of all present forms in Old Irish.

This is how the Indo-European paradigm evolves in Celtic: 1 Sg. **h$_1$és-mi*, 2 Sg. **h$_1$és-si*, 3 Sg. **h$_1$és-ti* vs. 1 Pl. **h$_1$s-mós*, 2 Pl. **h$_1$s-té*, 3 Pl. **h$_1$s-énti* > **esmi, *e(s)si*, **esti* vs. **smos*, **ste(s)*, **senti*. The third person forms emerge from this picture without any phonomorphological anomalies: **esti* vs. **senti* > **essi* vs. **sınti* vs. **issi* vs. **ınti* > OIr. 3 Sg. *is*, 3 Pl. *it*. The 3 Sg. form shows assimilation *st* > *ss*, as well as vowel raising *e* > *i* before an *s* in an unstressed position (because the copula, as opposed to the substantive verb *at-tá*, q. v., is never stressed) (SnaG: 75). In the 3 Pl. *e* before *n* develops a raised allophone *ı* (McCone 1996: 55-56), and the proclitic-initial *s* drops, cf. article Nom. Sg. masc. *ind* < **sindos* (SnaG: 75).

Other plural forms demonstrate root ablaut leveling after singular, the reason obviously being that formations like **smos(i)* are not phonotactically viable in Celtic: 1 Pl. **es-mos(i)* after the pattern of 1 Sg. **es-mi*, and 2 Pl. **e-tes(i)* after 2 Sg. **e-si*. These 1 Sg. and 1 Pl. forms evolve further without many complications: 1 Sg. **esmi* > **emmi* > *am* and 1 Pl. **esmosi* > **emmo(h)i* > **ammi* with the regular lowering *e* > *a* in proclitics, cf. preverb *as* < **h$_1$eks-*; the archaic form of 2 Pl. does not pose any problem either: **etesi* > **etisi* > *adi* (Wb. 21^{c}17). This form later acquires a suffixed pronoun, which results in the pure Old Irish 2 Pl. *adib* = *adi* + *-fi* < **s·es* (SnaG: 191); apparently, the same phenomenon explains the two attested forms of 2 Sg. *at* (Wb. 32^{a}21) and *it* (Ml. 55^{d}11) < *†i* < **ihi* < **esi* + *-tu*, though the exact phonological scenario here is not clear (SnaG: 138). It is quite possible that the vocalism of *at* was remodelled after the form *adib*, to avoid confusion of 2 Sg. *it* with 3 Pl. *it*. On the other hand, if the form *†i*, being a result of lenition, was not phonetically sufficient as a proclitic, attachment of a suffixed pronoun to the verbal form is quite logical; nonetheless, the unlenited */d/* in this form still defies explanation.

2.2. Amphiniketic to simple thematic

Let us proceed to a few other reflexes of amphikinetic presents in Old Irish. All of these show thematic conjugation in Celtic; the weak stem is regularly generalized in the process of thematisation.

2.2.1. OIr. gonaid

OIr. *gonaid* 'wounds, kills', class **B I** (GOI: 358), **S1c** (EIV: 30), from IE. root **g^{wh}en-* (IEW: 491-493; LIV: 218-219). The amphikinetic present from this root

exists as Hitt. *kuenzi, kunanzi*, Skt. *hánti*, *ghnánti*, Av. *jaiṇti*, *-γnəṇti* 'strikes, kills'(Watkins 1985: 301); other IE. languages show the same stem in such verbs as Arm. *jnem* 'I swipe' (Klingenschmitt 1982: 154), Gr. θείνω 'I strike' <*g^{wh}en-yō* (Rix 1992: 208), Lat. *dē-fendō* 'I defend' with an enlargement *-$d^{(h)}$- (Meiser 1998: 193) etc.

The evolution of the Old Irish verb should be reconstructed as follows: *g^{wh}én-ti* vs. *g^{wh}n-énti* > *g^{w}enti* vs. *g^{w}nenti*; the 3 Pl. Form at this stage restores a syllabic zero grade in the root after the fashion of 1/2 Pl.: regular 1 Pl. *g^{wh}n̥-mós*, 2 Pl. *g^{wh}n̥-té* > *g^{w}anmos*, *g^{w}antes* triggers the change of 3 Pl. *g^{w}nenti* ~ *g^{w}anenti*. Thus, we arrive at the opposition *g^{w}enti* vs. *g^{w}anenti*, where the 3 Pl. flexion *-enti* is replaced by a thematic flexion *-onti*; the whole paradigm is thematised and the weak stem is generalized throughout: *g^{w}aneti*, *g^{w}anonti* (McCone 1986: 228; SnaG: 137). The unusual *o*-vocalism was successfully explained by Warren Cowgill, who posited a rounding *a>o* after the labiovelar stop *g^{w}* (Cowgill 1980: 60-61; McCone 1996: 41). We must mention the Welsh cognate of our verb, *gwanu*, which also goes back to a Proto-Celtic thematic structure; G. Isaac's theory, which sees MW preterit 3 Sg. *gwant* 'killed' as a relict of athematic 3 Sg. *g^{w}an-ti* with a zero grade vocalism from the weak stem, is appealing, but it seems to be based on presumption that the generalization of the weak stem takes place *before* thematisation, and this, in the absence of any class-making suffix like in nasal presents, makes the reason for thematisation unclear.

2.2.2. OIr. ligid

OIr. *ligid* 'licks', class **B I** (GOI: 425), **S1a** (EIV), from IE. root *leyĝ^{h}*- (IEW: 668; LIV: 404). Other Indo-European languages show the following cognates of this verb: Skt. *réḍhi* 'licks', Gk. λείχω 'I lick', Arm. *lizem* 'I lick', Russ. *лизать* etc. (Klingenschmitt 1982: 208-209). We can reconstruct the following scenario of evolution for our verb: *léyĝ^{h}-ti* vs. *liĝ^{h}-énti* > *lēχti* vs. *liγenti* ~ *liγeti* vs. *liγonti* > OIr. 3 Sg. *ligid*, 3 Pl. *legait*.

It seems necessary to point out that all these morphological changes take place in a rather early period of the history of the language; as it turns out, at least part of them come about *before* the Celtic shift *ey > *ē*, otherwise the opposition *lēχti* vs. *liγenti* would have been subject to such a peculiar process of Celtic phonomorphology as the quality ablaut levelling. The levelling means that if a kinetic paradigm shows both quality and quantity ablaut opposition, this oppostion is simplified in favour of the quantity one on the basis of 3 Sg. vocalism. If this change had taken place after the shift *ey > *ē*, the development of our verb would have looked thus: *lēχti* vs. *liγenti > *lēχti* vs. *leγenti > *leγeti

vs. *leγonti > †leigid, †legait*. It is left for us to notice that a thematic present is shown in Welsh *llyo* 'lick' < *liγaμ (Klingenschmitt 1982: 208).

2.2.3. OIr. con-rig

OIr. *con-rig* 'binds', class **B I** (GOI), **S1a** (EIV: 29), from IE. root *reyg*- (IEW: 861-862; LIV: 503). MHG. 'to bind' appears to be the closest cognate of the amphikinetic present underlying the Old Irish verb; we should also note Lat. *rigeō* 'I am still, solid', which hails back to an essive *rig-$h_1$yé*-(LIV: 503 n. 2) or a fientive *rig-eh_1*- (McCone 1991$_b$: 8). In any case, it is possible to reconstruct the following picture of the development of the Celtic present: *réyg-ti* vs *rig-énti > *rēχti* vs. *riγenti ~ *riγeti* vs. *riγonti* > OIr. 3 Sg. *-rig*, 3 Pl. *-regat*. It is clear that the thematisation pattern is that of *ligid*; this verb is presumably connected with OIr. *rigid* 'stretches, rules'.

2.2.4. OIr. meilid

OIr. *meilid* 'grinds', class **B I** (GOI: 353), **S1a** (EIV: 37), from IE. root *melh$_2$*- (IEW: 716-717; LIV: 432-433); cf. reconstruction with the first laryngeal *melh$_1$*- in (Klingenschmitt 1982: 145-147). The amphikinetic present of this root is attested in Arm. *malem* 'I press, grind' (thematisation with the weak stem gemeralisation), Lat. *molō* 'I grind' (*mole- < *mele-*, thematisation with the strong stem generalisation) (Meiser 1998: 191), cf. Umpr. *kumaltu* 'let (it) be destroyed' < *-maletōd < *m̥lh$_2$-e-*(Klingenschmitt 1982: 145ff) etc. A different present formation from the same root is presumably an athematic reduplicating present *mé-molh$_2$-ti* vs. *mé-m̥lh$_2$-n̥ti*, the traces of which, devoid of the reduplicator, are found in Hitt. *malli*, *mallanzi* 'grinds' and Goth. *malan* 'the same' (ibid.). As far as the Old Irish verb is concerned, its development looks thus: *mélh$_2$-ti* vs. * m̥lh$_2$-énti > *melati* vs. *malanti*.

The rest of Plural forms can be reconstructed in two ways: 1 Pl. *m̥lh$_2$-mós*, 2 Pl. *m̥lh$_2$-té(s) > *malamos, *malates* or *mlāmos, *mlātes*. Which variant of reconstruction we choose for the Celtic combination of a syllabic sonorant plus laryngeal, depends on whether we agree with J. Kuryłowicz and C. Watkins and their 'morphological zero grade' theory (Kuryłowicz 1956: 166ff; Watkins 1962: 185ff), or follow L. Joseph and see the shift *R̥HC > RāC* as the only possible development with no regard to morphological conditions (Joseph 1982: 56). Still, this question has no crucial meaning for our reconstruction, as the 3 Pl. form *malanti* appears quite phonetically stable and does not require any levelling. Thus, we arrive at the opposition *melati* vs. *malanti*, and the immediate result

of the thematisation of this paradigm with generalization of the weak stem if Welsh *malu* 'to grind' and other British Celtic cognates with their unambiguous *a*-vocalism. Had the Old Irish verb followed the same path, it would have logically reached this: **melati* vs. **malanti* ~ **maleti* vs. *malonti* > *†mailid, †malait* (see another variant of development for such paradigms in the section on weak verbs *anaid, scaraid*). But on the contrary, the vocalism of our verb can only be accounted for on the assumption that it was the strong stem, not weak, which spread throughout the paradigm with thematisation: **melati* ~ **meleti* > OIr. *meilid*, and this obviously contradicts the basic rules of unification of kinetic present paradigms in Celtic. We should therefore assume that a thematic present with a full-grade root based on the root **melh$_2$-* came about in Celtic at a very early stage (late Indo-European? early Proto-Celtic?): **mélh$_2$-e-ti* > **meleti* > OIr. *meilid*. Given the existence of a more complicated present from this root in other branches of Indo-European, this thematic formation could be regarded as an original root subjunctive; on the other hand, a creation of a new Celtic thematic present is equally plausible.

2.2.5. OIr. teichid

OIr. *teichid* 'flees', class **B I** (GOI: 353), **S1a** (EIV: 43), from IE. root **tek^w-* (IEW: 1059-1060; LIV: 260-621). An amphikinetic present formation from this root is posited on the evidence of Hitt. *wa-tkuzzi* 'flees' with a generalized weak stem and a **wo-* preverb (Oettinger 1979: 237), Skt. *takti* 'lunges', Lith. *tekù* 'I run, flow' and Russ. *мечь* 'to flow'. Let us consider the development of the Celtic verb in question: **tékʷ-ti* vs. **t$_e$kʷ-énti* > **teχti* vs. **teχʷenti*; as we see, the opposition of the strong and weak stems becomes irrelevant due to the fact that triphonemic roots with two stops of the type *TET-* develop an epenthetic short vowel in the zero grade. Thus, the thematisation works without any hindrance: **teχti* vs. **teχʷenti* ~ **teχʷeti* vs. **teχʷonti* > OIr. 3 Sg. *teichid*, 3 Pl. *techait*.

2.2.6. OIr. snaidid

OIr. *snaidid* 'cuts', class **B I** (GOI), **S1a** (EIV), from IE. root **sned^h-* (IEW: 972-973; LIV: 571). This root is only attested in Celtic and Germanic, cf. W. *naddu* 'cut', OHG. *snat(t)a* 'cut, scar' (LEIA: S-146), and this renders an exact Indo-European reconstruction quite difficult. Nevertheless, we can envisage a present stem development as **snéd^h-ti* vs. **sn̥d^h-énti* > **snetti* vs. **sandenti*; here we have to posit a rather non-standard levelling **snetti* vs. **snadenti*; a fully logical thematisation ensues: **snetti* vs. **snadenti* ~ **snadeti* vs. **snadonti* > OIr. 3 Sg. *snaidid*, 3 Pl. *snadait*.

2.3. Complicated development – stand-alone cases

This section will deal with two complications in the development of original amphikinetic presents in Old Irish. We will analyse a 'double nasal present' and a case of suppletion.

2.3.1. OIr. seinnid

OIr. *seinnid* 'plays (music)', class **B I** (GOI: 353), **S1a** (EIV), from IE. root **swenh$_2$-* (IEW: 1046-1047; LIV : 611). An amphikinetic present can be posited from this root quite safely on the account of Skt. *svaniti* 'sounds', OLat. *sonō*, *-ere* 'I sound, I ring': 3 Sg. *sonit* < **swenati* < **swénh$_2$-ti* (Schrijver 1991: 395; Meiser 1998: 191), cf. iterative **swonh$_2$-éye-* in Lat. *sonō*, *-āre* 'I sound'. The subject of our analysis, the Old Irish verb, could have developed in a regular fashion as follows: **swénh$_2$-ti* vs. **swn̥h$_2$-énti* > **swenati* vs. **sunanti* ~ **suneti* vs. **sunonti* > *†suinid*, *†sonait*. But in reality we do not only find a full grade of ablaut in the root, but also a double nasal *nn*, and both of these features bear traces of a certain analogical pressure.

Of course, there is a possibility that our verb goes back not to an amphikinetic, but to a nasal present **swn̥-né-h$_2$-ti* vs. **swn̥-n-h$_2$-énti*, attested in Av. *apa.x ᵛanuuaiṇti* 'they sound, ring'; but Old Irish already has an original nasal present verb which is phonetically is extremely close to *seinnid* 'plays music' – OIr. *seinnid* 'pursues' (IE. **sn̥-né-h$_2$-ti* vs. **sn̥-n-h$_2$-énti*. Paradigms of these two quite heterogenous verbs influence each other as they evolve: for example, our verb borrows a double nasal and vocalism from the nasal present; in turn, the compounds of *seinnid* 'pursues' demonstrate a result of lenition of the analogical initial *sw* > *f*, cf. 3 Sg. Pres. conj. *tafainn* vs. abs. *do-seinn*. Thus, as a result of all these alterations, we get a thematic stem **swenne/o* > OIr. *seinnid*, cf. (McCone 1998: 467).

2.3.2. Suppletive stem

Let us now consider a stem which does not exist as an independent present, but is trapped within the suppletive paradigm of the verb *téit* 'goes', q. v. The imperative form of this verb looks like *eirg* 'go!', and future stem is *-riga/-rega* 'will go', and both these forms go back to the IE. root **h$_1$erĝ^h-* (IEW: 328; LIV: 238-239). Apart from Celtic forms, the amphikinetic present is attested in Hitt. *arkatta* 'rises', as well as Gr. ἔρχομαι 'I come'; for this point of view see (GOI: 473; Watkins 1966: 77-78; G. Schmidt 1986: 52-53; McCone 1991$_a$: 174-175).[1]

[1] H. Rix, followed by M. Kümmel, preferred to trace the Greek verb back to a protoform **h$_1$r̥-ské/ó-* and relate to Skt. *ṛcchá́ti* "reaches, attains", and to see the Hittite stem as the only cognate of the Old Irish one (Rix 1992: 69; LIV: 238).

Thus, we posit the following scenario: *$h_1$érĝ^h-ti vs. *h_1r̥ĝ^h-énti > *erχti vs. *rigenti; the strong stem of this paradigm remains in the imperative, and the regular thematisation results in the forms: *rigeti vs. *rigonti > †-rig, †-regat. Obviously, being incorporated into a suppletive paradigm as a future, this present existed in its thematic variant for a rather long period of time, before acquiring a productive future suffix -ase- > -ā- under the analogical pressure from regular future forms, and this resulted a seemingly 'weak' form -riga. It is worth pointing out that the vocalism of -riga can only be satisfactorily explained on the assumption that the suffix was attached to the stem after the vowel lowering (velar vowel affection). On the other hand, the forms of 1 Pl. and 3 Pl., which show the legitimate result of velar affection, are responsible for the existence of the variant -rega (McCone 1991$_a$: 174-176).

2.4. Hiatus verbs

We now have to consider a full range of verbs which show one common phonomorphological feature on the Old Irish level, that being hiatus in present. Thus, all of them, regardless of whether their other stems show strong or weak conjugation, were attributed to class **A III** by R. Thurneysen and divided into three hiatic classes by K. McCone, in accordance with their stem vocalism.

2.4.1. OIr. ad-cí

OIr. *ad-cí* 'sees', class **A III** (GOI: 352), **H2** (EIV: 25), from the IE. root *k^weys- (IEW: 637; LIV: 381-382). An amphikinetic stem for this root is attested as present in Celtic, but appears as aorist in Indo-Iranian: Av. *cōišt* 'granted something to someone' < *k^wéys-t (Kellens 1995: 22-23). The corresponding Avestan present shows a logically anticipated nasal suffix: Av. *cinasti* < *k^wi-né-s-ti. As for the Celtic material, it only shows, as we have said before, the simple amphikinetic stem in the present; it is indeed not difficult to restore a pattern of thematisation for *k^wéys-ti vs. *$k^w$is-énti > *k^wiseti vs. *k^wisonti > OIr. 3 Sg. -cí, 3 Pl. -cïat (Klingenschmitt 1982: 146); the same structure is possibly preserved in Gaul. -*pisetu* 'saw' < *k^wiset-ū (Schmidt 1989: 178; contra Lambert 1997: 126); if Schmidt's treatment is correct, this is a weak preterit based on the Gaulish 'dental preterit' model with the suffix -ā, cp. *karnitou*, *lubitus* etc. (K. H. Schmidt 1989: 178; Lambert 1997: 64). Moreover, the reconstruction of an athematic amphikinetic protoform for our verb is supported by a prototonic form 3 Sg. Pres. Pass. -*accastar* (Wb. 25^{b}28, 26^{a}12), which can only be explained as a reflex of the weak stem of an athematic

paradigm *ad-$k^w$is-tor (Klingenschmitt 1982: 146; GOI: 386). The deuterotonic form of the passive is, doubtlessly, thematised: *ad-cither* < *ad-k^wisetor. As for the cluster *st*, which normally yields *ss* in Celtic, we should assume that the passive morph *–tor* is segmented already at a late Proto-Irish stage, as it happens, for example, in deponent subjunctives like *mestar* 'should judge' ~ †*messar* < *messor ~ *med-se-tor (SnaG: 153).

Does this all mean that *ad-cí* shows a unique case of an aorist-present verb in Celtic morphology? If so, it seems logical to assume that our verbs builds the rest of its paradigm on the basis of this new present. Indeed, neither a reduplicated perfect *k^wi-k^wóys-e, seen in Old Irish *(con)-accae* (with syncope in the prototonic form), nor a desiderative *k^wi-$k^w$is-sé-ti, cf. archaic OIr. 3 Sg. Fut. Pass. *ad:cichestar* (McCone 1991$_a$: 168), are to be found in other branches of Indo-European. On the other hand, their morphology is immaculate from the point of view of reconstruction of the Indo-European background, which cannot, unfortunately, be said of the Gaulish form *pissíumí* 'I will see/wish to see (?)' from the inscription of Chamalières, which apparently should be reconstructed as *k^wissyō+mi (Schmidt 1989: 174) and interpreted as a parallel to Indo-Iranian -*sya*-futures; see discussion in (McCone 1991$_a$: 145-146).

2.4.2. OIr. cïid

The present stem of the following verb, OIr. *cïid* 'cries, weeps', class **A III** (GOI: 352), **H2** (EIV: 52), can easily be confused with that of *ad-cí*, but the rest of the paradigm is entirely different. First, these two verbs have radically different forms of preterit (though both going ultimately back to Indo-European perfect formations), cf. *(con)-accae* < *cechae of *ad-cí*, but *cich* of *cïid*. Second, this is the only verb of the **H2** class with *i*-hiatus, which never forms an *é*-subjunctive, otherwise typical of this class: cf. *a*-subjunctive 3 Sg. -*cia* 'should see'. The etymological relations of our verb are yet to be defined. F. O. Lindeman treats it as a causative formation *kw-éye-ti, cf. Skt. *káuti* 'cries' (Lindeman 1984: 60), but this theory contradicts quite evident strong conjugation of *ciád*.

It is known that nasal-present verbs from roots of the shape *C(R)EYH*- tend to form monosyllabic reduplicated preterit forms in Old Irish on the basis of IE. perfect stems; cf. 3 Sg. Pret. *lil* < *$h_2$li-$h_2$loyh_2-e* of *lenaid* 'clings' < *$h_2$li-ne-h_2-ti, *$h_2$li-n-h_2-enti*; this fact, obviously, led Holger Pedersen to a suspicion that our verbs goes back to a certain *k'ey- root (VKG I: 487; cf. LEIA: C-98). This pattern of modification of perfect stem includes a loss of an anomalous long final vowel, which results in the development of the new 'weak' stem, which is subsequently generalized throughout the paradigm. It is worth noting, however,

that application of this pattern is limited to the nasal-present verbs, and analogous development of this kind only occur within this group, too (cf. *tíuil* of *tlenaid* 'steals' < **tl̥-né-h$_2$-ti* vs. **tl̥-n-h$_2$-énti*, after the pattern of *cíuir* of *crenaid 'buys'* < **k^{w}ri-né-h$_2$-ti* vs. **k^{w}ri-n-h$_2$-énti*). All this means that the easiest way to explain *cich* is to posit for it a preform **ki-koyH-e*, which undoubtedly is an archaism. Subjunctive, in turn, is neatly reconstructed as **keyh$_2$-se-ti* > *-cia*.

We propose to treat *ciïd* as a descendant of IE. **keyh$_2$-* 'move' (IEW: 538; LIV: 346), cf. Gk. κίνυμαι 'I move, I budge' < **kih$_2$-néw-* and posit a semantic shift 'move – make rapid movements – to wriggle hands, sob, cry'. Even at the absence of an inherited present stem, analogical pressure from other parts of the paradigm, especially preterit, would have probably sufficed to trigger the creation of a new nasal present *†cenaid*; on the contrary, the present of our verb is hiatic, and it is so morphologically at odds with Subjunctive and Preterit, that we can only assume its archaic origins. Thus, it is left for us to posit an amphikinetic prototype with simple thematisation: **kéyh$_2$-ti* vs. **kih$_2$-énti* > **keyati* vs. **kīanti* ~ **kīeti* vs. **kīonti* > OIr. 3 Sg. *ciïd*, 3 Pl. *ciät*, where vowel length is duly neutralized in hiatus.

2.4.3. OIr. *snaïd*

OIr. *snaïd* 'swims', class **A III** (GOI: 352), **H1** (EIV), from IE. **(s)neh$_2$-* (IEW: 971-972; LIV: 571). Amphikinitic present from this root is well attested in Skt. *snā́ti* 'bathes', lat. *nō*; *nāre* 'I swim' etc. (Meiser 1998: 188; LEIA: S-145-146). The development of the Old Irish verbs seems rather straightforward: **(s)néh$_2$-ti* vs. **(s)n̥h$_2$-énti* > **snāti* vs. **sananti*; as we understand, here an ablaut levelling takes place, and the 3 Pl. form **sananti* is replaced by **snanti* under the influence of 1 Pl. **(s)n̥h$_2$-mós* > **snāmos* and 2 Pl. **(s)n̥h$_2$-té* > **snātes*. Thus, the Common Celtic paradigm does not even have a vowel quality opposition between strong and weak stems and therefore only needs an easy thematisation with generalization of the weak stem: **snāti* vs. **snanti* ~ **snaeti* vs. **snaonti* > OIr. 3 Sg. *snaïd*, 3 Pl. *snaït*. It should be noted that structure of the strong stems prevents a 'morphological zero grade' from development, and unification of a weak stem **san-* with further evolution into OIr. *†sanaid*, *†sanait* would not have been plausible.

2.4.4. OIr. *sniïd*

OIr. *sniïd* 'spins, weaves', class **A III** (GOI: 352), **H2** (EIV: 45), from IE. **sneh$_1$-* (IEW: 973; LIV: 571-572). Derivatives of an amphikinetic present from this root are seen in Gk. νῆ 'spins' < **(s)nē-ye-* (LIV: 571 n. 3), lat. *nēo*; *nēre* 'I spin'

(Schrijver 1991: 403-404; Meiser 1998: 190). Among the Celtic languages, Welsh also shows this stem in *nyddu* 'spin', where the fricative formant points out to a Common Celtic stem **sniye-*, as in the case of the present of substantive verb *bydd-*, Bret. *bez-*, which go back to CC. **biye-*, cf. OIr. habitual or consuetudinal present 3 Sg. *biïd* (Schrijver 1995: 292; McCone 1991$_a$: 118). The development of our verb can be posited as follows: ** snéh_1-ti* vs. **sn̥h$_1$-énti* > **snīti*, **sanenti*; then analogous ablaut levelling in the weak stem, as seen in the analysis of the previous verb: **snīti* vs. **sninti*; thematisation of the 3 Sg. triggers a natural development of a glide: **sniyonti*, which spreads further onto the rest of the paradigm and eventually gives us a stem **sniye-*: **sniyeti* vs. **sniyonti* > OIr. 3 Sg. *sniïd*, 3 Pl. *sniït*. Indeed, the formant *-iye-* becomes such a strong marker of the **H2** that it even spreads onto the preterit, cf. 3 Sg. Pret. *-sennai* < **senniye* ~ **sesnū* < **se-snóh_1-e* (SnaG: 170).

2.4.5. OIr. *soïd*

OIr. *soïd* 'turns', class **A III** (GOI: 352), **H3** (EIV: 38), from **sewh$_1$-* (IEW: 914; LIV: 538-539). The following verbs point out to the amphikinetic prototype: Hitt. *suwezzi*, *suwanzi* 'pushes' < **suwye-* with productive suffix *-ye-* (Melchert 1984: 16) and Skt. *suváti* 'drives' where weak stem is generalized in the process of thematisation. Middle Welsh also shows a verb *am-heuaf* 'I doubt' which undoubtedly is related to OIr. *imm-soí* (LEIA: S-156-157; Schumacher 2000: 187). Thus, we can posit the following development: **séwh$_1$-ti* vs. ** suh$_1$-énti* > **sowati* vs. **su(w)enti*; here, according to McCone, a dissimilatory shift **uw* > **ow* takes place (McCone 1991a: 109, 132), and the weak stem becomes **sowenti*, which is generalised throughout the paradigm in the course of thematisation: **soweti* vs. **sowonti* > OIr. 3 Sg. *soïd*, 3 Pl. *soït*. It should be noted that Lindeman's analysis, which requires a reconstruction of a 'morphological zero grade' and preform **saweti*, where a triphthong is supposed to have been simplified to a diphthong, cf. (Greene 1976: 32-33, 43), seems highly tentative to us; in fact, Lindeman has to posit a very complicated and unlikely scheme of development of our verb on the sole ground that he refuses to agree with McCone's hypothesis of **uw* > **ow* (Lindeman 1993).

The diphthong in the conjunct form 3 Sg. *-soí* is due the development of intervocalic *w* in a palatalising position: **soweti* > **soweθ(i)* > **sowɪθ'*> *-soí*. Conjunct 3 Sg. forms of this kind are typical in class **H3** verbs with *o/u/e*-hiatus, the majority of which show weak conjugation on Old Irish; our verb is obviously weak, too, cf. 3 Sg. Subj. *-soa*, 3 Sg. Pret. *soais*.

2.5. Weak verbs

Let us consider a few more verbs which go back to Indo-European amphikinetic presents but fall into the weak conjugation pattern in Old Irish.

2.5.1. OIr. *anaid*

OIr. *anaid/-ana* 'stays, remains', class **A I** (GOI: 337), **W1** (EIV: 23), from IE. *$*h_2enh_1$-* (IEW: 38-39; LIV: 267-268). The relation between this stem and Skt. *ániti* 'breathes' was noted decades ago (Rix 1977: 153; Watkins 1962: 187); other reflexes of this amphikinetic present include Goth. *(uz-)anan* 'exhale'. The development of our verb is totally conditioned by its laryngeal-final root structure: *$*h_2énh_1$-ti* vs. *$*h_2n̥h_1$-énti* > **anati* vs. **anenti*; here the 3 Pl. form, due to phonological reasons, loses coherency with 1 Pl. *$h_2n̥h_1$-mós* > **nāmos* and 2 Pl. *$h_2n̥h_1$-té* > **nātes*. Obviously, the stray 3 Pl. form becomes subject to levelling under the influence of other parts of the weak half of the paradigm: **anenti* ~ **anānti*; on the other hand, morphologically opaque forms 1 Pl. and 2 Pl. change into **anāmos*, **anātes* under the pressure of the rest of the paradigm (McCone 1991$_a$: 110-111).[2] The next logical step is unification of suffix *-ā-* throughout the paradigm, which, in turn, leads to identification of this new present stem with weak class stems, cf. **marw-ā-ti* > OIr. *marbaid/-marba* 'kills'. Thus, the verb *anaid/-ana* is fixed in the system as a weak one, and its further conjugation in other stems follows the pattern.

2.5.2. OIr. scaraid

OIr. *scaraid/-scara* 'separates', class **A I** (GOI: 404), **W1** (EIV: 23), from the IE. root **(s)kerH-* (IEW: 938-940; LIV: 558). Our verb is related to Lith. *skiriù* 'I cut off, I separate', and both of them can be traced back to an athematic amphikinetic prototype. Thus, **(s)kérH-ti* vs. *$*(s)kr̥H$-énti* > **skerati* vs. **skarVnti*; this case shows again a variation in the development of syllabic sonants in the weak stem forms, cf. 1 Pl. *$*(s)kr̥H$-mós* > **skrāmos*, 2 Pl. *$*(s)kr̥H$-té* > **skrātes*. The usual levelling: 1 Pl. **skrāmos* ~ **skarāmos*, 2 Pl. **skrātes* ~ **skarātes*, 3 Pl. **skarVnti* ~ **skarānti*; and finally, the opposition **skerati* vs. **skarānti* is eliminated with the generalisation of the weak stem, which gives us OIr. *scaraid/-scara* (Watkins 1962: 187-189; McCone 1991$_a$: 110).

[2] One can make an assumption that, if the aforementioned verb *meilid* had not preferred full grade root very early in its development, it most probably would have eventually become a weak verb of the same pattern: *†malaid/-mala*.

2.5.3. OIr. do-tréici

Finally, the last weak verb which can be traced back to an Indo-European amphikinetic present is OIr. *do-tréici* 'leaves, pushes away'; it is worth noting that this verb is the only representative of the **A II** (GOI: 352), **W2** (EIV: 36) class in this group. The stem goes back to the IE. root **trenk-* (IEW: 1093-1094; LIV: 649). To begin with, an amphikinetic structure **trénk-ti* vs. *$*trn̥k-énti$* is restored for this root on the evidence of the Old Irish verb itself, its Middle Welsh cognate *trenghit*, conj. *-threingk* 'perishes',[3] as well as Goth. *þreihan* 'to push, press' and Lith. *trenkù* 'I push', cf. for example (LEIA: T-133). On the other hand, the weak type of conjugation made G. Isaac treat the Welsh verb as a denominative of MW. *tranc* 'death' (Isaac 1996: 351). It does not seem necessary from the point of view of historical morphology, however, to distinguish Celtic verbs from their Indo-European counterparts; the development of our present in Celtic shows the usual thematisation of the kinetic paradigm with generalization of the zero grade weak stem: **trénk-ti* vs. *$*trn̥k-énti$* > **trenχti* vs. **trankenti* ~ **tranketi* vs. **trankonti*; cf. (McCone 1998: 470) about vocalism of the Welsh conjunct form *-threingk*, which points out to a full grade root.

As for the reasons which would explain the transition of an originally strong verb into the weak realm, they become clear after a short look at possible developments of its non-present stems in Celtic. A strong present *†-tréic* < **trēg'-* < **trænk-e/o-* would correspond to a full-grade sigmatic subjunctive *†-tré* < **trēss-* < **trınχs-* < **trenk-se/o-*, which, in turn, would tie in nicely with a reduplicated future *†-tithri* < **tiθrēss-* < **titrēχs-* < **titrænχs-* < **ti-trn̥k-se/o-*, and we can could imagine a perfectly plausible preterit *†tethraig* < **teθroχe* ~ **tetronk-e*, going back to IE. reduplicated perfect.

Here we took the liberty of not positing a morphologically straightforward *†tethraic* < **teθronke*, but rather endowing our hypothetic strong verbal paradigm with an altered version *†tethraig* < **teθroχe*, because, from the point of view of synchronic morphology, there is a group of nasal-present verbs which show practically the same range of stems. OIr. *léicid* 'leaves' (from IE. roots *$*leyk^w$-*), for one, belongs to the weak verbal class and goes back to a nasal present and therefore could not have had a nasal formant in the original perfect stem. One can assume that a widespread opposition Pres. *CVnT-e/o-* vs. Pret. *CV-CVT-* (cf. Pres. *boingid* 'breaks' vs. Pret. *bobuig* and many others), would have triggered analogous remodeling of the preterit stem of our verb and the likes of it, and not

[3] Cf. Welsh proverb *trenghit golut, ni threingk molut* 'wealth perishes, fame perishes not'. Semantically, the development of this verb can be outlined as follows: 'pushes – pushes away – leaves, goes away – perishes'.

vice versa. Be that as it may, it is clear that our hypothetical set of stems would have shown heterogeneity quite uncomfortable even for the Old Irish verbal system, which abounds in exceptions, opaque and suppletive forms and other marginalia. Given that our verb forms a mini-group of weak verbs of this phonological shape with the aforementioned *léicid*, as well as another nasal present *con-téici* 'congeals', it seems easy to assume that this mini-group undergoes a few radical changes in order to be built into the system, the most radical of them, of course, being the loss of strong conjugation and acquisition of the weak class **II** stem marker *-ī-*, cf. (McCone 1998: 474-475).

3. Conclusion

We believe that the evidence presented above allows one to regard Old Irish as a valuable source of information for the purposes of reconstruction of Indo-European morphological system. We analysed amphikinetic presents, which is just a tiny aspect of the verbal system, but however limited Celtic vestiges may be, they show great diversity, provide reliable cognates to already well-attested IE. stems and sometimes can help reconstruct lesser known roots and stems.

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Conjunctive pronouns in Modern Welsh: A preliminary corpus-based study

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1. Introduction

Corpus linguistics has revealed that many insights about language usage can emerge from the examination of patterns found in large amounts of real data stored in a computerized, easily searchable form (called a corpus). Unfortunately Welsh, like the vast majority of languages, does not yet benefit from the existence of a megacorpus. However, in this paper I will show that even studies based on a modest corpus can sometimes suggest patterns that have not been acknowledged in existing grammatical descriptions of the language. In this study I will examine the use of a particular paradigm of personal pronouns, the paradigm traditionally called *rhagenwau cysylltiol*, generally translated as 'conjunctive pronouns' or occasionally 'contrastive pronouns' in English.

The Welsh language, as traditionally described, has three sets of independent personal pronouns. These are called simple, reduplicated, and conjunctive pronouns. The basic problem I wish to address in this paper is to ask exactly how the set of conjunctive pronouns are used and how their use differs from the other two sets of independent pronouns. Grammars and pedagogical works typically give a small number of vague descriptions of conjunctive pronouns, frankly saying too little to enable a learner of Welsh to use them correctly and in fact not even accurately characterizing many of the examples that the reader of Welsh texts will encounter. Some of the descriptions build in a hedge by claiming that the nuances conveyed by conjunctive pronouns are sometimes too subtle to be conveyed in translation. While this may turn out to be true, it is worthwhile to explore whether one really cannot say anything more precise about how these pronouns are used beyond the vague generalities typically found in grammars. This led me to undertake a preliminary corpus study to examine how these pronouns are actually used in modern Welsh.

2. What do the existing grammars say?

The three paradigms of 'independent pronouns'[1] are listed in Table 1. Informal or colloquial variants are listed in parentheses beside formal or standard forms:

	Simple	Reduplicated	Conjunctive
1sg	*fi, mi, i*	*myfi (y fi)*	*finnau, minnau, innau*
2sg	*ti, di*	*tydi (y ti)*	*tithau, dithau (chdithau)*
3sg-masc	*ef (fe, fo, e, o)*	*efo, efe (y fe, y fo)*	*yntau (fynta, fotha)*
3sg-fem	*hi*	*hyhi (y hi)*	*hithau*
1pl	*ni*	*nyni (y ni)*	*ninnau*
2pl	*chwi (chi)*	*chwychwi (y chi)*	*chwithau (chithau)*
3pl	*hwy (nhw)*	*hwynt-hwy (y nhw)*	*hwythau (nhwthau)*

Table 1: Independent personal pronouns in Welsh

The simple pronouns are all monosyllabic. A few of them have forms which are formal and literary (e.g. 2pl *chwi*, 3pl *hwy*) and forms which are informal and colloquial (2pl *chi*, 3pl *nhw*). The colloquial pronouns are increasingly accepted in all registers today.

The reduplicated pronouns occur in two forms: a more traditional, literary form which is written solid (*myfi, tydi, efo, hyhi, nyni, chwychwi, hwynthwy*), and a colloquial form found in speech and contemporary writing in which the pronouns of the traditional set are reanalysed as a sequence of definite article plus simple pronoun (*y fi, y ti, y fo, y hi, y ni, y chi, y nhw*).

Finally, the conjunctive pronouns are all bisyllabic and consist of what looks like the simple pronoun plus a suffix, which variously takes the form *–nnau*, *–tau*, or *–thau*. The vowel of these endings is frequently simplified, both in speech and in informal writing, to either *a* or *e*; thus the 3sg feminine pronoun *hithau* is often encountered in the forms *hitha* or *hithe*.

Of these three sets of independent pronouns in Modern Welsh, we will have little to say about the reduplicated pronouns. These are clearly the least frequent and the least polyvalent. Although they would certainly merit a study of their own, which goes beyond the scope of this paper, it appears possible to characterize them very briefly in terms of their main function in modern Welsh. Reduplicated

[1] These are called independent pronouns by way of contrast with dependent pronouns, which are phonological clitics that must attach themselves to a host. I will have nothing to say about dependent pronouns in this paper.

pronouns occur primarily in topicalised sentences, in which they are fronted (moved to the left of the verb) for emphasis.

(1)
Myfi[2] *sy 'n magu 'r baban.* (Williams 1980: 56)
1sg be.REL PRED raise.VN the baby
'I am (the one) raising the child.'[3]

When topicalised sentences are negative they are preceded by *nid*:

(2)
Nid y fe oedd y broblem. (Jones 2007: 48)
Neg he was the problem
'It wasn't him who was the problem.'

They can also occur by themselves in answer to a question, or after *(dim) ond* 'only':

(3)
Tydi'r rheswm pam dw i isio siarad efo hi yn fusnas i neb ond ***y hi***...
(ap Hywel 1991: 148)
'Why I want to speak to her is nobody's business but hers…'
(Ross 1989: 93)

If the reduplicated pronouns enjoy a highly restricted distribution, this is not true of the simple and the conjunctive paradigms. The first thing to note is that the difference between simple and conjunctive pronouns, as traditionally portrayed at least, has nothing to do with syntactic function. Both kinds of pronoun can be used as subject, direct object, object of a preposition, object of a comparison, or reinforcer of a possessive. These possibilities are shown in the examples below, where we see the simple 3sg feminine pronoun *hi* in the various functions, followed by the conjunctive pronoun *hithau*. Both of these choices are perfectly acceptable in all of the contexts illustrated. (The glosses do not attempt to suggest differences of interpretation or emphasis. We will discuss such pragmatic matters later).

[2] In linguistic examples throughout this article, the pronouns being discussed are bolded. They were not in bold in the texts being quoted.
[3] Unless otherwise indicated, the translations are my own.

Both simple and conjunctive pronouns can occur as subject:

(4)
Cysgodd ***hi ~ hithau***.
slept she
'She slept.'

as direct object of a periphrastic (5) or synthetic (6) verb:

(5)
Mae Siôn yn ei gweld ***hi ~ hithau.***
is Siôn PRED *her see.*VN *she*
'Siôn sees her.'

(6)
Fe 'i gwelodd ***hi ~ hithau.***
PRT *her saw.3*SG *she*
'He saw her.'

as object of a preposition, whether inflected (7) or invariable (8):

(7)
Mae syched arni ***hi ~ hithau.***
*is thirst on.3*SG.F. *she*
'She is thirsty.'

(8)
Mae Siôn yn byw gyda ***hi ~ hithau.***
is Siôn PRED *live.*VN *with she*
'Siôn lives with her.'

as object of a comparison:

(9)
Mae Siôn yn dalach na ***hi ~ hithau***.
is Siôn PRED taller than she
'Siôn is taller than her.'

And both kinds of pronoun can occur postnominally to reinforce a possessor:

(10)
Mae Siôn yn gweld ei thŷ ***hi ~ hithau***.
is Siôn PRED see.VN her house she
'Siôn sees her house.'

It is manifest from these examples that the difference between simple and conjunctive pronouns is not straightforwardly a matter of syntactic function, since both sets of pronouns can be used in any of the above functions. How, then, do simple pronouns and conjunctive pronouns differ?

Welsh grammars and pedagogical materials typically characterize conjunctive pronouns as being used to express one of the following three nuances: i) 'emphasis'; ii) 'contrast' or 'balance'; iii) the meaning 'also' or 'too'. Most grammars mention only one or two of these categories but a few mention all three. For instance, Jones (2007: 49) says the following:

"Conjunctive pronouns are used:

- For emphasis.
  Rhaid i **yntau** wybod beth ddigwyddodd. *He must know what happened*

- For contrast or balance.
  Aethon ni i'r Bala ac aeth **hithau** i'r Barri. *We went to Bala and she went to Barry.*

- In order to convey the idea of *also / too*.
  Aethon **ninnau** i'r Eidal ar ein gwyliau eleni. *We went to Italy on our holidays this year too.*"

The grammars which mention 'emphasis' (or, for those grammars written in Welsh, 'pwyslais') never define the term, thereby implying that readers should understand 'emphasis' in the usual way(s). Occasionally an overt comparison is made with how emphasis works in English: 'These [conjunctive pronouns] are used either when some idea of contrast (or sometimes balance) with a preceding pronoun or noun is present, or when emphasis is required. In both cases […] Welsh conveys by these special forms of the pronoun what English conveys by stress and/or intonation." (King 1993: 95)

The terms 'contrast' or 'balance' are sometimes defined or characterized, at least in a minimal way. There is generally a suggestion that the conjunctive pronoun

presupposes or implies another noun or pronoun as its counterpart or antithesis. In some cases whatever was predicated of the counterpart is declared to be equally true of the person expressed by the conjunctive pronoun, thus giving the latter an interpretation like '(I) too' or '(I) as well'. This case is illustrated in (11) and (12).

(11)

O	*Lyn*	*y*	*dois*	***inna***	*i ddechrau,*	*wchi.*	(Roberts 1936: 20)
from	Lleyn	CMP	came.1SG	I	to start	you-know	

'I'm from Lleyn originally too, you know.'

(12)

Mae	***yntau***	*(hefyd)*	*wedi*	*bod*	*yn*	*y*	*carchar.*	(Gruffudd 2000: 214)
is	he	(also)	after	be.VN	in	the	prison	

'He has been in jail too.'

The choice of the conjunctive pronoun instead of the simple pronoun implies that someone else is from Lleyn as well as the speaker (11), and that someone else has been in jail in addition to the man being referred to (12). Indeed, in the context in the novel from which example (11) was drawn, the character being addressed by the speaker had just been said to be from the Lleyn peninsula, which is precisely what motivates the choice of the conjunctive pronoun here. In such a case the pronoun *inna(u)* means 'I too' without the need to include the adverb *hefyd* 'also, too'. But this adverb is often (optionally) made overt as well, as in example (12), which reinforces this idea of comparison with another actor.

In other instances the circumstances of the person expressed by the conjunctive pronoun are declared to be different from those of the counterpart, thus setting up a contrast or an opposition. In this case one gets a reading such as 'but (I),' '(I) on the other hand', 'as for (me)', or 'whereas (I)', etc.

(13)

Es	*i*	*i'r*	*carchar*	*yn*	*Abertawe*	*ac*	***yntau***	*i Gaerdydd.*
went	I	to the	prison	in	Swansea	and	he	to Cardiff

'I went to prison in Swansea, but he (on the other hand) in Cardiff.'
(Gruffudd 2000: 214)

(14)

Dechreuodd	*Emrys*	*gerdded;*	*arhosom*	***ninnau***...	(UIGC 1978: 148)
began	Emrys	walk.VN	waited	we	

'Emrys began to walk, (but) we waited…'

The noun or pronoun with which the conjunctive pronoun contrasts is sometimes only implied and not overtly mentioned. Jones (1913: 273) gives the following example and comment: "*Wel, dyma* ***finnau****'n marw* […] 'Well, now even I am dying' [not somebody else this time; this is not said, but *finnau* implies it]."

The third pragmatic or semantic category that grammars identify when describing the use of conjunctive pronouns involves the meaning 'also'/'too'. This use is not entirely distinct from the expression of 'contrast' or 'balance', as we saw above. However, some grammatical descriptions seem to consider this use the primary one; it is sometimes the only use overtly mentioned. For instance, Watkins (1993: 318) writes:

> "The conjunctive series subsumes (amongst other nuances), the semantic range of the adverb *hefyd* 'also': *Af finnau* 'I'll go too', but the tendency to append the adverb: *af finnau hefyd*, is making the conjunctive pronoun largely redundant, with the result that it is becoming recessive both in Literary Welsh and Colloquial Welsh."

Despite the allusion to "other nuances", Watkins overtly states that the use of conjunctive pronouns is declining because of the increased use of the adverb *hefyd*, which ends up implying that this use must account for most of the occurrences of conjunctive pronouns. This is a highly debatable claim as we will see later. Another article-length overview of the structure of Welsh, Thomas (1992), similarly mentions only this use of conjunctive pronouns.

Although the point is never made overtly in the grammars consulted, it bears mentioning that the negative counterpart of the meaning '(I) too' or '(I) also' is '(I) not … either' or '(I) neither'.

(15)

Welsoch	*chi*	*mono*	***innau****,*	*a*	*weles*	*i*	*monot*	***tithau***	(King 1993: 95)
saw	you	not-of	1sg	and	saw	I	not-of	2sg	

'You didn't see me, and I didn't see you.'

King did not include the word 'either' in his translation of the example, but the English could just as easily have read '…and I didn't see you either'.

The appearance of these three categories in various grammatical descriptions of Welsh is summarized in Table 2. The sign '+' indicates that the grammar overtly mentions the category. The sign '(+)' means that the category is illustrated in one or more examples given in the grammar but not overtly discussed as such; and the sign 'Ø' means that the category in question is not mentioned.

Text	'emphasis'	'contrast'/ 'balance'	'also/too'
Jones 1976 (*A Guide to Correct Welsh*)	Ø	+	Ø
UIGC 1976 (*Gramadeg Cymraeg Cyfoes*)	+	Ø	Ø
UIGC 1978 (*Cyflwyno'r Iaith Lenyddol*)	+	+	Ø
Thomas 1992 ("The Welsh language")	Ø	Ø	+
Thorne 1993 (*Comprehensive Welsh Grammar*)	+	+	+
King 1993 (*Modern Welsh Grammar*)	+	+	(+)
Watkins 1993 ("Welsh")	Ø	Ø	+
Gruffudd 2000 (*Cymraeg Da*)	Ø	+	+
Jones 2007 (*Teach Yourself Welsh Grammar*)	+	+	+

TABLE 2: FUNCTIONS OF CONJUNCTIVE PRONOUNS MENTIONED IN WELSH GRAMMARS

In addition to the three kinds of use discussed above, a few grammars mention an additional use, this one syntactic, namely that conjunctive pronouns can occur in absolute phrases ("AND clauses") (e.g. Gruffudd 2000: 214; Jones 1976: 37; King 1993: 96; Thomas 1996: 252; Thorne 1993: 382-83). These are dependent clauses consisting of the conjunction *a/ac* 'and' (generally *a* followed by a consonant and *ac* followed by a vowel), plus a nominal or pronominal subject, plus a nonfinite predicate. The predicate may consist of a noun or adjective phrase, an adverbial phrase, or a verbal noun preceded by an aspectual or negative particle (*yn, wedi, newydd, ar, heb*). Unlike the first three uses which are couched as semantic-pragmatic functions, this fourth category is syntactic and is therefore different from the others. The absolute phrases are underlined in the examples below, with the conjunctive pronouns in boldface.

(16)

*Dechreuodd weithio ac **yntau** ond deg oed.* (Jones 1976: 37)
began.3SG work.VN and he but ten age
'He started working although he was only ten years old.'

(17)

*A **minnau** wedi gorffen fy ngwaith, euthum adref.* (Jones 1976: 37)
and I after finish.VN my work went.1SG home
'Having finished my work, I went home.'

As can be seen in these two examples, the interpretation of absolute phrases is variable. In (16) we see it assigned a concessive interpretation ('although') and in (17) a temporal interpretation ('having finished' or 'when I had finished'). We will come back to the use of conjunctive pronouns in absolute phrases in section 3.

Since "emphasis" is such an important theme in most of the Welsh grammars' attempts to characterize the use of conjunctive pronouns, in the next section I propose to look briefly at just how pronominal emphasis is usually achieved in Welsh in order to determine whether this claim is an accurate or a pedagogically useful way to characterize conjunctive pronouns.

2. Pronominal emphasis in Welsh

Is it true that conjunctive pronouns are significantly about emphasis, as the descriptive grammars so frequently suggest? In fact, I would suggest that the answer is no, at least not without qualification. This is for two reasons. On the one hand, there are significant strategies of pronominal emphasis in Welsh which do not use conjunctive pronouns at all; and secondly, most of the actually occurring uses of conjunctive pronouns cannot be construed as involving any particular emphasis. Those occurrences of conjunctive pronouns which can be seen as emphatic, as we will see, are not distinct from the second use identified, that of 'contrast' or 'balance'.

Let us begin by briefly examining clearcut cases of pronominal emphasis. I identify two primary strategies of pronominal emphasis in Modern Welsh:

1) Intonation can be used to emphasize a simple pronoun in its normal position in the sentence;
2) Simple pronouns or reduplicated pronouns can be fronted in a topicalised construction.

Let us look briefly at each of these patterns.

In Modern Welsh, as in English, it is possible to emphasize nearly any element of an utterance with contrastive intonation. In written texts this is often (but not always) indicated, in both languages, by the use of italics.

(18)

Deud yr ydw i na dda gen i *mono*. (Owen 1939: 106)
'I'm saying that *I* don't like him.'

(19)

Wyddoch chwi*, Sarah, y nesaf peth i ddim am demtasiynau'r byd…*
(Owen 1939: 92)
'You, Sarah, know next to nothing about the temptations of the world…'

(20)

Mor anodd ydi credu na ddeudith hi byth yr un gair eto! 'Roedd hi yma gynne—heddiw'r prynhawn. Lle mae hi 'rwan? Ie, hi, achos does dim ond ei chorff yn y rŵm nesa—lle mae hi*? Yn y byd mawr tragwyddol!*
(Owen 1939: 309)
'It's so hard to believe that she'll never say another word! She was here not long ago—this afternoon. Where is she now? Yes, she, because only her body is in the next room. Where is *she*? In the big world of eternity!'

The fact that intonation works quite similarly in Welsh and English becomes clear when one looks at English-language novels and their Welsh translations. The first Harry Potter novel (Rowling 1997) and its Welsh translation (Huws 1997), and Lewis Carroll's *Through the Looking Glass* (1876) and its translation (Roberts 1984), both contain abundant examples in which emphasis signalled in English by intonation (represented in writing with italics) is directly transposable into Welsh in precisely the same way.

(21)

'Oes gen ti *dy ysgub dy hun?' aeth y bachgen ymlaen.* (Huws 1997: 60)
"Have *you* got your own broom?" the boy went on. (Rowling 1997: 96-97)

(22)

"Mi wn beth fuasech chi*'n ei hoffi," ebe'r Frenhines yn rhadlon…*
(Roberts 1984: 34)
"I know what *you'd* like," the Queen said good-naturedly…
(Carroll 1876 [1960]: 147)

The second typical strategy for achieving pronominal emphasis in Welsh is the use of fronting, or moving an element to the beginning of the clause in order to stress it. In (23) emphasis is achieved by fronting the phrase *dy fai di* 'your fault' in its clause. There is certainly also contrastive intonation on the postnominal pronoun *di* which reinforces the possessor.

(23)

'Beth ddwedaist ti? Aeth ei phawen i dy lygad di? Wel, dy fai di oedd hynny, am gadw dy lygaid yn agored.' (Roberts 1984: 15)
"What's that you say? Her paw went into your eye? Well, that's *your* fault, for keeping your eyes open… (Carroll 1876 [1960]: 128)

In (24) emphasis is achieved by fronting the subject *hi* to the left of the verb; since this is in a subordinate clause, the complementizer *mai*, which always signals an affirmative focus sentence, is present as well.

(24)

"Dydach chi ddim yn awgrymu mai hi *wnaeth!"* (ap Hywel 1991: 82)
'You're not suggesting she did it!' (Ross 1989: 52)

In neither of the two emphatic strategies illustrated here are conjunctive pronouns necessary or even particularly frequent. A pedagogical lesson about pronominal emphasis in Modern Welsh would surely need to lay out the above patterns. Conjunctive pronouns are not a necessary part of such strategies.

To be sure, some occurrences of conjunctive pronouns are clearly emphatic. However, such uses are simultaneously examples of 'contrast' or 'balance', or they involve the idea of 'also / too' (or its negative counterpart, 'either / neither'). It therefore seems misleading to describe conjunctive pronouns as emphatic as though this were distinct from the other uses. For instance:

(25)

"Digon gwir," ebe'r Capten, "ond beth ydyw eich barn chwi, Sem, a beth ydyw barn y dynion am y lle?"
"Wel, syr," ebe Sem, "mae gan y dynion, a mae gen ***innau****, ffydd y cawn ni blwm yno ryw ddiwrnod."* (Owen 1939: 219)
'True enough,' said the Captain, 'but what is your opinion, Sem, and what is the men's opinion about the place?'
'Well, sir,' said Sem, 'the men think, **and so do I**, that we will find lead there some day.'

It seems unproblematic to say that *innau* in example (25) is emphatic, but it is also very clearly about 'balance'; the pronoun *innau* has the counterpart *y dynion* 'the men'. The opinions of these two subjects are being compared—in this case not contrasted, since their opinions are the same. This occurrence is in fact also compatible with the reading 'too/also'. One could easily translate *a mae gen innau* as 'and I do too'.

But there are many occurrences of conjunctive pronouns where it would be impossible to consider them emphatic or to emphasize the pronoun with special intonation either in Welsh or in English translation. The following four examples illustrate such cases.

(26)

Aeth i eistedd yn ei chadair freichiau a rhythu trwof i'r cyntedd gwag, fel petawn ***innau****'n ddim byd ond ysbryd...* (Price 2010: 38)

'She went to sit in her armchair and stare through me into the empty hall, as though I were nothing but a ghost…'

(27)

Estynnais fy llaw yn chwithig i Miriam. Chwarddodd ***hithau****, a gwasgu fy llaw â'i dwy law hi.* (Price 2010: 15)

'I reached out my hand awkwardly to Miriam. She laughed, and pressed my hand in both of hers.'

(28)

Gwyliodd Harri wyneb Hagrid yn cochi mwy bob munud wrth iddo alw am fwy o win, gan gusanu boch yr Athro McGonagal. Er mawr syndod i Harri, gwridodd ***hithau*** *a dechrau piffian chwerthin, ei het silc wedi syrthio i un ochr.* (Huws 1997: 160)

'Harry watched Hagrid getting redder and redder in the face as he called for more wine, finally kissing Professor McGonagall on the cheek, who, to Harry's amazement, giggled and blushed, her top hat lopsided.' (Rowling 1997: 252) [Literally: 'To Harry's great surprise, she blushed…']

(29)

...troes Ifan olwg hanner ymbilgar, hanner ymddiheurol ar ei wraig. Meddyliau ***hithau*** *mor dda yr edrychai yn ei siwt briodas.* (Roberts 1936: 10)

'...he gave his wife a half-pleading, half-apologetic look. She thought how handsome he was in his wedding suit.'

It should also be noted that examples like (26) through (29) are not obviously about 'contrast' or 'balance' either.[4] None of the relevant meanings "('I too', 'I for my part', 'but I') occurs naturally in such examples. In the prototypical cases of 'contrast' and 'balance', the writer or speaker wishes to focus on the fact that the subject expressed with a conjunctive pronoun, and its counterpart, are doing or experiencing the same thing ('(I) also'), or that there is some key way in which what they are doing or experiencing is in contrast ('but (I), on the other hand…'). The examples above, and countless others like them, do not involve any such focus on similarity or contrast without doing violence to the meaning of the text. We will see in the next section that there is a much more straightforward and less artificial way to read these examples.

These observations force one to the conclusion that the use of conjunctive pronouns in Modern Welsh is not fully or adequately described in existing grammars and pedagogical works. The best way to discover patterns that might have been missed is to look at a corpus of real examples.

3. A preliminary corpus study

The present study is based on a small corpus of conjunctive pronouns in context drawn from four different texts.[5] The corpus consists of all of the conjunctive pronouns occurring in the first 100 pages of the following three novels: *Caersaint* (Price 2010), 111 tokens; *Amser i Farw* (ap Hywel 1991), which is an adaptation of the English-language detective novel *A Time for Dying* (Ross 1989), 41 tokens; and *Traed mewn Cyffion* (Roberts 1936), 88 tokens. In addition I collected all occurrences of conjunctive pronouns in the 1988 translation of the Gospel of Mark (73 tokens). Together this totals 313 examples of conjunctive pronouns in their contexts of usage.

[4] The reader should note that it is impossible, in the space of an article, to provide enough context to prove definitively that these examples are not about contrast or balance, since the counterpart of a contrastive use of a conjunctive pronoun need not be in the same sentence or even necessarily the preceding sentence or two. An examination of the larger contexts for these examples (and many others like them), however, makes it apparent that contrast is not at work here. There must be other uses of conjunctive pronouns that are not about contrast or balance. This is precisely the point I develop further on.

[5] In addition, I sometimes illustrate a point with examples drawn from other sources when these are particularly clear.

	Total # of tokens	Total functioning as subject
Finite subject: different	169 (54%)	169/169
Subject of "AND clause"	66 (21%)	66/66
Object of preposition	28 (9%)	10/28
Finite subject: same	15 (5%)	15/15
Reinforced possessive	11 (3.5%)	3/11
Apposition	8 (2.5%)	7/8
Object of VN	7 (2%)	0/7
Finite subject: conjoined	6 (<2%)	6/6
Finite object	3 (<2%)	0/3
TOTAL	**313**	**276/313 (88%)**

Table 3: Breakdown of the use of 313 tokens of conjunctive pronouns

The uses of these 313 conjunctive pronouns are broken down in Table 3. Several salient patterns emerge from these data. By far the most striking pattern is that fully 88% of the tokens (276 out of 313) occur as grammatical subjects. 256 of these are straightforwardly the pronominal subject of their clause. An additional 20 tokens can arguably be counted as subjects as well; for instance, seven tokens occur in apposition to the subject, as in example (30).

(30)

„A ***chwithau****, pwy meddwch chwi ydwyf fi?"* (Mark 8:29)
and you who say you am I
'And who do you say that I am?'

In ten others, the conjunctive pronoun occurs as the object of a preposition but it is functionally the subject of a subordinate clause, a not infrequent pattern in Welsh, as illustrated below:

(31)

...a bu 'n rhaid iddo ***yntau*** *ddweud wrthi.* (Roberts 1936: 68)
and was PRED need to-him he tell.VN to-her
'…and he had to tell her.'

And finally, in three cases, the conjunctive pronoun reinforces a noun phrase which functions as grammatical subject.

(32)

Yr oedd popeth yn fanteisiol iddo; […]; y môr ***yntau*** *'n las ar y gorwel…*
CMP was everything PRED favorable to-him the sea him PRED blue on the horizon
'Everything was favorable to him; […] the sea (for its part) was blue on the horizon…'

There is certainly nothing in the descriptions of conjunctive pronouns found in the traditional descriptive and pedagogical literature which would lead one to expect that fully 88% of their occurrences would be as grammatical subject. Yet this pattern is quite striking in the data.

A second salient pattern is that the subject tokens are of two main types:

1) Over 20% of all of the tokens function as the subject of an absolute phrase.
2) Besides the conjunctive pronouns occurring in absolute phrases, more than 61% (169/276) of the tokens occurring as subjects signal a shift in grammatical subject. (This is more than half of all tokens of conjunctive pronouns in the corpus, that is 169 out of 313, or 54%). These are labelled "Finite subject: different" in Table 3.

Let us consider each of these findings briefly.

In absolute clauses, as we saw briefly above, the subject may be nominal or pronominal. In modern Welsh it does not appear that simple or reduplicated pronouns can occur as the subject of an absolute phrase; it appears that only conjunctive pronouns occur in this use.[6] Below are examples of absolute phrases in a variety of adverbial functions such as temporal, concessive or reason clauses.

(33)

...yr oeddwn i'n meddwl na fasach chi ddim yn licio gwybod bod 'ych merch, a ***hithau*** *mor ifanc, yn eistedd yng Nghoed y Ceunant a dyn ifanc â'i law am ''i chanol hi.* (Roberts 1936: 56)
'I thought you wouldn't like to know that your daughter, and she so young, was sitting in Ceunant Woods with a young man's hand around her waist.'

(34)

I be gei di lais, a ***chditha*** *efo dim byd i'w ddeud?* (Price 2010: 12)
'What do you need a voice for, and you with nothing to say?'

[6] Two of the grammars consulted suggest that simple pronouns can be the subject of absolute clauses (Richards 1938, Thomas 1996). It seems clear that the reason for this claim is that these grammars draw some material from older Welsh texts, notably an older translation of the Bible (originally from 1588) in which such usage was possible and frequent.

(35)

A'r parsel dan fy nghesail, a ***minnau****'n teimlo fel hogyn bach wedi cyffroi, brysiais yn fy mlaen at ben draw'r Stryd Fawr.* (Price 2010: 66)

'With the parcel under my arm, and I feeling like an excited young boy, I hurried along to the end of Main Street.'

(36)

Er bod honno reit stiff y tro dwytha i mi ei gweld hi, a ***hitha*** *wedi cicio'r bwcad ers dyddia.* (Price 2010: 11)

'Although she was quite stiff the last time I saw her, and she having kicked the bucket days before.'

Examination of the absolute clauses makes it clear that this use of conjunctive pronouns is distinct from the three other uses typically discussed in the grammars. Conjunctive pronouns do not vary with other personal pronouns in this context since no other pronouns are possible. This use does not express any special emphasis or contrast or balance – it is simply the only way to express an absolute clause using a personal pronoun as subject.

The other major pattern uncovered in the corpus study is that one of the principal functions of conjunctive pronouns is to mark a shift (or a change) in pronominal subject. Concretely, a conjunctive pronoun frequently occurs with no other function than to signal a shift from one grammatical subject to another. Below are two excerpts showing clear examples in which conjunctive pronouns cannot be construed as emphatic or as being about contrast or balance in the senses seen earlier; in fact, the sole purpose of these occurrences is to signal shift in grammatical subject.

In (37) the grammatical subjects are indicated in bold type; the symbol **Ø** is added when the grammatical subject is left unexpressed.

(37)

Daeth ***y gath*** *yno, a rhwbiodd* **Ø** *ei blew esmwyth hyd ei wyneb. [...] [R]hoes* ***yntau*** *hwb iddi fynd oddi yno. Ymdroai* ***hithau*** *fel pe na wyddai* **Ø** *beth i'w wneud, a gwnâi* ***bonion caled y gwair*** *iddi gerdded yn rhodresgar. Daeth* **Ø** *ato drachefn a throi ei phen yn garuaidd am ei wyneb. Cododd* ***yntau*** *ar ei eistedd. Yr oedd* ***y wlad*** *yn braf o'i gwmpas.* (Roberts 1939: 44)

'**The cat** came there, and **Ø** rubbed her smooth fur against his face. […] **He** pushed her away. **She** turned around as though **she** didn't know what to do, and **the hard stalks of grass** made her walk gingerly. **She** came to him again and turned her head lovingly toward his face. **He** sat up. **The countryside** was beautiful around him.'

There is no possible motivation for seeing the three occurrences of conjunctive pronouns in this passage as emphatic. There are only two actors present, the man and his cat, and the pronouns simply signal shifts of subject from one to the other of these actors. The sequence of subjects is as follows: **y gath** (the cat)… **Ø** (the cat)… **yntau** (he=the man)… **hithau** (she=the cat)… **Ø** (the cat)… **bonion caled y gwair** (hard stalks of grass)… **Ø** (the cat)… **yntau** (he=the man)... **y wlad** (the countryside). We note that shifts of grammatical subject are here indicated with full noun phrases (*y gath*, *bonion caled*, and *y wlad*) or with conjunctive pronouns (*yntau* 'he', referring to the man, and *hithau* 'she', referring to the cat). On the other hand, the grammatical subject can be Ø when the subject is the same as in the immediately preceding clause.

Let us examine a second example of this phenomenon. In the following passage from the Gospel of Mark, there is a brief dialogue between Jesus and a Syrophoenician woman.

(38)

Ar unwaith clywodd gwraig amdano [...] Meddai ***yntau*** *wrthi, "Gad i'r plant gael digon yn gyntaf; nid yw'n deg cymryd bara'r plant a'i daflu i'r cŵn." Atebodd* ***hithau*** *ef, "Syr, y mae hyd yn oed y cŵn o dan y bwrdd yn bwyta o friwsion y plant." "Am iti ddweud hynyna," ebe* ***yntau****, "dos adref; y mae'r cythraul wedi mynd allan o'th ferch." Aeth* ***hithau*** *adref a chafodd y plentyn yn gorwedd ar y gwely, a'r cythraul wedi mynd ymaith.* (Mark 7: 27-30)

'At once a woman heard about him […]. **He** said to her, "Let the children eat their fill first; it is not fair to take the children's bread and throw it to the dogs." **She** answered him, "Sir, even the dogs under the table eat the children's crumbs." "Because you have said this," **he** said, "go home; the demon has departed from your daughter." **She** went home and found the child lying in bed, and the demon having left.'

The four occurrences of conjunctive pronouns, once again, do not mark any particular emphasis but simply signal shifts in grammatical subject from one to the other of these actors.

This use of conjunctive pronouns to signal a change of grammatical subject can serve to disambiguate passages that would otherwise be subject to ambiguity of referent. For instance, in the following passage, there are two female characters in the local context, the wife (the Monica of the well-known novel's title) and the strange woman whom she imagines visiting her household. The referent of the subject pronoun in the clause "she would go downstairs" is potentially ambiguous, but by selecting the 3sg feminine conjunctive pronoun *hithau* (the second *hithau*

in this excerpt) instead of the simple pronoun *hi*, the writer clearly signals a shift from the subject of the preceding clause (the strange woman) back to the other female referent (Monica).

(39)

> *Cyn bo hir fe'i gosodid hi o'r neilltu, byddai **hithau**'n gorwedd fel Mrs Rhosser yn llesg yn ei gwely, deuai rhyw fenyw ddieithr i weini arni hi ac arno **yntau**, a rhyw fore fe ddisgynnai **hithau** ar y grisiau a gweld trwy gil y drws yn y parlwr, megis yr awgrymodd Mrs North mor faleisus iddi…* (Lewis 1930: 46)
>
> 'Soon she would be cast aside. **She too** would lie, like Mrs Rosser, feeble in her bed, some strange woman would come to see to her needs, and **his**, and one morning **she** would go downstairs and look through the half-open lounge door, just as Mrs North had so maliciously hinted…' (Stephens 1997: 46)

The other two occurrences of conjunctive pronouns in this passage are also worth noting. The first occurrence of *hithau*, as subject of 'she too would lie' expresses the meaning 'she also'; note the overt comparison to a character named Mrs Rhosser.[7] The occurrence of *yntau* in the phrase *arni hi ac arno **yntau*** '(a strange woman would come to wait) *on her and on him*' is an example of the use of a conjunctive pronoun for balance.

There is an additional way in which this use of conjunctive pronouns to signal subject shifts can disambiguate sequences which might otherwise be unclear. In literary Welsh it is quite common to have verbs with null subjects. Coupled with the fact that simple pronouns are just as likely to mark direct objects as subjects, a sequence such as *gofynnodd ef* (literally 'asked 3sg-masculine') is formally ambiguous between the readings 'he asked' and '(someone) asked him'. In principle, conjunctive pronouns are also unmarked for case and are therefore technically supposed to be ambiguous in the same way; thus, *gofynnodd yntau* should present the same ambiguities of interpretation as *gofynnodd ef*. But in actual language use, it clearly does not. The established pattern in which conjunctive pronouns can mark a shift in *subject* means that, in actual usage, a sequence like *gofynnodd yntau* can scarcely mean anything besides 'he asked'. Thus, for Welsh speakers, the interpretation of (40) is really not ambiguous:

[7] This *hithau* in fact also marks a subject shift in the Welsh text, though not in the English translation. In the preceding clause in Welsh, the pronoun *hi* is the object of the impersonal verb *gosodid*, not the subject of a passive as in the English translation; therefore the *hithau* in *byddai hithau'n gorwedd* 'she too would lie' marks a shift in pronominal subject.

(40)

> *Yr oedd ef ar fin ffraeo gyda hi. Cododd Monica i fynd i'w gwely.*
> *"Wna nos yfory'r tro?" gofynnodd **yntau**.* (Lewis 1930: 68)
> 'He was on the point of falling out with her. Monica stood up to go to her bed.
> "Will tomorrow evening do?" [**he** asked].' (Stephens 1997: 69)

In many cases, the context would make the syntactic function of the pronoun sufficiently clear. For instance, in (41) the immediately following *lamp drydan* 'electric torch' removes any doubt about the function of the 3sg feminine pronoun, which can only be the subject. In other words, given the sequence verb + NP + NP, the first NP is always the subject and the second the object in Welsh.

(41)

> *Cododd docynnau. Dilynodd **hithau** lamp drydan y porthor hyd onid ymsuddodd hi yn un o seti plwsh y cinema.* (Lewis 1930: 16)
> 'He bought tickets. **She** followed the usher's torch until she was settled into one of the cinema's plush seats.' (Stephens 1997: 15)

But there is also no question that had the author written *Dilynodd hi*, with the simple pronoun, the sentence would first have been understood in context as 'He followed her'. The subsequent appearance of *lamp drydan* would then immediately cause the reader or hearer to revise the interpretation and correctly understand the sentence to mean 'she followed the electric torch'. But the use of the pronoun *hithau* to signal *subject* shift makes this revision of interpretation unnecessary, for *Dilynodd hithau* is readily understood to mean 'She followed'.[8]

4. Conclusions

In this paper I have argued that the descriptive and pedagogical literature on the grammar of Modern Welsh do not adequately characterize conjunctive pronouns in ways that will enable the learner to use them correctly or even to accurately interpret occurrences that they will encounter in reading.

A preliminary corpus-based study has revealed several salient facts about how conjunctive pronouns are actually used. First, 88% of them occur as subject pronouns. Secondly, most of the subject uses are of two kinds. On the one hand,

[8] It should be noted that the potential ambiguity of a single pronoun occurring with a short (synthetic) verb form does not apply with long or periphrastic verb forms, since in this case subjects and direct objects are not right next to each other; a pronoun to the immediate right of a verbal noun can only be its object.

about 21% of them occur as subjects of absolute clauses ("*and* clauses"). And over 61% of them occur to mark shifts in grammatical subject. These are observational facts which are absent from the ways conjunctive pronouns are described in the pedagogical and descriptive works on Modern Welsh.[9]

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[9] It is somewhat surprising that the descriptive and pedagogical works consulted do not identify this function of conjunctive pronouns in Modern Welsh. After completing my own analysis of these pronouns in Modern Welsh I came across Mac Cana (1990) which is a study on the use of conjunctive pronouns in Middle Welsh texts. Mac Cana identifies sixteen different functions of conjunctive pronouns, including this function of indicating a new subject. Mac Cana does not say anything about Modern Welsh.

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Prepositional constructions in the Goidelic languages*

Piotr Stalmaszczyk

1. Introduction

This paper discusses selected prepositional constructions in the Goidelic languages (especially Irish and Scottish Gaelic), and provides some background information on pronominal prepositions in these languages. It focuses on pronominal possessive structures, and considers some terminological issues involved in labeling the constructions in question.

One of the often noted characteristic features of the Celtic languages is the absence of a single verbal form with the meaning 'to have'. This issue has attracted considerable attention among specialists in Celtic, and in Indo-European languages in general. The seminal classical studies on the interrelations between the verbs *have* and *be* (in various languages) are Benveniste (1966) and Isačenko (1974).[1] Isačenko divides modern European languages into *have*-languages (e.g. English, German, Dutch, French, Czech, Slovak, Lithuanian) and *be*-languages (e.g. Russian, Latvian, and non-IE: Estonian, Finnish, Hungarian), rather surprisingly, he does not

* An earlier version of this paper was read at the Workshop within the Framework of the XIII International Congress of Celtic Studies, Bonn, 26-27 July 2007, organized by Professor Hildegard L. C. Tristram, and appears in the proceedings of the Workshop, Tristram, ed. (2007), and in a modified form as Chapter 4 of Stalmaszczyk (2009). I am most grateful to professor Tristram for her kind invitation to participate in the Workshop and for all comments during the Workshop. Further work on the paper was conducted during my research visit to the Celtic Studies Research Institute, at the University of Ulster, Coleraine. I am grateful to Professor Séamus Mac Mathúna for making this visit possible, and to Professor Ailbhe Ó Corráin, Pádraig Ó Mianáin, Iain MacPherson, Iwan Wmffre, and Maxim Fomin for all their comments and suggestions. Furthermore, Aidan Doyle has commented on an earlier Polish version of this article, Stalmaszczyk (2006). Needless to say, all errors are my own.

[1] Benveniste (1966) observed that the majority of the languages (in a universal perspective) do not have the verb *have*, see also Isačenko's (1974: 77) claim that '*have* as a lexeme is extremely rare among the languages of the world'. For a recent overview, see Bayda (2006) who concentrates on perfect and possessive structures from a comparative Irish-Russian perspective.

mention in his discussion the Celtic languages. He also observes that the absence of the verb *have* in some languages 'has far reaching consequences for their entire semantic and syntactical structure' (Isačenko 1974: 44). As demonstrated in this paper, evidence from the Celtic languages suggests that the absence of the verb *have* may be correlated with widespread prepositional usage.

The principal way of expressing possession in Celtic is through periphrastic constructions with prepositions (such as Irish *ag*, Scottish Gaelic *aig* 'at', Manx *ec*; Welsh *gan*/*gyda*, Breton *gant* 'with') and appropriate forms of the substantive verb. Pronominal (or inflected) prepositions, another distinctive feature of the Celtic languages, consist of a preposition and a suffixed pronoun, or rather a pronominal personal ending (cf. the discussion in sections 2 and 3, below). Thus the Irish and Welsh equivalents of English 'I have money' are *Tá airgead agam* or *Mae arian gen i* (or *Mae gen i arian*) respectively, both literally meaning 'is money at-me/with-me'. In such formations possession is expressed in terms of 'locational proximity', cf. Ó Corráin (2001: 101).[2]

Fife (1993: 21-22) considers the lack of the simple verb expressing possession as one of the 'weak' features characteristic of neo-Celtic languages, whereas the existence of inflected prepositions is a 'strong', distinguishing, feature of Celtic languages. In the constructions discussed below both these features interact.

This paper reviews the relevant literature (hence the comprehensive bibliographical section) and takes into account data from historical, descriptive and pedagogical grammars and dictionaries. Further research would require consulting data from appropriate language corpora, and providing a theoretical account of these constructions.[3]

2. Terminological remarks

The construction discussed in this paper consists of a preposition and a personal pronoun (or personal ending). It is often referred to as an 'inflected preposition', 'conjugated preposition', 'pronominal preposition', or 'prepositional pronoun' and 'suffixed pronoun'. Lewis and Pedersen (1974) in their comparative Celtic grammar, and Evans ([1994]) in his grammar of Middle Welsh, refer to this construction as 'conjugated prepositions', while Morris-Jones ([1930]) in his historical comparative grammar of Welsh writes about 'inflected prepositions', similarly Bednarczuk (1988: 654), who introduces the Polish equivalent term *prepozycje odmienne*.

[2] For a different analysis, in the context of Russian possessives, see Isačenko (1974: 45-46) who instead of referring to the 'local relation', introduces the notion of 'relation of concern or implication'.

[3] For a systematic account of the Irish constructions, see Ó Corráin (1997a, b, 2001).

Thurneysen's ([1980]) grammar of Old Irish uses the notions 'suffixed pronouns' and 'conjugated prepositions', whereas McCone (2005) in his Old Irish grammar refers to these combinations as both 'prepositional pronouns' and 'conjugated prepositions'. Contemporary Welsh grammars usually use the terms 'conjugated prepositions' interchangeably with 'inflected prepositions', similar terminology is employed by Fife (1993) and Russell (1995).

On the other hand, contemporary Irish and Scottish Gaelic grammars (including handbooks and course books) in most cases use the form 'prepositional pronouns'.[4] However, as noted by Ó Dochartaigh (1992: 81), it 'would seem preferable to consider them simply as prepositional phrases in which the governed noun-phrase element is marked for person, number and (in the third person singular) gender'. Taking into consideration all crucial properties of the construction, for the purpose of this discussion the term **pronominal prepositions** is used, interchangeably with **conjugated preposition**.[5] The matter is not only of terminological significance. Any more theoretical account of the phenomenon should assign the construction to a unique category and precisely define the head or base of the merged construction. For the purpose of this discussion I leave the issue undeveloped, however, the underlying assumption is that the appropriate structure of pronominal prepositions is simply:[6]

(1)

$[_{PP}\ [_{Prep}\ \text{Prep}]\ [_{NP}\ \text{Pro}\ ]]$

The discussed phenomenon is not confined to Celtic languages, and, as has been observed by Doyle and Gussmann (1997: 43-44) it can be found, though marginally, also in Polish, as in the following forms: *patrzyła* ***nań*** 'she was looking **at-him**', *pisała* ***doń*** 'she was writing **to-him**', *odwróciła się* ***odeń*** 'she turned **from-him**', etc. Also Spanish uses the fused forms *conmigo* 'with-me' and *contigo*

[4] E.g. Calder ([1980]), Christian Brothers (1980), Bammesberger (1983), Ó Siadhail (1989), Mac Congáil (2004), Mark (2004, 2006). This term has been translated into Irish as *forainmneacha réamhfhoclacha*, as in e.g. *Gramadach na Gaeilge* (1979: 34). Sjoestedt-Jonval (1938: 92) refers to the Irish forms as *pronoms prépositionnels*.

[5] As in e.g. Stenson (1981), Ó Dochartaigh (1992), Stifter (2006). See also the remarks in Doyle and Gussmann (1997: 43) on the interchangeability of these terms. Some authors use more than one term both to describe the process, and the construction itself, e.g. Stenson (1981) describes the process as 'merger', 'incorporation', 'fusion', and Doyle (2002: 117) within one paragraph uses three terms: 'prepositional pronominals', 'prepositional pronouns' and 'inflected prepositions'.

[6] Cf. also McCloskey (1979: 47, n. 2). For a far more elaborate treatment and a more abstract representation, see McCloskey and Hale (1984), and Doyle (2002).

'with-you' (but note the analytic forms *con él* 'with him', and *con ella* 'with her'). In both languages, however, the occurrence of these forms is highly restricted: to the accusative case of the third person singular masculine pronoun and a handful of prepositions in Polish, and to the preposition *con* 'with' in the first and second person singular in Spanish (additionally, there exists the reflexive pronoun *consigo* 'with oneself').[7] In contrast to the Polish and Spanish forms, the Celtic ones possess almost regular paradigms and occur very frequently in a whole range of phrasal and idiomatic constructions.[8]

3. Origin of Celtic conjugated prepositions

The prepositional system of the Celtic languages includes a set of most common prepositions (such as 'at', 'to', 'with', 'by', 'from', etc.) which show personal endings. The process has been described as 'fusion', 'agglutination', 'incorporation', 'conjugation', 'declension', 'merger' or 'coalescence', as in the following definitions (bold added):

- In Welsh as in Irish the pronoun is regularly **fused** together with the preposition. (Strachan 1909: 37)
- Most of the simple prepositions **combine** with the disjunctive forms of the personal pronouns. (Pokorny 1914: 77)
- Personal pronouns forming objects of prepositions in Brit[ish] and Goidelic came to be **agglutinated** to the prepositions, and ultimately developed into mere inflexions. (Morris-Jones [1930]: 397)
- A personal pronoun as object, governed by a preposition, is generally **incorporated** with the preposition and the latter is **conjugated** similar to a finite verb (Holmer 1962a: 78); […] construction with an **incorporated** personal pronoun (whereby '**conjugated**' forms arise). (Holmer 1962b: 158)

[7] Similar forms are also found in two other Ibero-Romance languages, namely Portuguese and Galician. The origin of such words can be traced to the contracted forms in Latin in which the personal pronoun in ablative case (*ablativus sociativus*) was joined with the enclitic preposition *cum* 'with', yielding forms such as *mecum*, *tecum*, *secum*, *nobiscum*, *vobiscum*, cf. Wikarjak (1980: 38). In this paper I do not mention comparable constructions in non-Indo-European languages.

[8] Greene (1966: 39) notes that 'this system has no parallel in European languages', an almost identical remark is made by Jackson (1969: 8): "such a thing is without parallel in the other Indo-European languages", but as has been demonstrated above, similar constructions do occur in some other languages (e.g. Polish and Spanish), however, as a system, with almost full paradigms, the phenomenon is indeed unique. Additionally, in the Celtic forms, the coalescence of prepositions and pronominal elements is 'permanent', cf. Gillies (1993: 182).

- [prepositions] have what might be called a **conjugation**: to *le* 'with' corresponds a series of fully stressed words, *liom* 'with me', *leat* 'with you' […]. (Greene 1966: 39)
- A very curious peculiarity of the Celtic languages is the way in which when a preposition governs a pronoun, many prepositions **fuse** with the pronoun in a single telescoped word. […] All the Celtic languages have this as a fully developed, systematic '**declension**' […]. (Jackson 1969: 8)
- […] many prepositions are '**conjugated**'; they form **amalgams** with pronominal objects whose form is largely unpredictable on the basis of the form of the preposition and that of the pronoun. (McCloskey 1977: 47)
- […] prepositions **merge** with pronoun objects creating 'prepositional pronouns' (or 'conjugated prepositions'. (Stenson 1981 :21)
- A striking morphological trait of Celtic is the presence in both Insular branches of **inflected, or conjugated, prepositions**. […] most common prepositions in all languages fall into one of a number of **conjugations** for expressing pronominal objects. (Fife 1993: 13-14)
- [In Scottish Gaelic] we find sets of **conjugated** prepositions in which preposition and pronominal have **coalesced** permanently, e.g., *aig* 'at', *agam* 'at me'. (Gillies 1993: 182)
- In close **conjunction** with prepositions, pronouns form a single accentual unit which is generally known as a conjugated preposition. (Russell 1995: 88)

Historically, these forms result from old formations in which the preposition was closely joined to the personal pronoun which it governed. In post-prepositional position the personal pronouns appeared in unaccented and reduced forms, suffixed or infixed to the prepositional stem.[9] A close study of Celtic grammars reveals that the conjugation of the preposition is very similar to that of the verb and has been influenced by verbal forms.[10]

[9] Cf. Evans ([1994]: 58), Lewis and Pedersen (1974: 193), Mac Eoin (1993: 138), and most recently McCone (2005: 58) and Stifter (2006: 87). According to the latter, these 'personal endings' are historically 'nothing but the personal pronouns of Proto-Celtic, which formed an accentual unit with the preceding preposition and consequently came into such close contact that the two eventually merged and came to be regarded as a single unit'.

[10] This point has been made by, among others, Bammesberger (1983: 56) on Irish, Holmer (1962a: 78) on Scottish Gaelic, Morris-Jones ([1930]: 397), Evans ([1994]: 58) and Russell (1995: 168) on Welsh, and Hemon (1975: 89) on Breton. Pokorny (1914: 77) notes that 'the primitive order of things has been much disturbed by the working of analogy'. Borsley and Roberts (1996: 41) point to yet another similarity: the inflected prepositions 'agree with their objects under the same conditions as finite verbs agree with their subjects', and Doyle (2002: 33) points to further morphosyntactic properties (e.g. merger with emphatic clitics) shared by inflected prepositions and verbs.

Stifter (2006: 87) has recently noted that the very 'term 'conjugation' is in fact not absolutely appropriate, as the 'endings' of the conjugated prepositions have nothing in common with the inflectional endings of the verbs'.[11] Nevertheless, if *conjugation* is taken in its etymological sense of 'joining together', then the term seems to be most appropriate indeed.

The paradigmatic behaviour of Celtic pronominal prepositions is illustrated in the table below, where three **abstract** (or rather '**idealized**') prepositions are introduced: **ON**, **AT**, **WITH**.[12] These prepositions might be considered as lexical items from an appropriate metalanguage, covering in the simplest (or *prototypical*, but see below) cases pairs of relevant prepositions from Irish and English, i.e. Ir. *ar* and E *on*, Ir. *ag* and E *at*, Ir. *le* and E *with*. The choice of these three prepositions has been motivated predominantly by one factor: their occurrence in possessive constructions (especially in the case of **AT** and **WITH**).

The Goidelic preposition **ON** is realized by Ir. *ar*, Sc.G *air*, and Mx *er*, which all derive from the conflated forms of OIr. prepositions *ar*/*air* 'for, before', *for* 'on, over', and *iar* 'after', cf. O'Rahilly (1932: 225), Thurneysen ([1980]: 497, 513, 515) and MacBain ([1982]: 9).[13] Preposition **AT** is realized by Ir. *ag*, Sc.G *aig*, and Mx *ec*. These forms derive from OIr. *oc* 'at; with', cf. Pokorny (1914: 77), MacBain ([1982]: 6), and Thurneysen ([1980]: 524). Finally, preposition **WITH** in Goidelic is realized by Ir. *le*, Sc.G *le*, and Mx *lesh*. These forms derive from OIr. *la* 'with, among', which, according to Thurneysen ([1980]: 523) and MacBain ([1982]: 224), has its source in the OIr. noun *leth* 'side' (modern Ir. *leath* 'side, part').

It is always difficult to provide exact singular translations of prepositions, furthermore some, and occasionally even considerable, **semantic overlap** may be noticed between different prepositions. Ó Dónaill's (1977) dictionary gives several examples of usage of Ir. *ag*, but translates it only as 'at' and 'for' (1977: 10-11), *ar* is translated as 'on', 'in', 'at' (1977: 55-56), and *le* as 'with', 'to', 'for', 'by', 'against' (1977: 752-753). A similar profusion of meanings is attested in Scottish Gaelic dictionaries, where *aig* is translated as 'at', 'from', 'to' in Mark (2004:14),

[11] However, as observed by Iwan Wmffre (personal communication), this strong claim is not correct for either Brittonic or Goidelic, since the patterns of verbal and prepositional 'conjugation' show considerable overlap. See also the references mentioned in the preceding note.

[12] For a brief comparison with the Brittonic languages, and some historical comments, see Stalmaszczyk (2006, 2007), and references therein.

[13] I am grateful to Ailbhe Ó Corráin and Aidan Doyle for clarifying this point to me. Cf. also O'Rahilly's (1932: 225) comment: 'confusion between different prepositions, resulting in the loss of one or more of them, is a well-known phenomenon in the history of Irish'; and the following remark in the entry for *air* in the most recent Gaelic-English dictionary: 'This prep[osition] is derived from three different Irish words' (Mark 2004: 20).

and as 'at', 'near', 'close by', 'for', 'on' in Dwelly ([2001]: 11); *air* is translated as 'on', 'upon', 'about' in Mark (2004: 20-22), and as 'on', 'upon', 'of', 'for', 'by', 'with' in Dwelly ([2001]: 17).

All forms in the table below are based on respective entries in dictionaries, descriptive and comparative grammars of individual languages and, unless noted otherwise, do not include numerous historical and dialect variants.[14]

Table 1: Goidelic prepositions ON, AT, WITH

	ON			**AT**			**WITH**		
	Ir.	Sc.G	Mx	Ir.	Sc.G	Mx	Ir.	Sc.G	Mx
	ar	**air**	**er**	**ag**	**aig**[15]	**ec**	**le**	**le**	**lesh**
1 sg.	*orm*	*orm*	*orrym*	*agam*	*agam*	*aym*	*liom*	*leam*	*lhiam*
2 sg.	*ort*	*ort*	*ort*	*agat*	*agad*	*ayd*	*leat*	*leat*	*lhiat*
3sg.m.	*air*	*air*	*er*	*aige*	*aige*	*echey*	*leis*	*leis*	*lesh*
3sg.f.	*uirthi*	*oirre*	*urree*	*aici*	*aice*	*eck*	*léi*	*leatha*	*lhee*
1 pl	*orainn*	*oirnn*	*orrin*	*againn*	*againn*	*ain*	*linn*	*leinn*	*lhinn*
2 pl	*oraibh*	*oirbh*	*erriu*	*agaibh*	*agaibh*	*eu*	*libh*	*leibh*	*lhiu*
3 pl	*orthu*	*orra*	*orroo*	*acu*	*aca*	*oc*	*leo*	*leotha*	*lhieu*

Celtic prepositions do not only display a multitude of meanings, they also frequently appear in metaphorical and idiomatic expressions, and one of their characteristic usages is their central position in possessive constructions (discussed in section 7). It may be claimed that Celtic prepositional phrases (especially with nominal elements) convey meanings which in other languages are expressed by other categories (such as verbs, adjectives, adverbs).[16] Already A. G. van Hamel (1912: 281) observed that:[17]

[14] For a discussion, and examples, of dialect forms, see O'Rahilly (1932), Stenson (1990), and the references therein. Appropriate forms from Welsh, Breton and Cornish are provided in Stalmaszczyk (2007).

[15] The Sc.G form of the preposition is *aig*, however, the form *ag* is used with vowel-initial verbal nouns and in pronominal forms, cf. Calder ([1990]: 289) and Mark (2004: 11).

[16] Cf. Henry (1958), Harris (1993), Ó Corráin (1997a, b, 2001). The remark made by Gillies (1993: 193) in the context of Scottish Gaelic, perfectly describes the situation in the Celtic languages in general: 'A substantial proportion of the most common verbal ideas is expressed by a relatively small number of verbs used with different prepositions'.

[17] See also Henry (1958: 109) who claims that languages (such as Irish and Hiberno-English) which use the constructions with nouns and prepositions rather than full verbs develop relational structures at the expense of the dynamic ones. For a detailed discussion of prepositional usage in HE, see Filppula (1999).

> 'A very large use of prepositions is made in Irish, and the chief cause of this phenomenon lies in the lack of a few common verbs – in the first place of the verb 'to have' – which in most European languages perform the functions of what is expressed in Gaelic by a prepositional phrase. […] Consequently in Irish syntax prepositions take a much more prominent place than in that of any other language.'

4. Preposition ON

This section provides selected examples of various phrases and constructions with the preposition **ON** in Irish and Scottish Gaelic. The examples come from the grammars and dictionaries listed in the references (which provide numerous other examples together with various classifications), only in some more complicated, archaic or regional variants the exact sources are identified.[18]

(2)

Irish *ar*:
ar bhád 'on a boat'
ar chrann 'on a tree'
ar an mbord 'on the table'
ar neamh 'in heaven'
ar maidin 'in the morning'
ar a seacht a chlog 'at seven o'clock'
ar tosach 'at front'
ar clé 'on the left'
ar díol 'for sale'
Chuir mé orm mo chóta. 'I put my coat on' (put I on-me my coat)
Shocraigh sé ar imeacht. 'He decided to go off" (Ó Siadhail 1989: 263)

(3)

Scottish Gaelic *air*:
air an loch 'on the lake'
còig mile an ear air Inbhir Nis 'five mile east of Inverness'
turus air choigrich 'a journey abroad' (a journey on foreigners)
air leith shuil 'one-eyed' (on half-eye)

[18] In every instance the original spelling is kept unaltered. The sample sentences and phrases in this paper are in most cases very simple, even simplified, however, their main objective is to illustrate the discussed construction. Also the literal translations focus on the appropriate constructions and ignore further details (irrelevant in the context of the main topic). Note that in some cases there is more than one possibility of prepositional usage.

air an là, air an oidhche 'by day and by night' (on the day, on the night) (Calder [1990]: 292)
Tha còta snog oirre. 'She is wearing a nice coat' (is coat nice on-her)
Tha an leabhar air a' bhòrd. 'The book is on the table'
Greas ort! 'Hurry up!'

Ir. *ar* and Sc.G *air* frequently co-occur with abstract nouns referring to emotions, feelings and sensations.[19] For simplicity, the Irish examples below are restricted to the first person singular only and may be literally translated as 'is *x* on-me', where '*x*' is the name of the relevant state, feeling or sensation:

(4)

Tá áthas orm. 'I am happy'
Tá amhras orm. 'I suspect'
Tá codladh orm. 'I am sleepy'
Tá eagla orm. 'I am afraid'
Tá náire orm. 'I am ashamed'
Tá tart orm. 'I am thirsty'
Tá slaghdán orm. 'I have a cold'

Some of the above examples refer to unpleasant feelings, ailments and negative states, the 'oppressive perceptions and sensations' (Ó Corráin 1997a: 93);[20] also Mark (2006) observes that Sc.G *air* often conveys states of mind and bodily conditions, it is often associated with expressions of illness or trouble, and that it "commonly conveys a sense of wrongness or affliction usually involuntary, but not always" (Mark 2006: 47). The following Sc.G examples come from Mark (2004, 2006):

(5)

Dè tha ceàrr ort? 'What's wrong with you?'
Dè tha a' cur air? 'What ails him?'
Tha an cnatan orm. 'I have a cold'
Bha am fiabhras air. 'He had the fever'
Bha an cianalas air. 'He was homesick'
Tha an deoch orra. 'They are drunk'
Bidh eagal oirre. 'She will be afraid'

[19] Cf. the discussion in Henry (1958: 108-109), and Ó Corráin (1997a, b, 2001). Doyle (2002: 118) observes that inflected prepositions 'often acquire abstract functions in addition to their basic spatial or temporal semantics'.
[20] For a list of nouns occurring with *ar*, see Christian Brothers (1980: 137), and the examples in Dinneen ([1979]: 54-55).

5. Preposition AT

The Goidelic preposition **AT** is equally versatile and occurs in various phrases and idioms, some more typical examples are provided below:

(6)
Irish *ag*:
ag an teach/*ag baile* 'in the house'/'at home, at a town'
ag an tine 'at the fire'
ag barr an staighre 'at the top of the stairs'
Tá sé ag an doras. 'He is at the door'
ag an Aifreann 'at the Mass'
ag a cúig a chlog 'at five o'clock'
Tá mo chroí briste aici. 'She has broken my heart' (is my heart broken at-her)

(7)
Scottish Gaelic *aig*:
aig an taigh 'at home' (at the house)
aig baile 'at home' (at town/township)
aig an dorus 'at the door'
aig seachd uairean 'at seven o'clock'

The Ir. and Sc.G preposition *ag*/*aig* is used together with the relevant form of the substantive verb *bí* and an appropriate verbal noun to denote action in progress:

(8)
Ir. *Tá sí ag ól.* 'She is drinking'
Tá tú ag obair. 'You are working'

(9)
Sc.G *Tha mi ag ithe.* 'I am eating'

or with the past participle to denote a completed action:[21]

[21] In this usage, *ag* is often considered to be the 'agentive marker', in contrast to the 'possessive marker', discussed below, cf. Bayda (2006: 137) and references therein. Note though, that the preposition *ag* is not required, it only serves to indicate the subject or agent of the action. I am grateful to Pádraig Ó Mianáin for clarifying this point.

(10)
Ir. *Tá an obair déanta agam.* 'I have done the work/the work is done' (is the work done at-me)
Tá an leabhar leite agam. 'The book is read by me' (is the book read at-me)

MacAulay (1992b: 205) notes that *ag*/*aig* 'at' is 'normally found in 'dynamic' verbal contexts':

(11)
Sc.G *Tha Iain a' cadal.* 'Iain is sleeping' (is Iain at sleeping)

On the other hand *an* 'in' can be found in 'stative' correlates:[22]

(12)
Sc.G *Tha Iain na chadal.* 'Iain is asleep' (is Iain in-his sleeping)

Prepositions **ON** and **AT** (also in their conjugated forms) may co-occur in numerous constructions, (13) provides examples from Ir., (14) from Sc.G:[23]

(13)
Tá tinneas cinn orm agat. 'You give me a headache' (is headache on-me at-you)
Tá meas agam air. 'I have respect for him/I esteem him' (is respect/esteem at-me on-him)
Tá airgead agam ort. 'You owe me money' (is money at-me on-you)
Tá ceist agam ort. 'I have a question for you' (is question at-me on-you)
Tá aithne agam ar Eibhlín. 'I know Eileen' (is knowledge at-me on Eileen)
or: *Tá aithne ag Eibhlín orm.* (is knowledge at Eileen on me)

(14)
Tha ceud nota aig Iain orm. 'I owe John one hundred pounds' (is hundred note at John on-me)
Tha gràdh agam ortsa. 'I love you' (is love at-me on-you-EMPH)

[22] Iain MacPherson has observed (personal communication) that the action versus state contrast results from the change from the verbal noun (*a' cadal*) to the prepositional phrase (*na chadal*). It may be noted, however, that the preposition *aig* is a constitutive element of the verbal noun.
[23] For further examples of Irish phrases involving two prepositions, see Christian Brothers (1980: 136-137).

Ó Siadhail (1989: 265) claims that Irish idioms with the preposition *ar* 'on' are in contrast to the idioms with *ag* 'at,' 'which are in some way less passive', and 'this less passive quality is further highlighted by the use of *ag* rather than *ar* when followed by a prepositional phrase which does not in turn precede a finite clause'; this behaviour is illustrated by the following examples from Munster (M) and Connacht (C), cf. Ó Siadhail (1989: 265):

(15)
Ir. (M) *Bhí eagla orm.* 'I was afraid' (was fright on-me)
Tá eagla agam roimis na fir. 'I am afraid of the men' (is fright at-me before-it the men)

(16)
Ir. (C) *Tá éad orm.* 'I am jealous' (is jealousy on-me)
Beidh éad agam leat. 'I will be jealous of you' (will be jealousy at-me with-you)

The above remarks might be extended to the use of *ag* in possessive constructions, discussed in section 7.

6. Preposition WITH

Also this preposition has a considerable range of meanings, it occurs with a number of different verbs, additionally it may be used to express obligation and in comparative structures:

(17)
Irish:
Tá Seán ag obair liom. 'Sean is working with me' (is Sean working with-me)
leis [24] *an bhfear* 'with the man'
cuidigh liom 'help me' (help with-me)
éist liom 'listen to me' (listen with-me)
tá obair le déanamh 'there is work to be done' (is work with done)
chomh mór le cnoc 'as big as a hill' (as big with hill)

[24] The preposition *le* before the definite article (*an*) becomes *leis*.

With the copula,[25] *le* is used to convey opinions and feelings:

(18)
Irish:
Is maith liom é. 'I like it' (is-COP good with-me it)
Is breá liom é. 'I love it' (is-COP fine with-me it)
Is fuath liom é. 'I hate it' (is-COP hatred with-me it)
Is deas liom é. 'I think it is nice' (is-COP nice with-me it)

(19)
Scottish Gaelic:
Is toil leat Glaschu. 'You like Glasgow' (is-COP pleasing with-you Glasgow)
Is toigh leam Màiri. 'I like Mary' (is-COP will/pleasure with-me Mary)
tapadh leat 'thank you' (success with-you)
Is fheàrr leam fuireach an seo. 'I prefer to stay here' (is-COP better with-me stay here)

Le is also used in time expressions, such as the one below:

(20)
Ir. *Tá me anseo le seachtain.* 'I've been here a week' (is I here with week)

The use of *le* to express ownership is discussed in the next section.

7. Prepositional possessive constructions

It is a well known fact that possession in Celtic languages is expressed not by simple lexical verbs (such as E *have*), but rather through appropriate prepositional

[25] In Irish and Scottish Gaelic there are two verbs 'to be' – the substantive verb (Ir. *bí*, pres. *tá*; Sc.G. *bi*, pres. *tha*), and the copula (Ir., Sc.G *is*). The substantive verb is used to express existence, position, state, condition, whereas the copula (also known as the assertive verb) is used in classification, identification and equative sentences, to express ownership and for emphasis. For full paradigms and a discussion of further functions and differences, see Christian Brothers (1980: 117-125), Ó Siadhail (1989: 192, 218-221), Ó Dochartaigh (1992: 39-45), and Mac Eoin (1993: 135-137) for Irish, and Calder ([1990]: 255-261), MacAulay (1992b: 178-181), and Mark (2006) for Scottish Gaelic. See Ó Corráin (1997b), and the references therein, on the historical development of expressions of being in Irish.

possessive constructions.[26] As remarked by Ó Corráin (1997a: 92) possession is 'a state rather than an action and as a consequence, in Irish as in many languages, it is expressed nominally rather than verbally'.[27] The typical Irish equivalents of the English verb 'to have' involve the substantive verb *bí* (in appropriate form) and the personal form of the preposition *ag*, e.g.:

(21)
Irish:
Tá airgead agam. 'I have money' (is money at-me)
Tá teach ag Seán i gConamara. 'Sean has a house in Connemara' (is house at John in Connemara)
An bhfuil carr nua aige? 'Has he got a new car?' (is-QUESTION at-him)
Tá beirt mhac aige. 'He has two sons' (is pair son at-him)
Bhí sos fada again. 'We had a long break' (was break long at-us)

(22)
Scottish Gaelic:
Tha airgead agam. 'I have money' (is money at-me)
Tha taigh aig Seumas. 'Seumas has a house' (is house at Seumas)
Dad a tha agad. (Calder [1990]: 256) 'Anything you have' (anything is at-you)

(23)
Manx:
Ta argid aym. 'I have money' (is money at-me)
Ta cabbyl ec Juan. 'John has a horse' (is horse at John)
Ta thie ec y dooinney. 'The man has a house' (is house at the man)

The same construction is also used to express the extended and metaphorical sense of possession:[28]

[26] This is especially true about the Goidelic languages and Welsh; Breton and Cornish have developed a verb with the meaning 'to have', see the remarks and references in Stalmaszczyk (2007).
[27] This observation coincides with Greene's (1966: 31) claim (in the context of such expressions as *tá eagla orm* 'I fear') that Irish is a 'noun-centred language', see also the comments in Henry (1958: 107-109). For a discussion of correlations (syntactic and semantic) between the expression of being and the expression of possession, see Ó Corráin (1997a, b). The relation between expression of possession and locatives in a wide range of languages (though not Celtic) is discussed in Isačenko (1974: 45-46); see Ó Dochartaigh (1992: 45) and Ó Corráin (2001), and MacAulay (1992b: 181-182), for Irish and Scottish Gaelic, respectively. As noted by Ó Corráin (2001: 102) 'possession is expressed in terms of locational proximity', hence 'possessives may be categorized as a subclass of locatives'.
[28] See also the discussion and classification of such expressions in Ó Corráin (1997a, b, 2001).

(24)
Irish:
Bíodh ciall agat. 'Have sense' (be-IMPER sense at-you)
Tá an tsláinte aige. 'He has good health' (is the health at-him)
Tá go leor le déanamh agam. 'I have a lot to do' (is a lot with doing at-me)
Tá grá aici air. 'She loves him' (is love at-her on-him)

(25)
Scottish Gaelic:
Chan eil agam air. 'I don't like him' (not be-PRES-DEPENDENT at-me on-him)
Tha gràdh agam ortsa. 'I love you' (is love at-me on-you-EMPH)

Phrases with the preposition *ag* are also used to express the meaning of 'know/ have knowledge of', also in the context of knowing a language:[29]

(26) Irish:
Tá a fhios agam. 'I know' (is its knowledge at-me)
Tá agam! 'I have it' ('I comprehend')! (is at-me)
Tá Gaeilge agat. 'You know Irish' (is Irish at-you)
Tá snámh agam. 'I can swim' (is swimming at-me)

Similar constructions are used in Scottish Gaelic and Manx:[30]

(27)
Scottish Gaelic:
Tha Gàidhlig gu leòr aige. 'He knows Gaelic well' (is Gaelic a lot at-him)
Tha fhios agam air sin. 'I know about it' (is knowledge at-me on it)
Bha fios aice. 'She knew' (was knowledge at-her) [31]

[29] According to Ó Siadhail (1989: 266), such examples provide additional support for the 'more active quality' of idioms with *ag*. See Ó Corráin (1997a: 96) on the structural identity of expressions of possession, capability and cognizance, and Ó Corráin (1997b: 635) on the historical development of the correlation between expression of cognition and perception, with possession.
[30] Broderick (1999: 161) offers a comparable example from MxE: *It's forgotten at me*, a direct calque from Mx, cf. the example above.
[31] Mark (2006: 29) comments that in this example "the form *fhios* could have been used. This is a short form of *a fhios*, 'its knowledge' or 'knowledge of it'. Neither form can be said to be more correct, but the lenited form is possibly more common".

(28)

Manx:
Ta fys aym. 'I know' (is knowledge at-me)
T'eh jarroodit aym. 'I have forgotten' (is forgotten at-me)

Other ways of expressing possession in Irish and Scottish Gaelic include constructions with the preposition *le* 'with' and the copula *is* (which in some cases adds emphasis, additionally strengthened by the emphatic clitic):

(29)

Irish:
Leis an rí is ea é. 'The king owns it' (with the king is-COP it) (Ó Siadhail 1989: 243)
mac liom 'a son of mine' (a son with-me)
Is liomsa é. 'It's mine/I own it' (is-COP with-me-EMPH it)
Is le Seán an teach. 'The house is Sean's' (is-COP with Sean the house)
Ba le Dónall an madra. 'The dog was Donald's' (was-COP with Donald the dog)
Cé leis é? 'Whose is it?' (whose with-him (is) it)
Ní liom an t-airgead. 'This money is not mine' (not-is-COP with-me this money)

(30)

Scottish Gaelic:
Cò leis an cù seo? 'Whose is this dog?' (who with-him the dog this)
Is leamsa e. 'It is mine' (is-COP with-me-EMPH it)

According to Stenson (1981: 98) expressions with the copula and the preposition *le* indicate ownership, or inherent possession, whereas constructions with the substantive verb and the preposition *ag* refer to incidental possession.[32] The situation, however, is more complex than this neat distinction might suggest. As observed by Stenson (1981: 98) when an indefinite NP is involved the substantive verb is used to express ownership, compare the two Irish sentences:

(31)

Tá an carr ag Padraig. 'Patrick has the car (he may not own it)' (is the car at Patrick)
Tá carr agam. 'I have/own a car' (is car at-me)

[32] Cf. Sjoestedt-Jonval (1938: 92) who distinguishes 'l'expression de la propriété de droit' from 'la possession de fait', see also the distinction between 'possession' and 'ownership' made in Ó Dochartaigh (1992: 45).

The following two Sc.G examples (from Mark 2006: 179) show the differences in meaning connected with the usage of the two different verbs (substantive and copula), and two different prepositions (*aig* and *le*):

(32)

Scottish Gaelic:
Tha orainsear aig Pàdraig. 'Patrick has an orange' (is orange at Patrick)
Is ann[33] *le Pàdraig a tha an t-orainsear.* 'The orange is Patrick's' (< 'it is to Patrick that the orange belongs' < is-COP in-him with Patrick that is the orange)

The first example means that Patrick has an orange in his possession, whereas the second 'states emphatically that the orange belongs to Patrick' (Mark 2006: 179). Not also that in the first example the noun (*orainsear*) is indefinite, whereas in the second it is definite (*an t-orainsear*).

Note also the following possessive constructions which co-occur in Scottish Gaelic (though not in Irish):[34]

(33)

Scottish Gaelic:
Tha an cù aig Calum. 'Calum has got the dog' (is the dog at Calum)
Tha an cù le Calum. 'The dog belongs to Calum' (is the dog with Calum)

MacAulay (1992b: 182) explains the difference between the above examples in the following way: in full sentences, expressions with *aig* denote 'in the possession of', whereas expressions with *le* have the meaning of 'belonging to', the same type of difference is attested in Irish (see above), however, only in Scottish Gaelic the preposition *le* co-occurs with the substantive verb.

[33] Sc.G *An(n)* (Ir. *i*) is yet another preposition, meaning 'in', the 3rd person masculine (*ann*) is used with the meaning 'here; there', with the copula it is often used to make the phrase emphatic cf. Mark (2004: 38-39).
[34] These expressions exist in addition to typical genitive possessives, e.g. *cù Chaluim* 'Calum's dog' (dog Calum-GEN).

8. Conclusion

According to Schmidt (1993: 69) and MacAulay (1992a: 6) the lack of a synthetic verbal form with the meaning 'have' is an archaic and conservative feature of the Celtic languages. Furthermore, Mac Eoin (1993: 142) stresses the:

> '[i]ngrained conservatism of Irish [which] is illustrated by the fact that, though every one of languages which have shared its territory over the past 1,500 years possessed a verb 'to have', Irish has not borrowed such a verb nor developed it as a calque. It still expresses the concept by the substantive verb + preposition, e.g., *Tá leabhar ag Seán* 'Seán has a book'.'

Possession is expressed via periphrastic constructions, at the same time, however, 'the analytic process of separation of pronoun subjects from an active verb (…) seems to continue. (…) The likelihood is that this process will extend also to the conjugated prepositions…' (Mac Eoin 1993: 142-143).[35]

The examples discussed in this paper suggest that an appropriate analysis of possessive constructions in the Celtic languages would have to take into account at least the following three elements: the choice of verb (substantive vs. copula), choice of preposition ('at' vs. 'with'), and, additionally, the issue of (in)definitness. Such a comprehensive analysis still remains to be carried out.

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[35] Doyle (2002: 120, n. 1) notes, following Art Hughes, that in bilingual communities the 'traditional inflected forms are sometimes replaced by analytic sequences of P+pronoun, e.g. *do mé* 'to me' instead of *dom* 'to-me', but this must be viewed as due to language decay'. It may be also observed in the context of this remark, that a process of decomposition of prepositional pronouns has already occurred in Late Manx, under the influence of English, cf. Broderick (1999: 134-135); for changes in a 'transitional dialect' (of Irish), illustrating lexical diffusion of morphological features, see Stenson (1990).

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