

24 Celtic (Indo-European)

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1 Introduction

The Celtic languages, consisting of the Goidelic languages (Irish, Scots Gaelic and Manx) and the Brythonic languages (Welsh, Breton and Cornish), form a separate branch of the Indo-European family, though they are sometimes claimed to have special affinities with the Italic branch.

The Celtic languages present on the one hand examples of some very typical Indo-European morphological devices, particularly in the older forms of Celtic, like Gaulish and Old Irish. There we find many similarities in the format and meaning of complex declensions and conjugations reminiscent of Latin, Greek or Sanskrit. On the other hand, Celtic possesses a number of unusual morphological patterns which are so striking as to have prompted some linguists to posit profound substrate influences from languages such as Basque or Berber. For specific description of the languages comprising the family and their current status, see Ball and Fife (eds) 1993.

In this chapter we describe and illustrate some of the morphological devices of the Celtic languages which are typical of the family, but at the same time, rare or unique within Indo-European, or universally. Readers interested in the Indo-European morphological archetype should consult one of the handbooks on the subject (e.g. Lehmann 1993).

The discussion turns first to features which are shared by both branches of Celtic, followed by an examination of some more particular or typical to one branch.¹

2 Common morphological features

The Celtic languages naturally have many morphological and other features which they share amongst themselves and with other branches of Indo-European.

But some of these stand out as typical for Celtic either in their uniqueness or in their degree of employment. We will discuss four such features below: mutation, conjugated prepositions, ablaut and determiner clitics.

2.1 *Mutation*

The system of mutation is perhaps the Celtic morphological trait *par excellence*. The term refers to a system of alternation to certain phonemes of a word in order to reflect grammatical information or function. Mutations are, as it were, a type of ‘consonantal ablaut’, by which consonants have different ‘degrees’ or manifestations which are exponents of certain grammatical categories.

Celtic has an intricate and active system of initial mutations. As the name implies, these involve a gradation to the initial phoneme of the word as a reflection of grammatical categories. The grammatical categories for which mutation is an (at least partial) exponent are central and ubiquitous in the languages: gender, case, objecthood, negation, person/number, relativization, subordination, tense/mood and word classes. In all these instances, Celtic languages use an alternation to the initial phoneme to express the relevant distinctions.

Turning first to the phonological side of the mutations, the alternations are simple and systematic. So much so that linguists have been tempted to treat them as a regular phonological rule. But the lack of any credible, consistent phonological trigger(s) forecloses this approach: mutations are assuredly morphosyntactic in nature (see Ball and Müller 1992 for further discussion of this point). It appears, however, that the mutations originally arose as a phonological sandhi phenomenon which eventually became thoroughly grammaticalized.

The phonological core of the system in both branches affects mostly the stop consonants, whereby the voiceless stops become either voiced or spirantized, and the voiced stops become either spirantized or nasalized. The languages divide up these basic processes in different ways, combining them variously or keeping them as separate mutations. For instance, in Irish there are two consonantal alternations which function as single grammatical units: one called ‘Lenition’ and another called ‘Eclipsis’. The first of these mutations consists of the spirantizing effect, while the second combines the voicing and nasalizing effects. By way of contrast, Welsh can be described as consisting of three mutations: Soft (voicing and spirantizing), Spirant and Nasal mutations. Thus the two languages, while constructing their mutations from similar processes, combine them in different grammatical units. The languages also differ in the range of processes utilized: the nasal component is non-existent or sporadic in Cornish and Breton, but has developed differently in Scots Gaelic from Irish and Welsh. Many low-level variations are also manifest across the Celtic languages. However, the effects are fairly consistent, as can be seen from the diagrammatic presentation in (1) and (2) below.²

- (1) Phonological components
 (a) [+voice]
 (b) [+continuant]
 (c) [+nasal]
- (2) Combinations of components
 Irish, Scots Gaelic and Manx: Lenition (1b)
 Eclipsis (1a) + (1c)
- Welsh: Soft (1a) + (1b)
 Spirant (1b)
 Nasal (1c)
- Breton: Lenition (1a) + (1b)
 Spirant (1b)/(1a)
 Mixed (1a) + (1b)
- Cornish: Lenition (1a) + (1b)
 Spirant (1b)

The Goidelic languages are most consistent in having the same combination of the three components. In Brythonic, there is a basic voicing/spirantizing rule and a spirantizing rule (confined mostly to voiceless stops); only Welsh retains a true Nasal Mutation.

To illustrate these changes as a system, the alternations for each mutation in Irish and Welsh are laid out in (3) and (4) below in orthographic and phonetic notation. Cf. (2).

- (3) Irish
- Lenition
- | | |
|-----------------|--------------------|
| p [p] → ph [f] | b [b] → bh [v]/[w] |
| t [t] → th [h] | d [d] → dh [j]/[ɣ] |
| c [k] → ch [x] | g [g] → gh [j]/[ɣ] |
| m [m] → [v]/[w] | s [s] → sh [h] |
- Eclipsis
- | | |
|------------|------------|
| p → bp [b] | b → mb [m] |
| t → dt [d] | d → nd [n] |
| c → gc [g] | g → ng [ŋ] |
- (4) Welsh
- Soft Mutation
- | | |
|-----------|------------|
| p → b [b] | b → f [v] |
| t → d [d] | d → dd [ð] |
| c → g [g] | g → ∅ |
- m → f [v] ll [ʎ] → l [l] rh [r̥] → r [r]

Spirant Mutation

p → ph [f]

t → th [θ]

c → ch [x]

Nasal Mutation

p → mh [m̥]

b → m

t → nh [n̥]

d → n

c → ngh [ŋ]

g → ng [ŋ]

(The alternates in the Irish Lenition are palatal vs non-palatal variants.) Thus the Irish word *caora* ‘sheep’ will, in certain grammatical contexts, also appear as *chaora* or as *gcaora*; likewise, Welsh *pen* ‘head’ will occur in context also as *ben*, *phen* and *mhen*.

It is apparent that there is significant congruence between the two branches of Celtic as regards the phonological effects of mutation. The morphosyntactic environments where the mutations appear are also similar across the family. While there are of course some uses of mutation particular to some languages, there are a number of triggers which are universal, or nearly so.

One of the most consistent instances of mutation is as a marker of gender, usually feminine gender. In all Celtic languages, it is a rule that feminine singular nouns are mutated following an article. Taking Irish and Welsh as examples, the nouns listed in (5a) and (5b) are grammatically feminine, as indicated in part by their mutating (Lenition in Irish, Soft Mutation in Welsh) following the definite (nominative) article in (5c) and (5d).

- (5) (a) Irish: *bean* ‘woman’, *cearc* ‘hen’, *gealt* ‘lunatic’
 (b) Welsh: *pont* ‘bridge’, *taith* ‘trip’, *desg* ‘desk’, *man* ‘place’
 (c) *an bhean* ‘the woman’, *an chearc* ‘the hen’, *an ghealt* ‘the lunatic’
 (d) *y bont* ‘the bridge’, *y daith* ‘the trip’, *y ddesg* ‘the desk’, *y fan* ‘the man’

In a like fashion, feminine gender is also indicated by using the same mutation on adjectives following feminine nouns. Thus, just as a feminine noun mutates after the article, any adjective modifying a feminine noun takes mutation. Consider the examples from Breton in (6), using the feminine noun *merc’h* ‘girl’.

- (6) (a) *bras* ‘big’, *kentañ* ‘first’, *gwelloc’h* ‘better’, *plijus* ‘pleasant’, *trist* ‘sad’
 (b) *ur verc’h vras* ‘a big girl’, *ar verc’h gentañ* ‘the first girl’, *ur verc’h welloc’h* ‘the first girl’, *ur verc’h blijus* ‘the pleasant girl’, *ur verc’h drist* ‘the sad girl’

Another area where mutations apply universally in Celtic languages is in distinguishing person/number in possessive pronouns. Look at the systems in Irish and Welsh as examples:

(7)	<u>Welsh</u>	<u>Irish</u>	
1SG	fy	mo	'my'
2SG	dy	do	'thy'
3SGMASC	ei	a	'his'
3SGFEM	ei	a	'her'
1PL	ein	ár	'our'
2PL	eich	bhur	'your'
3PL	eu	a	'their'

Each of these pronouns has a mutation effect associated with it which aids in distinguishing the possessor-antecedent. The mutation for each slot is given below:

(8)	<u>Welsh</u>	<u>Irish</u>
1SG	Nasal	Lenition
2SG	Soft	Lenition
3SGMASC	Soft	Lenition
3SGFEM	Spirant	No mutation
1PL	No mutation	Eclipsis
2PL	No mutation	Eclipsis
3PL	No mutation	Eclipsis

Thus, overall, the singulars are distinguished from the plurals in each language by the fact that the singulars all use some form of mutation in Welsh and the plurals do not, while the plurals all use Eclipsis in Irish. This is especially important in the case of the third-person pronouns (in Welsh, despite the orthography in (7), the masculine and feminine singular and the plural are pronounced identically: [i]). Note then that the use of mutation is crucial in distinguishing which person is meant to be the possessor: it is precisely the mutation which disambiguates the forms in (9).

- (9) (a) Irish: *teach*, Welsh: *tŷ* 'house'
- (b) *a theach* [ə h'ax] 'his house'
a teach [ə t'ax] 'her house'
a dteach [ə d'ax] 'their house'
- (c) *ei dŷ* [i di] 'his house'
ei thŷ [i θi] 'her house'
eu tŷ [i ti] 'their house'

This example shows the semiological centrality and importance of the mutation process to the Celtic languages.

Mutations are also found in uses analogous to case marking in other languages, for instance, in languages such as German or Russian, where different prepositions govern different cases. In the Celtic languages, the class of prepositions can be divided into different groups which reflect different mutation behaviours. All Celtic languages distinguish at a minimum a set of mutating prepositions from a set that does not mutate. In Breton, the prepositions *da* 'to' and *war* 'on' cause Lenition to the following noun: *da Vrest* 'to Brest'; however, the preposition *goude* 'after' does not mutate its object: *goude bloazh* 'after a year'. But in some languages the distinction is quite involved, as in Scots Gaelic and Welsh, leading to multiple classifications based on the available mutations: Scots Gaelic has eclipsing, leniting and non-mutating groups of prepositions; Welsh has leniting, spirantizing, nasalizing and non-mutating subclasses.

Another instance of case-like use of mutation is found in Welsh, where the object of an inflected verb occurs with Soft Mutation.

- (10) (a) *ci* 'dog'
 (b) Gwelais gi neithiwr.
saw-1SG dog last.night
 'I saw a dog last night.'

However, mutation does not occur everywhere we might expect accusative case marking (e.g. if the object noun phrase is topicalized), so the analogy to inflected case is not complete. But as regards the fundamental task of marking the transitive object in canonical cases, the Welsh object mutation acts in a way parallel to an objective case marking.

Mutation in verbs is also quite common. Mostly this is due to association with certain preverbal particles or complementizers. As with the possessive pronouns, in some cases these particles/complementizers are distinguished precisely by their mutation behaviour. So in literary Welsh we find an affirmative particle *fe* which causes Soft Mutation (11a), an interrogative particle *a* which likewise causes Soft Mutation (11b) and a negative particle *ni* which causes a mixed effect combining lenition and spirantization (11c). In spoken Welsh, the latter two particles do not appear, though their mutation effects remain. The examples use the verb *clywed* 'to hear'.

- (11) (a) *Fe glywais gi neithiwr.*
AFFPRT heard.1SG dog last.night
 'I heard a dog last night.'
 (b) *A glywais gi neithiwr?*
INTPRT heard.1SG dog last.night
 'Did I hear a dog last night?'
 (c) *Ni chlywais gi neithiwr.*
NEGPRT heard.1SG dog last.night
 'I didn't hear a dog last night.'

Likewise in Irish, there are two relative/subordinating particles/complementizers. One is used when the antecedent is a direct relation in the relative clause: that is, the subject or direct object. The other particle is used when the antecedent is any other verbal argument or oblique case nominal: for example, an adverb. Both of these particles are written *a* and are pronounced the same: [ə]. Their important syntactic difference is conveyed totally by the difference in mutation effects: the first particle uses Lenition and the second Eclipsis. Consider (12), using *beidh* the future form of 'to be'.

- (12) (a) Sin é an fear a bheidh anseo.
 this he the man DREL will.be here
 'This is the man who will be here.'
- (b) Sin é an áit a mbeidh an fear ann.
 this he the place OREL will.be the man there
 'This is the place the man will be.'

Adverbs too are subject to mutation effects. There is evidence, for instance, that mutation is used as an indication of the class of adverbs, as when prepositions are mutated to mark their adverbial use. For example, the Welsh preposition *tros* 'over' is used adverbially in the form *drosodd*. Adverbs in any case tend to become permanently marked with mutation. In Irish there are numerous root adverbs bearing Lenition: *thuas* 'above', *dháiríre* 'seriously', *choíchin* 'never', etc.

Mutation is an active part of derivational morphology. Whole classes of compounds are distinguishable by their mutation behaviour, and sometimes otherwise homophonous affixes are differentiated by their mutations. In Welsh the group of forms called Proper Compounds differs from the Improper Compounds in that the former exhibit mutation, while the latter do not: *llaw* 'hand' + *morwyn* 'maid' → *llawforwyn* 'handmaiden' [proper] :: *gŵr* 'man' + *cath* 'cat' → *gwrcath* 'tomcat' [improper].

This brief sample of some of the common uses of mutation in Celtic gives an idea of the pervasiveness and importance of the system of mutations in this family. It is one of the most central and distinctive morphological traits of the Celtic languages.

2.2 Conjugated prepositions

All Celtic languages share a morphological phenomenon virtually unique in Indo-European, whereby pronouns used in conjunction with most simple prepositions appear as verb-like desinences. The Afro-Asiatic languages show unexplained similarities in this regard. Morphologically, the structure of conjugated prepositions differs somewhat between Brythonic and Goidelic.

Of all the Celtic languages, modern spoken Welsh presents the most transparent conjugation pattern for prepositions. Although there is considerable formal variation, an underlying structure can be identified:

[preposition] + [(interposed element)] + [pronoun desinence]

The final desinences, with certain scope for vowel variation depending on the dialect, are:

(13)	SG	PL
	1	-a (<i>i</i>) -on (<i>ni</i>)
	2	-at (<i>ti</i>) -och (<i>chi</i>)
	3MASC	-o (<i>fe</i>) -yn (<i>nhw</i>)
	3FEM	-i (<i>hi</i>)

Note the pronouns in parentheses: in spoken Welsh they are almost invariably used, except for 3 SG MASC and FEM, which are frequently omitted where context precludes ambiguity. Dialect variation gives different vowel quality to some persons, notably *-o-* for 1 and 2 SG, and conversely *-a-* for 1 and 2 PL.

With some prepositions, these desinences are added directly to the preposition: *wrth* 'by, to' – *wrtha i*, *wrthat ti*, *wrtho fe*, etc. With others, a consonantal element is interposed: *ar* 'on' – *arna i*, *arnat ti*, *arno fe*, etc. In some cases an entire extra syllable is interposed: *am* 'for, about' – *amdana i*, *amdanat ti*, *amdano fe*, etc. Note that in all cases the interposed element is invariable for person. In a few cases, the vowel of the preposition is changed with conjugation: *rhwng* 'between' – *rhynghddyn nhw* 'between them'. One preposition, *i* 'to, for', is anomalous, with the interposed element occurring in the third person only: *iddo fe* 'to him', but *i chi* 'to you'. Finally, a small number of prepositions do not conjugate at all, and are followed by the base form of the pronouns alone: e.g. *gyda* 'with' – *gyda fi*, *gyda ti*, *gyda fe*, etc. Welsh conjugated prepositions are examined in detail in G. King 1993.

Goidelic exhibits a broadly similar principle, though generally without the interposed consonant or syllable usually seen in Brythonic, and with the desinence alone indicating person – so Scots Gaelic *aig* 'at, with' + *mi* (1 SG) gives *agam*. But as in Brythonic there is a more obvious morphological relationship between desinences and their corresponding pronouns in the first and second persons than in the third person. Compare for Scots Gaelic:

(14)		desinences	pronouns
	SG	1 -m	<i>mi</i>
		2 -d/-t	<i>t(h)u</i>
	PL	1 -(i)nn	<i>sinn</i>
		2 -(i)bh	<i>sibh</i>

The third-person forms for most prepositions, on the other hand, are difficult to predict and harder to analyse: e.g. *air* 'on', 3 SG MASC *air*; *do* 'to', 3 PL *dhaibh*; *ann* 'in', 3 SGFEM *inn*. (The 3 SGFEM, however, is nearly always characterized by palatal articulation.) Indeed, for conjugated prepositions generally, Goidelic presents a far less regularized and more opaque morphological pattern than is found in Brythonic. Scots Gaelic prepositions *aig* 'at, with', *air* 'on', *bho* 'from', *do* 'to', *le* 'with', *mu* 'about' conjugate as follows:

(15)	SG	1	<i>agam</i>	<i>orm</i>	<i>bhuam</i>	<i>dhomh</i>	<i>leam</i>	<i>umam</i>
		2	<i>agat</i>	<i>ort</i>	<i>bhua(i)t</i>	<i>dhuit</i>	<i>leat</i>	<i>umad</i>
		3 MASC	<i>aige</i>	<i>air</i>	<i>bhuaithe</i>	<i>dha</i>	<i>leis</i>	<i>uime</i>
		3 FEM	<i>aice</i>	<i>oirre</i>	<i>bhuaipe</i>	<i>dhi</i>	<i>leatha</i>	<i>uimpe</i>
	PL	1	<i>againn</i>	<i>oirnn</i>	<i>bhuainn</i>	<i>dhuinn</i>	<i>leinn</i>	<i>umainn</i>
		2	<i>agaibh</i>	<i>oirbh</i>	<i>bhuaibh</i>	<i>dhuibh</i>	<i>leibh</i>	<i>umaibh</i>
		3	<i>aca</i>	<i>orra</i>	<i>bhuapa/</i> <i>bhuatha</i>	<i>dhaibh</i>	<i>leotha/leo</i>	<i>umpa</i>

Note that the components of the conjugated prepositions in Goidelic are noticeably more 'fused' together or 'compacted' than is the case in Brythonic with its more readily segmentable formations described above, and this shows itself in greater distortion of the original elements.

2.3 Ablaut (vowel gradation)

Alongside their frequent use of mutations of consonants, Celtic languages also make extensive use of vowel gradations in their morphology. Between ablaut and mutation, Celtic appears to have a special penchant for morphological devices manifested on the subsegmental level – that is, through alteration of the stem rather than by addition of new morphs. Unlike mutations, however, the use of vowel gradation is not so unique, as it is also found elsewhere in Indo-European and other languages. Though not unusually Celtic, ablaut is still a major morphological device in these languages.

In talking about vowel gradation as part of a language's morphology, we are referring to the *synchronic* use of internal vowel changes as part of grammatical processes. Historically these alternations arose from a number of different phonological sources; they are not all vestiges of the proto-Indo-European system of ablaut *per se*.³

Examples of vowel gradations in Celtic are found frequently in the formation of noun plurals, as in Irish *ceann* 'head', pl. *cinn*, *fear* 'man', pl. *fir*, *muir* 'sea', pl. *mara*; Welsh *tŷ* 'house', pl. *tai*, and *car* 'car', pl. *ceir* (the last example showing that this is a productive device); Breton *ezel* 'member', pl. *izili*, and *dant* 'tooth', pl. *dent*.

In Irish the same device is used to reflect case: *cinn*, *fir* and *mar* are also the genitive singular forms of the nouns *ceann*, *fear* and *muir*.

Welsh has no case, but it uses ablaut to distinguish gender in determiners, as with the feminine and masculine forms for 'two' (*dwy / dau*) and 'this' (*hon / hwn*). Welsh also uses ablaut to reflect gender in adjectives: *dwfn* 'deep (masc.)' :: *dofn* 'deep (fem.)'; *bychan* 'small (masc.)' :: *bechan* 'small (fem.)'; *syml* 'simple (masc.)' :: *seml* 'simple (fem.)' Also in adjectives, Welsh manifests plurality fully or partially by vowel changes (in speech these are now used mostly as nominalizations): *tlawd* 'poor', pl. *tlodion*; *gwag* 'empty', pl. *gweigion*; *marw* 'dead', pl. *meirw*; *cadarn* 'strong', pl. *cedyrn*.

Literary Welsh has examples of vowel alternations taking part in the verbal paradigm. In some cases, as with the second-person plural future, the rule is universal (given an appropriate stem vowel): for example, *canu* 'to sing' :: *cenwch* 'you will sing'. However, ablaut is also used in certain cases to form the third-person singular present of various literary verb classes: for example, *galwaf* 'I call' :: *geilw* 'she calls'; *atebaf* 'I answer' :: *etyb* 'he answers'; *gadawaf* 'I leave' :: *geidw* 'he leaves'; *cysgaf* 'I sleep' :: *cwsg* 'she sleeps'; *profaf* 'I test' :: *prawf* 'he tests'.

2.4 Determiner clitics

'This' and 'that' (in a three-grade deictic system) are expressed in Celtic by clitics attached to the noun phrase. In all cases the definite article (W *y(r)*, Br *an*, Goidelic *an/am*) is required before the noun phrase when the determiner clitics are used, and all components of a complex noun phrase precede the clitics.

(16)	'this'	'that'	'that' (over there)
Welsh (spoken):	<i>y . . . 'ma</i>	<i>y . . . 'na</i>	<i>(y . . . 'cw)</i>
Breton:	<i>an . . . -mañ</i>	<i>an . . . -se</i>	<i>an . . . -hont</i>
Goidelic:	<i>an . . . seo</i>	<i>an . . . sin</i>	<i>an . . . siud</i>

So, for example, Welsh:

(17)	<i>y lori 'ma</i>	'this lorry'
	<i>y lori 'na</i>	'that lorry'
	<i>y lori fach 'na</i>	'that little lorry'
	<i>y lori fach goch 'na</i>	'that little red lorry'.

All these clitic elements are invariable as to gender and number, and show a clear relationship to corresponding adverbs of location:

(18)	Welsh:	<i>yma</i> 'here'	<i>yna</i> 'there'	<i>acw</i> 'over there'
	Breton:	<i>amañ</i>	<i>aze</i>	<i>ahont</i>
	Irish:	<i>anseo</i>	<i>ansin</i>	<i>ansiúid</i>

Their clitic use is based on an underlying relative clause: that is, *W y llyfr 'ma* 'this book' < *y llyfr (sydd y)ma* 'the book (which is) here'.

An interesting situation exists in Welsh, where the literary construct language substitutes true demonstrative adjectives for the clitics of the spoken language (masc. in (a), fem. in (b)):

(19)	<u>Spoken Welsh (clitics)</u>	<u>Literary Welsh (adjectives)</u>
(a) this book	<i>y llyfr 'ma</i>	<i>y llyfr hwn</i>
these books	<i>y llyfrau 'ma</i>	<i>y llyfrau hyn</i>
that book	<i>y llyfr 'na</i>	<i>y llyfr hwnnw</i>
those books	<i>y llyfrau 'na</i>	<i>y llyfrau hynny</i>
(b) this flag	<i>y faner 'ma</i>	<i>y faner hon</i>
these flags	<i>y baneri 'ma</i>	<i>y baneri hyn</i>
that flag	<i>y faner 'na</i>	<i>y faner honno</i>
those flags	<i>y baneri 'na</i>	<i>y baneri hynny</i>

In the spoken language, the demonstrative adjectives given for literary Welsh above are used pronominally (e.g. *Beth ydy hwn?* 'What is this?'), and with minor rearrangements to accommodate non-concrete concepts. They are found in speech, however, in the pronominals *y rhain* 'these' and *y rheiny* 'those':

- (20) (a) *Faint yw'r rhain?*
'How much are these?'
- (b) *Gymera i'r rheiny.*
'I'll have those'.

where *y rhain* = *y rhai hyn* 'these ones', and *y rheiny* = *y rhai hynny* 'those ones'. Yet even here it is not unusual to hear, at least for *y rheiny*, a clitic alternative *rheina* (= *y rhai 'na*): *Cymerwch reina!* 'Take those!'

3 Morphological devices in Goidelic

The features which are noteworthy particularly in the Goidelic branch of Celtic are the palatal/non-palatal opposition, verbal infixes and the pronominal supplement suffixes. In the following discussion of typically Goidelic morphological features, examples will be Scots Gaelic unless otherwise stated.

3.1 Palatal/non-palatal morphophonemic opposition

Initial consonant mutation is a phenomenon common to all the Celtic languages, and is discussed in section 2.1 above. The Goidelic languages, however,

also exhibit final consonant mutation, characterized by a palatal/non-palatal opposition.

The consonant system of Old Irish was characterized, as a result of loss of non-stressed vowels, by a three-way opposition of articulation or 'quality': palatal – rounded – neutral. The quality of a consonant was determined by the type of vowel adjacent to it. *I* and *e* would palatalize an adjacent consonant, *u* would lend it a rounded articulation, and *a* and *o* would produce neither effect, leaving a neutral quality. With time, the distinction between neutral and rounded quality was lost, leaving a two-way opposition of neutral – palatal in most modern Goidelic dialects (some Irish dialects have rounded consonants, but these are a secondary development).

This two-way opposition, traditionally designated 'slender' (i.e. palatal) versus 'broad' (i.e. non-palatal), is the basis of a very rich consonantal inventory in mainstream Goidelic dialects today, reminiscent of East Slavonic languages, notably Russian, and producing in the case of Irish dialects a similar aural effect. But in Goidelic this essentially phonological opposition has been integrated into some of the most fundamental mechanisms of morphology, notably in the noun–adjective system.

The palatal/non-palatal consonant opposition is largely confined to word-final environments, with or without a following vocalic element. Hebridean Scots Gaelic exhibits a typical inventory of 'broad' and 'slender' pairs:

(21) (written)	d	t	g	c	dh/gh	ch	s	n	l	r
broad:	d	t	g	k			s	N/n	L	r
slender:	d'	t'	g'	k'	j	ç		N'	L'/l	

with the remainder of the consonants lying outside this two-way system.

Orthography (both Irish and Scots Gaelic) gives the vowels a dual function: as indicators of vocalic phonemes in the normal way, but also (and this is by no means a secondary function) as indicators of consonant quality (i.e. whether the adjacent consonant is palatalized or not). In this function, as might be expected, the presence of *i* or *e* indicates a palatal consonant, with *-e* representing a following vowel. By default, the presence of any of the remaining vowels (*a*, *o* and *u*) indicates absence of palatal quality, and so vowels from these two groups cannot appear directly on either side of a consonant. This is the essence of the 'broad with broad, slender with slender' principle of modern Irish and Scots Gaelic orthography. So Scots Gaelic *snàthad* 'needle', gen. sg. *snàthaid* (representing phonetic [sNa:həd], [sNa:hid'], with broad and slender *-d* respectively); *òg* 'young', comp. *òige* ([o:g], [o:g'ə]). Note that, for example, in the word *òige*, the initial vowel is the same, and the following *-i-* serves not to make a diphthong, but to show palatalization of the following *-g-*.

A number of grammatical functions make use of the broad–slender opposition, and in some cases the consonant quality determines a minimal pair. The following are examples of the main instances in modern Scots Gaelic where final consonant mutation has a morphological function. Note that it often appears in conjunction with a change of vowel.

3.1.1 *Noun declension* The palatal/non-palatal opposition comes into play in three main types of noun in Scots Gaelic.

- (1) Masculine nouns whose base (i.e. nominative/accusative) form ends in a non-palatal consonant often palatalize to form the genitive singular:

(22) <i>bòrd</i> 'table'	<i>bùird</i> 'of a table'
<i>cat</i> 'cat'	<i>cait</i> 'of a cat'
<i>each</i> 'horse'	<i>eich</i> 'of a horse'
<i>iasg</i> 'fish'	<i>èisg</i> 'of a fish'
<i>laoch</i> 'hero'	<i>laoich</i> 'of a hero'

The palatalized form also functions as a vocative where needed, with preceding particle *a*: *Seumas* 'James', *a Sheumais!* 'James!'

- (2) Feminine nouns ending in a non-palatal consonant may palatalize and add *-e* to form the genitive singular:

(23) <i>bròg</i> 'shoe'	<i>bròige</i> 'of a shoe'
<i>bruach</i> 'bank'	<i>bruaiche</i> 'of a bank'
<i>muc</i> 'pig'	<i>muice</i> 'of a pig'

This type of feminine retains the palatal consonant but drops the final *-e* to form the dative singular (used after prepositions): *leis a' bhròig* 'with the shoe'.

- (3) Feminine nouns ending in a palatal consonant may depalatalize in the genitive singular and/or base plural, often in conjunction with one or more added syllables:

(24) <i>iuchair</i> 'key'	<i>iuchrach</i> 'of a key'	<i>iuchraichean</i> 'keys'
<i>obair</i> 'work'	<i>obraichean</i> 'works'	

A few masculine nouns also depalatalize for the genitive singular and base plural, notably *athair* 'father', gen. sg. *athar*, pl. *athraichean*.

3.1.2 *Comparison of the adjective* The comparative/superlative (no morphological distinction in Scots Gaelic) is normally formed by palatalization + addition of *-e*:

(25) <i>caol</i> 'narrow'	<i>caoile</i> 'narrower'
<i>òg</i> 'young'	<i>òige</i> 'younger'
<i>ùr</i> 'new'	<i>ùire</i> 'newer'

and sometimes with vowel shift:

(26) <i>geal</i> 'white'	<i>gile</i> 'whiter'
<i>gorm</i> 'blue'	<i>guirme</i> 'bluer'
<i>trom</i> 'heavy'	<i>truime</i> 'heavier'

This is not a productive device, and is furthermore confined largely to monosyllables (but not exclusively – e.g. *fada* 'long', *faide*; *falamh* 'empty',

falaimhe). In some dialects (e.g. East Sutherland) it has been almost entirely supplanted by analytic formations: for example, *nas trom* 'heavier', *as trom* 'heaviest' (Dorian 1978).

3.1.3 Formation of derived nouns This involves mostly abstract nouns from adjectives. The final consonant is palatalized, and a vocalic element *-e* added – exactly the same principle, in fact, as to form the comparison of adjectives (see section 3.1.2 above). For example: *àrd* 'high' :: *àirde* 'height'; *geal* 'white' :: *gile* 'whiteness'. Sometimes an extra consonant intervenes between the root and the *-e*, but still with preceding palatalization: *lag* 'weak' :: *laigse* 'weakness'; *slàn* 'healthy' :: *slàinte* 'health'. This too is not a productive device, and seems largely confined to basic monosyllabic adjectives. Otherwise the termination *-achd* is the most common abstract-builder, with no effect on consonant quality.

3.1.4 Root (or stem form) of the verb Scots Gaelic distinguishes for most verbs a verbal noun (VN), used in periphrastic constructions and as a true noun, and a verb stem, used with inflections – note that this includes a zero-desinence marking the preterite, singular imperative and dependent future. While there are many different formations for the verbal noun, a common pattern shows it with non-palatal final, and verb stem with palatal final:

(27)	VN	Stem	
	<i>ceannach(d)</i>	<i>ceannaich</i>	'buy'
	<i>cur</i>	<i>cuir</i>	'put'
	<i>falach</i>	<i>falaich</i>	'hide'
	<i>fuireach</i>	<i>fuirich</i>	'wait'

This is not, however, a productive device in verb morphology, and many verbs do not make use of the broad–slender opposition in this way, or do so only in conjunction with other morphological devices, often an added syllable for the verbal noun.

The noun–adjective system of Irish dialects shows a broadly similar use of the palatal/non-palatal opposition. In some dialects, the opposition alone occasionally serves to distinguish between different persons of some inflected prepositions: for example, *thriùbh* [hri:b'] 'through you (pl)' :: *thriùthu* [hri:b] 'through them'. Some conservative Irish dialects use palatalization of the second consonant (or cluster) to distinguish the past autonomous/impersonal from a disyllabic VN in *-adh*. Examples from Mhac an Fhailigh 1968: VN *dúnadh* [du:nu:] 'close', past aut. *duineadh* [du:n'u:]; *losgadh* [Losgu:] 'burn', *loisgeadh* [Lo:g'u:].

3.2 Verbal infixes

Old Irish showed a propensity to verb prefixation unusual even by Indo-European standards, with semantic modification of a verbal root achieved by

the addition of one or more preverbs, generally of prepositional origin; in addition, considerations of syntax as well as semantics frequently require use of an augment-like preverb *ro-*. This, in conjunction with the effects of a strong stress accent on the vowels in unstressed syllables and an orthography which, albeit unevenly, reflects this variable realization as well as internal sandhi, gives the Old Irish verbal system a complexity that defies brief summarization. Thurneysen (1970: §§512–818) and McCone (1987) give detailed treatments. As to the structural possibilities, which are of direct relevance to the question of pronoun infixation, two basic types may be identified:

- (1) minimal verbs – that is, synchronically irreducible verb forms without preverbal elements: for example, (3 SG pres.) *berid* ‘carries’.
- (2) binary complex verbs – that is, an independent lexical unit comprising preverb + stressed main verb: for example, *as-beir* ‘says’ (< *as + berid*).

Both these types appear in two parallel conjugation patterns, depending on whether preverbs are added, since the addition of a syllable shifts the stress accent and so alters pronunciation. So, for example, the 3 SG absolute form of the minimal verb *berid* becomes *-beir* (conjunct form) when a preverb (e.g. *as-*) is added, here to form a binary complex. Binary complexes themselves appear in two conjugation patterns, depending on whether additional infixes or preverbs are used with them, so *as-béir* without further prefixation (the deuterotonic form, because the stress falls on the second syllable of the complex) becomes *-épir* (< **ess-ber*) when another preverb is added (the prototonic form).

As to the infixed elements themselves, they have two main uses:

- (1) as direct object pronouns (occasionally indirect – almost always used with the verb ‘be’); also used where the pronoun is the recipient of the action of a passive/autonomous verb.
- (2) as subject or object relative markers.

In their basic forms, these pronouns are non-syllabic except for vocalic 3 SG MASC and NEUT (various mutation effects here omitted):

(28)	SG	PL
	1	<i>-m-</i> <i>-n(n)-</i>
	2	<i>-t-</i> <i>-b-</i>
	3 MASC	<i>-a-</i> <i>-s-</i>
	3 FEM	<i>-s-</i>
	3 NEUT	<i>-a-</i>

These basic forms are used after preverbs and particles ending in a vowel; also occasionally where a final vowel has been lost. A series of expanded forms

are used after preverbs ending in a consonant, in relative clauses and in a few other circumstances.

Examples with the 1 SG (basic) *-m-*, (expanded) *-dom-* (both causing Lenition):

- (29) *ad-cí* 'sees' :: *atom-chí* 'sees me'
ni accai 'does not see' :: *nim accai* 'does not see me'
ro-n-ánaic 'he reached' :: *ro-n-dom-ánaic* 'he reached me'
intí do-eim 'he who protects' :: *intí do-dom-eim* 'he who protects me'
for-comai 'preserve' :: *for-dom-chomai* 'I am preserved'

The principle of infixation is so central to the verb system of Old Irish (note that the object pronouns exist only in infix or suffix form) that a technique developed for its use with minimal verbs as well. This involved a special semantically empty 'dummy' preverb *no-* used to create a binary complex suitable for infixation. For example, the use of an object pronoun (e.g. *-m-* 'me') with *fo-gaib* 'get' presents no structural problems, since this verb is a binary complex in any case: *fo-m-gaib* 'he gets me'; but 'he strikes me' requires *benaid* (conjunct *-ben*), a minimal verb which cannot of itself support an infix pronoun, therefore *no-m-ben*. This empty *no-* is also routinely used, incidentally, with the imperfect indicative, secondary future and past subjunctive, whether an infix pronoun is present or not.

True infix pronouns have not survived into modern spoken Goidelic; nor have their particle-dependent counterparts in, for example, Middle Welsh. But suffixed pronouns remain in vestigial form in both branches of Celtic in the conjugated prepositions (see section 2.2 above).

3.3 Pronominal contrastive/emphatic suffixes

Irish and Scots Gaelic possess a set of enclitic particles that vary with person and are used in certain clearly defined circumstances. They convey either emphasis or contrast. Scots Gaelic forms for these suffixes are:

(30)	SG	PL
1	<i>-sa</i>	<i>-ne</i>
2	<i>-sa</i>	<i>-se</i>
3 MASC	<i>-san</i>	<i>-san</i>
3 FEM	<i>-se</i>	

Some less conservative dialects have carried out morphological levelling and phonological simplification to various degrees, giving the allomorphs [sə] (after vowels) and [əs] (after consonants) for all persons.

The morphological environments where these clitics can be used are strictly limited. In Scots Gaelic they can be attached to (a) personal pronouns, (b)

conjugated prepositions, (c) nouns preceded by possessive adjectives, and very occasionally to verb forms.

3.3.1 With personal pronouns

(31)		base form	with clitic
	SG		
	1	<i>mi</i>	<i>mise</i>
	2	<i>t(h)u</i>	<i>t(h)usa</i>
	3 MASC	<i>e</i>	<i>esan</i>
	3 FEM	<i>i</i>	<i>ise</i>
	PL		
	1	<i>sinn</i>	<i>sinne</i>
	2	<i>sibh</i>	<i>sibhse</i>
	3	<i>iad</i>	<i>iadsan</i>

Note that 1 SG is *mise*, not **misa*. Generally, however, the clitics are invariable in Scots Gaelic, and as such are allowed to violate the general 'broad/slender' spelling convention. But some Irish dialects have allomorphs for some suffixes in conformity with the morphophonemic principle.

As well as for emphasis and contrast, the extended pronouns are especially common in copula sentences: for example, *Is mise a rinn sin* 'I (am the one who) did this'.

3.3.2 With conjugated prepositions These personal forms of prepositions are characteristic of both Goidelic and Brythonic (see section 2.2 above), but in Goidelic the pronoun-type ending of the preposition in these circumstances allows the addition of the emphatic particle. So, for example:

aig 'at': 1 SG *agam* + clitic *agamsa*; 2 PL *againn* + clitic *againne*
do 'to': 1 SG *dhomh* + clitic *dhomhsa*; 3 SG FEM *dhi* + clitic *dhise*
le 'with' 1 PL *leinn* + clitic *leinne*; 3 PL *leotha* + clitic *leothasan*

- (32) (a) Chan eil càil a chuimhne agamsa air an fheadhainn sin.
 NEG be part its memory with.1 SG.cl on the some that
 'I don't remember anything at all about those.'
- (b) Thoir dhomhsa e.
 give to.1 SG.cl it
 'Give it to me.'
- (c) Is leinne an teilebhisean agus is leothasan an teip-chlàraidhear.
 be with.1PL.cl television and with.3PL.cl tape-recorder
 'The TV is ours and the tape-recorder is theirs.'

3.3.3 With possessive adjectives Person is also implicit in the possessive adjectives, and for this reason a noun phrase comprising [possessive adj + noun (+ adjective)] can attract the emphatic clitics in Goidelic. So *làn* 'hand' :: *do*

lámh-sa 'your hand'. In fact this straightforward usage is probably more characteristic of Irish dialects; a more complex situation exists in Scots Gaelic, where the possessive adjectives are in practice restricted to inalienable possession (kinship terms and parts of the body) and verbal nouns (see below), while being frequently supplanted in most other cases by a paraphrase involving the preposition *aig* 'at, with': so, instead of *ar baile* 'our town' we find *am baile againne*, literally 'the town with us'. But even here, note that the conjugated preposition can (and frequently does) appear with the emphatic clitic (here *-ne*).

Possessive adjectives have a further important use, in periphrastic verbal constructions of the common type: [verb 'be'] + *ag* 'at' + [verbal noun] in representing a pronoun object of the VN; and in these cases also the use of clitics is frequent. So VN *coimhead* 'watch(ing)' :: (*Bha e gam choimhead-sa* '(He was) watching me' (*gam = ag + mo*, so lit. 'at my watching'). Similarly for other persons: for example, . . . *gar coimhead-ne* ' . . . watching us', . . . *gan coimhead-san* ' . . . watching them'.

The form and use of the contrastive/emphatic clitics in Irish dialects differ somewhat from Scots Gaelic:

- (1) Generally, there are more allomorphs, because the morphophonemic principle is more rigorously applied – so, for example, 1 SG *-sa* or *-se* depending on the articulation of the preceding syllable.
- (2) They may be used with synthetic verb forms: for example, *Dhéanfása praiseach de* 'You'd make a mess of it', . . . *ach táimse go maith* ' . . . but I am well'. But synthetic verb forms are in any case more prevalent than in Scots Gaelic, which has replaced many by periphrastic constructions.

4 Morphological devices in Brythonic

We turn now to some traits characteristic of the Brythonic languages, but rarely or never found in Goidelic. The two features described are 'equative adjectives' and 'pronominal agreement clitics'.

4.1 Equative adjectives

A peculiar feature of the Celtic adjective/adverb is the appearance alongside the usual positive, comparative and superlative degrees of a form called the 'equative' degree of the adjective/adverb. Where the comparative and superlative express relative disparity in the possession of a certain quality, the equative in its main function asserts possession of an equal or comparable degree of the quality. As such, the equative forms can usually be translated 'as X [as]'

While Irish possessed a sporadic equative inflection in its early stages (Lewis and Pedersen 1937: 182–3), it is in the Brythonic languages that we find the equative as a regular formation, where the construction has both analytic and synthetic versions.

The most widespread is the analytic formation, consisting of one of two particles before the positive form of the adjective; the particles are in Breton either *ken* or *mar*, in Cornish either *maga* or *mar*, and in Welsh either *cyn* or *mor*. The latter of each pair causes Lenition, as does Welsh *cyn*, but Breton *ken* causes no mutation, while Cornish *maga* causes hard mutation (Hemon 1975: 48; Lewis 1946: 21–2; Lewis and Pedersen 1937: 183). This is the most productive form of the equative in all three languages, and is the usual form for derived or other polysyllabic adjectives/adverbs.

- (33) (a) Breton: *mat* 'good' :: *ker mat* 'as good'
 (b) Cornish: *ker* 'dear' :: *mar ger* 'so dear'
 (c) Welsh: *amddifad* 'destitute' :: *mor amddifad* 'so destitute'

Note that the final consonant of *ken* varies as part of a sandhi process with the following adjective in a manner similar to the forms of the article in Breton (see Hemon 1975: 48).

In some cases, however, the prefixed particle *ken* / *cyn* has coalesced with the adjective/adverb and formed a pseudo-prefix. Most of what would be considered irregular formations of the equative in these languages derive from this reanalysis of particle + stem. For example, the equative form of the Welsh adjective *drwg* 'bad' is *cynddrwg*. In some forms, the identity of the particle has become obscure: the equative of Welsh *hir* 'long' is *cyhyd*, using a nominal form as the stem. The obscurity in some cases led to doubling of the equative 'prefix', as in Cornish *kymmys* 'so much' occurring as *kekemys* (Lewis 1946: 21).

These instances of pseudo-prefixing are sporadic and unproductive. The equative inflectional pattern which can claim the greatest currency is one which involves suffixation of an element *-ed*, causing hard mutation (i.e. devoicing) on the last stop of the stem (usually the positive form of the adjective, though occasionally the comparative/superlative stem). This formation is not well-attested in Cornish or Breton, but is found throughout the history of Welsh. Some examples of the modern literary formation are given in (34) (see S. Williams 1959: 38–40).

- (34) (a) *byr* 'short', *dewr* 'brave', *gwlyb* 'wet', *tlawd* 'poor', *teg* 'fair', *hawdd* 'easy'
 (b) *byrred* 'as short', *dewred* 'as brave', *gwlyped* 'as wet', *tloted* 'as poor', *teced* 'as fair', *hawsed* 'as easy'

Note the devoicing in the cases of *gwlyped*, *tloted* and *teced*. Although these adjectives/adverbs regularly form their equatives using the *-ed* suffix, they are still preceded by the particle *cyn* (also *mor* in the spoken versions). Thus, even

at its greatest extent, the inflectional equative is one element of an analytic–synthetic construction, and only on rare occasions is it ever used on its own to express the equative.

This fact is no doubt related to the increasing tendency to replace the analytic–synthetic equative with the purely analytic form. As was noted, this is how Cornish and Breton have developed, and evidence tends to show that in Welsh too, except for certain common, irregular adjectives, the equative is usually formed spontaneously without any inflectional marking, using *mor* + the positive form of the adjective (see G. King 1993: 77).

4.2 *Pronominal agreement clitics*

We have introduced already the emphatic augments in Goidelic (section 3.3), which are partially distinctive for person and number. In Brythonic, the distinction is carried through to its logical extreme by using, in similar fashion to Goidelic, forms which appear virtually identical to the personal pronouns. Because of this, it may be more reasonable here to treat the clitic augments more as part of the agreement complex.

To see the congruence between these clitics and the independent pronouns, consider the data on the forms in Welsh and Breton given below.

(35) Independent pronouns

	Welsh	Breton
1 SG	<i>mi/fi</i>	<i>me</i>
2 SG	<i>ti</i>	<i>te</i>
3 SGMASC	<i>e/fe</i>	<i>eñ</i>
3 SGFEM	<i>hi</i>	<i>hi</i>
1 PL	<i>ni</i>	<i>ni</i>
2 PL	<i>chi</i>	<i>c'hwi</i>
3 PL	<i>nhw</i>	<i>int</i>

(36) Agreement clitics

	Welsh	Breton
1 SG	<i>i/mi/fi</i>	<i>me</i>
2 SG	<i>ti/di</i>	<i>te/de</i>
3 SGMASC	<i>e/fe</i>	<i>eñ</i>
3 SGFEM	<i>hi</i>	<i>hi</i>
1 PL	<i>ni</i>	<i>ni</i>
2 PL	<i>chi</i>	<i>c'hwi/hu</i>
3 PL	<i>nhw</i>	<i>int</i>

The alternates given above are partly phonologically and partly dialectally conditioned. The sole significant divergence between the two sets is the fact

that *i* in Welsh is found only as an agreement clitic, not as an independent pronoun. Unlike the Goidelic situation, Brythonic strongly equates the supplemental forms with the regular pronominal complex.

Despite this difference, Brythonic and Goidelic agree in broad outline on the environments where the augments are used. As in Goidelic, the agreement clitics in Brythonic occur as supplements in three main instances: with inflected verbs and prepositions and postnominally in the possessive complex. However, in Brythonic, the supplements are used far more frequently with the verb forms, but are never used to supplement other pronouns as in Goidelic (unless one were to consider the reduplicated pronouns of Welsh and Cornish as examples of this; see S. Williams 1959: 56–7; Lewis 1946: 29–30). Examples of these uses are given in (37); in each instance the clitic doubles the person and number of the inflection or possessive pronoun.

- (37) (a) Inflected verb
 Welsh: Wnes i erioed adduned.
did-1 SG I never vow
 'I never made a vow.'
 Breton: Pe laras eñ?
what said-3 SG he
 'What did he say?'
- (b) Inflected preposition
 Welsh: amdanoch chi
about.2 PL you
 'about you'
 Breton: warnomp-ni
on.1 PL we
 'on us'
- (c) Nominal possession
 Welsh: fy ngwlad i
my country I
 'my country'
 Breton: ho louzou c'hwi
your remedy you
 'your remedy'

In (37a) the clitics *i* and *eñ* double the person and number of the endings *-es* and *-as*; in (37b) the same is true of the endings *-och* and *-omp*; in (37c) the clitics double the possessive adjectives/pronouns *fy* and *ho*.

The Brythonic forms also function similarly to the Goidelic augments: namely, for emphasis or contrast. Thus the forms in (37c) could be interpreted as 'my country' or 'your remedy'. However, unlike Goidelic, the Brythonic clitics have uses less informationally marked than contrast, amounting to something like

'switch reference'. That is, in Brythonic, the agreement clitics may turn up because a competing pronominal reference has occurred elsewhere in the discourse. For instance, in (38a), the use of the clitic after *brawd* does not indicate anything as strong as emphatic contrast; it simply means that the two instances of 3 SG FEM are non-co-referential. In (38b), the lack of the agreement clitic indicates the two 2 SG FEM are identical.

- (38) (a) Fe welodd hi ei brawd hi ddoe.
PRT saw.3 SG she her brother yesterday
 'She_i saw her_i brother yesterday.'
- (b) Fe welodd hi ei brawd ddoe.
 'She_i saw her_i brother yesterday.'

Thus, in Brythonic, the use of the supplemental clitic is much less marked, and the forms in (38) could occur in rather more neutral contexts than the corresponding Goidelic forms. Indeed, the de-marking of the agreement clitics has proceeded so far, particularly in Welsh, as to become the *unmarked* option. This is especially the case with supplements to the verbal and prepositional inflections, the clitics being virtually obligatory in the spoken language (see G. King 1993).

Their use with the possessives is also nearly obligatory, but subject to the 'switch reference' function. For instance, the norm in spoken Welsh would be to use the agreement clitic in the possessive structure *ei gar e* in (39a), with no special emphasis or contrast. In (39b), however, we have a passive, whose structure requires that the possessor of the verbal noun *weld* be co-referential to the subject (see Fife 1992: 468–70). Accordingly, the agreement clitic is ungrammatical in (39b), since it would imply a switch in reference between the subject and the possessor.

- (39) (a) Ces i weld ei gar e ddoe.
got-1 SG I seeing his car he yesterday
 'I got to see his car yesterday.'
- (b) Cafodd e ei weld (*e) ddoe.
*GOT-3 SG he his seeing (*he) yesterday*
 'He was seen yesterday.'

So natural has the use of augments become in spoken Welsh that they tend to supplant the pronouns in the possessive construction. Thus, in place of the canonical (40a), we find (40b) as an alternate (with no possessive pronoun, but just the Nasal Mutation it triggers), or even (40c), where both pronominal pronoun and mutation have been lost and only the clitic remains to mark the possession (though in this case using *fi*, which is ambiguously a clitic or independent pronoun; see A. Watkins 1976, Jones 1990, Tallerman 1991, for discussions of such forms).

- (40) (a) *fy nghap i*
my cap I
 'my cap'
- (b) *nghap i*
 'my cap'
- (c) *cap fi*
 'my cap'

Although the version in (40c) is characteristic of child language, and would be considered substandard in adult speech, it is possibly an emergent structure, one further along in the evolution towards non-markedness for the agreement clitics. Because of such trends, the Brythonic use of these augments is starkly opposed to the informationally marked function of the comparable forms in Goidelic.

NOTES

- 1 It is important when discussing the Celtic languages to distinguish the spoken forms from the literary register, since in most cases the two are widely divergent (see e.g. Fife 1986). When constructions discussed here are largely confined to one form of the language, this is duly noted.
- 2 The loss of mutation is a common language-death phenomenon in the Celtic languages; see Dorian 1977, Dressler and Wodak-Leodolter 1977, Thomas 1984, Ball and Müller 1992. For illustration purposes, the discussion here assumes each language's mutation system in its current maximal range found in the literary language.
- 3 The situation is the same with regard to Modern English morphology's use of vowel alternations. Some of these arose from instances of 'true' ablaut, such as in *tell :: told*, but some alternations resulted from much later phonological changes which became grammaticalized, such as *man :: men*, which derives from a Germanic fronting (umlaut) rule triggered by a now-lost plural ending **-i*. Some synchronic instances of vowel alternations in Celtic are likewise the result of later sound rules which have become phonologically opaque, though some represent original morphological alternations.