The Typology of Modern Irish
Proto-Indo-European

[Central, West, North-West Europe]

Celtic

[Italic, Germanic]

Continental

Gaulish

Iberian

Insular

Goidelic [Q-Celtic]

Old Irish (600-900)

Scottish Gaelic, Manx

Middle Irish [900-1200]

Early Modern Irish [1200-1600]

Later Modern Irish [1600-1900]

Modern Irish [1900-]
The areas in Ireland today in which native speakers are found in historically continuous communities. Some areas are in a stronger position than others. e.g. North-West Donegal and West Galway have the most vibrant communities whereas North-West & South Mayo, West Kerry, Cape Clear and West Waterford are in a much weaker position. Rathcairn is an entirely transported community (from Galway in the early 20th century).
Areas where Irish was still spoken in the early 20th century

- Inland Donegal
- Glens of Antrim and Rathlin Island
- Central Tyrone
- South Armagh
- East Galway
- West Clare
- North Waterford (Na Déise)
Traditional divisions in typology

Language Types

Analytic
(few inflections, word order fairly fixed and many grammatical words present)

Synthetic
(many inflections, many with more than one function and more than one form)

Agglutinative
(many inflections, one for each grammatical category and usually with only one form)

Polysynthetic
(high concentration of inflections with several variants, many word classes combined into a single form)
The functionalisation of sandhi phenomena

1) Low-level phonetic attrition and loss of inherited inflections occurred at an early stage, probably in the last centuries BC.

2) A basic re-orientation of the morphological typology of Irish occurred (along with Brythonic) such that the sandhi phenomena (lenition and nasalisation) came to be interpreted by later generations of language learners as structurally significant, i.e. to be used for making grammatical distinctions.

3) Several re-adjustments take place later to regularise the system of sandhi changes which were now part of the grammar of Irish, these changes probably occurred just before the attested stages of Irish.
The development of lenition in Irish

<table>
<thead>
<tr>
<th>(1)</th>
<th>Ogam</th>
<th>Old Irish</th>
<th>Modern Irish</th>
<th>‘old woman’</th>
<th>‘daughter’</th>
<th>‘son’</th>
</tr>
</thead>
<tbody>
<tr>
<td>senobena</td>
<td>senben→</td>
<td>seanbhean</td>
<td></td>
<td>‘old woman’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>inigena</td>
<td>ingen→</td>
<td>inion</td>
<td></td>
<td>‘daughter’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>maqqos</td>
<td>maqq→</td>
<td>mac /kk/→</td>
<td>/k/</td>
<td>‘son’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Release from phonetic motivation

Functionalisation of a low-level phenomenon such as phonetic weakening has a number of consequences. One is that the original phonetic triggering is no longer necessary, that is, the phenomenon can occur in environments in which it would not have done so originally. For instance nasalisation in Irish would not have been triggered by the number 8 as this did not end in a nasal (cf. Latin *octō*) but in Irish it came to nasalise and so fit into the series of numerals which induce nasalisation of a following noun.
Another consequence of functionalisation is that, after it is initiated, phonetic developments are then arrested. Thus /y/, resulting from the lenition of /g/, does not disappear initially as it does word-internally in Irish (though it has in Welsh). /s/ does not lenite beyond /h/ as opposed to Andalusian Spanish, for example, which has /s/ → /h/ → Ø, e.g. las casas, [lah kasah], [la kasa]. With regard to palatalisation, /k/ does not assimilate to /ʃ/ via /tʃ/ as it has done in French, for instance, but remains a palatal stop /kʲ/, phonetically [c] (IPA).
Grammaticalisation cline

(2) lexical item > clitic > affix

Inherent deficiencies of the system

(3) a neart can mean ‘his, her, their strength’
Later disturbances of the system (homophony)

(4)  
a. $a\text{ thuî}$ /ə hi:/  "his straw'  
    $a\text{ shuí}$ /ə hi:/  "his sitting'  
b. $a\text{ dhaol}$ /ə yi:l/  "his beetle'  
    $a\text{ ghaol}$ /ə yi:l/  "his relationship'
Palatalisation in Irish

Palatalisation is a synchronic process in Irish whereby a consonant is shifted in articulation towards the region of the palate. It occurs in nominal/adjectival inflections and various word-formational processes.

Palatalisation has its origin in the assimilation of consonants to high vowels which followed them, typically in suffixal inflections. In this respect it is similar in origin to umlaut in Germanic.
raised tongue position for palatal sounds, e.g. \( t \{ i \) [t'ı:] 'house'-GEN
lowered tongue position for non-palatal (velarised) sounds, e.g. *tui* [tui:] 'straw'
Types of palatalisation in Irish

1) A shift in place of articulation towards the palate
2) A shift of non-palatal consonant to palatal vowel

(5) 

<table>
<thead>
<tr>
<th>Sg (non-palatal)</th>
<th>Pl (palatal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. <em>cnoc</em></td>
<td><em>enoeic</em></td>
</tr>
<tr>
<td>b. <em>marcach</em></td>
<td><em>marcaigh</em></td>
</tr>
</tbody>
</table>

‘hill’            ‘hills’
‘rider’           ‘riders’
Initial mutation

By initial mutation is meant a change in the manner and possibly place of articulation of a consonant at the beginning of a word. Such changes were originally sandhi phenomena, i.e. the intervocalic voicing of voiceless segments or the fricativisation of voiced ones. This is paralleled by the nasalisation of words preceded by nasals.

Lenition (aspiration, Irish: séimhiú)

Lenition in Irish essentially involves the change of stops to fricatives; this is both a diachronic phonological process and part of the synchronic morphological process. All stops in the language can become fricatives in an environment for lenition. In addition, /f/ lenites to zero and /s/ lenites to /h/.
Scope of lenition in the verbal area

**No lenition**
Present, Future  
*Tá/Bíonn, Beidh*  
(Examples are from the verb ‘to be’)

**Lenition**
Past, Imperfect, Conditional  
*Bhí, Bhíodh, Bhéinn*  
(Examples are from the verb ‘to be’)

Scope of lenition in the verbal area

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>cáin</td>
<td>/kə:nʲ/</td>
<td>‘tax’ (feminine noun)</td>
</tr>
<tr>
<td>an chán</td>
<td>/ə xə:nʲ/</td>
<td>‘the tax’</td>
</tr>
<tr>
<td>beag</td>
<td>/bʲag/</td>
<td>‘small’</td>
</tr>
<tr>
<td>an-bheag</td>
<td>/anʲvʲag/</td>
<td>‘very small’</td>
</tr>
<tr>
<td>ró-bheag</td>
<td>/ro:vʲag/</td>
<td>‘too small’</td>
</tr>
<tr>
<td>brisim</td>
<td>/bʲrʲisʲimʲ/</td>
<td>‘I break’</td>
</tr>
<tr>
<td>bhris mé</td>
<td>/vʲrʲisʲ mʲe:/</td>
<td>‘I broke’</td>
</tr>
</tbody>
</table>
Zero mutation in Irish

Just as it is frequently convenient to operate with the notion of the zero morpheme, as for example in English with a verb like *cast* where the past form as opposed to the present can be seen as \{CAST\} + \{0\} versus \{CAST\}, so it is useful in Irish to designate cases where neither lenition nor nasalisation occurs as zero mutation.

It is not accidental that in certain instances we have no mutation: the lack of a mutation in itself fulfils an important function. Thus the absence of a mutation shows in the nominative singular that a noun is masculine, the opposite gender being marked by lenition:

\[
\begin{align*}
an\text{-}cruth & \quad \text{‘shape, appearance’} \\
an\text{-}chuairt & \quad \text{‘visit’}
\end{align*}
\]
Nasalisation (eclipsis, Irish: urú)

By nasalisation is meant that a voiced stop is changed to its nasal equivalent under certain grammatical circumstances, i.e. the feature [nasal] is set to a positive value. Consider a case like the following.

(6) seacht ndún ‘seven castles’

If one compares seacht with Latin septem one sees that there was originally a nasal at the end of this word which caused the following consonant of a noun to change to a homorganic nasal. With voiceless segments only the first stage of nasalisation takes place, i.e. these are voiced, contrast the following items.

(7) a. capall : a gcapaill ‘horse’ : ‘their horses’
   b. gúna : a ngúnaí ‘dress’ : ‘their dresses’
Stages in nasalisation

(8) Nasalisation

\[ \begin{array}{ccc}
\text{voiceless} & \text{voiced} & \text{nasal} \\
p & > & b \\
b & > & m \\
\end{array} \]

Nasalisation only applies to stops; fricatives and nasals are unaffected with the exception of /f/ which nasalises to /v/ for example:

(9) a. \text{fir} : \text{caint na [v-] bhfear} ‘men’ : ‘talk of the men’
    b. \text{focal} : \text{a [v-] bhfocail} ‘word’ : ‘their words’
Manifestation of the initial mutations

<table>
<thead>
<tr>
<th>Lenition</th>
<th>Nasalisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) p, b → f, v</td>
<td>1) p, b → b, m</td>
</tr>
<tr>
<td>2) t, d → h, y</td>
<td>2) t, d → d, n</td>
</tr>
<tr>
<td>3) k, g → x, y</td>
<td>3) k, g → g, η</td>
</tr>
<tr>
<td>4) f → 0</td>
<td>4) f → v</td>
</tr>
<tr>
<td>5) s → h</td>
<td></td>
</tr>
<tr>
<td>6) m → v</td>
<td></td>
</tr>
</tbody>
</table>
Anomalies in the system

*a rún* ‘his, her, their secret’
*a lámha* ‘his, her, their hands’

Mutations and vowel-initial words

*a aois* ‘his age’ : *a h-aois* ‘her age’ : *a n-aois* ‘their age’
Prefix /t-/ as a quasi-mutation

Prefix /t/ in Irish plays an important role as it identifies gender with both vowel-initial words and those beginning with /s-/ + vowel/sonorant.

- *an t-arán* ‘the bread’ (MASC, NOM)
- *luach an aráin* ‘the bread’ (MASC, NOM)
- *an áit* ‘the place’ (FEM, NOM)
- *ainm na háite* ‘name of the place’ (FEM, GEN)

---

/t-/ before vowel

<table>
<thead>
<tr>
<th></th>
<th>NOM</th>
<th>GEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEM</td>
<td>x</td>
<td>prefix /h-/</td>
</tr>
<tr>
<td>MASC</td>
<td>✓</td>
<td>x</td>
</tr>
</tbody>
</table>
Prefix \(/t-/ \text{ as a quasi-mutation}

\begin{itemize}
\item \textit{an tseachtain} \quad \text{‘the week’} \quad \text{(FEM, NOM)}
\item \textit{deireadh na seachtaine} \quad \text{‘the end of the week’} \quad \text{(FEM, GEN)}
\item \textit{an siopa} \quad \text{‘the shop’} \quad \text{(MASC, NOM)}
\item \textit{in aice an tsiopa} \quad \text{‘beside the shop’} \quad \text{(MASC, GEN)}
\end{itemize}

\begin{tabular}{ll}
\hline
\text{\(/t-/ \text{ before } /s-/ \text{ + vowel/sonorant} \)} & \\
\text{NOM} & \text{GEN} \\
\hline
\text{FEM} & \checkmark & x \\
\text{MASC} & x & \checkmark \\
\hline
\end{tabular}
Viewing *initial mutations* (at the beginnings of words) and *palatalisation* (at the ends of words) together
The main principle of Irish morphology

**Base margin alteration**

<table>
<thead>
<tr>
<th>Left margin alteration</th>
<th>(1) Lenition</th>
<th>(2) Nasalisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right margin alteration</td>
<td>(1) Palatalisation</td>
<td>(2) De-palatalisation</td>
</tr>
</tbody>
</table>

**Base onset**

- Voiceless stop
- Voiced stop
- Fricative
- Nasal

- Initial mutation with manner of articulation affected (rarely place)

**Base nucleus**

- *-V-*
- Palatal
- Non-palatal

**Base coda**

- *-C*
- (affects any type of consonant)

- Final mutation where consonant quality alters; pairs exist for all consonants (except /h/)

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Base and root Irish morphology

**Base**  Taking the first major category, nouns, one can state that the base is the unaltered form of the noun, nominative case, singular person, citation form for a dictionary, i.e. it can stand alone. It may consist of one or two syllables (in rare cases three). If two or more then the second (and third) is a *root extension*. The latter does not usually carry any lexical information and only has a few manifestations, typically /əx/.

**Root**  This is a base minus its extension, if present. The lexical part is the root and is identical with the base in monosyllabic forms.
Opaque root extensions

Examples are *eolas* ‘knowledge’, *samhraidh* ‘summer’, *amadán* ‘fool’: Some of these may be old Latin loans as in *peaca* ‘sin’ (from *peccatum*), *airgead* ‘silver’ (from *argentus*), *anam* ‘soul’ (from *anima*).

Others are Anglo-Norman loans from the Middle English period. *séipéil* ‘church’ (from *chapel*), *seomra* ‘room’ (from *chambre*).

Depalatalisation can include the adding of a root extension as with 5th declension nouns: *riail* : *briseadh na rialach* ‘rule’ : ‘breaking of the rule’:
Illustration of base margin alteration

<table>
<thead>
<tr>
<th>Base</th>
<th>Onset</th>
<th>Coda</th>
</tr>
</thead>
<tbody>
<tr>
<td>bás ‘death’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a bhás ‘his death’</td>
<td>Lenited</td>
<td>Non-palatal</td>
</tr>
<tr>
<td>a bás ‘her death’</td>
<td>Neutral</td>
<td>Non-palatal</td>
</tr>
<tr>
<td>a mbás ‘their death’</td>
<td>Nasalised</td>
<td>Non-palatal</td>
</tr>
<tr>
<td>am a bháis ‘the time of his death’</td>
<td>Lenited</td>
<td>Palatal</td>
</tr>
<tr>
<td>am a básis ‘the time of her death’</td>
<td>Neutral</td>
<td>Palatal</td>
</tr>
<tr>
<td>am a mbáis ‘the time of their death’</td>
<td>Nasalised</td>
<td>Palatal</td>
</tr>
</tbody>
</table>
Root extension

cáin : méid na cánach  ‘tax’ : ‘the amount of tax’
beoir : blas na beorach  ‘beer’ : ‘the taste of the beer’
traein : uimhir na traenach  ‘train’ : ‘the number of the train’
Remnants of older patterns

\[
\begin{align*}
\text{comharsa : inión na comharsan} \\
\text{‘neighbour’ : ‘the neighbour’s daughter’} \\
\text{cara : ainm an charad} \\
\text{‘friend’ : ‘name of the friend’}
\end{align*}
\]
Other varieties and languages showing sandhi phenomena comparable to the initial mutations of Irish
— Tuscan Italian —
The functionalisation of initial mutation implies that it has taken over from other grammatical devices which have been lost or at least defunctionalised in a language. The pre-stage to this state can be seen in several dialects/languages. For instance the so-called *gorgia toscana* in Tuscan Italian comprises fricativisation and gemination of initial segments of a noun depending on the original form of a preceding grammatical word. Thus the feminine article *la* causes fricativisation (*la casa /la xasa/*) and the preposition *a* (< Latin *ad*) triggers gemination (*a porta /a pporta/* < Latin *ad portam*). Here one can see what a mutational system looks like embryonically. In order for the functionalisation of initial mutation to be grammatically adequate at least three distinctions must be possible.
<table>
<thead>
<tr>
<th></th>
<th>Irish</th>
<th>Tuscan Italian</th>
</tr>
</thead>
<tbody>
<tr>
<td>zero mutation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mutation 1</td>
<td>lenition</td>
<td>lenition</td>
</tr>
<tr>
<td>mutation 2</td>
<td>nasalisation</td>
<td>gemination</td>
</tr>
</tbody>
</table>
Canary Spanish
— Fula —
— Fula —
— Southern Paiute —

Distributions are very approximate. The groups Athabaskan, Algonkian and Sioux are found spread over large areas.
— Southern Paiute —
— Nivkh —

North-East Siberian Languages

Nivkh (Gilyak)

Evenki

Korjak

Itelmen

Ainu

Yakuts

Chukchi

Kerek

Ket

Yukaghir

(Russia)

(Russia)

(China)

China

Russia
The rise of a system of initial mutation for the indication of grammatical categories is statistically unusual across the world's languages. However, in the context of early Celtic, it can be seen as something which is fairly natural. The phonetic blurring, which led to the demise of inherited inflections, was something which not only affected the ends of words but also led to a reduction of the beginning of words. This originally sub-phonemic process came to be interpreted by language learners as systemic so that the indication of grammatical categories switched from suffixal inflection to initial mutation. This is a good case of reanalysis during first language acquisition which when, viewed externally, might be interpreted as a case of typological repair, but which from the speaker perspective shows how language learners can come to interpret cues about the system of the language they are acquiring, leading to a set of principles from different those determined by previous generations.
Discover Irish

Why study Irish?

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Irish-speaking regions [Gaeltachtaí] in present-day Ireland

Irish English Resource Centre

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Essen University

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— Fula —

West African area with present-day countries
Danish
Finnish
— Estonian —
Scottish Gaelic
— Canary Spanish —

[Map of the Canary Islands showing the provinces and major cities]