The layered structure of the Irish word: An RRG account of inflectional and derivation processes

Brian Nolan
Institute of Technology Blanchardstown, Dublin IRELAND

Abstract
This paper examines inflection and derivation in Modern Irish within a layered structure of the word (LSW) in a way analogous to the layered structure of the noun phrase and the layered structure of the clause in RRG.

In addition to characterising elements of the morphology of Irish for inflection and derivation, we examine the role of the lexicon and the need for a morpheme inventory. We consider both inflection and derivation within an account that addresses the marking and formation of nominals, adjectives, determiners, and other elements including sort type, case, agreement, gender and number. For derivation, we discuss examples of how a new member of a lexical category is formed, and how lexical meaning may be modified within the LSW in RRG. We indicate in our conceptualisation of the layered structure of the word how it would cater for derivation and inflection.

We discuss the need for an inventory of morphemes to support inflection, similar to the syntactic inventory. Morphemes will be expressed, and represented, as part of a language specific morpheme inventory. In contrast, we claim that morphemes with a meaning or concept definition, i.e., lexemes, are to be found within the lexicon and formulated as concepts compatible with Qualia Theory, and the recent Lexical Constructional templates of Mairal et al (Mairal Usón, and Ruiz de Mendoza 2008, 2009), and connect with the RRG linking system. The basic theory of RRG is to be found in Van Valin and LaPolla (1997) and Van Valin (2005), including accounts of the layered structure of the clause (LSC), the layered structure of the noun phrase (LSNP) and Qualia Theory (Pustejovsky 1995). We intend that our account of the Modern Irish data (Nolan 2006, 2007, 2008a, 2008b, 2009, and forthcoming) in the layered structure of the word be compatible with the LSNP and the LSC.

1. Introduction

(1) Requirements of an RRG theory of morphology
a. Inflection processes in support of grammatical phenomena
b. Derivation and morphological category changing devices
c. The role of the RRG lexicon within a morphological perspective
d. A means of representing the semantic meaning of lexemes in the lexicon
e. Accounting for a language specific morpheme inventory within the grammar
f. Accounting for compounding and incorporation in grammar
g. Word formation in Semitic languages
h. The phonological word and clitics

2. The role of morphology in grammar

(2) gluaisteán ‘car’ (N.sg)  –  gluaisteáin ‘cars’ (N.pl)
(3) a. banc ‘bank’ (N.sg)  –  baincéir ‘banker’ (N.sg)
b. baincéir ‘banker’ (N.sg)  –  baincéireacht ‘banking’ (VN)
b. bácaíil ‘bake’ (V.past)  –  bácéir ‘baker’ (N.sg)
c. scribh ‘write’ (V.past)  –  scribhneoir ‘writer’ (N.sg)
d. cairéis ‘care’ (N)  –  cairéiseach ‘careful’ (Adj, stem)

(4) esaonta ‘disagreement’:
a. aontaigh ‘agree’  V.past
b. esaonta ‘disagree+ment’  N
c. aonta ‘agree-ment’  N
Examples of words and derivational affixes.

- **N → N**: iasc → iascaireacht (fish → fishery)
  - freagra → freagrach (answer → answerable)
  - oileán → oileánach (island → islander)

- **V → V**: ióc → reamhioc (pay → prepay)
  - chéimí → fóchémí (graduate → undergraduate)

- **Adj → Adj**: gné → fóghne (species → subspecies)
  - tarbh → tarbhach (bull → bullish)
  - anam → anamach (soul → soulful)

- **V → N**: damhsaigh → dams (dance → dance)

- **Adj → Adv**: brón → brónach (sad → sadly)

Criteria for distinguishing inflection from derivation

- a. The application (or non-application) of inflectional morphology usually depends on the syntactic context (i.e., is the subject of a verb sg or pl, m or f, 1/2/3rd?)
- b. The application of derivational morphology does not depend on the syntactic context.
- c. Derivation generally results in i) a change in lexical meaning, or ii) the lexical category is changed for a particular word.

3. Derivation - Morphological category changing devices

3.1 The nature of derivation

Assumptions regarding derivational morphology in RRG

1. The features of the affix/argument percolate to the headword.
2. The (derivational) affix is the head and therefore contains skeletal constituent structure in a sort changing derivation.
3. Derivation operates over one ‘slot’ or argument per derivation while allowing for multiple derivations.
4. Compounds can be treated as equivalent to derivation (while catering for endocentric vs. exocentric compounds)

We generalise the lexeme logical structure within a lexeme frame template as:

\[
\begin{align*}
\alpha_{\text{ArgLexeme}} & \oplus \beta_{\text{HeadLexeme}} \phi_{\text{type}} \\
\text{Adj} & \Rightarrow \text{Adv} \\
\text{Adv} & \Rightarrow \text{Adjective} \\
\text{Adj} & \Rightarrow \text{Adjective}
\end{align*}
\]

(9) a. crua ‘hard’ (Adj) → go crua ‘hard’ (Adv)
   b. dona ‘bad’ (Adj) → an dona ‘very bad’ (Adv)
   b. tapaidh ‘quick’ (Adj) → an tapaidh ‘very quick’ (Adv)

Figure 1: The RRG layered structure of the word in a derivation of $V \rightarrow V_{Adj}$
3.2 Derivation processes and adjectives

In Irish we can find derivational processes involving the following strategies (11). The lexeme template inventory for these in the lexeme inventory is indicated in (12). The lexeme template in the inventory schematically has the format of \([\alpha] \oplus [\beta])\varphi_{\text{type}}\). We indicate how these lexemes morphologically fuse with an argument in a type changing derivation in (12), and we provide examples in the subsections following.

(11)

a. Adj \(\Leftarrow\) intensifier+Adj : adjective plus intensifier prefix
b. VA \(\Leftarrow\) V : verbal adjective
c. Adj \(\Leftarrow\) Adj +Adj : adjective + adjective compound
d. N \(\Leftarrow\) Adj +N compounds : adjective + noun compound
e. Adv \(\Leftarrow\) Adj : adverb

Lexeme constructional template

(12)

a. Adj \(\Leftarrow\) intensifier+Adj : ([intensifier_] \oplus [Adj])\varphi_{\text{Adj}}
b. VA \(\Leftarrow\) V : ([V] \oplus [_suffix])\varphi_{\text{VA}}
c. Adj \(\Leftarrow\) Adj +Adj : ([Adj] \oplus [Adj])\varphi_{\text{Adj}}
d. N \(\Leftarrow\) Adj +N compounds : ([Adj] \oplus [N])\varphi_{\text{N}}
e. Adv \(\Leftarrow\) Adj : ([Adj] \oplus [\sigma])\varphi_{\text{Adv}}

3.3 Adjectives from intensifier + adjective derivation

An intensifier can prefix an adjective with the resulting form being another adjective. That is, the adjectival sortal type is retained.

(13)

a. \(\text{láidir}\)  
   strong: Adj
   ‘Strong’

b. \(\text{ró-láidir}\)  
   too: Intensifier+strong: Adj
   ‘Too strong’
3.4 Adjectives from verbal derivation

Adjectives can be derived from verbs in several languages by changing the verbs into participles or verbal adjectives. We can see an example of the perfective passive, and the schema of its syntactic pattern, in (14).

(14) Perfective Passive

\[
\text{Bhí an leabhar leite agam.}
\]

Be:AuxV.past the book:N.m read.VA at:Prep+me.PN

‘The book was read by me.’

Table 1 shows some of the verbal and verbal adjective forms.

<table>
<thead>
<tr>
<th>Basic verb</th>
<th>Verb meaning</th>
<th>Verbal adjectives</th>
<th>VA Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ól</td>
<td>drink</td>
<td>ólta</td>
<td>drunk</td>
</tr>
<tr>
<td>dín</td>
<td>close</td>
<td>dunta</td>
<td>closed</td>
</tr>
<tr>
<td>las</td>
<td>light</td>
<td>lasta</td>
<td>lit</td>
</tr>
<tr>
<td>croch</td>
<td>hang</td>
<td>crochta</td>
<td>hung</td>
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<tr>
<td>stad</td>
<td>stop</td>
<td>stada</td>
<td>stopped</td>
</tr>
<tr>
<td>buail</td>
<td>hit</td>
<td>buailte</td>
<td>beaten</td>
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<tr>
<td>sin</td>
<td>stretch</td>
<td>sinte</td>
<td>stretched</td>
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<tr>
<td>bris</td>
<td>break</td>
<td>briste</td>
<td>broken</td>
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<tr>
<td>goid</td>
<td>steal</td>
<td>goidte</td>
<td>stolen</td>
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<td>ìe</td>
<td>eat</td>
<td>ìte</td>
<td>eaten</td>
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<td>rith</td>
<td>run</td>
<td>rite</td>
<td>run</td>
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<td>caith</td>
<td>spend</td>
<td>caite</td>
<td>spent</td>
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<td>bog</td>
<td>move</td>
<td>boghta</td>
<td>moved</td>
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<td>ceap</td>
<td>catch</td>
<td>ceapta</td>
<td>caught</td>
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<td>fáig</td>
<td>leave</td>
<td>fáigta</td>
<td>left</td>
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<td>léim</td>
<td>jump</td>
<td>léimthe</td>
<td>jumped</td>
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<tr>
<td>beir</td>
<td>catch</td>
<td>beirthe</td>
<td>caught</td>
</tr>
<tr>
<td>lig</td>
<td>let</td>
<td>lighte</td>
<td>let</td>
</tr>
<tr>
<td>aithraigh</td>
<td>change</td>
<td>aithraite</td>
<td>changed</td>
</tr>
<tr>
<td>ceannaigh</td>
<td>buy</td>
<td>ceannaithe</td>
<td>bought</td>
</tr>
<tr>
<td>coinnigh</td>
<td>keep</td>
<td>coinnithe</td>
<td>kept</td>
</tr>
<tr>
<td>imigh</td>
<td>go</td>
<td>imithe</td>
<td>gone</td>
</tr>
</tbody>
</table>

Table 1. Some verbal adjectives with lexeme construction template: \([V] \oplus [\text{suffix}]\) \(\varphi_{VA}\)

(15) a. \textit{Bhí Dub gortúithe go holc i gcionn de na cosa deiridh.}
\textit{Bhí} \textit{Dub gortúithe}

Be:AuxV.past Dub:N wounded:VA

\[
\text{go holc i gcionn de na cosa deiridh.}
\]


Dub was badly hurt in one of his hind legs.

b. \textit{Thuit sneachta fríd an oidhche agus bhi sé curtha glan anois.}
\textit{Thuit sneachta fríd an oidhche agus}

Fall:V.past snow:N.m through:ADV the:DET night:N.f and:CONJ
c. *Bhí Abha an Triochad Mile *foscaille* glan.*
Be:AuxV.past river:N.f the:DET thirty:N mile:N empty:VA clean:Adj
The Thirty Mile River was emptied clean.

### 3.5 Adjective from adjective + adjective compounding

Adjectives can compound with other adjectives where the resulting form is still an adjective.

(16) a. *bán* ‘white’ + *dearg* ‘red’ → *bán-dearg* ‘pink’
   a’. Lexeme constructional template: \[\text{[Adj]} \odot \text{[Adj]}\]φAdj

   - *Chuir sí cóiriughadh úr-nuaídh ar an dreisiúr.*
   - *Chuir sí cóiriughadh Úr-nuaídh*  
   - Put:V.past she:PN.f ornament:N.m fresh:Adj+new:Adj  
   - *ar an dreisiúr.*  
   - on:Prep the:DET dresser:N  
   - She put a fresh ornament on the dresser.

b. *Ar feadh chupla blian rinneadh iascaireacht mhórthairbheach timpeall na n-oileán.*
   - *Ar feadh chupla blian*  
   - on:Prep while:ADV couple:QTY years:N.f  
   - *rinneadh iascaireacht mhórthairbheach*  
   - make:V.IMPERS-PASS.past fishing:VN.f hugely:Adj+profitable:Adj  
   - *timpeall na n-oileán.*  
   - around:ADV the:DET islands:N.m  
   - ‘For a couple of years one made very profitable fishing around the islands.’

### 3.6 Nouns derived from adjective + noun compounding

(17) Lexeme constructional template: \[\text{[[Adj]} \odot \text{[N]}]\]φN

(18) a. *Chuir eagna an tseanduine cúl mór orm.*
   - *Chuir eagna an tseanduine cúl*  
   - Put:V.past prudence:N.m the:DET old:Adj+person:N.m back:N.m  
   - *mór orm.*  
   - large:Adj on:Prep+me:PN  
   - LIT: ‘The prudence of the old person put huge reserves on me’.  
   - The old folk’s prudence made me very resourceful.

b. *Chuir na siopaí deireadh leis an tseandóigh bheatha.*
   - *Chuir na siopaí deireadh*  
   - Put:V.past the:DET.pl shops:N.m.pl end:N.m
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leis an tseandóigh bheatha.
with:Prep the:DET old:Adj+ways:N.f life:N.f
The shops put an end to the old ways of life.

c. Rinne Eoghan é féin mion-gháire.
Make:V.past Eoghan:N him:PN.m.3sg self:PART little:Adj+laugh:N.m
Eoghan made himself a little laugh.

3.7 Adverbs derived from adjectives

(19) a. Tá sé ag obair [go crua].
‘He is working hard.’

b. Bhí sí saidhbhir go deo.
She was always rich.

c. Chodháil mé cuiosach maith.
Sleep:V.past I:PN.1sg fairly:Adv well:Adj Adv
I slept fairly well.

(20) Lexeme constructional template: a. [[PP ⊕ [Adj]]]φAdv
Lexeme constructional template: b. [[PP] ⊕ [Adj]]φAdv
Lexeme constructional template: c. [[Adv] ⊕ [Adj]]φAdv

3.8 Motivating the semantics of lexemes

(21) Qualia theory
a. Constitutive role QC: The relation between an object and its constituents, or proper parts.
   1. Material
   2. Weight
   3. Parts and components

b. Formal role QF: That which distinguishes the object within a larger domain
   1. Orientation
   2. Magnitude
   3. Shape
   4. Dimensionality
   5. Colour
   6. Position

c. Telic role QT: Purpose and function of the object
   1. Purpose that an agent has in performing an act
   2. Built-in function or aim that specifies certain activities

d. Agentive role QA: Factors involved in the origin or “bringing about” of an object
   1. Creator
   2. Artefact
   3. Natural kind
   4. Causal chain
(22) a. ‘The door opened’.
    b. BECOME be'(open'(the door(x), \{Qc, Qr, Qt, QA\ } ))

(23) a. Persons: baker, dancer, gambler, driver
    b. Animals: pointer, retriever
    c. Material objects: blotter, eraser, fertilizer, shutter
    d. Immaterial objects: reminder, thriller, eye-opener

where: a: denotes a type of actor  
b: denotes a type of creature  
c: denotes a type of material entity in the lexicon  
d: denotes a type of immaterial entity in the lexicon

(24) Aktionsarten Types

<table>
<thead>
<tr>
<th>Verb Class</th>
<th>Logical Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>predicate' (x) or (x, y)</td>
</tr>
<tr>
<td>Activity</td>
<td>do’ (x, [predicate (x) or (x, y)])</td>
</tr>
<tr>
<td>Achievement</td>
<td>INGR predicate' (x) or (x, y)</td>
</tr>
<tr>
<td>Accomplishment</td>
<td>BECOME predicate' (x) or (x, y)</td>
</tr>
</tbody>
</table>

(25) a. Persons:
    Bolscaire ‘announcer’
    Spásairé ‘astronaut’
    Fuascailteoir ‘liberator’
    Léachtóir ‘lecturer’
    Báicéir ‘baker’
    Rincoir ‘dancer’
    Damhsóir ‘dancer’
    Cearrbhach ‘gambler’
    Tiománai ‘driver’
    __aire is suffix
    __aire
    __eoir
    __oir
    __oir
    __oir
    __oir
    __ach
    __ai

b. Animals:
    Treoir ‘pointer’
    Snáthaid ‘pointer’
    Gadh ar ‘retriever’
    __oir
    __aid
    __ar

c. Material objects
    pàipear suite ‘blotter’
    scríosán ‘eraser’
    leasachán ‘fertilizer’
    comhl ã ‘shutter’
    Phrase, no suffix
    __án
    __án
    __a

d. Immaterial objects
    Cuimhneachán ‘reminder’
    Scéinséir ‘thriller’
    oscailt súl ‘eye-opener’
    Phrase, no suffix
    __án
    __eir

b. Animals:
    Treoir ‘pointer’
    Snáthaid ‘pointer’
    Gadh ar ‘retriever’
    __oir
    __aid
    __ar

c. Material objects
    pàipear suite ‘blotter’
    scríosán ‘eraser’
    leasachán ‘fertilizer’
    comhl ã ‘shutter’
    Phrase, no suffix
    __án
    __án
    __a

d. Immaterial objects
    Cuimhneachán ‘reminder’
    Scéinséir ‘thriller’
    oscailt súl ‘eye-opener’
    Phrase, no suffix
    __án
    __eir

(26) Rule: V of category type + English suffix ‘-er’
    ➔ Agentive N to do with action of V
    Which represents ‘somebody or something whose function or characteristic
    is to perform a particular act’.
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(27)  
a. **Rule:** V of category type + Irish suffix set ‘-{aire|eoir|éir|oir|ach|aí|…}’  
\[\text{Agentive N } [+\text{anim, +human}] \text{ to do with action of V}\]  
Which represents: ‘some person whose function or characteristic is to perform a particular act’.

b. **Rule:** V of category type + Irish suffix set ‘-{oir|id|ar|…}’  
\[\text{Agentive N } [+\text{anim, -human}] \text{ to do with action of V}\]  
Which represents: ‘some creature whose function or characteristic is to perform a particular act’.

c. **Rule:** V of category type + Irish suffix set ‘-{án|a|éir|…}’  
\[\text{Agentive N } [-\text{anim, -human}] \text{ to do with action of V}\]  
Which represents: ‘some thing whose function or characteristic is to perform a particular act’.

(28)  
**Semantic Logical Structure**

*bacáil* ‘bake’ V.past  
[do’(ACT: x, 0)] CAUSE [BECOME baked (UND: y)]

(29)  
The Actor-Undergoer Hierarchy (Van Valin and LaPolla 1997)

<table>
<thead>
<tr>
<th>Argument of DO</th>
<th>1st Argument of DO’(x)</th>
<th>1st argument of pred’(x, y)</th>
<th>2nd argument of pred’(x, y)</th>
<th>Argument of state pred’(x)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent</td>
<td>Effector</td>
<td>Location</td>
<td>Theme</td>
<td>Patient</td>
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<td>Mover</td>
<td>Perceiver</td>
<td></td>
<td>Stimulus</td>
<td>Entity</td>
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<tr>
<td>Emitter</td>
<td>Cogniser</td>
<td></td>
<td>Content</td>
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</tr>
<tr>
<td>Performer</td>
<td>Wanter</td>
<td></td>
<td>Desire</td>
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<td>Speaker</td>
<td>Experiencer</td>
<td></td>
<td>Sensation</td>
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<tr>
<td>Observer</td>
<td>Emoter</td>
<td></td>
<td>Target</td>
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</tr>
<tr>
<td>User</td>
<td>Attributant</td>
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<td>Attribute</td>
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<td>Performance</td>
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<td></td>
<td>Consumed</td>
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<td>Creation</td>
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<td>Locus</td>
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<td></td>
<td>Implement</td>
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</table>

When lexemes combine to form a derivation, for example, involving type coercion then the lexemes combine according to a constructional schema. These too, we posit, are in the lexeme inventory within the lexicon, with a morphologically relevant logical structure as shown in (30), schematically.

(30)  
Lexeme constructional schema  
\([[[\phi_{\text{AArg}}] \oplus [\phi_{\text{Affix}}]]_{\phi_{\text{type}}}}\]

(31)  
a. \([[:alpha:]V] \oplus [_{\text{éir}}]\phi_{\text{N}} \Rightarrow \wp_{\phi} \) (agentive word : type N) meaning ‘doer of V’

b. \([[:text{bacúil}]V] \oplus [_{\text{éir}}]\phi_{\text{N}} \Rightarrow \text{bácéir} \) ‘baker’ (N.sg)

c. \([[:text{scriobh}]V] \oplus [_{\text{éoir}}]\phi_{\text{N}} \Rightarrow \text{scribhneoir} \) ‘writer’ (N.sg)
4. Inflection

4.1 Expressing morphosyntactic information

We present in figure 3 a first schematic of a structural representation of the layered structure of the word as it might occur for inflection. The symbol $\Phi$ denotes some lexeme that is to be the host of the inflectional changes. It receives a morpheme in the inflectional operation. The inflection may involve a prefix, postfix, infix or circumfix. For ease of reference, we encode the various morphemes as prefix and suffix respectively.

(32) $[[\alpha] \oplus \text{NUC}_{\Phi}\text{type}] \oplus [[\beta]\Phi\text{type}]$

where: $\alpha$ and $\beta$ are morphological affixes and $\Phi$ is a NUC type from the lexicon.

(33) NP, Core$_N$ and Nuclear$_N$ operators (from Van Valin 2005)

- Nuclear$_N$ operator
  - Nominal aspect (count-mass distinction, classifiers in classifier languages)
- Core$_N$ operators
  - Number
  - Qualification (quantifiers)
  - Negation
- NP operators
  - Definiteness
  - Deixis

(34) Verbal operators (from Van Valin 2005)

- Nuclear$_V$ operator
  - Aspect
  - Negation
  - Directionals (predicate)
- Core$_V$ operators
  - Directionals (participant)
  - Event quantification
  - Root modality
  - Negation (internal/narrow-scope)
- V operators
  - Tense
  - Evidentials
  - Illocutionary force
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Figure 3: The RRG layered structure of the word under syntactic inflection
Figure 4: The operator projection within the different levels of the layered structure of the clause (adapted from Van Valin 2005: 12).

4.2 Inflectional case marking in Irish

Irish has common case marking for nominative, accusative (and generally dative), with distinct marking for dative (as the object of a preposition), genitive and vocative cases. The nominative, accusative (and generally dative) case is therefore known as common case in Irish.

(35) a.  
D'imigh an cailín abhaile  
Go:V.Past the:DET.sg girl:N.sg Nom home:N  
The girl went home

b.  
Cheannaigh sé an teach  
Buy:V.Past he:PN.sg.m.Nom the:DET.sg house:N.sg Acc  
He bought the house
(36) Simple prepositions

- ag ‘at’
- ar ‘on’
- chuig ‘towards’
- de ‘from, of’
- do ‘to, for’
- faoi ‘under, about’
- go ‘to’
- i ‘in’
- le ‘with’
- ó ‘from’
- roimh ‘before’
- trí through’
- um ‘about, at’

(37) a. ag an ngeata
   at:PP the:DET.sg gate:N.sg.Dat
   at the gate

b. ar an gcathaoir
   on:PP the:DET.sg chair:N.sg.Dat
   on the chair.

c. roimh an bhfear
   before:PP the:DET.sg man:N.sg.Dat
   before the man.

The vocative case is used when the person referred to by the noun is the direct addressee of the utterance. The noun is always preceded by the leniting vocative particle.

(38) Dún an doras, a Sheáin!
   Close: V the:DET door:N.sg, Voc.PART Sean:N
   Close the door, Sean!

A noun is usually in the genitive case if it is: a) the direct object of a verbal noun, b) proceeded by a compound preposition, c) proceeded by phrases that denote indefinite quantity, d) governed by a possessive adjective such that possession or ownership is characterised.

(39) a. ag deanamh na hoibre
   at:PP doing:VN.Prog the:DET work:N.sg.Gen
   doing the work

b. i lár na seachtaíne
   in:PP middle:N the:DET week:N.sg.Gen
   in the middle of the week

c. go leor codlata
   to:PP plenty:N sleep:N.sg.Gen
   enough sleep

d. siopa Sheáin
   shop:N (of) Sean:N.sg.Gen
   Sean’s shop

d’. fear an tí
   man:N (of) the:DET house:N.sg.Gen
   man of the house
4.3 Gender determination of Irish nouns

Irish has two genders, masculine and feminine. Nouns that are neuter in other languages are encoded as masculine or feminine in Irish. Sometimes the gender may not be obvious (40).

(40) a. *cailín* ‘girl’ has masculine gender in Irish  
b. *stail* ‘stallion’ has feminine gender in Irish

(41) Gender determination of an Irish N by its word ending

<table>
<thead>
<tr>
<th>(m) N-word endings</th>
<th>(f) N-word endings</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ádh, -án, -ch, -éad, -éal, éan, -eáil, -éar, -eír, -eoir, -oir, -s, -ín, -úrn, -úir</td>
<td>-áil, -úil, -áll, -íll, -ínt, -áint, -iócht, -únt, -ént, -eóirit, -eóir, -óir, -úir, -láint, -léir, -eoir, -ór, -úir, -eig, -ág</td>
</tr>
</tbody>
</table>

4.4 Definiteness and indefiniteness of nouns

(42) Determiner forms

*an* ‘the’  
- Is used in the singular.  
- With masculine and feminine nouns, it is used in nominative, accusative, dative and genitive cases.  
- Is used the genitive singular with masculine nouns.

*na* ‘the’  
- Is used in the genitive singular with feminine nouns.  
- Is used in the plural with feminine nouns.  
- Is used in the plural with masculine nouns.

(43) Determiner - example of forms across gender

<table>
<thead>
<tr>
<th>N (m)</th>
<th>N (f)</th>
</tr>
</thead>
<tbody>
<tr>
<td>fear</td>
<td>a man</td>
</tr>
<tr>
<td><em>an</em> fear</td>
<td>the man</td>
</tr>
<tr>
<td><em>na</em> fir</td>
<td>the men</td>
</tr>
</tbody>
</table>

(44) Determiner morphological conflation

**form:**  
- *den* ‘from the’: *de+an* → *den*  
- *don* ‘to the’: *do+an* → *don*  
- *faoin* ‘about the’: *faoi+an* → *faoin*  
- *ón* ‘from the’: *ó+an* → *ón*  
- *cén* ‘what the’: *cé+an* → *cén*
(45) No double determiner constraint

<table>
<thead>
<tr>
<th>Irish</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>hata an fhir</em></td>
<td><em>the₂ hat of the₁ man</em></td>
</tr>
<tr>
<td>hat:N (of) the:DET man:N.m.Gen</td>
<td></td>
</tr>
<tr>
<td>hat of the man</td>
<td></td>
</tr>
<tr>
<td><em>bean an tí</em></td>
<td><em>the₂ woman of the₁ house</em></td>
</tr>
<tr>
<td>woman:N (of) the:DET house:N.m.Gen</td>
<td></td>
</tr>
<tr>
<td>woman of the house</td>
<td></td>
</tr>
<tr>
<td><em>muíntir na cathrach</em></td>
<td><em>the₂ inhabitants of the₁ city</em></td>
</tr>
<tr>
<td>inhabitants:N (of) the:DET city:N.f.Gen</td>
<td></td>
</tr>
<tr>
<td>inhabitants of the city</td>
<td></td>
</tr>
<tr>
<td><em>i lár na sraide</em></td>
<td><em>in the₂ middle of the₁ street</em></td>
</tr>
<tr>
<td>in:PP centre:N (of) the:DET street:N.f.Gen</td>
<td></td>
</tr>
<tr>
<td>in middle of the street</td>
<td></td>
</tr>
</tbody>
</table>

Where the DET₂ that is found in the English gloss, for example, is not allowed in Irish

4.5 Noun declension classes

Modern Irish has five noun declension classes classified according to the manner in which they form the genitive singular. This is the traditional declension system of Irish. By slender consonant we refer to consonants following one of the vowels *e*, *é*, *i*, *í*, and by broad consonants we mean consonants following *a*, *á*, *o*, *ó*, *u*, *ú*.

(46) 1<sup>st</sup> N declension class

<table>
<thead>
<tr>
<th>Common sg ending</th>
<th>Genitive sg ending</th>
<th>Example of noun: Common.sg, genitive.sg</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad consonant,</td>
<td>Slender</td>
<td>fear ‘man’, <em>(f)ir</em></td>
<td>masc</td>
</tr>
<tr>
<td>and tend to</td>
<td></td>
<td>bád ‘boat’, <em>(b)áid</em></td>
<td></td>
</tr>
<tr>
<td>end in:</td>
<td></td>
<td>iasc ‘fish’, <em>(é)isc</em></td>
<td></td>
</tr>
<tr>
<td>-án, -ch, -éad,</td>
<td></td>
<td>páipéar ‘newspaper’, <em>(páipé)ir</em></td>
<td></td>
</tr>
<tr>
<td>-éal, éan, -éar,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-s, -ún, -úr,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-ádh</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(47) 2<sup>nd</sup> N declension class

<table>
<thead>
<tr>
<th>Common sg ending</th>
<th>Genitive sg ending</th>
<th>Example of noun: Common.sg, genitive.sg</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consonant</td>
<td>-e, -í</td>
<td>cos ‘foot’, <em>(co)ise</em></td>
<td>fem</td>
</tr>
<tr>
<td></td>
<td></td>
<td>bróg ‘shoe’, <em>(bró)ige</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>cailleach ‘hag’, <em>(caill)í</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>geallach ‘moon’, <em>(geala)í</em></td>
<td></td>
</tr>
</tbody>
</table>
3rd N declension class

<table>
<thead>
<tr>
<th>Common sg ending</th>
<th>Genitive sg ending</th>
<th>Example of noun: Common.sg, genitive.sg</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consonant and Ns tend to end in: -ál, -úil, -áil, -úint, -cht, -éir, -eoir, -óir, -uir</td>
<td>-a</td>
<td>am ‘time’, ama (m) bláth ‘flower’, blátha (m) banrion ‘queen’, banriona (f) cainteoir ‘speaker’, cainteora (m) éagóir ‘injustice’, éagóra (f) dlíodóir ‘lawyer’, dlíodóra (m) siocháin ‘peace’, siochána (f)</td>
<td>masc &amp; fem</td>
</tr>
</tbody>
</table>

4th N declension class

<table>
<thead>
<tr>
<th>Common sg ending</th>
<th>Genitive sg ending</th>
<th>Example of noun: Common.sg, genitive.sg</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vowel, or -in</td>
<td>No inflection</td>
<td>bá ‘affection’, bá (f) bia ‘food’, biai (m) cailín ‘girl’ cailín (m) coimín ‘rabbit’, coimín (m) ceó ‘fog’, ceo (m) cnó ‘nut’, cnó (m) oiche ‘night’, oiche (f) sli ‘way’, sli (f) trá ‘beach’, trá (f) teanga ‘language’, teanga (f)</td>
<td>masc &amp; fem</td>
</tr>
</tbody>
</table>

5th N declension class

<table>
<thead>
<tr>
<th>Common sg ending</th>
<th>Genitive sg ending</th>
<th>Example of noun: Common.sg, genitive.sg</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vowel, or slender consonant</td>
<td>Broad consonant</td>
<td>cathair ‘city’, cathrach pearsa ‘person’, pearsan (f) litir ‘letter’, litreach (f) traen ‘train’, traenach (f) cara ‘friend’, carad (m) fiche ‘twenty’, fichead (m) nócha ‘ninety’, nóchad (m)</td>
<td>usually fem</td>
</tr>
</tbody>
</table>

4.5.1 Irregular nouns

<table>
<thead>
<tr>
<th>Singular</th>
<th>Genitive</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>bean ‘woman’ (f)</td>
<td>mná</td>
<td>mná</td>
</tr>
<tr>
<td>deirfiúr ‘sister’ (f)</td>
<td>deirfear</td>
<td>deirfiúracha</td>
</tr>
<tr>
<td>deoch ‘drink’ (f)</td>
<td>dí</td>
<td>deochanna</td>
</tr>
<tr>
<td>dia ‘god’ (m)</td>
<td>dé</td>
<td>déithe</td>
</tr>
<tr>
<td>lá ‘day’ (m)</td>
<td>lae</td>
<td>laethanta</td>
</tr>
<tr>
<td>leaba ‘bed’ (f)</td>
<td>leapa</td>
<td>leapacha</td>
</tr>
<tr>
<td>mi ‘month’ (f)</td>
<td>miosa</td>
<td>mionna</td>
</tr>
<tr>
<td>teach ‘house’ (m)</td>
<td>tí</td>
<td>títhe</td>
</tr>
</tbody>
</table>
4.6 Eclipsis and lenition on Irish nouns

4.6.1 Eclipsis of nouns

(52) The noun is eclipsed after the definite determiner

<table>
<thead>
<tr>
<th>After the dative singular</th>
<th>a). $ag$ an $bhfear$</th>
</tr>
</thead>
<tbody>
<tr>
<td>except:</td>
<td>at:PP the:DET.sg man:N.sg</td>
</tr>
<tr>
<td>when the initial letter is ‘d’ or ‘t’ which remain unchanged</td>
<td>at the man</td>
</tr>
<tr>
<td></td>
<td>b). $as$ an $gcistin$</td>
</tr>
<tr>
<td></td>
<td>out.of:PP the:DET.sg kitchen:N.sg</td>
</tr>
<tr>
<td></td>
<td>out of the kitchen</td>
</tr>
<tr>
<td></td>
<td>c). $ar$ an $mbus$</td>
</tr>
<tr>
<td></td>
<td>on:PP the:DET.sg bus:N.sg</td>
</tr>
<tr>
<td></td>
<td>on the bus</td>
</tr>
<tr>
<td></td>
<td>d). $ón$ $teach$</td>
</tr>
<tr>
<td></td>
<td>from:PP (the:DET.sg) house:N.sg</td>
</tr>
<tr>
<td></td>
<td>from the house</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In the genitive plural</th>
<th>e). $ceol$ $na$ $n-éan$</th>
</tr>
</thead>
<tbody>
<tr>
<td>music:N (of) the: DET.pl birds:N.pl</td>
<td></td>
</tr>
<tr>
<td>song of the birds</td>
<td></td>
</tr>
<tr>
<td>f). $rogha$ $na$ $mban$</td>
<td></td>
</tr>
<tr>
<td>choice:N (of) the:DET.pl women:N.pl</td>
<td></td>
</tr>
<tr>
<td>the women’s choice</td>
<td></td>
</tr>
<tr>
<td>g). $hataí$ $na$ $bhfear$</td>
<td></td>
</tr>
<tr>
<td>hats:N.pl (of) the:DET.pl men:N.pl</td>
<td></td>
</tr>
<tr>
<td>the men’s hats</td>
<td></td>
</tr>
</tbody>
</table>

(53) The noun is eclipsed after some prepositions

<table>
<thead>
<tr>
<th>The preposition $i$ ‘in’, and the variant form of the $i$:PP ‘in’ that occurs before initial vowels as in:PP ‘in’.</th>
</tr>
</thead>
<tbody>
<tr>
<td>$dhá$ ‘two (things)’.</td>
</tr>
<tr>
<td>$bhúr$:Poss Adj.pl ‘your’.</td>
</tr>
<tr>
<td>$ár$:Poss Adj.pl ‘our’.</td>
</tr>
<tr>
<td>$a$:Poss Adj.pl ‘their’.</td>
</tr>
<tr>
<td>h). $i$ $gcistin$</td>
</tr>
<tr>
<td>in:PP (a:DET.indef) kitchen:N.indef.sg</td>
</tr>
<tr>
<td>in a kitchen</td>
</tr>
<tr>
<td>i). $i$ $dteach$</td>
</tr>
<tr>
<td>in:PP (a:DET.indef) house:N.indef.sg</td>
</tr>
<tr>
<td>in a house</td>
</tr>
<tr>
<td>j). $bhur$ $dhá$ $ngeata$</td>
</tr>
<tr>
<td>your:Poss Adj.pl two:NUM gates:N.pl</td>
</tr>
<tr>
<td>your two gates</td>
</tr>
<tr>
<td>k). $in$ $bhur$ $mbosca$</td>
</tr>
<tr>
<td>in:PP your:Poss Adj.pl box</td>
</tr>
<tr>
<td>in your box</td>
</tr>
<tr>
<td>l). $ár$ $hpaiste$</td>
</tr>
<tr>
<td>our:Poss Adj.pl child:N.sg</td>
</tr>
<tr>
<td>in your box</td>
</tr>
<tr>
<td>m). $a$ $bpinn$</td>
</tr>
<tr>
<td>their:Poss Adj.pl pens:N.pl</td>
</tr>
<tr>
<td>their pens</td>
</tr>
</tbody>
</table>
The noun is eclipsed after some fixed phrases:

| Fixed phrase-1 | n). ar gcul on:PP back:N.pl behind |
| Fixed phrase-2 | o). ar dtús on:PP start:N.pl initially / in the beginning |

The noun is eclipsed after the numerals 'seven', 'eight', 'nine' and 'ten'.

| seacht ‘seven’ | p). seacht n-uaire seven:NUM hours:N.pl seven hours |
| ocht ‘eight’   | q). ocht gcath eight:NUM cats:N.pl eight cats |
| naoi ‘nine’    | r). naoi mbus nine:NUM bus:N.pl nine buses |
| deich ‘ten’    | s). deich bpingine ten:NUM pennies:N.pl ten pence |

4.6.2 Lenition of nouns

The noun receives lenition after the definite determiner (except with a noun having an initial d-, t-, s-) when the noun is f.sg.Nom or f.sg.Acc.

| N.f.sg.Nom or N.f.sg.Acc | a). Feicim an bhhean see:V.Pres+I:PN.sg.Nom the:DET.sg woman:N.sg.f.acc I see the woman |

The noun received lenition after the definite determiner (except with initial d-, t-, s-) when the noun is M.sg.Gen

| N.M.sg.Gen | a). hata an fhír hat:N.sg (of) the:DET man:N.sg.m.Gen the man’s hat |
| N.M.sg.Gen | b). ag moladh an bhuaacha at:PP praising:VN.prog the:DET boy:N.sg.m.Gen praising the boy |

Fuair mé mar bhronntanas é
Get:V.Past 1:PN.sg.Nom as:PP present it:PN.sg.m I got it as a gift
4.6.3 Summary of the eclipsis and lenition mutations

(59) Summary of the morphological mutations

<table>
<thead>
<tr>
<th>Mutation name</th>
<th>Sounds that undergo the changes</th>
<th>Sounds that don’t undergo changes</th>
<th>Sounds that undergo exceptional changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lenition1 ((^1))</td>
<td>(b, m, f, t, d, s, c, g)</td>
<td>The letters (d, t, s) do not lenite after a word ending in (n). The sequences (sp, st, sc) never lenite.</td>
<td>-</td>
</tr>
<tr>
<td>Lenition2 ((^2))</td>
<td>(b, m, f, c, g)</td>
<td>(t, d)</td>
<td>(s \rightarrow ts)</td>
</tr>
<tr>
<td>Eclipsis1 ((^{E1}))</td>
<td>(p, b, f, t, d, c, g,) vowels</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Eclipsis2 ((^{E2}))</td>
<td>(P, b, f, c, g)</td>
<td>(t, d,) vowels</td>
<td>-</td>
</tr>
<tr>
<td>Eclipsis3 ((^{E3}))</td>
<td>(P, b, f, c, g)</td>
<td>(t, d,) vowels</td>
<td>(s \rightarrow ts)</td>
</tr>
<tr>
<td>T-prefixation ((^T))</td>
<td>vowels</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>H-prefixation ((^H))</td>
<td>vowels</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

4.7 Inflectional agreement in the LSNP with nominals and adjectives

(60) *An dá theach mhóra*

The two big houses

```
NP
| CORE\(N\)
| \(\text{NUC}_N\) | \(\text{PERIPHERY}_N\)
| \(\text{DEF}\) |
```

```
QNT
| CORE\(N\)
| \(\text{CORE}_N\) | \(\text{NUM}\)
| \(\text{ADJ}\)
| \(\text{PERIPHERY}_N\)
```

Figure 5: Representation for the LSNP with the Irish NP in (60)
The layered structure of the Irish word: An RRG account of inflectional and derivation processes

<table>
<thead>
<tr>
<th>Common sg</th>
<th>Genitive sg.M</th>
<th>Genitive sg.F</th>
<th>Common PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>báin</td>
<td>báin</td>
<td>báine</td>
<td>bána</td>
</tr>
<tr>
<td>direach</td>
<td>dirigh</td>
<td>дирí</td>
<td>direacha</td>
</tr>
<tr>
<td>bacach</td>
<td>bacaigh</td>
<td>bacaí</td>
<td>bacacha</td>
</tr>
<tr>
<td>leisciúil</td>
<td>leisciúil</td>
<td>leisciula</td>
<td>leisciúla</td>
</tr>
<tr>
<td>mall</td>
<td>mall</td>
<td>maille</td>
<td>malla</td>
</tr>
<tr>
<td>maith</td>
<td>maith</td>
<td>maithe</td>
<td>maitha</td>
</tr>
<tr>
<td>buíoch</td>
<td>buíoch</td>
<td>buíthi</td>
<td>buíochá</td>
</tr>
<tr>
<td>gnách</td>
<td>gnách</td>
<td>gnáthai</td>
<td>gnácha</td>
</tr>
</tbody>
</table>

**Table 2. Examples of morphological markings on the adjective for agreement**
*(Christian Brothers 1997:61)*

<table>
<thead>
<tr>
<th>Suffixes</th>
<th>Examples</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>-án</td>
<td>cupán</td>
<td>cup</td>
</tr>
<tr>
<td>-ín</td>
<td>cailín</td>
<td>girl</td>
</tr>
<tr>
<td>-ír</td>
<td>gasír</td>
<td>child</td>
</tr>
<tr>
<td>-ín</td>
<td>náisiúin</td>
<td>nation</td>
</tr>
<tr>
<td>-as</td>
<td>doras</td>
<td>door</td>
</tr>
<tr>
<td>-(á)iste</td>
<td>coláiste</td>
<td>college</td>
</tr>
<tr>
<td>-óir/-eoir</td>
<td>múinteoir</td>
<td>teacher</td>
</tr>
<tr>
<td>-aire</td>
<td>cabaire</td>
<td>natterer</td>
</tr>
<tr>
<td>-éara</td>
<td>geilméara</td>
<td>farmer</td>
</tr>
<tr>
<td>-ái</td>
<td>scealai</td>
<td>storyteller</td>
</tr>
<tr>
<td>-adh</td>
<td>moladh</td>
<td>praising</td>
</tr>
<tr>
<td>-amh</td>
<td>gaineamh</td>
<td>sand</td>
</tr>
<tr>
<td>-a</td>
<td>cóta (with 2 syllables)</td>
<td>coat</td>
</tr>
<tr>
<td>-ach</td>
<td>éireannach (derived from N)</td>
<td>Irishman</td>
</tr>
<tr>
<td>-cht</td>
<td>fuacht (with 1 syllable)</td>
<td>cold</td>
</tr>
</tbody>
</table>

**Table 3. Word endings that denote masculine nouns**

<table>
<thead>
<tr>
<th>Suffixes</th>
<th>Examples</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>-óig/eoig</td>
<td>fuinneog</td>
<td>window</td>
</tr>
<tr>
<td>-áil</td>
<td>candáil</td>
<td>auction</td>
</tr>
<tr>
<td>-ail</td>
<td>feadáil</td>
<td>whistling</td>
</tr>
<tr>
<td>-acht</td>
<td>Gaeltacht (&gt; two syllables)</td>
<td>Gaeltacht</td>
</tr>
<tr>
<td>-ach</td>
<td>báisteach (mass nouns)</td>
<td>rain</td>
</tr>
<tr>
<td>-seach</td>
<td>clarséach</td>
<td>harp</td>
</tr>
</tbody>
</table>

**Table 4. Word endings that denote feminine nouns**

(61) \(v_{\text{broad-consonant},v_{\text{broad}} \text{ or } v_{\text{slender}},v_{\text{slender}}}.\)

It is the presence of this pair of mirrored vowels occurring morphologically within the Irish word that determines whether the consonant between them is broad or slender.
### Numerals & nouns

<table>
<thead>
<tr>
<th>Example</th>
<th>Gloss</th>
<th>Morphological marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>aon bhád</td>
<td>one boat</td>
<td>Lenition on N-sg</td>
</tr>
<tr>
<td>dhá bhád</td>
<td>two boats</td>
<td>Lenition on N-sg</td>
</tr>
<tr>
<td>trí bhád</td>
<td>three boats</td>
<td>Lenition on N-sg</td>
</tr>
<tr>
<td>cheithre bhád</td>
<td>four boats</td>
<td>Lenition on N-sg</td>
</tr>
<tr>
<td>chúig bhád</td>
<td>five boats</td>
<td>Lenition on N-sg</td>
</tr>
<tr>
<td>sè bhád</td>
<td>six boats</td>
<td>Lenition on N-sg</td>
</tr>
<tr>
<td>seacht mbád</td>
<td>seven boats</td>
<td>Eclipsis on N-sg</td>
</tr>
<tr>
<td>ocht mbád</td>
<td>eight boats</td>
<td>Eclipsis on N-sg</td>
</tr>
<tr>
<td>naoi mbád</td>
<td>nine boats</td>
<td>Eclipsis on N-sg</td>
</tr>
<tr>
<td>deich mbád</td>
<td>ten boats</td>
<td>Eclipsis on N-sg</td>
</tr>
</tbody>
</table>

**Table 5. Examples for numbers ‘one’ to ‘ten’ + nouns**

### Numer & N example

<table>
<thead>
<tr>
<th>Example</th>
<th>Gloss</th>
<th>Morphological marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>trí cinn</td>
<td>three items</td>
<td></td>
</tr>
<tr>
<td>trí lhuaire</td>
<td>three times</td>
<td>$h$-initial vowel prefix</td>
</tr>
<tr>
<td>trí seachtainí</td>
<td>three weeks</td>
<td></td>
</tr>
<tr>
<td>trí bliana</td>
<td>three years</td>
<td>N-pl</td>
</tr>
<tr>
<td>trí ceathrúnaí</td>
<td>three quarters</td>
<td></td>
</tr>
<tr>
<td>trí pingine</td>
<td>three pennies</td>
<td>N-pl</td>
</tr>
<tr>
<td>trí scilleacha</td>
<td>three shillings</td>
<td>N-pl</td>
</tr>
<tr>
<td>trí horphluine</td>
<td>three inches</td>
<td>$h$-initial vowel prefix</td>
</tr>
<tr>
<td>trí troighhe</td>
<td>three feet</td>
<td>N-pl</td>
</tr>
<tr>
<td>trí slata</td>
<td>three yards</td>
<td>N-pl</td>
</tr>
<tr>
<td>trí clocha</td>
<td>three stones</td>
<td>N-pl</td>
</tr>
<tr>
<td>trí galúin</td>
<td>three gallons</td>
<td>N-pl</td>
</tr>
<tr>
<td>trí fìchid</td>
<td>three twenties</td>
<td>N-pl</td>
</tr>
</tbody>
</table>

**Table 6. Examples of numbers ‘one’ to ‘ten’ + measurement (plural) nouns**

(62) a. An t-aon fhuinneoig amháin
the:DET.sg one:NUM window:N.sg.f one:NUM-emphatic
     The one single window

    b. An dá fhuinneoig
the:DET.sg two:NUM windowN.sg.f
     The two windows

    c. Na dá fhuinneoig
the:DET.sg two:NUM window:N.sg.f
     The two windows

    d. Na trí fhuinneoig
the:DET.pl three:NUM window:N.sg.f
     The three windows

    e. Na cheithre shagart
the:DET.pl four:NUM priest:N.sg.f
     The four priests
The layered structure of the Irish word: An RRG account of inflectional and derivation processes

(63)  
a. \textit{Aon fh\textit{\'{e}ar mh\text{\'{o}}r amh\text{\'{a}in}}}
\begin{itemize}
\item one:NUM man:N.sg.m \textit{big:Adj.sg} one:NUM.emphatic
\item Only one big man
\end{itemize}

b. \textit{An d\={a} \textit{fhuinneog mh\={o}ra}}
\begin{itemize}
\item the:DET.sg two:NUM window:N.sg.f \textit{big:Adj.pl}
\item The two big windows
\end{itemize}

c. \textit{Na d\={a} \textit{fhuinneog mh\={o}ra}}
\begin{itemize}
\item the:DET.pl two:NUM window:N.sg.f \textit{big:Adj.pl}
\item The two big windows
\end{itemize}

d. \textit{Na tr\={i} the\textit{\'{e}ach bheaga}}
\begin{itemize}
\item the:DET.pl three:NUM house:N.sg.m \textit{little:Adj.pl}
\item The three little houses
\end{itemize}

(64) Agreement marking on the adjective and the NUM operator

a. \textit{Dh\={a} bh\={a}d bheaga}
\begin{itemize}
\item two \textit{boat:N.sg.m \textit{small:Adj.pl.m}}
\item ‘Two small boats.’
\end{itemize}

b. \textit{An d\={a} bh\={a}d bheaga}
\begin{itemize}
\item The:Det.sg two:Num.thing \textit{boat:N.sg.m \textit{small:Adj.pl.m}}
\item The two small boats
\end{itemize}

c. \textit{Dh\={a} chat dhubh\={a}}
\begin{itemize}
\item Two:Num.thing cat:N.sg.m \textit{small:Adj.pl.m}
\item Two black cats
\end{itemize}

d. \textit{Tr\={i} bh\={a}d mh\={o}ra}
\begin{itemize}
\item Three:Num \textit{boat:N.sg.m \textit{big:Adj.pl.m}}
\item Three big boats
\end{itemize}

e. \textit{Seacht gc\textit{\'{a}pall deag bh\={a}n\={a}}}
\begin{itemize}
\item Seven:Num \textit{horse:N.sg.m \textit{ten:Num white:Adj.pl.m}}
\item Seven small white horses
\end{itemize}

f. \textit{Beirt bh\text{\'{a}n bheaga}
\begin{itemize}
\item Two:NUM-people \textit{women:N.pl.f \textit{small:Adj.pl.f}}
\item Two small women
\end{itemize}

(65) \textbf{NUMoperator}_{2} [N^{\textit{AGMT}_{[\textit{GEND}]_{1}}} ADJ^{\textit{AGMT}_{[\textit{GEND, NUM}]_{1}}} 2]
4.7 Synthetic and analytical verb forms

Irish is a strict VSOX language, in common with the other Celtic languages.

(66) Synthetic and analytical verb forms

a. Tagann mé anois
came:V.pres I:PN.1sg.Nom now:Adv
I arrive now.

a’. Tagaim anois
came:V.pres+I:PN.1sg.Nom now:Adv
I arrive now.

b. Molann mé an cailín
praise:V.pres I:PN.sg.Nom the:DET girl:N.Acc
I praise the girl.

b’. Molaim an cailín
praise:V.pres+I:PN.sg.Nom the:DET girl:N.Acc
I praise the girl.

4.8. General example of the LSW

For the example sentence (67) we supply an indicative diagram of the layered structure of the word for V, N and Adj word types.

For brevity and economy, we will assume that the lexemes are obvious and need not be represented directly in figure 6.

(67) Bhasaigh an seanbean
Die:V.past the:DET old:Adj+woman:N
The old woman died
The layered structure of the Irish word: An RRG account of inflectional and derivation processes

*Bhasaigh an seanbean.* ‘The old woman died.’

*Figure 6: The RRG layered structure of the word for example (67)*
5. Discussion

In relation to the morpheme part of the morphological inventory, we schematically represented the application of the inflectional process through the inflectional morpheme constructional schema as:

\[
[[\alpha] \oplus [\text{NUC}\Phi_{\text{type}}] \oplus [\beta]\Phi_{\text{type}}],
\]

where \(\alpha\) and \(\beta\) are affixes and \(\Phi\) is a NUC type from the lexicon.

\[\text{(68)}\]

\[\begin{array}{c}
\text{WORD}_\tau \\
\text{LEXEME}_\tau \\
\text{CORE}_\tau \\
\text{NUC}_x \\
\text{Infix Morpheme} \\
\text{some } v.v \text{ infix pattern} \\
\text{some } (v)C(C)vCvC(v) \text{ word pattern} \\
\text{NUC operators} \\
\text{CORE operators} \\
\text{LEXEME operators} \\
\text{WORD}_\tau \\
\end{array}\]

\[\Phi \text{ of sort type } \tau\]

\[\begin{array}{c}
\text{some } (v)C(C)vCvC(v) \text{ word pattern} \\
\text{Phonological word} \\
\text{foot} \\
\sigma & \sigma \\
\end{array}\]

\[\text{Figure 7: The generalised RRG layered structure of the word for infixation}\]
6. References

Available at: [http://userpage.fu-berlin.de/~gast/swl3/](http://userpage.fu-berlin.de/~gast/swl3/)