

## Abstract consonant representations in Irish

This paper makes the case for a phonological analysis of Irish as containing abstract consonants, defined only for secondary localisation. Positing these abstract consonants can simplify the description of a number of phenomena in both Modern and Old Irish, and brings greater generalisations.

One of the most heated debates in early generativist linguistics revolved around how abstract phonological representations should be. Some scholars sought to restrain the excessive generative power of transformational grammars (e.g. Chomsky and Halle 1968) by placing limits on the degree of abstractness permitted (i.a. Postal 1968; Kiparsky 1968; Hooper 1976 etc.). Throughout the 1970s and into the 1980s, debate raged over ‘abstract’ versus ‘concrete’ analyses of given languages, such as French (Schane 1968), Nupe (Hyman 1970, 1973; Harms 1973), and Seri (Marlett 1981). Nowadays, abstract representations are commonplace, both in descriptive work written in a broadly structuralist framework (Drude 2014 for Awetí), and in phonological approaches that are primarily representational rather than computational (e.g. Ségéral and Scheer 2001).

Evidence for abstract consonants in Modern Irish comes from two main sources: the behaviour of prothetic consonants before vowel-initial words, and past tense allomorphy.

The secondary localisation of a prothetic consonant before a vowel-initial word cannot be predicted from the quality of the initial vowel (the nasal of the definite article is taken here as prothetic, with examples from Ní Chiosáin 1991: 80ff.):

<i>iontas</i>	i:ntəs	‘wonder’	(m. sg.)
<i>an iontas</i>	ən' i:ntis'	‘the wonder’	(m. sg. gen. def.)
<i>aois</i>	i:s'	‘age’	(f. sg.)
<i>an aois</i>	ən i:s'	‘the age’	(f. sg. nom. def.)

This phenomenon, consistently represented in Modern Irish orthography, was already noted by Gussmann (1986), who proposed that the unexpected vowel stems, e.g. *aois* above, have an empty C-slot on the CV-tier to which an autosegmental specification for consonant quality is associated. Ní Chiosáin (1991: 84) extends this to all vowel stems, arguing that they all begin with an onset specified only for secondary localisation, here transcribed as broad /ø/ and slender /ø'/. The only alternative would be to argue that the selection of either a broad or a slender allomorph of prothetic /t/ or /n/ is assigned simply arbitrarily to each stem.

The past tense in Modern Irish is formed by leniting an initial concrete consonant, e.g. *cuir* → *chuir* ‘put’ and prefixing /d/ to an initial abstract consonant, e.g. *ith* → *d'ith* ‘ate’. Words beginning in /f/ combine both rules, e.g. *freagair* → *d'fhreagair* ‘answered’. Assuming that /f/ disappears under lenition makes it difficult to explain the prefixed /d'/, as words beginning in a sonorant lack this, e.g. *rith* → *rith* ‘ran’ not *\*\*drith* (Armstrong 1975). However, if /f~f'/ is rather considered lenited to the abstract consonant /ø~ø'/, then the formation of the past tense can be subsumed under a single rule: lenite an initial concrete consonant and prefix /d/ to an initial abstract consonant.

Anderson (2016) adopts an abstract consonant analysis from Modern Irish into Old Irish, and extends it by considering long vowels to be sequences of short vowel plus abstract consonant, i.e. /Vø/, contrasting with disyllabic sequences /VøV/ for vowels

in hiatus (this remains perfectly compatible with the zero consonant in Ó Cuív 1966). Indeed, many person markers in the verbal system can thus be considered to consist solely of abstract consonants that assimilate a preceding consonant, so that the conjugation of consonant-final strong verb forms and vowel-final hiatus verbs can be unified as follows:

b'ər-ø°əø°	→	b'ər°əø°	<i>biru</i>	'I carry' (absolute)
b'ə-ø°əø°	→	b'əø°əø°	<i>biuu</i>	'I do be' (absolute)
·b'ər-ø°	→	·b'əø°	· <i>biur</i>	'I carry' (conjunct)
·b'ə-ø°	→	·b'əø°	· <i>bíu</i>	'I do be' (conjunct)

Similar generalisations can be made for other aspects of the verbal morphology, such as the reduplication of vowel-initial verbal stems.

It is preferable, a priori, to assume that underlying phonological representations are as similar to the surface reality as possible, a principle known as *Lexicon Optimisation* in Optimality Theory (Prince and Smolensky 1993). On the other hand, it is also desirable to maximise the level of generalisation of our linguistic analyses. In a language such as Irish, with its complex system of consonant alternations, the abstract consonant solution seems able to simplify considerably the description of several morphological phenomena, and is worth the cost of a little abstraction.

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