

A Brief Overview of Old Irish Orthography and Phonology

Aibhilin inghean Daibhidh

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A Brief Overview of Old Irish Orthography and Phonology

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Old Irish is a language of Indo-European descent coming from the Goidelic branch of the Celtic family of languages, making it part of one of the earlier language groups to break from Proto-Indo-European. The Goidelic branch, along with the other Insular Celtic language (such as Welsh, Cornish, and Manx) evolved on the British Isles as opposed to the Continental Celtic languages which developed in mainland Europe. The Goidelic branch developed out of Old Celtic when it was brought to Ireland from the Continent. While the Goidelic languages developed circa 400 AD (Hock and Joseph, 2009), most Old Irish texts are found from 700 to 900 AD (Stempel, Esser, and Slocum, 2008).

Old Irish is a head-initial, VSO language written using a modified version of the Latin alphabet. However, the spelling system developed to represent the complex system of consonants and fricatives used in Irish is often counterintuitive to the pronunciation of a given sound compared to the Latin alphabet. The phonemic value of any given consonant can change based on the position of that consonant within a word or sentence (King, 1998).

Vowels in Old Irish can be classified as broad, slender, or neutral. The broad vowels are /o/ and /u/. /i/ and /e/ are slender vowels, and the neutral vowel is /a/. Irish vowels can also be long or short, with long vowels known by a rising accent mark. Irish also has an extensive diphthong system. The diphthongs are all marked by a rising accent mark on the first vowel of the diphthong, except when the final vowel of the diphthong is an /i/. The diphthongs in Old Irish are /iu/, /ia/, /eu/, /au/, /ai/, /oi/, /ua/, and /ui/ (Lehmann, 1975).

The vowels surrounding a consonant cause the production of that consonant to potentially change. When consonants are followed by slender vowels (or in the case of the end of the sentence, preceded by a slender vowel), the consonant undergoes lenition. While older texts on Old Irish grammar often refer to lenition as either lenition or aspiration (Pokorny, 1914), as the process caused by slender vowels is linguistically a weakening process, referring to it modernly as lenition is more linguistically sound. As a general rule, lenition states that stops become fricatives in the presence of slender vowels. For example, a lenited /p/ becomes an /f/ and a lenited /b/ becomes a /v/. Often,

lenited sounds are also marked by a /h/ which follows the consonant undergoing lenition; however, /h/ is not always used as a marker for lenition. /h/ in orthography carries no sound and can also be used as a silent marker to lengthen a word or indicate hiatus in a word, among other uses (O'Connell, 1912).

Another phonological process affecting pronunciation in Old Irish is eclipsis. Eclipsis occurs when words ending in the alveolar nasal /n/ affect the initial consonant of the following word. This effect causes voiceless stops to become voiced (example /p/ become [b]) and voiced stops to become nasal at the same place of articulation (example /b/ becomes [m]). Vowels that are eclipsed retain their value but have the /n/ phoneme repeated before them. All remaining letters do not undergo changes when eclipsed (Pokorny, 1914).

When consonants are not undergoing lenition, they still have phonemic values different from that of the Latin alphabet. In Old Irish, an orthographic voiceless stop can represent either the voiceless or voiced variety. Voiceless stops are written doubled, so that /pp/ represents the phoneme [p] and /tt/ represents the phoneme [t]. When a voiceless stop is used word initially, it is

represented orthographically with the single letter such that word initial /p/ retains the voiceless phonemic production [p] (Lehmann, 1975). A single voiceless stop in non-initial position, however, actually represents the voiced counterpart such that /p/ represents the phoneme [p] and /b/ represents the phoneme [b]. However, the orthographically voiced stops may also sometimes represent the voiced phoneme. When a voiced stop appears word initially, it will have the value of the voiced phoneme it represents. Thus word initial /b/ has the phonemic value of [b]. In all other non-initial positions, the orthographic voiced stops are used to represent voiceless fricatives of the same place of articulation, whether the position is lenited or not. Thus /b/ in non-initial position will have the phonemic value [v]. To summarize, orthographically voiced or voiceless stops retain the phonemically voiced or voiceless production when word initial. When non-initial, doubled orthographic voiceless stops represent the voiceless phoneme, single orthographic voiceless stops represent the voiced phoneme counterpart, and single orthographic voiced stops represent the voiced fricatives of the same place of articulation (King, 1998).

Other consonants undergo changes in production as well based on the slender and broad environments. The orthographic /f/ represents the voiceless bilabial fricative [ɸ] normally and the voiced bilabial fricative [β] when eclipsed. When lenited, the /f/ becomes silent. /s/ also varies with environment, produced as the phoneme [s] when followed by a broad consonant, as [ʃ] when slender and as [h] when written as /sh/, but undergoes no changes when eclipsed. The consonants /r/, /l/, and /n/ have slightly different interpretations when lenited. When not lenited, they retain phonemic productions of [r], [l], and [n]; however, when lenited their phonemic quality does not change, rather, the articulation becomes less intensive.

Old Irish also has processes of nasalization other than eclipses that occurs in some environments. This special nasalization occurs following specific numeral adjectives (*secht* “7”, *ocht* “8”, *noí* “8”, and *deich* “10”). While Lehmann (1975) states that this is due to Latin cognates that end in the nasal (*septum*, *novem*, *decem*), as there is no Latin cognate for “8” ending in a nasal, it is possible this is a process derived based on an earlier form of the words in Archaic Irish, Continental Celtic, or PIE which motivated the nasalization

process after the nasals were dropped. As this is a unique process of nasalization not generalized to a larger set of phonemes (like eclipsis) it is likely a historically motivated remnant.

Broad, slender, and neutral vowels also cause more changes than just lenition. Slender consonants become palatalized whereas broad consonants become velarized. Neutral consonants remain unchanged. Thus, not only does the production change as far as manner (as lenition changes), the secondary place of articulation of any given consonant changes as a reflection of the broad and slender vowels (Lehmann, 1975).

Glossery

Lenition/weakening: A phonological process where a phoneme changes to become weaker or less emphasized based on the environment it is occurring in (example in English, “butter” is not pronounced “But-ter” but closer to “bud-er”. The /t/ sound is actually reduced to a flap, which is a very fast stop like movement but carries less emphasis than a full stop such as /t/)

Head-initial language: A language which has the head of the phrase (the noun, verb, adjective, etc of a phrase) in the linearly initial position (example “run to the store”) as opposed to in the final position (example “to the store run”)

Nasalization: When a phoneme is produced with a nasal sound by allowing air to enter the nasal cavity from the oral cavity

Off-glide: When a sound ends with a glide sound such as [j] or [w]

Orthography: The writing system of a language

Palatalization: When a phoneme is produced with a slightly palatal sound caused by the tongue raising toward the soft palate while producing another articulation

Phoneme: The smallest meaningful unit of sound in a language

Phonological process: A phonological rule that dictates language production in a given environment

Phonology: The study of the sounds of a language and the rules that govern them

Proto-Indo-European (PIE): The earliest postulated ‘mother language’ of the Indo-European continent from which language families such as the Romance language, Germanic languages, Celtic languages and others evolved from

Velarization: When a phoneme is produced with a slightly velar sound caused by the back of the tongue raising toward the velum while producing another articulation

Voicing: How the vocal folds are involved in production of a sound, either open, closed, vibrating, or a combination.

Voiced: When the vocal folds vibrate while producing a phoneme (example:

“zzz”)

Voiceless: When the vocal folds are not vibrating while producing a phoneme

(example: “sss”)

VSO language: A language in which the normal order of elements in the

sentence is Verb, Subject, then Object (example “saw Sally Bob”) as

opposed to English SVO order (“Sally saw Bob”)

THE INTERNATIONAL PHONETIC ALPHABET (revised to 2005)

CONSONANTS (PULMONIC)

© 2005 IPA

| | Bilabial | Labiodental | Dental | Alveolar | Postalveolar | Retroflex | Palatal | Velar | Uvular | Pharyngeal | Glottal |
|---------------------|----------|-------------|--------|----------|--------------|-----------|---------|-------|--------|------------|---------|
| Plosive | p b | | | t d | | ʈ ɖ | c ɟ | k ɡ | q ɢ | | ʔ |
| Nasal | m | ɱ | | n | | ɳ | ɲ | ŋ | ɴ | | |
| Trill | | | | ʀ | | | | | ʀ | | |
| Tap or Flap | | ⱱ | | ɾ | | ɽ | | | | | |
| Fricative | ɸ β | f v | θ ð | s z | ʃ ʒ | ʂ ʐ | ç ʝ | x ɣ | χ ʁ | ħ ʕ | h ɦ |
| Lateral fricative | | | | ɬ ɮ | | | | | | | |
| Approximant | | ʋ | | ɹ | | ɻ | j | ɰ | | | |
| Lateral approximant | | | | l | | ɭ | ʎ | ʟ | | | |

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

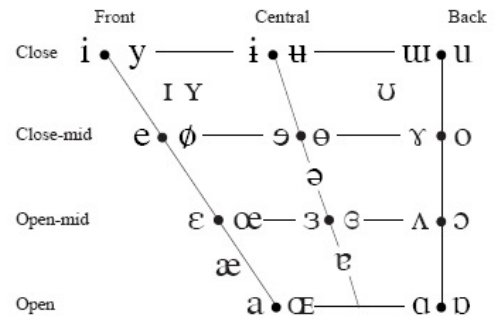
CONSONANTS (NON-PULMONIC)

| Clicks | Voiced implosives | Ejectives |
|----------------------|---------------------|-------------------------|
| ◌ ǀ Bilabial | ◌ ɓ Bilabial | ◌ ʼ Examples: |
| ◌ ǃ Dental | ◌ ɗ Dental/alveolar | ◌ ɓ' Bilabial |
| ◌ ǂ (Post)alveolar | ◌ ɟ Palatal | ◌ ɗ' Dental/alveolar |
| ◌ ǁ Palatoalveolar | ◌ ɡ Velar | ◌ ɟ' Velar |
| ◌ ǁ Alveolar lateral | ◌ ɠ Uvular | ◌ ɟ' Alveolar fricative |

OTHER SYMBOLS

| | |
|---------------------------------------|---|
| ◌ ɸ Voiceless labial-velar fricative | ◌ ɕ ʑ Alveolo-palatal fricatives |
| ◌ ʋ Voiced labial-velar approximant | ◌ ɺ Voiced alveolar lateral flap |
| ◌ ɥ Voiced labial-palatal approximant | ◌ ɥ Simultaneous ʃ and x |
| ◌ ʜ Voiceless epiglottal fricative | |
| ◌ ʕ Voiced epiglottal fricative | Affricates and double articulations can be represented by two symbols joined by a tie bar if necessary. |
| ◌ ʡ Epiglottal plosive | |

VOWELS



Where symbols appear in pairs, the one to the right represents a rounded vowel.

SUPRASEGMENTALS

- ◌ ˈ Primary stress
- ◌ ˌ Secondary stress
- ◌ ː Long eː
- ◌ ˑ Half-long eˑ
- ◌ ˚ Extra-short e˚
- ◌ ˘ Minor (foot) group
- ◌ ˙ Major (intonation) group
- ◌ ˑ Syllable break ɪi.ækt
- ◌ ˑ Linking (absence of a break)

DIACRITICS Diacritics may be placed above a symbol with a descender, e.g. ɪ̥

| | | | | | |
|---------------------|-----------|---------------------------------|---|------------------------|-----------|
| ◌ ɹ Voiceless | ◌ ̤ n̤ d̤ | ◌ ̤ Breathy voiced | ◌ ̤ b̤ a̤ | ◌ ̤ Dental | ◌ ̤ t̤ d̤ |
| ◌ ̣ Voiced | ◌ ̣ ɳ̣ ʈ̣ | ◌ ̣ Creaky voiced | ◌ ̣ ɓ̣ ɗ̣ | ◌ ̣ Apical | ◌ ̣ ṭ ḍ |
| ◌ ̥ Aspirated | ◌ ̥ t̥ d̥ | ◌ ̥ Linguolabial | ◌ ̥ ɸ̥ β̥ | ◌ ̥ Laminal | ◌ ̥ t̥ d̥ |
| ◌ ̦ More rounded | ◌ ̦ ɔ̦ | ◌ ̦ Labialized | ◌ ̦ țʷ d̦ʷ | ◌ ̦ Nasalized | ◌ ̦ ẽ̦ |
| ◌ ̧ Less rounded | ◌ ̧ ɔ̧ | ◌ ̧ Palatalized | ◌ ̧ ţʲ ḑʲ | ◌ ̧ Nasal release | ◌ ̧ ḑⁿ |
| ◌ ̨ Advanced | ◌ ̨ ɹ̨ | ◌ ̨ Velarized | ◌ ̨ t̨ʷ d̨ʷ | ◌ ̨ Lateral release | ◌ ̨ d̨ˀ |
| ◌ ̩ Retracted | ◌ ̩ ɛ̩ | ◌ ̩ Pharyngealized | ◌ ̩ t̩ˤ d̩ˤ | ◌ ̩ No audible release | ◌ ̩ d̩̚ |
| ◌ ̪ Centralized | ◌ ̪ ẽ̪ | ◌ ̪ Velarized or pharyngealized | ◌ ̪ ɬ̪ | | |
| ◌ ̫ Mid-centralized | ◌ ̫ ẽ̫ | ◌ ̫ Raised | ◌ ̫ ɛ̫ (ɹ̫ = voiced alveolar fricative) | | |
| ◌ ̬ Syllabic | ◌ ̬ ɲ̬ | ◌ ̬ Lowered | ◌ ̬ ɛ̬ (β̬ = voiced bilabial approximant) | | |
| ◌ ̭ Non-syllabic | ◌ ̭ ɛ̭ | ◌ ̭ Advanced Tongue Root | ◌ ̭ ɛ̭ | | |
| ◌ ̮ Rhoticity | ◌ ̮ ə̮ a̮ | ◌ ̮ Retracted Tongue Root | ◌ ̮ ɛ̮ | | |

TONES AND WORD ACCENTS

| LEVEL | CONTOUR |
|---------------------|----------------------|
| ◌ ˥ or ˧ Extra high | ◌ ˥ or ˧ / Rising |
| ◌ ˥ High | ◌ ˥ \ Falling |
| ◌ ˥ Mid | ◌ ˥ / High rising |
| ◌ ˥ Low | ◌ ˥ \ Low rising |
| ◌ ˥ Extra low | ◌ ˥ / Rising-falling |
| ◌ ˩ Downstep | ◌ ˩ ↗ Global rise |
| ◌ ˩ Upstep | ◌ ˩ ↘ Global fall |

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