Irish initial consonant mutation: disentangling phonology from morphosyntax

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The Celtic initial consonant mutations (ICM) involve a complex interaction of phonology, morphology and syntax, and have long posed a challenge to modular theories of language structure. I offer a strictly modular analysis of ICM in Irish, showing that the phonological and morphosyntactic aspects are driven by distinct mechanisms. The mutations are triggered by floating phonological material that is introduced into the derivation either directly from the lexicon (as part of the representation of a "trigger word") or as the exponent of certain morphosyntactic features on the target word. This floating phonological material latches onto the initial consonant of a following word in order to produce a mutated consonant. Under my analysis, the interaction of phonology and morphosyntax does not require violating modular assumptions. Therefore, despite apparent evidence to the contrary, the mutations are compatible with a strictly modular system of grammar.

In Irish, ICM refers to a system under which a word-initial consonant can change, depending primarily on the morphosyntactic context: *bróg* 'shoe', *an **bh**róg* 'the shoe' (triggered by the definite article on feminine singular nouns), *ar an **mb**róg* 'on the shoe' (definite complement of the preposition *ar*). Previous theoretical approaches to ICM have generally emphasised either the phonology of the alternations (Ó Dochartaigh, 1979; Ní Chiosáin, 1991; Swingle, 1993; Gnanadesikan, 1997) or the mutation triggering process (Duffield, 1995; Stewart, 2004; Green, 2006; Hannahs, 2013). However, there has been relatively little research before now into how the grammatical modules of phonology and morphosyntax work together to effect the mutations (Pyatt (1997) and Breit (2019) being two exceptions). The question of how the work is split between grammatical modules is crucial however, because it provides us with a direct test of the strict modularity hypothesis: that is, the view that grammatical modules such as phonology, morphology and syntax operate distinctly and independently from one another (cf. Fodor (1983)).

In this talk, I concentrate on two cases where the morphosyntactic conditioning of ICM apparently interacts with the phonology:

1. The triggering of ICM by plural nouns that end in a palatalised consonant

2. The blocking of ICM when two coronal consonants come together at a word or morpheme boundary in some morphosyntactic triggering environments

I demonstrate that despite appearances, the phonology can be separated from the triggering mechanism in each of these contexts. Case 1 is shown to be better analysed as the triggering of mutation by nouns belonging to a specific plural class, for which independent evidence is provided. For Case 2, I use evidence from epenthesis to argue that mutation is triggered as expected in these environments, but that a separate phonological process intervenes to block the realisation of mutation when two coronals are adjacent. Furthermore, I offer an explanation for why such coronal blocking effects are only observed in a subset of mutation environments (namely, those for which the mutation-inducing element is part of the phonological representation of a "trigger word"). I conclude that these two seemingly problematic cases are in fact compatible with strict modularity.

Word count: 474

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