Preverbal *d'* and its interactions with the initial consonant mutation system in Irish

Anna Laoide-Kemp
University of Edinburgh

In this talk, I resolve an apparent paradox that arises in an autosegmental account of Irish initial consonant mutation (ICM) – namely, the unexpected distribution of Irish preverbal tense particle *d'*. I analyse this particle as consisting of an underlyingly floating segment, rather than a segmental prefix, and show that its distribution follows naturally from its interaction with the ICM system.

ICM is the systematic alternation of word-initial consonants in a range of morphosyntactically defined environments: e.g. [b]*róg* 'shoe'; *an* [v]*róg* 'the **L**.shoe' ("**L**enition"); *ár* [m]*róg* 'our **E**.shoe' ("**E**clipsis"). Because ICM involves a complex mix of phonological and morphosyntactic factors, an in-depth analysis of the system can inform our understanding of the interface between these components of the grammar. Considerable promise has been shown by autosegmental models, in which mutation is caused by floating phonological material residing at the right edge of a so-called "trigger word" that directly precedes the mutation target (e.g. Lieber 1983; Iosad 2014; Breit 2019; Laoide-Kemp 2023). This approach captures the fact that ICM is typically linked to the presence of such a word, linearly adjacent to the mutation target. Moreover, it is compatible with a strictly modular grammatical architecture, maintaining clear and distinct roles for the morphosyntax and the phonology (Scheer 2010; Bermúdez-Otero 2012). However, it also makes a clear prediction that the conditions for insertion of the trigger word cannot depend on the post-mutation identity of the following segment (since at the point of insertion of the trigger, mutation has yet to take place). In this talk, I examine a case where this prediction seems not to hold.

The so-called "historic tense" particle *d'* (/d/) is associated with lenition on the following word, and is therefore typically assumed to be a trigger of lenition (note: "historic tense" refers to a specific subset of tense/mood combinations in Irish). However, this particle only emerges in the context of a segmentally empty C(onsonantal)-slot (assumed on independent grounds to be present in all Irish vowel-initial words – see Gussmann (1986); Ní Chiosáin (1991)). Crucially, whether it appears depends on the post-mutation status of the following C-slot. Thus, it is found not only before vowel-initial words (2), but also before words that are underlyingly *f*-initial (3) (since /f/ deletes under lenition, leaving behind an empty C-slot carrying secondary articulation features).

(1) *(*d')* ***bh****og* *mé*
(HIST) **L**.move 1.SG
'I moved.'
(**L**: [b]*og* → [v]*og*)

(2) *d'* *ól* *mé*
HIST drink 1.SG
'I drank.'

(3) *d'* ***fh****an* *mé*
HIST **L**.stay 1.SG
'I stayed.'
(**L**: [f]*an* → [∅]*an*)

This presents an empirical puzzle: if the particle *d'* triggers mutation, it must be spelt out **before** mutation takes place; but since its insertion is sensitive to the post-mutation identity of the following segment, it must not be inserted until **after** the mutation process is complete. This leads to a spell-out timing paradox. I resolve this paradox by proposing that the historic tense particle consists of a floating segment *(d)* plus a bundle of lenition-inducing material {L}, as shown in (4).

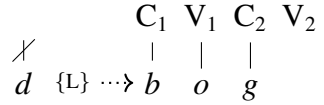
(4) [+HIST] ↔ $\overset{|}{d}$ {L}

Crucially, this particle is inserted in **all** historic tense environments, regardless of the phonology of the following word. Working within a strict CV framework (Scheer 2012), I demonstrate that the pattern in (1)-(3) falls out naturally if we assume that (i) the floating lenition-inducing material {L} always docks onto the consonant immediately to its right (if present), and (ii) the floating *(d)* is only pronounced if it can link to an immediately adjacent C-slot that is both empty and licensed.

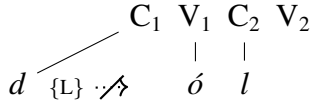
Figures 1a-c show the effect of the proposed historic tense particle on C-initial, V-initial and *f*-initial words respectively. In 1c, a C-slot only becomes available for floating *(d)* to link to after the lenition-inducing material {L} has acted on the initial *f*; but this no longer constitutes a spell-out timing paradox, because the floating *(d)* is assumed to be present underlyingly in all phonological environments, even when it is not ultimately pronounced at the surface level (as in Figure 1a). Preverbal *d'* is therefore fully consistent with the trigger word account of mutation, and its observed distributional pattern is derived entirely within the phonology.

Figure 1: Interaction of historic tense particle *(d)*-{L} with the start of a following word

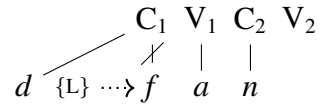
(a) C-initial word: *bog* → ***bh****og*



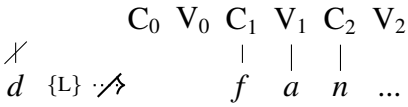
(b) V-initial word: *ól* → *d' ól*



(c) *f*-initial word: *fan* → *d' **fh**an*



(d) Mutation blocked by initial empty CV



My account compares favourably with an alternative analysis that places the burden of explanation for the distributional pattern in (1)-(3) on the morphosyntax. Under this analysis, preverbal *d'* is not a mutation trigger word at all; instead, this particle and a separate lenition-inducing verbal prefix are distinct exponents of historic tense, with the former being spelt out only after the latter has been inserted and phonologically processed. Although the morphosyntactic solution resolves the spell-out timing paradox, it is inferior to my proposed phonological account for several reasons.

First, it can be shown that the past tense impersonal (PST.IMP) verb form in Irish is intrinsically resistant to mutation. The morphosyntactic account predicts that preverbal *d'* will appear only before V-initial words in this context, since only these contain an empty C-slot in their unmutated form. However, preverbal *d'* never appears with the PST.IMP form, not even alongside V-initial words. My analysis easily captures this fact: mutation-resistant verb forms carry an empty CV unit at their left edge, blocking the effect of both {L} and floating *(d)* (Figure 1d) (cf. Scheer 2012; Breit 2019). The morphosyntactic account also struggles to explain data from Munster dialects, where preverbal *d'* appears alongside all instances of lenition in the clause, rather than just as a marker of historic tense. My account readily extends to account for this microvariation: in these dialects, preverbal *d'* has simply been reanalysed as part of the basic lenition pattern in the clause. Finally, my analysis requires no ad hoc assumptions or mechanisms; the only innovation is the idea that preverbal *d'* is underlyingly floating. The existence of floating consonants in Irish is independently motivated by its rich system of pre-vocalic consonantal prefixes in morphosyntactically defined environments (e.g. *éan* 'bird' → *an* ***t-****éan* 'the bird').

My analysis adds further evidence in support of the autosegmental approach to Irish initial consonant mutation, by showing that this seemingly puzzling pattern can be accounted for entirely within the phonology. This in turn supports a modular view of grammar: although morphosyntactic factors determine where mutation-inducing material is inserted, the output form ultimately depends on the surrounding phonological environment (floating segments, empty syllabic structure, etc.) and the application of regular phonological processes, with no further reference to morphosyntax.

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