## Affix Hopping and Do-Support: Evidence from Old Irish

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**Synopsis:** Affix hopping and do-support are traditionally problematic for syntactic theory. This paper provides evidence for a parallel construction in Old Irish (OIr) and proposes a new account of both the English and OIr data that combines syntactic and post-syntactic operations.

**Background:** OIr has a double system of verbal inflection. In absolute initial position, the verb has absolute inflection (1). When preceded by a particle the verb has conjunct inflection (2).

- (1) Berid in fer in claideb carry.PRES.3SG.ABS the man the sword 'The man carries the sword'
- (2) Ní beir in fer in claideb

NEG carry.PRES.3SG.CONJ the man the sword 'The man doesn't carry the sword' Carnie, Harley & Pyatt (2000) argue that the endings relate to different syntactic positions. When the verb moves to C it has absolute inflection. When the verb remains in T it has conjunct inflection. A closer look at the OIr evidence, specifically that relating to relative constructions, clitic pronouns and stress

assignment, suggests that the verb never raises higher than T in OIr.

Affix Hopping in OIr: Although the verb does not move to C, absolute endings seem to realise a C-based feature. Absolute forms show a distinction between relative (*beres* 'which carries') and non-relative (*berid* 'carries') forms, suggesting that absolute inflection is the realisation of a  $[\pm wh]$  feature. If the verb does not raise to C, this feature must lower to T. Here we have a parallel with English affix hopping, where tense and agr(eement) features are argued to lower from T to V.

**Do-Support in OIr:** OIr has a dummy particle *no*, which appears in the C position. The *no*-construction is the productive means of forming relative clauses (3) and hosting clitics (4) when the verb is simple.

- (4) **no** -s nguid-som
  PTC PRON.3PL beseech.PRES.3SG.CONJ-emph.3SG.M 'He beseeches them'
- (5) is hed in so **no** chairigur (non-rel cairigur)

COP it this PTC reprimand.PRES.1SG.CONJ 'It is this that I reprimand'

Like English do, OIr no seems to have the characteristics of an elsewhere morpheme, appearing only when no other particle is merged in C and having no fixed meaning/function of its own.

Proposed Analysis: In current minimalism, affix hopping can be accounted for without downward movement by the operation Agree (Chomsky 2000). In English, T and V are in an Agree relation and so both contain valued tense/agr features. The decision as to where these features should be spelled out is argued to be determined post-syntactically at PF by the operation Chain Reduction (Nunes 2000), which marks the highest/leftmost copy for realisation. Following Landau (2006) it is argued that certain PF conditions may prevent the highest copy from being realised. It is widely assumed that tense/agr features in English are [+affixal] and so must satisfy the Stranded Affix Filter (Lasnik 1981, 1995 - SAF). Following Lasnik (1995) I propose that the SAF is a PF condition. In order to satisfy the SAF, [+affixal] features must be able to combine with other [-affixal] morphosyntactic features at PF. The standard way for this to occur is for the [+affixal] and [-affixal] features both to be present under the same terminal node. If no other [-affixal] morphosyntactic features are present in T, T violates the SAF, a PF condition, and so cannot be realised. The lower copy of the tense/agr features must then be realised on V. Under this view, do-insertion results from Vocabulary Insertion (Halle & Marantz 1993). When there are morphosyntactic features under T that can combine with tense/agr, T does not violate the SAF and so must receive a phonological realisation. However, not all morphosyntactic features are associated with specific phonological form, for example, the feature [+emphatic] present in T in such clauses as 'John DOES like apples'. When T must receive a phonological realisation, but there is no specific phonological form, do is inserted as an elsewhere morpheme. It is proposed that the OIr data can be accounted for in exactly the same way, if we assume that the  $[\pm wh]$  feature shared by C and T is  $[\pm affixal]$  and no is an elsewhere morpheme. The main difference is that in OIr this occurs in the C domain rather than the T domain.

## References

- Chomsky, N. (2000) Minimalist inquiries: the framework. R. Martin, D. Michaels & J. Uriagereka (eds.), Step by step: essays in minimalist syntax in honor of Howard Lasnik. Cambridge MA: MIT Press, 89–156.
- Halle, M. & A. Marantz (1993) Distributed morphology and the pieces of inflection. K. Hale & S. J. Keyser (eds.) The view from building 20. MIT Press, Cambridge MA, 111–176.
- Landau, I. (2006) Chain resolution in Hebrew V(P) fronting. Syntax 9, 32–66.
- Lasnik, H. (1981) Restricting the theory of transformations: A case study. N. Hornstein & D. Lightfoot (eds.) Explanations in linguistics. London: Longman.
- Lasnik, H. (1995) Verbal morphology: syntactic structures meets the minimalist program. H. Campos & P. Kempchinsky (eds.) Evolution and revolution in linguistic theory: Essays in honor of Carlos Otero. Washington DC: Georgetown University Press, 251–275. [Reprinted in Lasnik, H. (1999). Minimalist analysis. Oxford: Blackwell.]
- Nunes, J. (2000) Linearization of chains and phonetic realization of chain links. S. Epstein & N. Hornstein (eds.) Working minimalism. Cambridge MA: MIT Press.