

## Prosodic evidence for the syntactic constituency of demonstratives in Irish

Joseph W. Windsor, University of Calgary

**Background:** The syntactic position of demonstratives has become a topic of much debate (Giusti 1992, 1996; Cinque 1994, 2005; Szabolcsi 1994; Chomsky 1995; Bernstein 1997, 2001, 2008; Bernstein et al. 1999; Diessel 1999; Lyons 1999; Rosen 2003; Leu 2008; Wiltschko 2009; Bliss 2013; Roehrs 2013) with no consensus on the correct analysis yet emerging. Even among authors investigating Celtic languages, there lacks agreement. Some authors argue that the linear order of demonstratives relative to adjectives and PP-complements (as in 1) forces an analysis that positions the demonstrative low within the nominal structure (Brugè 2002; Roberts to appear). Other authors argue, based on the fact that demonstratives may scope over a coordinated DP (as in 2) that demonstratives must be high in the nominal structure (McCloskey 2004; Adger 2013).

(1) Irish demonstrative positions (Brugè 2002:41 (spelling and translation corrections my own))  
*an leabhar (\*seo) nua (seo) faoi teangeolaíocht (\*seo)*  
 the book (\*this) new (this) under linguistics (\*this)  
 ‘this new book on linguistics’

(2) Irish coordinated structure (adapted from McCloskey 2004:4 with brackets added)  
 [[*na fir*]<sub>DP</sub> agus [*na mná*]<sub>DP</sub> *sin*]<sub>DP</sub> ...  
 the men and the women DEM  
 ‘those men and women ...’

**Research Question:** Is there new, quantifiable, evidence which would allow us to reject (at least) one of the previous hypotheses and motivate the syntactic constituency of demonstratives in Irish?

**Methodology:** Elfner (2012, to appear) provides a matching algorithm (Match Theory: Selkirk 2009, 2011) between the syntax and phonology in Connemara Irish which predicts the location of pitch accents in an utterance. She observes that, with predictable exceptions, a phonological phrase ( $\varphi$ ) matches a maximal projection in the syntax (XP), and a phonological word ( $\omega$ ) matches a syntactic head ( $X^0$ ). After matching, the leftmost daughter ( $\omega$ ) of each  $\varphi_{\text{non-min}}$  displays an LH pitch accent, and the rightmost daughter of each  $\varphi$  displays an HL pitch accent. Crucially, in a sentence containing a Verb, Subject (noun + adjective), and Object (noun + adjective) the object noun is not in a structural position to get any kind of pitch accent: it is the leftmost daughter of a minimal  $\varphi$ .

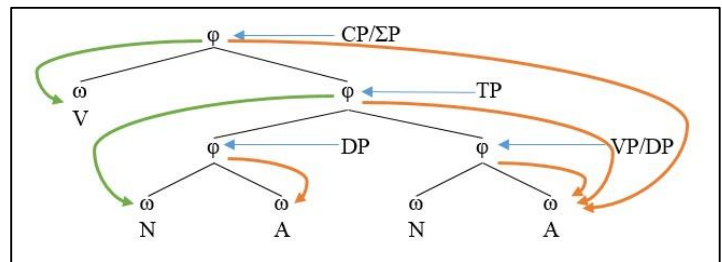


Figure 1: Pitch Accent distribution in Connemara Irish

Understanding that a demonstrative is also matched as a  $\omega$  (Bennett *et al* to appear), we predict that if the hierarchical organization of that  $\omega$  is within the object- $\varphi$ , it will not force a pitch accent onto the object noun. If, however, the demonstrative creates an additional  $\varphi$  above the object- $\varphi$  then the object noun will be the leftmost daughter of a  $\varphi_{\text{non-min}}$ , and will display an LH pitch accent. To test these hypotheses, 40 target nouns were embedded into sentences of this type in subject position, object position, and object position with a demonstrative. The sentences were elicited from two native speakers of Connemara Irish and analyzed for pitch accents.

**Conclusion:** It was found that when a demonstrative was present with the object DP, a pitch accent (which was not present in the elicitation lacking the demonstrative) was observed on the object noun. This finding supports the analysis of McCloskey (2004) and Adger (2013) in that the demonstrative must be hierarchically organized high in the nominal structure.

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