The Interaction of Linearization and Prosody: Evidence from Pronoun Postposing in Irish

Word order is sometimes defined in phonological rather than syntactic terms. Second-position clitics exemplify this situation as being phonologically reduced elements that are banned from occurring in sentence-initial (or Intonational-Phrase-initial) position (Halpern 1995, Bašković 2001). In this paper, I discuss “pronoun postposing” in modern Irish (Chung & McCloskey 1987; Duffield 1995; Adger 1997, 2007; Doyle 1998; McCloskey 1999), where weak pronominal objects are dispreferred in canonical post-subject position when followed by a complement to the verb. This contrasts with full DP and strong pronominal objects, which can only occur in post-subject position (1). I argue that this word order asymmetry derives from a dispreference for initial weak elements in a lower-than-usual domain, namely the Phonological Phrase (PhP) that corresponds to the Spell-Out domain of the vP phase (Adger 2006, Ishihara 2007). This paper discusses the implications of this account, and proposes a new mechanism for deriving second-position phenomena using violable constraints on linearization.

Pronoun postposing is unusual because it appears to involve rightward movement of a weak element, contrary to what is seen in other right-edge phenomena (such as Heavy NP-Shift or extraposition) or in object shift as found in other Indo-European languages where weak elements migrate leftward (as in Scandinavian object shift). Following previous analyses (Adger 1997, Doyle 1998, McCloskey 1999), I assume that the surprising behaviour seen in pronoun postposing is phonologically-motivated. I propose that postposing does not derive from syntactic movement at all, but rather from interacting constraints on linearization and prosody at Spell-Out. Specifically, I argue that linearization is not an automatic process that maps syntactic structure onto linear order (as under Kayne 1994), but involves violable constraints that can be subverted by higher-ranked prosodic constraints, as under an Optimality Theoretic framework (Prince & Smolensky 1993/2004). This proposal is distinct from copy-movement-and-deletion accounts (Bašković 2001) and prosodic-inversion accounts (Halpern 1995) of second-position phenomena by not requiring movement either in the syntactic or in the phonological component: instead, the availability of various linear orders derives from a fully interactional model of Spell-Out.

I assume that syntactic structure is spelled-out in Phases (Chomsky 2000). Direct objects in Irish are syntactically below v, and are normally linearized into the initial position of the Spell-Out domain (SOD) of the vP phase (the complement of vP, Chomsky 2000). Following Adger (2006) and Ishihara (2007), this domain corresponds to a prosodic PhP. As with other prosodic phrasal domains (e.g. Intonational Phrase, Bašković 2001), I propose that PhPs are associated with a constraint requiring prosodic-word-level prominence in initial position. Weak pronouns, unlike full DPs and strong pronouns, which have prosodic word-level stress, do not carry a sufficient level of phonological prominence to be licensed in this position. Other options (e.g. procliticization of the weak pronoun onto an adjacent prosodic word) are ruled out by syntax-prosody correspondence constraints (mitigating against prosodic phrases that do not match syntactic phrases, (2)) and other constraints relating to discourse structure and prosody. Because these constraints outrank constraints on linearization (requiring correspondence between asymmetrical c-command and precedence relationships, following Kayne 1994, (3)), linear order can be subverted in the output in order to satisfy them. However, when these prosodic constraints are not violated by the input structure (as with full DP objects and strong pronouns), linear order surfaces as predicted from syntactic structure.

This account correctly predicts that pronoun postposing in Irish occurs only when the weak pronoun is initial in the SOD of vP. For example, subject pronouns in Irish (4) do not postpose because they are syntactically higher than v, and therefore not initial or even contained within the SOD of vP. On the other hand, the subjects of passives (5) and the subjects of small clauses and progressives (6) do postpose because the subject pronoun remains below v and occurs in initial position of the SOD. Other initial weak elements (e.g. determiners) never postpose because they can procliticize onto the lexical item contained within their syntactic phrase (e.g. the noun in a DP). Weak pronouns do not have this option because they do not belong to any syntactic phrase smaller than VP, and procliticization would violate the high-ranking syntax-prosody correspondence constraint (2).
References:

Data and definitions:
(1) a. Léigh Liam an leabhar/seisean/*?é aréir.
   read Liam the book/it-EMPH/it last-night
   b. Léigh Liam aréir *an leabhar/*seisean/é.
   read Liam last-night the book/it-EMPH/it
   ‘Liam read the book/IT/it last-night.’

(2) **HIGHPH=PHP**: The highest syntactic phrase within the Spell-Out domain of a phase corresponds to a Phonological Phrase. (Kratzer & Selkirk 2007)

(3) **LINEARCORRESPONDENCE**: Given two syntactic nodes α and β, where α asymmetrically c-commands β, every terminal in α must precede every terminal in β. (Kayne 1994)

(4) a. Léigh sé leabhar.
   read he book
   b. *Léigh leabhar sé.
   read book he
   ‘He read a book.’

(5) a. Fágadh *?é ina loighe
   left it lying
   b. Fágadh ina loighe é
   left lying it
   ‘It was left lying.’ (Ó Síadhail 1989, modified)

(6) a. Chuala mé [é ag ceol ].
   heard I him at sing-VN
   b. Chuala mé [ ag ceol é].
   heard I at sing-VN him
   ‘I heard him singing.’