

Structure versus prominence: evidence from Munster Irish

Current theories of stress assignment are predicated on two different assumptions. One approach relies on a hierarchical constituent structure (cf. Kenstowicz, 1993), while another dispenses with grouping in favour of the grid (Prince, 1983). On the other hand, there exists a body of work (Crowhurst & Hewitt, 1995; Hyde, 2001; Vaysman, 2008) purporting to show that constituent structure is independent from the assignment of prominence (narrowly construed as stress). This paper provides further evidence for this approach, based on data from a dialect of Munster Irish (Ó Sé, 2000, 2008).

Specifically, the paper explores the consequences of some proposals with respect to the organization of prosodic structure. It is argued (a) that recursion is available for prosodic constituents below the word level, with the adoption of the X' -schema (cf. Itō & Mester, 2007); (b) that head or dependent status in prosodic structure is in principle independent from the assignment of stress; (c) that requirements on the complexity of heads vis-à-vis dependents (Dresher & van der Hulst, 1998) can usefully be incorporated into accounts of stress systems (cf. Rice, 2007); and (d) that constraints on prosodic structure should only evaluate immediate constituency. These assumptions are used to account for the stress system of a dialect of Munster Irish (Ó Sé, 2000, 2008; cf. Doherty, 1991; Rowicka, 1996; Green, 1997 for previous approaches).

Importantly, this paper argues for divorcing headedness and prominence (stress) using only stress placement data. Some previous proposals to the same effect (e. g. Crowhurst & Hewitt, 1995; Vaysman, 2008) have relied on demonstrating the difference between prosodic parses seemingly required for stress placement and segmental processes (cf. also Downing, 2006). Such accounts are potentially open to criticisms deriving the segmental alternations from morphological rather than prosodic boundaries, while in the present paper no segmental processes are involved. (The interaction of prosodic structure and vowel reduction in Corca Dhuibhne Irish is left for further research.)

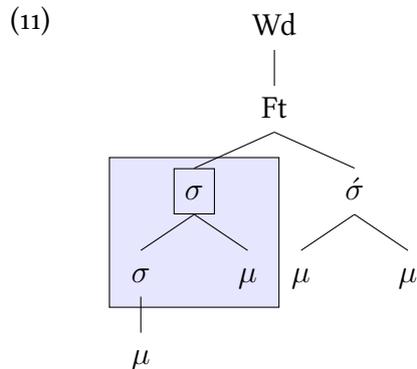
In Corca Dhuibhne Irish, main stress is placed on the leftmost stressable syllable (i. e. heavy if present, otherwise light) within a three-syllable window. However, if the two initial syllables are both heavy, the peninitial is stressed. Only initial HH sequences demonstrate this behaviour. The HH pattern is known as “forward stress”.

(1)	LL	'karɪgʲ	'stone'
(2)	LH	ka'fʲi:nʲ	'girl'
(3)	HL	'ɑ:lɪnʲ	'nice'
(4)	HH	dʲi:'vi:nʲ	'idle'
(5)	LLL	'kɫagərnəx	'clattering'
(6)	LHL	kʲi'mʲɑ:dən	'(s)he observes'
(7)	LHH	bʲi'hu:nti:xt	'villainy'
(8)	HHL	o:'gɑ:nəx	'young man'
(9)	HHH	u:'rɑ:ni:	'songs'
(10)	LLH	'imʲɪlʲəkɑ:n	'navel'

I propose an Optimality Theory account of the pattern. The key idea is that constraints on prosodic structure (alignment of heads, branchingness) dominate constraints responsible for the placement of prominence. I also propose that the family of constraints on complexity of heads

proposed by Dresher & van der Hulst (1998) can be expanded by including constraints which make reference to depth of embedding.

The proposed prosodic structure for HH forms is demonstrated in (11); the square refers to the foot head, while stress is marked by an acute accent.



In this structure, the head is aligned to the left of the foot. It uses recursion of the σ node to satisfy a constraint requiring heads to have a greater depth of embedding than non-heads. The σ node rather than μ is used to avoid a violation of weight-to-stress (WSP): under a local evaluation of prosodic structure, a syllable is counted as heavy iff it has two μ daughters. As the shading shows, this is not the case in (11). The head syllable in (11) is thus light, and stress falls onto the dependent. Surrendering weight for the sake of headedness thus saves a WSP violation at the expense of stress alignment (assuming there is not more than one stress per foot).

The rest of the paper demonstrates that the ranking required for (11) to be the optimal candidate does not conflict with rankings deriving the rest of the stress system. The final ranking thus unifies ternarity (à la Rice, 2007) and “forward stress” (both are due to the constraints on the complexity of heads); provides a principled explanation for why only initial HH sequences behave unexpectedly (other HH sequences within the three-syllable window are always broken up by a foot boundary); and shows why different quadrimoraic structures (ĹLLL and ĤLL vs. HĤ and LLĤ vs. LĤL) behave differently (under a local evaluation of constraints referring to prosodic structure, the number of morae cannot be directly available to foot structure if a σ node intervenes, and thus *ceteris paribus* four morae are not expected to behave as a natural class). The ranking also explains the placement of secondary stress, largely ignored in previous accounts.

References

- Crowhurst, Megan & Mark Hewitt. 1995. Prosodic overlay and headless feet in Yidiɿ. *Phonology* 12(1). 39–84.
- Doherty, Cathal. 1991. Munster Irish stress. In Armin Mester & Scarlett Robbins (eds.), *Phonology at Santa Cruz* 2, 19–32.
- Downing, Laura J. 2006. *Canonical forms in prosodic morphology*. Oxford: Oxford University Press.
- Dresher, Elan & Harry van der Hulst. 1998. Head-dependent asymmetries in prosodic phonology: visibility and complexity. *Phonology* 15(3). 317–352.
- Green, Anthony Dubach. 1997. *The prosodic structure of Irish, Scots Gaelic, and Manx*. Ph.D. thesis, Cornell University.
- Hyde, Brett. 2001. A restrictive theory of metrical stress. *Phonology* 19. 313–339.
- Itō, Junko & Armin Mester. 2007. Prosodic adjunction in Japanese compounds. In *Proceedings of FAJL 4*, vol. 55, MIT Working papers in linguistics, 97–112. Cambridge, MA: MITWPL.
- Kenstowicz, Michael. 1993. Evidence for metrical constituency. In Kenneth Hale & Samuel Jay Keyser (eds.), *The view from Building 20*, 257–273. Cambridge, Mass.: MIT Press.
- Ó Sé, Diarmuid. 2000. *Gaeilge Chorca Dhuibhne*. Baile Atha Cliath: Institiúid Teangeolaíochta Éireann.
- Ó Sé, Diarmuid. 2008. Word stress in Munster Irish. *Éigse* 36. 87–112.
- Prince, Alan S. 1983. Relating to the grid. *Linguistic Inquiry* 14(1). 19–100.
- Rice, Curt. 2007. As proud the head with heavy feet: restrictions on structure are in Gen. Presentation at OCP4, Rhodes, Greece.
- Rowicka, Grażyna. 1996. 2+2=3: Stress in Munster Irish. In Henryk Kardela & Bogdan Szymanek (eds.), *A Festschrift for Edmund Gussmann from his friends and colleagues*, 217–238. Lublin: Wydawnictwo KUL.
- Vaysman, Olga. 2008. *Segmental alternations and metrical theory*. Ph.D. thesis, Massachusetts Institute of Technology, Cambridge, MA.