Prominence and constituency in Munster Irish stress

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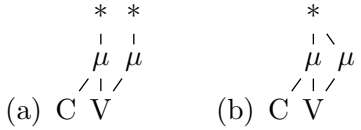
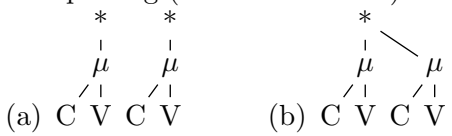
1. Proposal

- We propose that constituency and prominence are conflated into the same dimension (Hammond 1984, Halle and Vergnaud 1987, Hayes 1995 *vs.* Liberman and Prince 1977, Hyde 2012), even at the level of the syllable (Hermans and Torres-Tamarit 2014); we therefore suggest to eliminate the syllable as a mediator between moras and the metrical dimension.
- This moves implies that the relationship between "phonetic syllables" and "phonological syllables" (line-1 grid marks) is not necessarily one-to-one.

(1) Mora parsing (long vowel)

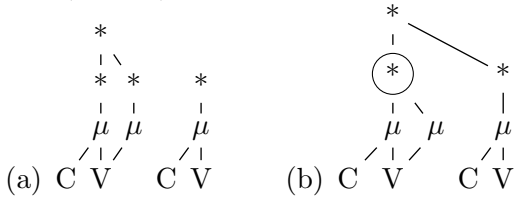


(2) Mora parsing (two short vowels)



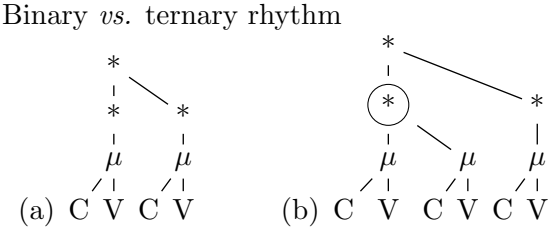
- This proposal allows us to characterize in a simple way the difference between various foot types as driven by branchingness constraints (at the core of Dresher and van der Hulst 1998).
- The difference between an even (moraic) trochee (3a) and an uneven trochee (3b) is that only the uneven trochee requires the foot's head to branch (see also Mellander 2003).

(3) Even (moraic) trochee *vs.* uneven trochee



- The difference between a binary (4a) and a "ternary" foot (4b) is that only the latter demands the foot's head to branch (notice that no recursive structures are needed, *cf.* Martínez-Paricio and Kager 2013).

(4) Binary *vs.* ternary rhythm



- We test this proposal in the light of stress assignment in Munster Irish, which seems to require larger feet like the uneven trochee and the "ternary" foot in (3b) and (4b), respectively.

2. Data

- We focus on stress assignment in the Munster Irish of Dingle Peninsula (MI, data from Doherty 1991, Green 1996, Rowicka 1996 and Gussmann 1997).
- In MI long vowels and diphthongs, but not coda consonants, make a syllable heavy (H).
- Stress is initial in words that contain no H syllable in the first three syllables of the word. If a H syllable follows, it receives secondary stress. (Morphology does not affect the position of stress.)

(5) Word-initial stress (#LLL...)

a.	ˈLL	ˈa.səl	'donkey'
b.	ˈLLL	ˈa.lə.gər	'loud talk'
c.	ˈLLLL	ˈa.nə.mə.xəs	'name'
d.	ˈLLˌH	ˈpa.tə.lə.ˌxaːn	'a plump creature'
e.	*cf.* LˈH	kər.ˈkaːn	'pot'

- Sequences of a H and a light (L) syllable attract stress to the H syllable. In case of more than one HL sequence, the rightmost HL sequence attracts primary stress.[1]

(6) Stress-attracting HL (#HL...)

a.	ˈHL	ˈboː.hər	'road'
b.	ˈHLL	ˈtəi.lə.kə	'gift'
c.	ˈHLˌH	ˈuː.də.ˌraːs	'authority'
d.	ˌHLˈHL	ˌfoː.gə.ˈroː.fər	'will be announced'

- In a sequence of two H syllables in word-initial position, the second H syllable receives primary stress (7).

(7) Peninitial stress (#HH...)

a.	HˈH	diː.ˈviːn	'idle'
b.	HˈHL	reː.ˈsuːn.tə	'reasonable'

- If a H syllable is preceded by a word-initial sequence of two L syllables, primary stress falls on the H syllable and an optional secondary stress falls on the initial syllable (8).

(8) Post-peninitial stress (#LLH...)

(ˌ)LLˈH	(ˌ)mar.kə.ˈreːr	'mackerel'

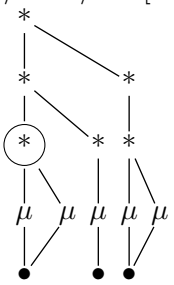
- The unmarked stress pattern in MI is word-initial. However, stress shifts in the following contexts:
  - In case of two adjacent sequences of HL, the second HL sequence receives primary stress;
  - If the first two syllables of the word are H, stress falls on the second H syllable;
  - If the first two syllables of the word are L and the third syllable is H, primary stress falls on the H syllable and the initial syllable receives optional secondary stress.
- *These three contexts seem disconnected until the data is analyzed in terms of the proposed model.*

[1] Ó Sé (2008) does not agree with this interpretation of the data (see also Iosad 2013). According to Green (1996), however, whether it is the rightmost or leftmost HL sequence that attracts primary stress is due to dialectal variation. No phonetic measurements are available to refute the traditional literature.

3. Analysis

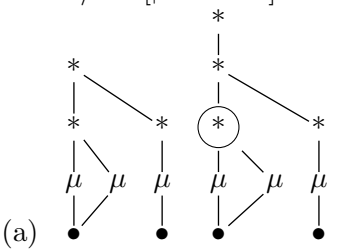
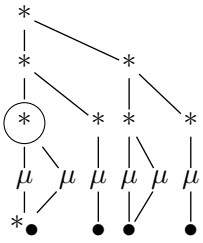
- *Alignment*: The HeadFoot is left-aligned as long as the MSC (line 3) is right-aligned (MSC-R ≫ HF-L).
- *Branchingness*: The HeadFoot'sHead (main stressed "syllable") must branch; no immediate dependent can branch.
- In HLH forms, both alignment and branchingness constraints are satisfied if stress is initial and secondary stress is final. (From now on the segmental tier is represented by dots that refer to vocalic nuclei and circled grid marks represent heads.)

(9) /HLH/ → [ˈH.L.ˌH]



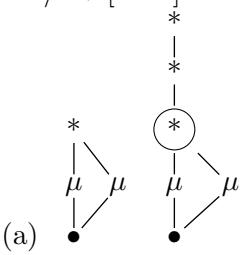
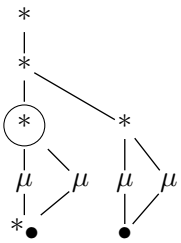
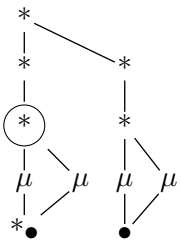
- In HLHL forms, assigning initial primary stress and aligning the MSC with the right edge would violate the constraint against a branching MSC's dependent. Hence, stress shifts.

(10) /HLHL/ → [ˌH.L.ˈH.L]

(a)  *vs.* (b) 

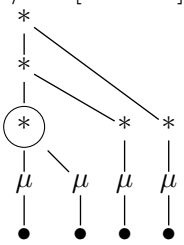
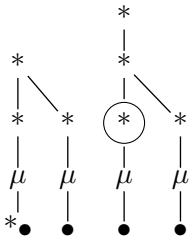
- Similarly, the need to avoid a branching foot's dependent (11b)causes stress shift in HH forms. This branchingness constraint can be avoided by assigning initial stress and secondary stress, but this form is ruled out by *Clash (11c).

(11) /HH/ → [H.ˈH]

(a)  *vs.* (b)  *vs.* (c) 

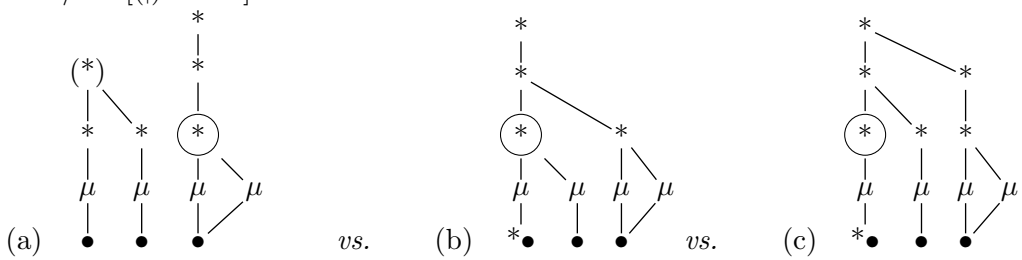
- In MI the HeadFoots'Head (main stressed "syllable") must branch. In LLLL forms, the need to satisfy this constraint allows for initial stress and right alignment of the MSC. This is possible because two monomoraic "phonetic syllables" are parsed into the same "phonological syllable" (ˈLL.L.L).

(12) /LLLL/ → [ˈLL.L.L]

(a)  *vs.* (b) 

- In LLH forms, assigning initial stress is blocked by the constraint prohibiting a branching foot's dependent (13b, ˈLL.H). The second ungrammatical candidate (13c, ˈL.L.ˌH) is ruled out because, although it satisfies alignment, the HeadFoot'sHead (main stressed "syllable") does not branch. Hence, stress shifts.

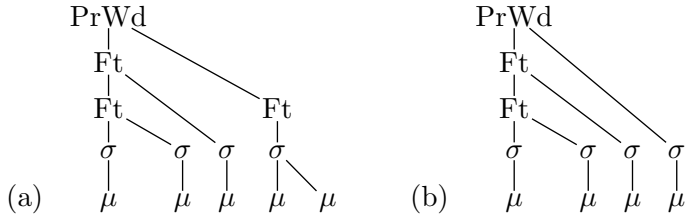
(13) /LLH/ → [(ˌ)L.L.ˈH]



4. Discussion

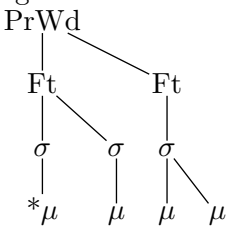
- Recently, Martínez-Paricio and Kager (2013) have developed an analysis of the continuum between binary and ternary rhythm using *ternary feet with minimal internal layering.*
- Is this type of ternary foot sufficient to account for MI?
- For instance, an analysis based on ternary feet with minimal internal layering could account for ˈLLLˌH and ˈLLLL provided that the head foot is left aligned.

(14) ˈLLLˌH ˈLLLL with ternary feet



- However, nothing would prevent ungrammatical initial stress in /LLH/ forms, to which the ternary analysis does not shed any light.

(15) Ungrammatical *ˈLLˌH



5. Conclusions

- An analysis of MI stress should recognize the fact that a sequence of LL and H can behave identically, and that feet are larger enough to accommodate up to 3 moras.
- This should be done by means of non-one-to-one relations between "phonetic" and "phonological syllables', expressed in terms of identical structures at line 1 for LL and H as a response to branchingness constraints.
- An alternative analysis in terms of ternary feet that does not allow for such mismatches between "phonetic" and "phonological syllables" cannot account for the MI data. Another analysis of MI stress is given by Iosad (2013). He makes use of recursive prosodic categories and relies on a distinction between metrical heads and stress, which can be associated to any syllable. Our account does not disconnect headedness and stress and avoids recursivity.

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