Yidiny Stress, Length, and Truncation Reconsidered
Claire Bowern (Yale), Barry Alpher, and Erich Round (University of Queensland)

The Pama-Nyungan language Yidiny has long held an important position in the typology of stress systems. Dixon’s (1977, 1990) original analysis of the system places alternating stress on odd-numbered syllables by default, as in (1a). However, stress is attracted to long vowels (1b), which will cause other, alternating stresses to shift also (1c). Words with an odd number of syllables undergo penultimate lengthening, which in turn shifts stress onto even-numbered syllables (1d). Addition of a monosyllabic suffix (1e) changes the syllable count, with concomitant stress and length adjustments.

(1) a. *yábulám*gu ‘lawyer cane-PURPOSIVE’
   b. *durgú*: ‘mopoke owl(ABSOLUTIVE)’
   c. *yad′í:-ri-ŋá-*l ‘walk about-GOING-TRANSITIVIZER-PRESENT’
   d. *gudá:ga* ‘dog(ABSOLUTIVE)’
   e. *gúdagá-nggu* ‘dog-ERGATIVE’

Additional complexities include suffixes which induce lengthening on their base and a late truncation rule, which is subject to lexical exceptions and applies after penultimate lengthening, rendering lengthening opaque. Accounting for these synchronic phenomena is Dixon’s main concern.

The system has proven a stubborn outlier within typologies of stress systems (Nash 1979, Hayes 1980, 1982, 1995, Halle and Vergnaud 1987, Crowhurst and Hewitt 1995, Pruitt 2011), however with the exception of Nash (1979), analyses of Yidiny stress have relied on the printed examples in Dixon’s works and taken the marking of length and stress as given. Here, we provide a new analysis of Yidiny stress, length, and truncation, based on observations from original recordings of the last fluent speakers.

Firstly, these recordings suggest a different analysis of Yidiny stress. We claim that Yidiny primary stress is always located on the first syllable of the word — it does not move to long vowels. We support this with acoustic analysis of recordings made by both Dixon and others of narrative and elicited data, which show the following characteristics:

- long vowels often have higher intensity than short, but not always (2a);
- as in many Australian languages, feet associate with an L+H* pitch accent (Round 2009);
- the H* typically aligns within the first syllable, as a narrow or a broad peak (cf. Bowern et al 2012); this is true even in loan words from English (e.g. *jigu:lgu* ‘school-DAT’; Hale archive tape 4607);
- however, where a stressed syllable is followed by two unstressed syllables, its associated H* may align late, for example within the next syllable (2b).
Significantly, for trisyllables with a long vowel in the second syllable, the phonetics of the long vowel often match the English cues for stress, as noted elsewhere for other Australian languages (Round 2009). Yet pitch is explained by the distance between stressed syllables, and intensity by vowel length. Therefore we find no need to claim that the long vowel is stressed, or that stress is optionally fronted (Dixon 1977:5), rather primary stress is always initial.

This has ramifications for Dixon’s (1977) analysis of the principles for length and stress assignment, and also for the many subsequent reinterpretations of Dixon’s data. In this paper, however, since we are arguing that the original observation of weight-to-stress is incorrect, we concentrate on the empirical arguments for initial stress; leave further discussion of the implications of this analysis to future work.

Secondly, although previous analyses (e.g. Hayes 1999, Dixon 1977) rely on Yidiny’s trisyllabic penultimate lengthening rule being automatic, we find exceptions to it, just as there are exceptions to truncation. For example, there is no expected penultimate lengthening in words such as jarruga ‘scrub hen’, dadagal ‘bone’ or duburrji ‘full up’ (Hale 4607). Conversely, we tentatively find what may be phrasal-level penultimate lengthening in some four-syllable words, and penultimate secondary stress on words with a long final vowel (e.g. gadigadi: ‘little things’).

The diachronic sources of these facts are of crucial interest (cf. Hayes 1999). We account for the contemporary lengthening facts by a simple sound change involving penultimate lengthening and truncation, a type of compensatory lengthening well known from other languages (e.g. de Chene and Anderson 1979). Exceptions include loans from neighboring languages (particularly Djabugay). Postulation of a diachronic stress shift away from the first syllable is unnecessary.

In conclusion, we show the value to phonological theory of revisiting claims made before the advent of easy access to acoustic data. It is now viable in many cases to conduct independent verification of analyses, based on original recordings.

References
[Published 1985: Garland Press, New York.]