

Three intonation patterns in Djambarrpuyŋu

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In Australian Aboriginal languages, pitch register shifts and phrasing often take a leading role in encoding sentence modality and discourse prominence [1]. For example, in Jaminjung, declaratives, interrogatives, and imperatives have similar default contours, but are uttered in different registers within a speaker's range (lower, mid, and higher, respectively) [2]. Focused elements are often syntactically fronted and prosodically dislocated [3], and tonal inventories usually include only a small number of pitch accents [1]. Intonation patterns are also found to encode other meaningful aspects in an utterance, such as information about events in space and time, speaker attitude, and framing quoted speech [1].

In this paper I discuss three intonation patterns observed in a corpus of Djambarrpuyŋu narratives and controlled dialogue tasks recorded in Milingimbi, N.T., Australia (see [4]). Two questions are considered: what functions and meanings do these patterns encode, and how have the patterns required updates to the prosodic analysis of Djambarrpuyŋu.

The shallow rise-fall contour (Figs. 1a, b) is realised in the mid to lower part of a speaker's pitch range on the Intonational Phrase (IP)-final syllable. This pattern, distinct from LH(L)% associated with continuation, required the inclusion of L!HL%; a rise-fall, but the high tone is downstepped. While predominantly observed in the narratives (Fig. 1a), especially in direct quoted speech, it was also occasionally annotated in the dialogues (Fig. 1b). This contour appears to encode mounting frustration or exasperation and is associated with finality. As seen in Fig. 1b, L!HL% can very occasionally condition an epenthetic vowel. As there is often ample sonorant material, the complexity of the boundary tone does not appear to condition this (c.f. [5]); instead, it may be similar to anecdotally observed exclamatory epenthesis in English [6].

A high plateau contour (see two IPs in Fig. 2a) that typically extends across an entire IP is commonly reported in Australian language narratives (see e.g., [1]). This striking melody is transcribed as a sequence of high tones, and required the addition of Ha and H% to the inventory to account for the sustained pitch height (see Djambarrpuyŋu conventions in Figs. 2a and b). This contour is often accompanied by phonetic lengthening of the IP-final syllable nucleus, which is reported to encode a prolonged action, motion or state, or express a long distance in many Australian languages (see, e.g., [7]). For example, in Fig. 2a, the vowel lengthening implies that the two characters travelled a considerable distance and searched for a considerable time. Vowel lengthening is not only accompanied by the high plateau in Djambarrpuyŋu; it also occurs in IPs that begin with a plateau and conclude with L% (Fig. 2b), resulting in a falling pitch from the start of the final vowel. This second pattern appears to encode the same functions, but also marks finality, whereas the high boundary is continuative.

The last pattern is an upward shift in register (Fig. 3). This operates within Djambarrpuyŋu narratives to intonationally distinguish direct quoted speech from surrounding speech. Quoted speech is louder, has an overall higher register, and sometimes a greater pitch span, while surrounding speech is generally uttered in a lower register and with a compressed span. This is observed in other Australian languages: Fletcher [8] explains that these intonational adjustments perform the function of frames such as "she said". The current analysis does not mark this shift in the annotations; however, a possibility could be to indicate global upstepping.

Djambarrpuyŋu has a rich intonational system. The three patterns discussed in this paper required updates to the Djambarrpuyŋu tonal inventory, and were not (or only very rarely) found in the controlled Djambarrpuyŋu speech, demonstrating the benefits to exploring more naturalistic data in intonational analyses.

Figure 1. Example pitch traces of the rising-falling contour (L!HL%): (a) from a narrative; (b) from controlled data with an epenthetic vowel ("V" in TextGrid).

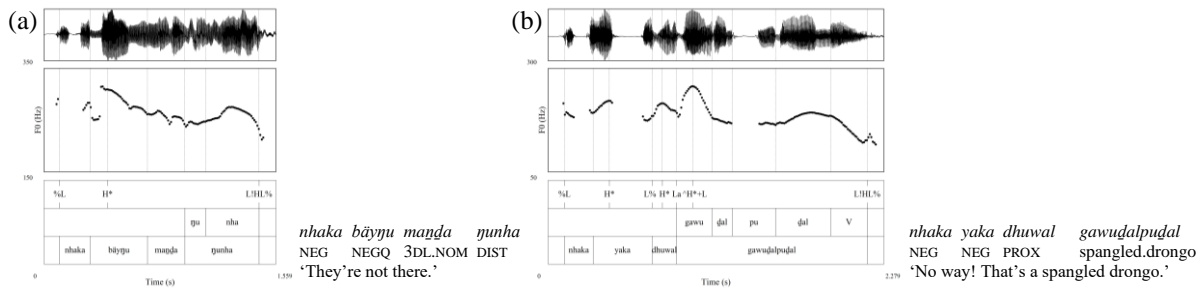


Figure 2. Example pitch traces of the sustained high plateau contour: (a) shows two high plateau contour IPs with vowel lengthening; (b) shows high plateau and vowel lengthening, followed by L%.

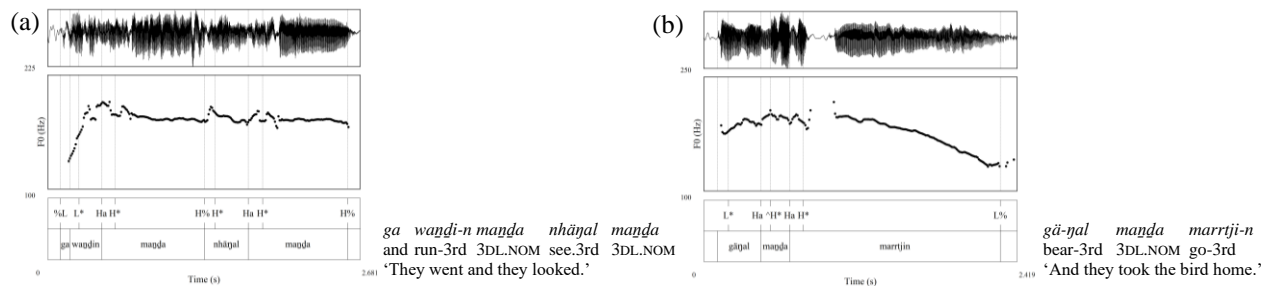
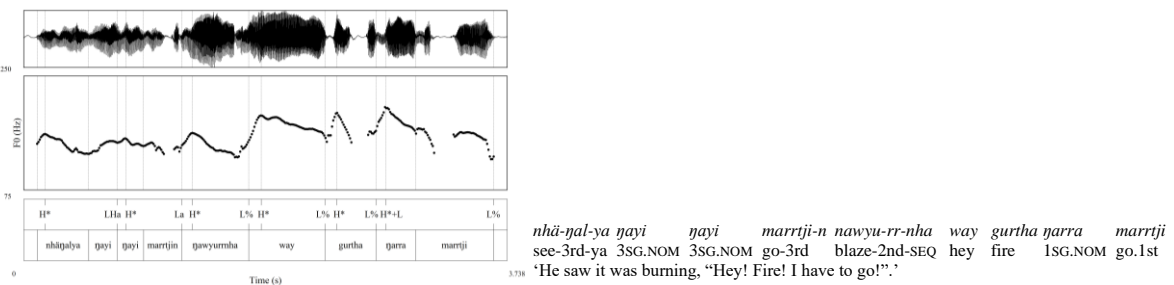


Figure 3. Example pitch trace of quoted speech demonstrating upwards shift in pitch register.



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