

Quantitative investigation of intonation in an endangered language (and how this methodology could help us understand the intonation of better-studied languages).

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This paper presents the results of a quantitative analysis of the acoustic properties of a 'special focus pitch accent' in Mawng, a non-Pama-Njungan language of Australia (Singer 2006a) of the Iwaidjan language family and is spoken by around 300 people and is still being acquired by children. Singer (Singer 2006b) noted that contrastive focus can be expressed in Mawng by means of intonation, in the form of a special focus accent. It is possible that this accent differs from the more usual 'neutral' accent in scaling (increased F0 excursion), in which case it is probably best analysed as a 'hyperarticulated' version of the 'neutral' accent, as proposed for Bininj Gun-wok (Bishop 2002), a language in close contact with Mawng but only distantly genetically related, or in both scaling and alignment of the pitch peak, suggesting a potential difference of phonological category (cf. a special L+H* tone used in the Gundjeihmi dialect of Bininj Gun-wok, Bishop & Fletcher 2005).

In most European languages whose intonation has been studied in detail, the alignment and scaling of pitch accents has been investigated by means of experimental studies using carefully controlled stimuli presented to speakers in written form. Collection of controlled data of this type is problematic in an unwritten language, although not impossible, but it is another question whether such 'lab' speech recordings are of sufficient value to a speech community whose language is endangered to warrant their collection over and above more naturalistic materials. The ideal solution would be to establish alignment and scaling properties on the basis of naturalistic or (semi-)spontaneous data. However, intonational phonologists have relied on carefully controlled stimuli for good reason since the scaling and alignment of intonational pitch peaks is known to be influenced by a wide range of factors in the surrounding environment (see Kügler 2005 for a summary), including variation in the type or position within the word of the accented syllable (cf. Hellmuth 2006). Adapting methodology used by Peters (2004) to analyse spontaneous dialectal speech in German, the present study pre-selects target words from a corpus of narratives and semi-spontaneous elicitation data, and categorises each target according to relevant factors whose influence on peak alignment and scaling is determined by means of a multiple regression analysis. The results indicate that the Mawng 'special focus accent' differs from its 'neutral' counterpart in scaling but not in alignment, and thus is best analysed as a hyperarticulated version of the 'neutral' accent. We believe this paper contributes to the development of appropriate quantitative methodology to support adequate phonological descriptions of the intonation of unwritten and endangered languages. We discuss the potential benefits of this methodology for our understanding of the intonation of better-studied languages.

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