Phonetic correlates of syllable prominence in Mundari
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The objective of this study is to examine phonetic prominence in Mundari disyllables and polysyllables with the help of acoustic analysis. Mundari is an Austroasiatic language spoken by approximately two million people in India. Previous studies on Mundari have conflicting views on the topic. According to Cook (1965: 100), Langendoen (1963: 14-15), and Sinha (1975: 39), Mundari is a stress language, while Osada (1992: 36) considers it to be a pitch accent language. Moreover, Cook (1965) argues that if the final syllable is closed it is accented, otherwise it is the initial syllable in disyllabic words, proposing a quantity sensitive trochaic system. Likewise, Hoffmann (2001: 59) claims that in disyllabic words the accent is on the first syllable, with (lexical) exceptions. On the other hand, Sinha (1975) claims Mundari stresses the second syllable in disyllabic words if it is of the shape C1V1C2V2 or C1V1C2V2C3 but in words of the shape C1V1C2C3V2, stress falls on the initial syllable, suggesting a quantity sensitive iambic system. Also, according to Sinha, if the word is trisyllabic, stress falls on the 2nd syllable regardless of the shape. Similarly, Osada (2008: 104) states that if a word is trisyllabic, stress can only be on the second or the third syllable: on the third syllable if that is not a suffix, otherwise it falls on the second syllable in Mundari trisyllabic words, but never on the first syllable, regardless of syllable weight. Additionally, Osada (1992: 34) states that “in Mundari a phonological word maximally consists of three syllables”. However, these previous studies are impressionistic, and they do not provide experimental data to verify the claims. Hence, this study describes our initial findings from an ongoing study of intonation in Mundari. Here we have analyzed three acoustic cues of phonetic prominence, namely vowel duration, vowel intensity and fundamental frequency, using Mundari disyllabic forms of any function and polysyllabic nouns and verbs that are inflected for a variety of case, possession, number, tense, aspect etc. categories. The study is based on Mundari speech data recorded in the field from female and male speakers as they produced the target forms in (i) isolation (ii) a carrier phrase (iii) an out of focus frame and (iv) an exclusive focal frame. Preliminary findings suggest that longer vowel duration is found in utterance final position and therefore, is not a reliable cue for identifying word prominence in Mundari. Likewise, vowel intensity does not exhibit a consistent pattern to indicate prominence in Mundari disyllables nor in polysyllables. Intriguingly, fundamental frequency measurement reveals a gender-based prominence system in Mundari. While f0 is never observed to be high in the initial syllable, f0 peaks are found differently realized in male and female speakers of Mundari. In case of female speakers, f0 peak is observed in the second syllable and in case of male speakers, f0 peak is observed in the final syllable.

References