Metathesis and double vowels in Kodi (Sumba)

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This paper reports on progress in the analysis of the phonology of Kodi, an Austronesian language spoken by around 100,000 people on the island of Sumba in Indonesia (Ghanggo Ate 2021; Lovestrand 2021). Data for this analysis are primarily recorded word lists (Balle & Lovestrand 2019). The maximal syllable structure in Kodi is CVC with a few exceptional words. Consonants contrast in length. A vowel in a stressed syllable is phonetically lengthened under certain syllabic constraints. Stress is consistently assigned to the penultimate syllable of the root (Lovestrand & Balle 2019).

One typologically unusual feature of Kodi is the presence of synchronically productive metathesis. The function of metathesis in Kodi remains unknown, but phonologically speaking, the final vowel of a word and its preceding consonant alternate their order, from the more basic CV# pattern to a derived VC# form. However, a long consonant preceding the final vowel prevents metathesis from occurring. There are two types of metathesis in regards to vowel quality. In one type, the root-final vowel must be a high vowel, /i/ or /u/, and the metathesized derived form is pronounced with a diphthong in the nucleus of the stressed syllable; e.g. /watu/ [' β a.ot] 'stone'. In the second type of metathesis, the final vowel and penultimate vowel are identical, and the derived form contains a double vowel in the nucleus, pronounced as a single syllable; e.g. /mete/ ['mete] \rightarrow /meet/ [mett]' black'.

In addition to metathesis, Kodi also has a morphophonological alternation of apocope with compensatory lengthening; e.g. /loⁿge/ [longe] \rightarrow /loⁿg/ [long] 'hair'. This raises the question of whether metathesis which results in a double vowel can be distinguished from apocope with compensatory lengthening. In order to distinguish between double vowels and stress-induced lengthening, we measured the lengths of 396 vowels (or diphthongs) in a recorded list of words. Each word was elicited three times in its basic form, and three times in a shorter, derived form. By comparing the first utterance of the basic form with the first utterance of the derived form, the second with the second, and the third with the third, we calculated the average difference in the length of the nucleus of the stressed syllable. These averages were categorized by type of morphophonemic alternation (Table 1). In cases of apocope, the nucleus of the derived form is on average 11.3% longer than the corresponding vowel in the basic form. The average lengthening in double vowel nucleus (46.8%). These data are phonetic evidence of double vowels resulting from metathesis in Kodi. The analysis is also confirmed by native speaker intuition (Ghanggo Ate, personal communication). An exception for further analysis are cases of apocope in onsetless words (VCV \rightarrow VC) where the average lengthening of the stressed syllable is 55.1%.

Type of alternation	Example	Gloss	Avg. nucleus lengthening
Only first vowel reduction	/man i hi/ → /mn i hi/	'thin'	5.2%
Long C Apocope: CVCC(V)	$/rutta/ \rightarrow /rut/$	'blood'	6.8%
Apocope: CVC(V)	/kaleyo/ \rightarrow /kley/	'left'	11.3%
Metathesis: Double vowel	$/mete/ \rightarrow /meet/$	'black'	35.2%
Metathesis: Diphthong	/kati/ → /kait/	'to bite'	46.8%
No onset apocope: VC(V)	$/iva/ \rightarrow /iv/$	'fish'	55.1%

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