

## A closer look at nasals and nasal stop clusters in Manado Malay and Jambi Malay

Many varieties of Malay and closely related Western Austronesian languages of Indonesia have been described as showing an unusual contrast between simple nasals and post-occluded nasals, which are historically nasal voiced stop clusters. These languages also show interesting patterns of progressive nasalization of vowels and sequences of vowels following simple nasals, but not the post-occluded nasals. However, Cohn and Riehl (2011) have argued that when both phonological and phonetic evidence are brought to bear some of the putative cases are still best analyzed as underlying nasal voiced stopped clusters and have shown that impressionistic data alone can be misleading.

In this paper we offer a systematic phonological and phonetic analysis of the nasals and nasal stop clusters in two varieties of Malay—Manado Malay and Jambi Malay—in order better understand these patterns. In the former case, we consider the variety spoken in and around Manado. In the latter case, we compare two closely related dialects of Jambi City (JM-C) and Rural Jambi (JM-R) as spoken in Tanjung Raden and Mudung Darat.

Riehl (2008) concludes based on phonological patterning, and phonetic duration measurements that in Manado Malay, the simple nasals are in contrast with both nasal voiceless stop and nasal voiced stop clusters.

### Manado Malay

simple nasal	ND cluster	NT cluster
tamu 'guest'	tamba 'add'	tampa 'place'
tana 'earth'	tanda 'sign'	tanta 'aunt'

Yanti (2010) suggests that this is also the pattern in JM-C, but that in the case of JM-R the historical nasal voiced stop clusters are better analyzed as unary segments.

### Jambi Malay

simple nasal	ND		NT cluster
	unary JM-R	cluster JM-C	
tama? 'greedy'	tam <sup>b</sup> a 'add'	tamba 'add'	təmpat 'place'
tana? 'cook rice'	tan <sup>d</sup> o 'sign'	tando 'sign'	jantan 'male'

One source of evidence for this difference comes from different patterns of truncation where only the final syllable is used, e.g. *Endang* is [daŋ] in JM-C, but [n<sup>d</sup>aŋ] in JM-R, and *pendek* is [de?] in JM-C but [n<sup>d</sup>e?] in JM-R. However the difference could also be due to differences in how these clusters are syllabified in JM-C and JM-R respectively. Phonetic data will be helpful in choosing between these two accounts.

In the present paper, we compare the phonological distribution of nasals and nasal stop clusters in these two varieties of Malay, including word position, syllable position and phonotactics of consonant clusters. We also present an acoustic study in order to look at duration facts and patterns of vowel nasalization to consider the phonetic realization of these forms. This study offers insights into the way that these historical nasal voiced stop clusters can be realized in different varieties of Malay. It also highlights the sorts of systematic differences that can be found in closely related dialects (in the case of JM-C and JM-R) suggesting the incremental nature of historical change.