

The CALA 2019 Proceedings Paper 14 - 1

Language Documentation, Paper 1

**Enumeration and Classifiers in Pulau
Simeulue/Pulau Banyak Languages, Aceh**

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Abstract

The counting system(s) and the use of classifiers in the languages of Pulau Simeulue and Pulau Banyak are complex. Indeed, there is more than one means of enumeration depending on the nature of the entity being counted in those languages. This study reveals strong similarities between the counting systems and classifiers used across this set of languages that differ markedly from Bahasa Indonesia and other languages of Indonesia more closely related to Malay. It provides additional evidence of the connection between the languages spoken in Simeulue and those spoken in Pulau Banyak and with Nias to the south.

Keywords: Austronesian languages, enumeration, classifiers, Simeulue, Pulau Banyak, Devayan, Sigulai, Leukon, Haloban, Nias.

Introduction

Indonesia is a region of intense language and culture contact over millennia with successive waves of traders and religions and sudden movements of people in response to natural disasters and sometimes conflict. The province of Aceh is no exception. The focus of this paper is on Pulau Simeulue (PS) and Pulau Banyak (PB), islands off the south west coast of Aceh Province, Indonesia. The Indigenous languages spoken on these islands, Devayan, Sigulai and Leukon on PS and Haloban in Haloban/Asontola on Pulau Tuangku in PB (see Aziz and Amery, 2016) are markedly different to the languages indigenous to the mainland of Aceh and are not able to be understood by Acehnese mainlanders unless they make the effort to learn them.

The Indigenous languages are being overtaken by Jamee introduced into Aceh following the arrival of Minang refugees from the Padri War in West Sumatra (1805 to 1836) who sought refuge in South Aceh, PB, PS and West Aceh. Jamee is the Acehnese word for 'guest'. The Minang immigrants, sharing a strong Islamic faith, were welcomed to settle in Aceh (Tim Balai Bahasa Aceh, 2012: 32). The Jamee language has gained major footholds in PS and PB (see Suliyanti, 2013) where it is the main language of commerce in the main administrative centres of Sinabang in the south of PS and Teluk Nibung in PB. From these commercial and administrative centres, Jamee is spreading throughout the region and is now the first language of the majority of the population of these islands. In addition, Indonesian is the national and official language, serving as the language of administration, of education, and in these regions, the main language of religion. Indonesian and Jamee are both having a profound impact on the Indigenous languages of PS and PB.

Immigrants from Nias, a large island to the south in North Sumatra, have settled in two small villages, Ujung Sialit and Suka Makmur on Pulau Tuangku, PB. Whilst Suka Makmur is a Muslim village, Ujung Sialit has been settled by Christian immigrants.

The Indigenous languages of PS and PB (Devayan, Sigulai, Leukon and Haloban) are used only by people in this region (ie they have no presence on the Acehnese mainland), and the majority only speak these languages plus Jamee and some Indonesian, not Acehnese. Aziz and Amery (2016) observe that the languages spoken in PS and PB are closely related to one another, and it seems that they are rooted in the Nias language. One subsystem of the languages of PS and PB that is especially interesting is the counting system(s) and the use of classifiers.

Based on the results of our 2016 language survey it was apparent that the systems of enumeration in each of the four languages and Bahasa Nias are closely related, though each language has its own particular constellation of variations. This study discusses the similarities, and differences, of the enumeration and classification systems of the languages spoken in PS and PB.

During our survey of the languages of PS and PB in 2016, we became aware of the use of different numerals for telling the time (eg *jam duo* 'two o'clock') and quantifying hours (eg *dua jam* 'two hours') vs quantifying the number of clocks (eg *domba jam* 'two clocks') in Bahasa Sigulai. A similar phenomenon is reported for Tagalog (Woods, 2011). Later on in Amery's investigation of Haloban in PB, it became apparent that the system of enumeration was indeed mysterious with a complex interplay at work between different numerals and different classifiers in the enumeration of different entities. These initial findings led to further investigations by Aziz with speakers of each of the languages of PS and PB who were based in Banda Aceh.

Literature Review

We compared the numeral systems of the languages of PS and PB with Indonesian and Jamee as these are the primary contact languages. All language consultants are trilingual speakers of Indonesian, Jamee and their local language. Indonesian is well-documented (Sneddon, 1996; Chaer, 2012; Kridalaksana, 2007), whilst Minang or Minangkabau is reasonably well documented (Marnita, 1996) so it makes sense to use these languages as a major point of reference.

This paper will focus on cardinal and ordinal numerals, cardinals being the numerals one, two, three four etc. and ordinals indicating the sequence: first, second, third etc (Quirk et al, 1985, pp. 251- 252). Indonesian ordinal numerals are mostly formed through affixation of the prefix *ke-* to the cardinal numeral such as *kedua* 'second' and *ketiga* 'third'.

Definite numerals are base or core numerals, and are used to mention the number order such as units, tens, hundreds, thousands, million, and billion. They include the numerals 1 (one) - 9 (nine), and to other number clusters like ten and twenty (Alwi et al., 2003, p. 276). Of particular interest in this paper are the definite numerals and their co-occurrence with numeral classifiers of different kinds.

A numeral classifier is used in addition to the numeral when counting an entity of a particular shape or characteristic, similar to the use of 'head' in the English expression 50 head of cattle. According to Sneddon et al. (2010) classifiers in Indonesian are always preceded by a number, and when the number plus classifiers are used they usually precede but can follow the noun. When classifiers are used with nouns, the nouns are always indefinite. Sneddon et al. (2010) also suggest that in Indonesian there are only three classifiers which are used frequently:

orang ‘people’, ekor ‘tail’ used with animals, and buah ‘fruit’, also used with inanimate objects. In addition there are still many other classifiers which are still used, but they are becoming obsolete (Sneddon et al., 2010). Some of the classifiers are used overlapping in function such as helai, lembar and carik which can all occur with kertas ‘paper’, and biji and butir are both used with telur ‘egg’. The classifier batang is used with cylindrical objects such as pipes, tree trunks and cigarettes. For round and curved objects, the classifier bentuk is used; however, for sharp things such as knives and needles, bilah is used. Bidang is used with flat, spread-out things, as in sebidang tanah ‘a plot of land’. The languages of PS and PB also employ numeral classifiers, but not always as separate words as in Indonesian.

Research Method

This paper is based on elicited data, obtained first by Amery in 2016 from two of the most proficient speakers of Haloban living in the village of Asantola in PB, Aceh. Voice recordings were made of this elicitation session. These initial findings were followed in 2017-2019 by a more detailed investigation by Aziz of male and female students from PS and PB who were studying at three universities in Banda Aceh and Aceh Besar. Aziz selected two native speakers from each language.

Findings

The languages of PS and PB have complex systems of enumeration, drawing on the resources of indigenous counting systems and the more recently introduced Jamee numerals. Jamee numerals are almost identical to Minangkabau numerals which also show strong similarities to Indonesian numerals. Haloban appears to be most heavily influenced by Jamee. In fact, Haloban employs Jamee numerals when counting, except for satu ‘one’ taken from Indonesian. Devayan and Leukon use indigenous numbers when counting from one to seven, but revert to Jamee numerals for numbers from eight onwards. Sigulai uses indigenous numbers up until nine or ten, and Devayan uses fa ‘ten’, which is quite different to Jamee sapuluah ‘ten’. All four languages use Jamee numbers for eleven onwards when counting, for example tuju(h) bale ‘seventeen’, even though Sigulai used fitu ‘seven’ and Devayan and Leukon used itufo ‘seven’ being quite different to Jamee tujuh (cf Indonesian tujuh ‘seven’). The complete counting systems from one up to ten in PS and PB along with Jamee and Indonesian can be seen in Table 1 below.

Table 1: Counting systems in PS and PB

Number	Devayan	Sigulai	Leukon	Haloban	Nias	Jamee	Indonesian
1	<i>Sao</i>	<i>Amba</i>	<i>Sao</i>	<i>Satu</i>	<i>Sara</i>	<i>ciek</i>	<i>Satu</i>
2	<i>Dufo</i>	<i>Dumba</i>	<i>Dufo</i>	<i>Dua</i>	<i>Dua</i>	<i>duo</i>	<i>Dua</i>
3	<i>Tellufo</i>	<i>Telu</i>	<i>Tlufo</i>	<i>Tigo</i>	<i>Tölu</i>	<i>tigo</i>	<i>Tiga</i>
4	<i>Atao</i>	<i>Efa</i>	<i>Atafo</i>	<i>Ampek</i>	<i>Öfa</i>	<i>ampek</i>	<i>Empat</i>
5	<i>Limafo</i>	<i>Lima</i>	<i>Limafo</i>	<i>Limo</i>	<i>Lima</i>	<i>limo</i>	<i>Lima</i>
6	<i>Nemmafo</i>	<i>Ene</i>	<i>Nemmafo</i>	<i>Anam</i>	<i>Önö</i>	<i>anam</i>	<i>Enam</i>
7	<i>Itufo</i>	<i>Fitu</i>	<i>Itufo</i>	<i>Tujuh</i>	<i>Fitu</i>	<i>tujuh</i>	<i>Tujuh</i>
8	<i>Salapan</i>	<i>Olu</i>	<i>Salapan</i>	<i>Lapan</i>	<i>Walu</i>	<i>salapan</i>	<i>Delapan</i>
9	<i>Sambelan</i>	<i>Siwa</i>	<i>Sambélan</i>	<i>Sambilan</i>	<i>Siwa</i>	<i>sambilan</i>	<i>Sembilan</i>
10	<i>Faan</i>	<i>Fuluh</i>	<i>Sapulu</i>	<i>Sapuluh</i>	<i>Fulu</i>	<i>sapuluah</i>	<i>Sepuluh</i>

Looking across the five PS and PB languages, most pronounced variation is evident in the form of the numbers for one and two, and Sigulai being the most innovative with *amba* ‘one’ and *dumba* ‘two’ (as opposed to Haloban *satu* ‘one’ and *dua* ‘two; Devayan/Leukon *sao* ‘one’ and *dufo* ‘two’ and Nias *sara* ‘one’ and *dua* ‘two’). Sigulai shows a much closer affinity with Nias than Devayan, Leukon or Haloban. The Sigulai numerals *olu* ‘eight’ and *siwa* ‘nine’ are closely related to Nias *walu* ‘eight’ and *siwa* ‘nine’, as opposed to the Jamee-derived *salapan* ‘eight’ and *sambelan* ‘nine’ employed by all the other languages. Here Nias and Sigulai are conservative, preserving PAN **walu* and **Siwa* (Blust, 2013: 278).

The ordinal numbers in all indigenous languages except Nias are borrowed from Jamee. However, the pronunciation and spelling of the ordinal numbers are influenced by Indonesian, preferring the Indonesian prefixes *per-* and *ke-* over Jamee *par-* or *ka-*, yet maintaining the final *o* as in Jamee.

Table 2: Ordinal Numbers in PS and PB

English	Devayan	Sigulai	Leukon	Haloban	Nias	Jamee
First	<i>Pertamo</i>	<i>Pertamo</i>	<i>Pertamo</i>	<i>Pertamo</i>	<i>sara</i>	<i>Partamo</i>
Second	<i>Keduo</i>	<i>Keduo</i>	<i>Keduo</i>	<i>Keruo</i>	<i>dua</i>	<i>Kaduo</i>
Third	<i>Ketigo</i>	<i>Ketigo</i>	<i>Ketigo</i>	<i>Ketigo</i>	<i>tölu</i>	<i>Katigo</i>
Fourth	<i>Keampek</i>	<i>Keampek</i>	<i>Keampek</i>	<i>Keampek</i>	<i>öfa</i>	<i>Kaampek</i>
Fifth	<i>Kelimo</i>	<i>Kelimo</i>	<i>Kelimo</i>	<i>Kelimo</i>	<i>lima</i>	<i>Kalimo</i>
Sixth	<i>Keanam</i>	<i>Keanam</i>	<i>Keanam</i>	<i>Keanam</i>	<i>önö</i>	<i>Kaanam</i>
Seventh	<i>Ketuju</i>	<i>Ketujuh</i>	<i>Ketuju</i>	<i>Ketujuh</i>	<i>fitu</i>	<i>Katujuh</i>
Eighth	<i>Kelapan</i>	<i>Kelapan</i>	<i>Kelapan</i>	<i>Kelapan</i>	<i>walu</i>	<i>Kalapan</i>
Ninth	<i>Kesambilan</i>	<i>Kesambilan</i>	<i>Kesambilan</i>	<i>Kesambilan</i>	<i>siwa</i>	<i>Kasambilan</i>
Tenth	<i>Kesapulu</i>	<i>Kesapulub</i>	<i>Kesapulu</i>	<i>Kesapulub</i>	<i>fulu</i>	<i>Kasapulub</i>

In counting various objects, the form of the numeral changes radically, depending on what is being counted. Take Sigulai for example: *amba* ‘one’, *mea* ‘one person’, *alangaika* ‘one animal’, *ageu* ‘one long square or round object’, *ala* ‘one’ (long flat object eg *ala biuk* ‘one knife’), *amba buah* ‘one fruit’ *amba* ‘one’ (small container), *ambebe* ‘one bound object’ (from *amba* + *bebe*), *amba bine* ‘one package’, *amba* ‘one’ (seed-like object), *amba* ‘one’ (bottle, plate etc), *sakilo* ‘one kilo’, *sameter* ‘one metre’, *avilang* ‘one section’ (of land, road etc), *akhete* or *alabulu* ‘one fine, thin object’ and so on. So we see *amba*, *ala*, *a-*, *am-* and *sa-* appearing variously in these forms for the element meaning ‘one’. In *alangaika* ‘one animal’ we see an epenthetic *nga* syllable or ligature added between the numeral and classifier. This ligature is found very often in numerals in Devayan, Sigulai and Leukon and more often in the larger numerals. Tables 3 to 7 outlay enumeration strategies across six categories in each of the languages of PS and PB, as well as Nias.

Table 3: Enumeration of Six Categories in Devayan

	People	Animals	Fruits	Thin flat objects	Bundles of firewood	Long cylindrical objects
One	<i>Mesa</i>	<i>sara</i>	<i>Sao</i>	<i>Salemba</i>	<i>Saferet</i>	<i>Sangaon</i>
Two	<i>Daro</i>	<i>Dua</i>	<i>Dufo</i>	<i>Duo lembar</i>	<i>Doferet</i>	<i>Dongaon</i>
Three	<i>Datello</i>	<i>Tlosiha</i>	<i>Tellufo</i>	<i>Tigo lembar</i>	<i>Tlo ferret</i>	<i>Tlongaon</i>
Four	<i>Dabat</i>	<i>Akasiha</i>	<i>Atao</i>	<i>Ampek lembar</i>	<i>Aka ferret</i>	<i>Akangaon</i>
Five	<i>Dallima</i>	<i>Limasiha</i>	<i>Limafo</i>	<i>Limo lembar</i>	<i>Limo ferret</i>	<i>Limangaon</i>
Six	<i>Daennem</i>	<i>Nemengasiha</i>	<i>Nemmafo</i>	<i>Annam lembar</i>	<i>Nemenga ferret</i>	<i>Nemengangaon</i>
Seven	<i>Daitu</i>	<i>Itungasiha</i>	<i>Itufo</i>	<i>Tuju lembar</i>	<i>Itunga ferret</i>	<i>Itungangaon</i>
Eight	<i>Salapan</i>	<i>Salapanngasiha</i>	<i>Salapan</i>	<i>Salapan lembar</i>	<i>Salapannga ferret</i>	<i>Salapanngangaon</i>
Nine	<i>Sambelan</i>	<i>Sambelanngasiha</i>	<i>Sambelan</i>	<i>Sambelan lembar</i>	<i>Sambelannga ferret</i>	<i>Sambelanngangaon</i>
Ten	<i>Sapulu</i>	<i>Sapulungasiha</i>	<i>Faan</i>	<i>Sapulu lembar</i>	<i>Sapulunga feret</i>	<i>sapulungangaon</i>

Table 4: Enumeration of Six Categories in Sigulai

	People	Animals	Fruits	Thin flat objects	Bundles of firewood	Long cylindrical objects
One	<i>Mesa</i>	<i>Sara Ngasikha</i>	<i>Sao</i>	<i>Sao</i>	<i>saferet</i>	<i>Saayu</i>
Two	<i>Daro</i>	<i>Duangasikha</i>	<i>Dufo</i>	<i>Dufo</i>	<i>Doferet</i>	<i>Doayu</i>
Three	<i>Datəló</i>	<i>Tlungasikha</i>	<i>Tlufo</i>	<i>Tlufo</i>	<i>Tlo feret</i>	<i>Teloayu</i>
Four	<i>Dabat</i>	<i>Aat/akangasikha</i>	<i>Atafo</i>	<i>Atafo</i>	<i>Aat feret</i>	<i>Aat ngaayu</i>
Five	<i>Dalima</i>	<i>Limangasikha</i>	<i>Limafo</i>	<i>Limafo</i>	<i>Limo feret</i>	<i>Limangayu</i>
Six	<i>Dannəm</i>	<i>ənəmngasikha</i>	<i>Nəmmafo</i>	<i>Nəmmafo</i>	<i>Nem feret</i>	<i>ənəm ngayu</i>
Seven	<i>Daitu</i>	<i>Itungasikha</i>	<i>Itufo</i>	<i>Itufo</i>	<i>Itu feret</i>	<i>Itungayu</i>
Eight	<i>Salapan</i>	<i>Salapanngasikha</i>	<i>Salapan</i>	<i>Salapan</i>	<i>Salapan feret</i>	<i>salapan ngayu</i>
Nine	<i>Sambélan</i>	<i>Sambélanngasikha</i>	<i>Sambélan</i>	<i>Sambélan</i>	<i>Sambelan ferret</i>	<i>Sambélan ngayu</i>
Ten	<i>Sapulu</i>	<i>Sapulungasikha</i>	<i>Sapulu</i>	<i>Sapulu</i>	<i>Sapulu feret</i>	<i>Sapulu ngayu</i>

	People	Animals	Fruits	Thin flat objects	Bundles of firewood	Long cylindrical objects
One	<i>Mesa</i>	<i>Sara Ngasikha</i>	<i>Sao</i>	<i>Sao</i>	<i>saferet</i>	<i>Saayu</i>
Two	<i>Daro</i>	<i>Duangasikha</i>	<i>Dufo</i>	<i>Dufo</i>	<i>Doferet</i>	<i>Doayu</i>
Three	<i>Datəló</i>	<i>Tlungasikha</i>	<i>Tlufo</i>	<i>Tlufo</i>	<i>Tlo feret</i>	<i>Teloayu</i>
Four	<i>Dabat</i>	<i>Aat/akangasikha</i>	<i>Atafo</i>	<i>Atafo</i>	<i>Aat feret</i>	<i>Aat ngaayu</i>
Five	<i>Dalima</i>	<i>Limangasikha</i>	<i>Limafo</i>	<i>Limafo</i>	<i>Limo feret</i>	<i>Limangayu</i>
Six	<i>Dannəm</i>	<i>ənəmngasikha</i>	<i>Nəmmafo</i>	<i>Nəmmafo</i>	<i>Nem feret</i>	<i>ənəm ngayu</i>
Seven	<i>Daitu</i>	<i>Itungasikha</i>	<i>Itufo</i>	<i>Itufo</i>	<i>Itu feret</i>	<i>Itungayu</i>

Eight	<i>Salapan</i>	<i>Salapanngasikha</i>	<i>Salapan</i>	<i>Salapan</i>	<i>Salapan feret</i>	<i>salapan ngayu</i>
Nine	<i>Sambélan</i>	<i>Sambélanngasikha</i>	<i>Sambélan</i>	<i>Sambélan</i>	<i>Sambelan ferret</i>	<i>Sambélan ngayu</i>
Ten	<i>Sapulu</i>	<i>Sapulungasikha</i>	<i>Sapulu</i>	<i>Sapulu</i>	<i>Sapulu feret</i>	<i>Sapulu ngayu</i>

	People	Animals	Fruits	Thin flat objects	Bundles of firewood	Long cylindrical objects
One	<i>Mea</i>	<i>Alangaikha</i>	<i>Amba</i>	<i>Salemba</i>	<i>saferet</i>	<i>Ageu</i>
Two	<i>Dalua</i>	<i>Duangaika</i>	<i>Domba</i>	<i>Duo lembar</i>	<i>Doferet</i>	<i>Dogeu</i>
Three	<i>Datelu</i>	<i>Telungaikha</i>	<i>Telu</i>	<i>Tigo lembar</i>	<i>Tlo feret</i>	<i>Telungageu</i>
Four	<i>Daeva</i>	<i>Evangaikha</i>	<i>Eva</i>	<i>Ampek lembar</i>	<i>Aat feret</i>	<i>evangageu</i>
Five	<i>Dalima</i>	<i>limangaikha</i>	<i>Lima</i>	<i>Limo lembar</i>	<i>Limo feret</i>	<i>Limangageu</i>
Six	<i>Daena</i>	<i>Enengaika</i>	<i>Ene</i>	<i>Annam lembar</i>	<i>Nem feret</i>	<i>enengageu</i>
Seven	<i>Dafitu</i>	<i>Fitungaikha</i>	<i>Fitu</i>	<i>Tujuh lembar</i>	<i>Itu feret</i>	<i>fitungageu</i>
Eight	<i>Daolu</i>	<i>Olungaikha</i>	<i>Olu</i>	<i>Lapan lembar</i>	<i>Salapan feret</i>	<i>olungageu</i>
Nine	<i>Dasiwa</i>	<i>Singangaikha</i>	<i>Siwa</i>	<i>Sambelan lembar</i>	<i>Sambelan ferret</i>	<i>siwangageu</i>
Ten	<i>Dafulu</i>	<i>Fulungaikha</i>	<i>Fuluh</i>	<i>Sapuluh lembar</i>	<i>Sapulu feret</i>	<i>fulungageu</i>

Table 5: Enumeration of Six Categories in Leukon

	People	Animals	Fruits	Thin flat objects	Bundles of firewood	Long cylindrical objects
One	<i>Mesa</i>	<i>Sara Ngasikha</i>	<i>Sao</i>	<i>Sao</i>	<i>saferet</i>	<i>Saayu</i>
Two	<i>Daro</i>	<i>Duugasikha</i>	<i>Dufo</i>	<i>Dufo</i>	<i>Doferet</i>	<i>Doayu</i>
Three	<i>Datəlô</i>	<i>Tlungasikha</i>	<i>Tlufo</i>	<i>Tlufo</i>	<i>Tlo feret</i>	<i>Teloayu</i>
Four	<i>Dabat</i>	<i>Aat/akangasikha</i>	<i>Atafo</i>	<i>Atafo</i>	<i>Aat feret</i>	<i>Aat ngaayu</i>
Five	<i>Dalima</i>	<i>Limangasikha</i>	<i>Limafo</i>	<i>Limafo</i>	<i>Limo feret</i>	<i>Limangayu</i>
Six	<i>Dannəm</i>	<i>ənəmngasikha</i>	<i>Nəmmafo</i>	<i>Nəmmafo</i>	<i>Nem feret</i>	<i>ənəm ngayu</i>
Seven	<i>Daitu</i>	<i>Itungasikha</i>	<i>Itufo</i>	<i>Itufo</i>	<i>Itu feret</i>	<i>Itungayu</i>
Eight	<i>Salapan</i>	<i>Salapanngasikha</i>	<i>Salapan</i>	<i>Salapan</i>	<i>Salapan feret</i>	<i>salapan ngayu</i>
Nine	<i>Sambélan</i>	<i>Sambélanngasikha</i>	<i>Sambélan</i>	<i>Sambélan</i>	<i>Sambelan ferret</i>	<i>Sambélan ngayu</i>
Ten	<i>Sapulu</i>	<i>Sapulungasikha</i>	<i>Sapulu</i>	<i>Sapulu</i>	<i>Sapulu feret</i>	<i>Sapulu ngayu</i>

Table 6: Enumeration of Six Categories in Haloban

	People	Animals	Fruits	Thin flat objects	Bundles of firewood	Long cylindrical objects
One	<i>mesa</i>	<i>sara</i>	<i>Sao</i>	<i>Salemba</i>	<i>Sewirit ayu</i>	<i>Sangawun</i>
Two	<i>raro</i>	<i>rua</i>	<i>Ruo</i>	<i>Duo lembar</i>	<i>Dua wirit</i>	<i>Rongawun</i>
Three	<i>ratelu</i>	<i>telu</i>	<i>Teluo</i>	<i>Tigo lembar</i>	<i>Tiga wirit</i>	<i>Teloawun</i>
Four	<i>rahat</i>	<i>aka</i>	<i>Atawo</i>	<i>Ampek lembar</i>	<i>Ampat wirit</i>	<i>Akanawun</i>
Five	<i>ralima</i>	<i>lima</i>	<i>Limabo</i>	<i>Limo lembar</i>	<i>Lima wirit</i>	<i>Limangawun</i>

Six	<i>ranem</i>	<i>enam</i>	<i>Namaho</i>	<i>Annam lembar</i>	<i>Anam wirit</i>	<i>Anamawun</i>
Seven	<i>raitu</i>	<i>itu</i>	<i>Ituwo</i>	<i>Tujuh lembar</i>	<i>Tujuh wirit</i>	<i>Tujuhawun</i>
Eight	<i>salapan</i>	<i>lapan</i>	<i>Salapan</i>	<i>Lapan lembar</i>	<i>Salapan wirit</i>	<i>Salapanawun</i>
Nine	<i>sambilan</i>	<i>sambilan</i>	<i>sambilan</i>	<i>Sambelan lembar</i>	<i>Sambilan wirit</i>	<i>Sambilanawun</i>
Ten	<i>sapuluh</i>	<i>sepuluh</i>	<i>Sapuluh</i>	<i>Sapuluh lembar</i>	<i>Sapuluh wirit</i>	<i>Sapuluhawun</i>

Table 7: Enumeration of Six Categories in Nias

	People	Animals	Fruits	Thin flat objects	Bundles of fire-wood	Long cylindrical objects
One	<i>Samesa niha</i>	<i>Sara na'eu</i>	<i>Sam bua</i>	<i>Sara</i>	<i>Saraboloe</i>	<i>Sagewu</i>
Two	<i>Darua niha</i>	<i>Dua na'eu</i>	<i>Dom bua</i>	<i>Dua</i>	<i>Duaboloe</i>	<i>Duangaewu</i>
Three	<i>Datelu niha</i>	<i>Telu na'eu</i>	<i>Telö ngawua</i>	<i>Telu</i>	<i>Teluboloe</i>	<i>Telungaewu</i>
Four	<i>Daefa niha</i>	<i>Efa na'eu</i>	<i>Efangawua</i>	<i>Efa</i>	<i>Eva boloe</i>	<i>Efangaewu</i>
Five	<i>Dalima niha</i>	<i>Lima na'eu</i>	<i>limangawua</i>	<i>Lima</i>	<i>Lima boloe</i>	<i>Limangaewu</i>
Six	<i>Daönö niha</i>	<i>Önö na'eu</i>	<i>önö ngawua</i>	<i>Önö</i>	<i>Önö boloe</i>	<i>Önöngaewu</i>
Seven	<i>Dafitu niha</i>	<i>Fitu na'eu</i>	<i>Fitu ngawua</i>	<i>Fitu</i>	<i>Fituboloe</i>	<i>Fitungaewu</i>
Eight	<i>D a w a l u niha</i>	<i>Walu na'eu</i>	<i>Walungawua</i>	<i>Walu</i>	<i>Waluboloe</i>	<i>walungaewu</i>
Nine	<i>Dasiwa niha</i>	<i>Siwa na'eu</i>	<i>Siwa ngawua</i>	<i>Siwa</i>	<i>Siwaboloe</i>	<i>Siwangaewu</i>
Ten	<i>Dafulu niha</i>	<i>Fulu na'eu</i>	<i>Fulu ngawua</i>	<i>Fulu</i>	<i>Fulu boloe</i>	<i>Fulungaewu</i>

Discussion and Conclusions

The languages of PS and PB display considerable variation in the shape of the numeral, which varies according to what is being counted. This variation has a number of sources, in part due to long-standing variation in the ancestral language which has been retained in this particular set of languages. Some is the result of fusion of the following classifier with the numeral to form a new numeral root. In large-part, however, the variation is due to language contact, whilst there are other minor variations in both indigenous and introduced roots.

Independent numerals ‘one’ and ‘two’

The most obvious of all differences between number systems in these languages are the independent numbers ‘one’ and ‘two’ with Devayan/Leukon sao ‘one’ vs Sigulai amba ‘one’ vs Haloban satu ‘one’ (from Indonesian) and Nias sara ‘one’ which in Devayan, Leukon and Haloban is the expression for ‘one animal’. Similarly, Devayan/Leukon dufo ‘two’ corresponds to Sigulai dumba ‘two’ and Haloban/Nias/Indonesian dua ‘two’. So where do the divergent

terms *sao*, *amba*, *dufo* and *dumba* come from. If we consider the Nias, Jamee and Indonesian terms for ‘one fruit’ and ‘two fruits’ the answer becomes obvious. Nias *sam bua* ‘one fruit’, compared with Indonesian *sebuah* and Jamee *sabuah*, has introduced a homorganic nasal *m* in anticipation of the following *b* in *bua*. Exactly the same process has occurred in Nias *dom bua* ‘two fruits’, compared with Indonesian *dua buah* and Jamee *duo buah*. *Sigulai amba* derives from *sambua*. The deletion of the initial *s* is a semi-regular sound change in *Sigulai*, but is retained in *Devayan* and *Leukon*. Similarly, *Sigulai dumba* has derived from Nias *dombua*. So there has been a process of fusion of *bua* ‘fruit’, which is the classifier for fruits, with the numerals one and two. *Amba* and *dumba* are independent numerals in their own right and are no longer restricted to counting fruit. *Devayan/Leukon sao* ‘one’ and *dufo* ‘two’ have arisen in a similar way.

Despite the fact that *Devayan sao* and *dufo* have arisen from fusion of the ‘fruit’ classifier, they must be followed by *bon* (cf *bo* ‘fruit’) followed by the name of the fruit as in *sao bon mangga* ‘one mango’, *dufo bon yamor* ‘two papayas’, *tigo bon bonnol* ‘three coconuts’ etc. According to the *Devayan* language informant, the addition of the word *bo* without being followed by the name of the fruit will sound strange to its speakers.

Counting People: Prefix *da-* ~ *ra-*

A distinct word *mesa* in *Devayan*, *Leukon* and *Haloban* (in Amery’s data) or *mea* in *Sigulai*, means ‘one person’. It is quite distinct from the independent word for ‘one’ (*sao*, *amba*, *sara*, *satu*). In Nias it appears with the additional prefix *sa-* ‘one’ together with *niha* ‘person’ to form the longer expression *samesa niha* ‘one person’. However, most numeral expressions for counting people entail the prefix *da-*, or *ra-* in the case of *Haloban*, attached to the numeral. Ariani (2016) has *raitu* ‘seven people’ compared with Aziz’s *daitu* in *Devayan*. In *Sigulai* and Nias, *da-* is prefixed to all numerals from two to ten, but in *Devayan* and *Leukon* *da-* is attached only to numerals from two to seven. In Amery’s data the prefix *ra-* mirrors the distribution of *da-* in *Devayan* and *Leukon*, being attached to numerals from two to seven. This human prefix appears to have ancient origins as discussed in Amery and Zulfadli (forthcoming).

Indigenous vs Introduced Numerals

The most obvious source of variation is the use of introduced numerals, borrowed mostly from Jamee and occasionally from Indonesian. Indigenous numerals are more likely to be used when the number is small than when it is larger. Introduced numerals are most likely to be used with introduced measure words such as *kilo*. Indigenous numerals are most likely to be used in counting people, animals and fruits but there is considerable variation in the point at which introduced numerals cut in. *Sigulai* appears to be the most conservative. It is the only language of the four PS/PB languages which uses indigenous numerals above eight. *Haloban* is the language most heavily influenced by Jamee and is the only language of the four which uses introduced numerals when just counting independently of a specific entity. The other three languages use indigenous numerals at least up to seven for this purpose.

In Ariani’s (2016) *Devayan* data, a similar pattern emerges. Borrowed (Jamee) numerals are intruding at different points depending on what is being counted. They appear from two onwards if just counting, from three or four onwards if counting days, but from eight onwards

if counting people, animals or fruits. But if plants are counted, the Jamee/Indonesian word *tujuh* 'seven' is used rather than the indigenous *itu-* 'seven' which is used with fruit. If weeks, months or years are enumerated, then all numerals are borrowed from Jamee. But there are some differences between Ariani's (2016) Devayan data and Aziz's 2018-19 Devayan data. Ariani has *itu ngasiha* 'seven animals', with the indigenous numeral *itu* 'seven', whereas Aziz has *tujuhngasiha* 'seven animals' with the introduced numeral *tujuh* 'seven'. Ariani has *rufo* 'two fruits' compared with Aziz's *dufo* 'two fruits'.

The Ligature –nga

An epenthetic syllable –nga often appears throughout the data in enumerating certain objects. It is most evident in Devayan and least apparent in Haloban and occurs more often in larger numeral expressions. In Devayan, Sigulai and Leukon it appears with all numerals when counting animals, but never in counting thin, flat objects. Let's consider its distribution in counting long cylindrical shapes. In Nias it occurs with all numerals except one, in Sigulai with three and above, in Leukon with four and above, in Devayan with six and above and in Haloban just with one, two and five. By contrast, in counting bundles of firewood, it only occurs in Devayan and then only with numerals three and above. In counting fruits, it only appears in Nias, and then just with numerals three and above.

Minor Variation in the Form of the Numeral

All languages exhibit minor variation in the form of the numerals, irrespective of whether it is indigenous or introduced, which depends on what is being counted. The indigenous morpheme for 'two' is sometimes *ro*, sometimes *du*, sometimes *do* whilst the introduced morpheme for 'two' varies between *dua* and *duo*. Indigenous elements for 'three' vary between *telu*, *telo* and *tlo*, whilst the introduced 'three' is sometimes *tigo*, sometimes *tiga*. Similarly, the indigenous element for 'four' varies between *hat*, *aka* and *ata*.

The Meaning of Variation

There is clearly a need for more in-depth investigation of the plethora of variant forms. Our data was obtained primarily through elicitation and is based on the knowledge of a very small number of speakers of each language. But it is clear that not all speakers agree all the time. Even the same speaker was found to volunteer different numerals on different occasions for the same purpose. Significant differences are evident in Amery's Haloban data, compared with that collected by Aziz and there are clear differences between Ariani's (2016) Devayan data and that collected by Aziz. There are also signs of internal inconsistency within data collected by the same researcher. At this stage it is unknown whether this variation has social meaning. A range of sociolinguistic variables, including age, sex, education and occupation of the speaker should be investigated. Perhaps there is localized subdialectal variation from one village to another. Language shift is likely to be more advanced in some locations than others. The Haloban data would seem to support this hypothesis.

This investigation has presented an especially interesting case in the study of number systems and counting phenomena where the extent of variation in the form of the numeral is perhaps unrivaled.

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