



Numerals and Classifiers in Modern Karenic Languages and Proto-Karen



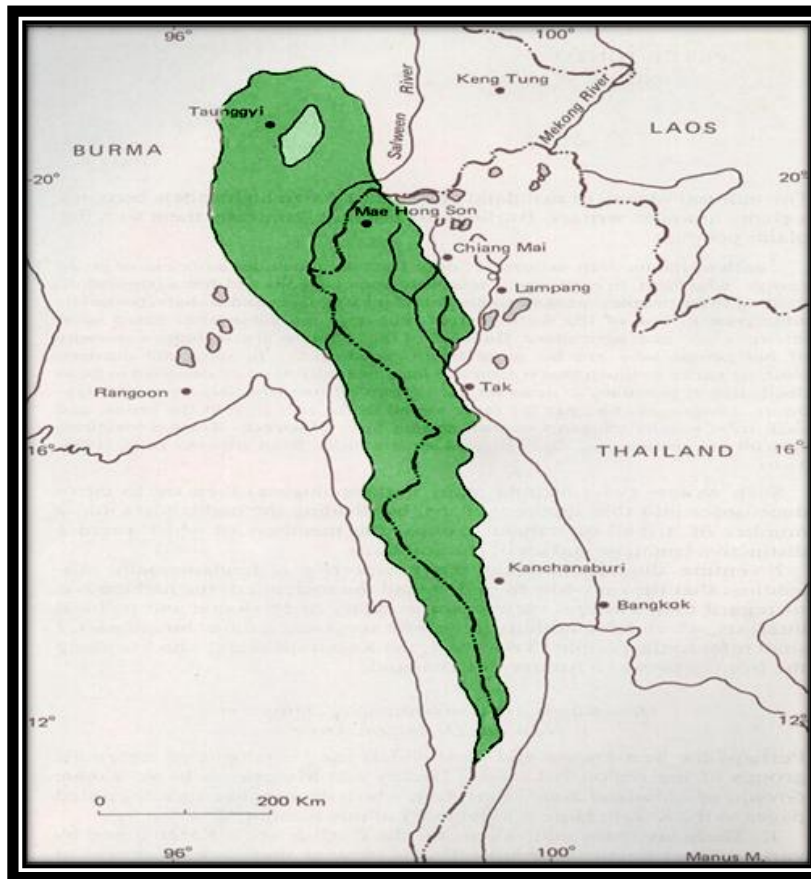
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Background (1)




Distribution of the Karen in Myanmar and Thailand

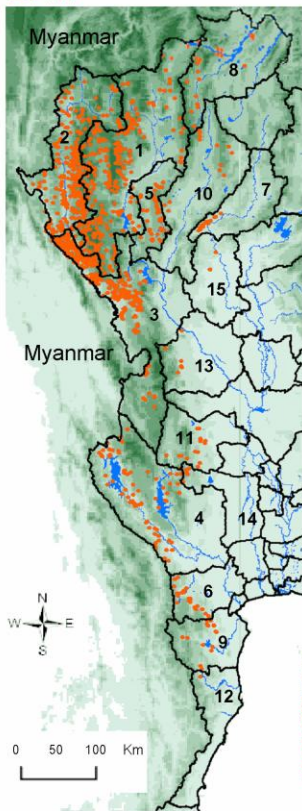




Background (2)

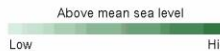


 **Karen Settlement Areas and Population in Thailand (2002)**



No.	Province	No. of population
1	Chiang Mai	138,447
2	Mae Hong Son	100,983
3	Tak	94,334
4	Kanchanaburi	30,976
5	Lamphun	29,124
6	Ratchaburi	13,577
7	Phrae	8,298
8	Chiang Rai	6,456
9	Phetchaburi	4,011
10	Lampang	3,969
11	Uthai Thani	3,382
12	Prachuap Khiri Khan	1,339
13	Kamphaeng Phet	1,335
14	Suphan Buri	1,159
15	Sukhothai	741
Total		438,131

LEGEND

 Karen villages in the highlands
 Above mean sea level
 Low High

Data source: Courtesy of Ministry of Social Development and Human Security
 Sponsor: The Thailand Research Fund (TRF)



Producer: Department of Geography,
 Faculty of Arts, Chulalongkorn University
 (for the Karen Linguistics Project)
 Date: 1 June 2010



 **Karen population in Thailand: 438,131**
 (Ministry of Social Development and Human Security, 2002)





Background (3)



Pa-O



Pwo



Kayaw



Kayah



Kayan



Sgaw





Demical system



	Pa-O	Kayan	Pwo	Sgaw
ONE	taʔ ²¹	ta ¹¹ ~ laʔ ²¹	la ¹¹ ~ laʔ ²¹	tə ³³
TWO	ni ³¹ ˀ	ŋi ⁵³	khei ³⁵	khi ⁵⁵
THREE	səm ³¹ ˀ	θə ⁵³	sã ³⁵	sə ³³
FOUR	lip ⁴⁵ ~ lit ⁴⁵	lwi ⁵³	lwi ¹¹ ˀ	lwi ¹¹ ˀ
FIVE	ŋat ⁴⁵	ŋɛʔ ²¹	jɛ ¹¹ ˀ	jɛ ¹¹ ˀ
SIX	su ³¹ ˀ	chu ⁵³	xou ³⁵	xi ³³
SEVEN	nit ²¹	nwɛ ⁵³	nwɛ ⁵⁵	nwiʔ ⁴⁵
EIGHT	sət ²¹	chauʔ ⁴⁵	xoʔ ²¹	xɔʔ ⁴⁵
NINE	kot ⁴⁵	khwi ⁵³	khwi ³⁵	khwi ³³
TEN	çi ³¹ ˀ	thi ⁵³	chei ³⁵	chi ³³



Combined system (Multiplicative and additive)



	E.Kayah	Kayaw
ONE	t ⁻¹¹	t ⁻¹¹ ~ 33
TWO	nə ³³	ki ⁵⁵
THREE	sɔ ³³	sə ⁵⁵
FOUR	lwi ³³	li ⁵⁵
FIVE	ŋɛ ³³	jɛ ³³
SIX	so ³³ swa ⁵⁵	si ⁵⁵ su ³³
SEVEN	so ³³ swa ⁵⁵ t ⁻¹¹	sɔ ³³ ne ⁵⁵
EIGHT	lwi ³³ swa ⁵⁵	li ³³ su ³³ /-xɔ ¹¹
NINE	lwi ³³ swa ⁵⁵ t ⁻¹¹	sɔ ³³ khi ⁵⁵
TEN	chə ³³	çi ⁵⁵



Vowel harmony and tone sandhi in N+NUM+CLF phrases



E.Kayah

‘one house’

hi¹¹ t_e¹¹ m_e³³ (e-e)

‘one leaf’

le¹¹ t_e¹¹ b_e¹¹ (e-e)

‘one dog’

thwi¹¹ t_o¹¹ d_o³³ (o-o)

‘one lump of clay’

he¹¹ klo⁵⁵ t_o¹¹ pl_o¹¹ (o-o)

‘one ball of thread’

lo¹¹ t_u¹¹ kh_u¹¹ (u-u)

‘one patch of cloud’

lo⁵⁵ lo¹¹ t_i¹¹ b_i¹¹ (i-i)

‘one slice of cucumber’

də³³ se¹¹ t_i¹¹ b_i¹¹ (i-i)

Kayaw

chi¹¹ t_a¹¹ m_a³³ (a-a, LM)

la¹¹ t_a³³ b_a¹¹ (a-a, ML)

thi¹¹ t_ə¹¹ d_ə⁵⁵ (ə-ə, LH)

ha¹¹ t_ə³³ kh_ə³³ (ə-ə, MM)

lu¹¹ t_u³³ kh_u¹¹ (u-u, ML)

ta³³ ?i¹¹ t_i³³ t_ə³³ kh_ə³³ (ə-ə, MM)

di⁵⁵ sa¹¹ t_i³³ kh_i¹¹ (i-i, ML)



Proto-Karen numerals (1)



- ONE** ***t-la^T** [PTB *it, *kat, *g-t(y)ik (JM); *g-t(y)ik (PB); PSETB *ti² (DB)]
PK * - (RJ)
- TWO** ***k-hnej^A** [PTB *g-nis (JM, PB); PSETB *s-ni² (DB)]
PK * - (RJ)
- THREE** ***səm^A** [PTB *g-sum (JM, PB); PSETB *c-sum² (DB)]

PK * - (RJ)
- FOUR** ***lit^D/*hlwi^A/*lwi^A** [PTB *b-ley, *b-ləy (JM, PB); PSETB *b-le² (DB)]
PK *lwíT (RJ)
- FIVE** ***ŋjat^D** [PTB *l-ŋa ~ *b-ŋa (JM); l/b-ŋa (PB); PSETB *ŋa² (DB)]
PK *ŋáT (RJ)



Proto-Karen numerals (2)



- SIX** *k^hrow^A [PTB *d-ruk (JM, PB); PSETB *c-krok^L (DB)]
PK * - (RJ)
- SEVEN** *ʔnwet^D/*ʔnwe^A [PTB *s-nis (JM, PB); PSETB *c-ʃi(k)^{2/L} (DB)]
PK *nwét (RJ)
- EIGHT** *khrɔt^D/*grɔt^D [PTB *b-r-gyat ~ b-g-ryat (JM); b-r-gyat (PB); PSETB
*c-yet^L (DB)]
PK * - (RJ)
- NINE** *kot^D/*k^hwi^A [PTB *d-kəw ~ *d-gaw (JM); d-kəw (PB); PSETB
*(ʔ-) go² (DB)]
PK *- (RJ)



Proto-Karen numerals (3)



TEN

***chej^A** [PTB *ts(y)i(y) (PB); *ts(y)i(y) ~ tsyay (JM); PSETB *tsay¹ (DB)]

PK *chǐh (RJ)

HUNDRED

***g-rja^A** [PTB *r-gya (JM, PB); PSETB *C-rya¹ (DB)]

PK *rjà' (RJ)

THOUSAND

***g-thɔN^A; *hrej^A** [PTB *s-ton, *s-rin (JM); PSETB *ʔ- ton (DB)]

PK *- (RJ)



Proto-Karen classifiers



- CLF [+human] *bra^A
- CLF [-human +4-legged animal] *ʔdə^A
- CLF [±animate +flat] *ʔba^B
- CLF [±animate +long] *ʔbɔN^A
- CLF [±animate +round -big] *phloŋ^B
- CLF [±animate +round +big] *hma^A



Conclusion (1)



- Numerals show various irregular correspondence patterns resulting from vowel harmony and tonal sandhi in NUM+CLF phrases and also from language contact.
- Comparable fresh data collected by one person helps make the reconstruction of PK numerals and classifiers possible.



Conclusion (2)



- PK numeral system is decimal (base-10) but decimal and combined systems in modern Karenic languages.
- Small numbers from 1-5 and big numbers: 10, 100, 1000, have been preserved quite well in all Karenic languages.



Conclusion (3)



- According to the Karen world view, SHAPE is more important than SIZE.
- With neither [+human] nor [+4-legged mammal], the rest of [+animate] and [-animate] share the same classifiers, i.e. [+flat/1-dimension], [+long/2-dimension] and [+round/3-dimension].



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THANK YOU