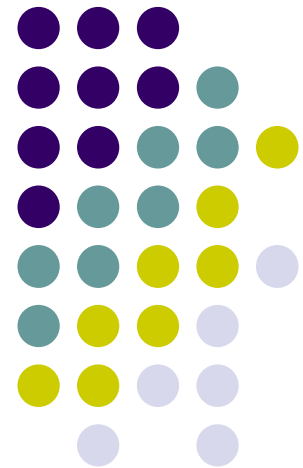


# De-aspirating Proto-Tai

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# What in the name?

## Tai

Generic name to refer to the whole family





# Tai vs Thai

- Tai = pertaining to the Tai language family
- Thai = pertaining to Thailand
  - Thai language = Standard Thai, Bangkok Thai, or the Tai dialect of Central Thailand

# Proto-Tai



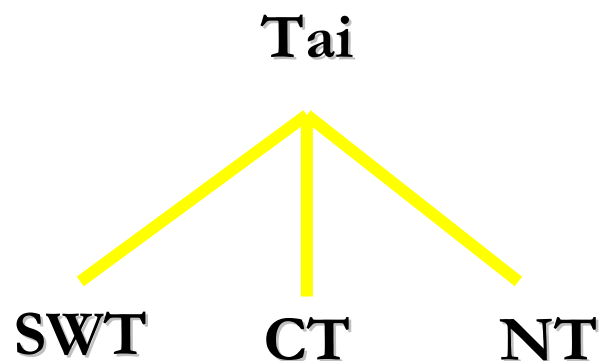
The ancestor of all modern Tai languages

- Conventional reconstruction: Li (1977)



## Tai subgrouping (Li 1965)

- According to Li (1965), Tai languages consist of three subgroups: Northern Tai, Central Tai, and Southwestern Tai.





# Aspirates in modern Tai dialects



- CT and SWT have abundance of aspirated stops both in the native and non-native portions of the lexicon.
- NT lacks aspirated consonants altogether, except for Saek.
- Many etyma showing aspirated onsets in CT/SWT correspond to reflexes of voiced consonants in NT.
- Reflexes of PT voiced stops in some dialects, e.g. \*da<sup>B2</sup> > t<sup>h</sup>a:<sup>B2</sup> ‘river’.

# Conventional reconstruction of PT (Li 1977)



- Four-way contrast among stop consonants

	labial	alveolar	palatal	velar
aspirated	*p <sup>h</sup>	*t <sup>h</sup>	*c <sup>h</sup>	*k <sup>h</sup>
plain vcl.	*p	*t	*c	*k
glottalized	*ʔb	*ʔd		
voiced	*b	*d	*j	*g

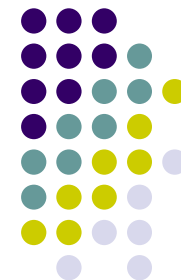
- Contrastive aspiration



# Problem with PT aspirates



- Loss of aspiration is an uncommon sound change.
- NT languages are unlikely to lose aspiration, given Chinese influence (Ferlus 1990).
- Many cases of Li's aspirates show “voicing alternation” (Gedney 1989; Thurgood 2002, 2007).
- Those that do not show “voicing alternation” are attested by very few examples (Gedney 1979).



# Proposals

- PT consonantal system shows a three-way phonation-type contrast: voiceless, voiced, and glottalized.
- Aspirated onsets in cognates found across modern Tai varieties developed mainly from
  - PT clusters with medial *\*-r-* , e.g. *\*pr-*
  - PT uvular consonants, e.g. *\*q-*
  - Loanwords, especially from Chinese

# Outline



- Show that Li's simple aspirated onsets  $*p^{h-}$ ,  $*t^{h-}$ ,  $*c^{h-}$ ,  $*k^{h-}$  are in fact not reconstructible.
- Account for aspirated consonants in modern dialects.
- Discuss the advantages of the proposal.



# Data

- Gedney's wordlist (ms.)
- Now published as

**Thomas Hudak (ed.) 2008. *William J. Gedney's Comparative Tai Source Book*. Honolulu; University of Hawaii Press.**



# Two types of aspirates

- “First-row” aspirates = aspirates in modern Tai dialects that don’t show voicing alternation.
  - “old” Thai  $t^h aw^{C1}$ , Lungchow  $t^h aw^{C1}$ , also Saek  $t^h aw^{C1}$
  - ‘spicy’ Thai  $p^h et^{D1}$ , Lungchow  $p^h it^{D1}$ , also Saek  $p^h et^{D1}$



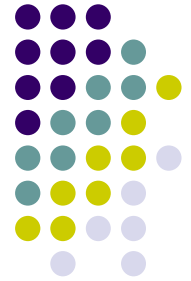
- “Alternating” aspirates = initial consonants in etyma whose reflexes in CT/SWT point to original aspirated onsets but whose NT reflexes indicate earlier voiced consonants.
  - ‘bean’ Thai  $t^h u \text{ə}^{B1}$ , and Lungchow  $t^h u :^{B1}$  but Yay  $t u \text{ə}^{B2}$
  - ‘rice’ Thai  $k^h a : w^{C1}$ , and Lungchow  $k^h a w^{C1}$  but Yay  $h a w^{C2}$

# Earlier treatments of “alternating” aspirates



- Li (1977) views alternating aspirates as regular aspirates that went through special (morpho-phonological) processes.
- Gedney (1989) proposes that alternating aspirates go back to aspirated voiced consonants.
- Ferlus (1990) reconstructs prenasalized stops to account for the alternating aspirates.
- Etyma showing alternating aspirates (Thurgood 2002) are not reconstructible.

# Alternating aspirates are not reconstructible



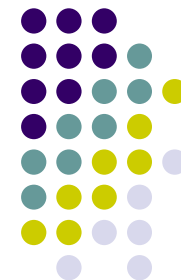
- Following Thurgood (2002), many etyma showing alternating aspirates also show other irregularities as well. (in agreement with Thurgood's proposal)
  - Tai Yuan (SWT) /tw:<sup>A2</sup>/ 'to carry' = wrong initial
  - Saek (NT) /ke:<sup>A2</sup>/ 'eggplant' = wrong vowel



- Most etyma showing alternating aspirates are also found outside of Tai-Kadai, especially Chinese.

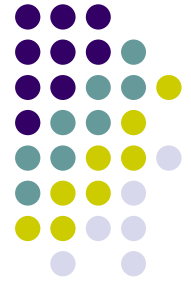


	Thai	Lungchow	Po-ai	Middle Chinese	
bean	t <sup>h</sup> uə <sup>B1</sup>	t <sup>h</sup> u: <sup>B1</sup>	tuə <sup>B2</sup>	dəw'	豆
young male animal	t <sup>h</sup> ʷk <sup>D1</sup>	tɣk <sup>D2</sup> -t	tak <sup>D2</sup>	dək	特
chopsticks			tw: <sup>B2</sup>	driǎ'	箸
sugar		t <sup>h</sup> ɣ:ŋ <sup>A1</sup>		daŋ	糖
pond		t <sup>h</sup> um <sup>A1</sup>	tam <sup>A2</sup>	dəm	潭
to ride	k <sup>h</sup> i: <sup>B1</sup>	k <sup>h</sup> wi: <sup>B1</sup>	kʷəj <sup>B2</sup>	giǎh	騎
eggplant	k <sup>h</sup> ʷə <sup>A1</sup>		kʷə <sup>A2</sup>	giɑ	茄



- The irregularities and the foreign origins of numerous etyma with alternating aspirates confirms Thurgood (2000, 2007)'s view that that they were not part of PT.
- Etyma showing the so-called “voicing alternation” should be viewed as
  - Irregular
  - Results of post-PT diffusion
- Alternating aspirates are not reconstructible at the PT level.

# First-row aspirates are also not reconstructible



- Most etyma reconstructed with Li's first-row aspirates must be treated as CT/SWT innovations (loanwords etc.)
- Many etyma reconstructed with  $*k^h$ - in fact must be reconstructed with  $*q$ - or  $*\chi$ - (see Pittayaporn 2008).

- Exclusively SWT/CT etyma

	Li's	Thai	Lungchow	Po-ai	Saek
spicy hot	p <sup>h</sup> -D	p <sup>h</sup> et	p <sup>h</sup> it		p <sup>h</sup> et
wrong	p <sup>h</sup> -D	p <sup>h</sup> it			p <sup>h</sup> it
knit	t <sup>h</sup> -D	t <sup>h</sup> ak			
cave	t <sup>h</sup> -D	t <sup>h</sup> am			t <sup>h</sup> am
small frog	k <sup>h</sup> -D	khiət	khi:t		

- Should be treated as post-PT innovations



- “First-row” aspirates that are post-PT loans



	Li's	Thai	Lungchow	Po-ai	
to split	p <sup>h</sup> -B	p <sup>h</sup> a:		pa:	破
to roll, to twist	p <sup>h</sup> -B	p <sup>h</sup> an	p <sup>h</sup> an	pan	反
clf. flat objects	p <sup>h</sup> -A	p <sup>h</sup> ɛn	p <sup>h</sup> e:n	pe:n	片
charcoal	t <sup>h</sup> -B	t <sup>h</sup> a:n	t <sup>h</sup> a:n	ta:n	炭
to lie athwart	k <sup>h</sup> -A	k <sup>h</sup> wa:ŋ	k <sup>h</sup> wa:ŋ		橫



# PT uvular consonants

- Pittayaporn (2008) shows that a distinct series of uvular consonant must be reconstructed for PSWT.
- These uvular onsets must be projected back to PT.
- In most SWT/CT dialects these uvular are reflected as  $k^h$ -, e.g. Thai, Lungchow etc.
  - *Path:*  $*q- > *χ- > *k^h-$



	Thai	White Tai	Phu Tai	Po-ai	Proto-Tai
'to kill'	k <sup>h</sup> a:C1	xa:C1	ha:C1	ka:C1	*q-
'arm'	k <sup>h</sup> ε:n <sup>A</sup> <sub>1</sub>	xε:n <sup>A1</sup>	hε:n <sup>A1</sup>	ke:n <sup>A</sup> <sub>1</sub>	*q-
'leg'	k <sup>h</sup> a:A1	xa:A1	ha:A1	k <sup>h</sup> a:A1	*q-
'to sell'	k <sup>h</sup> a:j <sup>A1</sup>	xa:j <sup>A1</sup>	ha:j <sup>A1</sup>	ka:j <sup>A1</sup>	*q-

# To sum up...



- Li's simple aspirated onsets  $*p^{h-}$ ,  $*t^{h-}$ ,  $*c^{h-}$ , and  $*k^{h-}$  cannot be reconstructed.
- PT consonantal system show a three-way phonation-type contrast: voiceless, voiced, and glottalized.





	labial	alveolar	palatal	velar	uvular
<del>aspirated</del>	<del>*p<sup>h</sup></del>	<del>*t<sup>h</sup></del>	<del>*c<sup>h</sup></del>	<del>*k<sup>h</sup></del>	
plain vcl.	*p	*t	*c	*k	*q
glottalized	*ʔb	*ʔd			
voiced	*b	*d	*ɟ	*g	*G

# Where did aspirates in modern Tai dialects come from?



- Aspirated onsets in etyma found across modern Tai varieties developed mainly from
  - PT clusters with medial *\*-r-* , e.g. *\*pr-*
  - PT uvular consonants, e.g. *\*q-*
  - Loanwords, especially from Chinese



# Aspiration of \**Cr*- clusters

- In contrast to Li's simple aspirated onsets, his clusters *\*p<sup>h</sup>r-*, *\*t<sup>h</sup>r-*, and *\*k<sup>h</sup>r-* are very robustly supported.
- Aspiration of \**Cr*- clusters
  - CT/SWT *\*p<sup>h</sup>r-* < PT *\*pr-*
  - CT/SWT *\*t<sup>h</sup>r-* < PT *\*tr-*
  - CT/SWT *\*c<sup>h</sup>r-* < PT *\*cr-* (Li's *\*t<sup>h</sup>/-*)
  - CT/SWT *\*k<sup>h</sup>r-* < PT *\*kr-* (some of Li's *\*k<sup>h</sup>r-*)
  - CT/SWT *\*q<sup>h</sup>r-* < PT *\*qr-* (some of Li's *\*k<sup>h</sup>r-*)



	Thai	Lungchow	Po-ai	Proto-Tai
				*pr- > pj-
'vegetable'	*pr- > *p <sup>hr</sup> - > p <sup>h</sup> -	*pr- > *p <sup>hr</sup> - > p <sup>hj</sup> -		*pr-
'limestone mountain'	p <sup>h</sup> a:A1	p <sup>h</sup> ja:A1		*pr-
hair	p <sup>h</sup> aj <sup>A1</sup>		pja	*tr- > *t <sup>hr</sup> - > *h <sup>r</sup> -
tail	ha:ŋ <sup>A1</sup>	ha:ŋ <sup>A1</sup>	la:ŋ <sup>A1</sup>	*tr-
louse	haw <sup>A1</sup>			*tr-
stone	hin <sup>A1</sup>			*cr- > *c- > ɛ-
to plough	t <sup>h</sup> aj <sup>A1</sup>	t <sup>h</sup> aj <sup>A1</sup>	ɕaj <sup>A1</sup>	*cr-
to beg	k <sup>h</sup> ɔ:A1	k <sup>h</sup> o:A1		*kr-



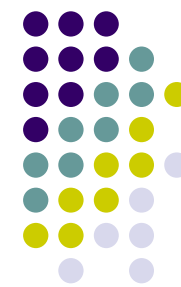
# Loanwords

- Main source of borrowings is Chinese
- Some examples from Thai (see Manomaivibool 1975)
  - ฉาง  $c^h a:\eta^{A1}$  'granary' from 倉 LMC  $ts^h a\eta$
  - ขุน  $k^h u\eta^{A1}$  'lord' from 君 LMC  $kyn$
  - ผิวก  $p^h i\omega^{A1}$  'skin' from 膚 LMC  $fjy\check{a}/fu\check{a}$
  - ฟ้า  $p^h u\theta^{A1}$  'husband' from 夫 LMC  $fjy\check{a}/fu\check{a}$



## To sum up...

- Aspirated onsets in modern Tai dialects are secondary.
- Some cases of aspirates are results of post-PT changes.
- Some cases of aspirates are found in loans, especially from Chinese.



# Advantages of the proposal

- It explains gaps in the PSWT inventory.

		labial	alveolar	palatal	velar
*C <sup>h</sup> -	*_-				
*C-		*pl-			*kl-
*C̣-		*bl-			*gl-
*C <sup>h</sup> -	*-r-	(*p <sup>h</sup> r-)	(*t <sup>h</sup> r-)	(*c <sup>h</sup> r-)	*k <sup>h</sup> r-
*C-		(*pr-)	(*tr-)	(*cr-)	(*kr-)
*C̣-		*br-			*gr-

\*C<sup>h</sup>- did not exist in PT

\*qr-, \*k.r- etc.

\*Cr- became \*C<sup>h</sup>r-

\*p<sup>h</sup>-      \*h-      \*t<sup>h</sup>-      \*h<sub>r</sub>-

Simplification



- It accounts for Chinese aspirates reflected as unaspirated consonants in Tai.

	Thai	Lungchow	Po-ai	Middle Chinese	Late Han Chinese	Old Chinese
seven 七	cet <sup>D1</sup>	cit <sup>D1</sup>	ɕet <sup>D1</sup>	ts <sup>h</sup> it	ts <sup>h</sup> it	*ts <sup>h</sup> it
lung 肺	pɔ:t <sup>D1</sup>	pwt <sup>D1</sup>	pwt <sup>D1</sup>	p <sup>h</sup> uaj <sup>h</sup>	p <sup>h</sup> uas	*p <sup>h</sup> ots
duck 鴨	pet <sup>D1</sup>	pet <sup>D1</sup>	pit <sup>D1</sup>		p <sup>h</sup> it	*p <sup>h</sup> its

- Because PT did not have aspirated consonants, Chinese aspirates were incorporated into Tai as unaspirated.





# Conclusion

- Li's PT aspirated stops have to be eliminated because
  - They were wrongly assigned, cf.  $*q-$
  - They were post-PT loans, cf. "alternating aspirates"
  - They resulted from post-PT phononological innovation, cf.  $*pr- > *p^hr-$
- PT should be reconstructed with three contrastive phonation types: voiceless, voiced, and glottalized.



	labial	alveolar	palatal	velar	uvular
plain vcl.	*p	*t	*c	*k	*q
glottalized	*ʔb	*ʔd			
voiced	*b	*d	*j	*g	*G

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