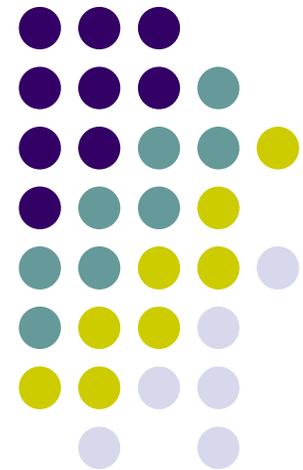


De-aspirating Proto-Tai

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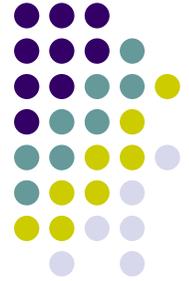


What in the name?

Tai

Generic name to refer to the whole family





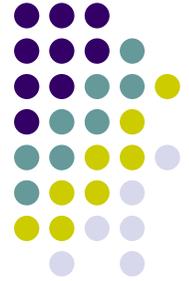
Tai vs Thai

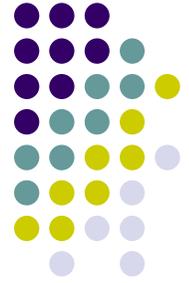
- Tai = pertaining to the Tai language family
- Thai = pertaining to Thailand
 - Thai language = Standard Thai, Bangkok Thai, or the Tai dialect of Central Thailand

Proto-Tai

The ancestor of all modern Tai languages

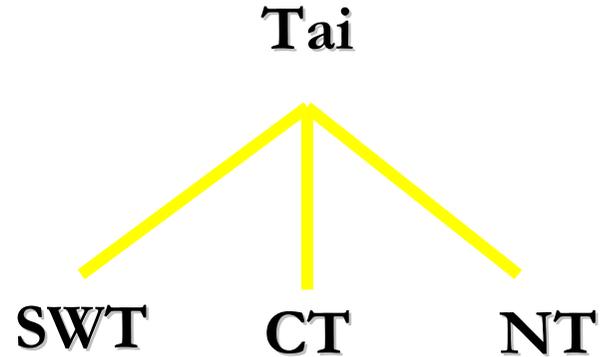
- Conventional reconstruction: Li (1977)

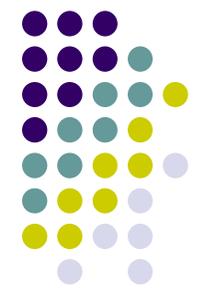




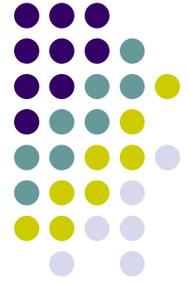
Tai subgrouping (Li 1965)

- 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^{B2} > t^ha:^{B2} ‘river’.

Conventional reconstruction of PT (Li 1977)



- Four-way contrast among stop consonants

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

- Contrastive aspiration

Problem with PT aspirates



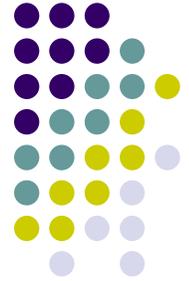
- Loss of aspiration is an uncommon sound change.
- NT languages are unlikely to lose aspiration, given Chinese influence (Ferlus 1990).
- Many cases of Li's aspirates show “voicing alternation” (Gedney 1989; Thurgood 2002, 2007).
- Those that do not show “voicing alternation” are attested by very few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



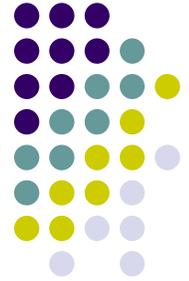
Proposals

- 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



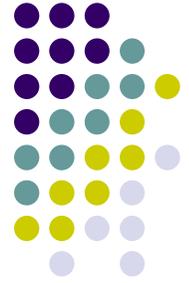
- Show that Li's simple aspirated onsets $*p^{h-}$, $*t^{h-}$, $*c^{h-}$, $*k^{h-}$ are in fact not reconstructible.
- Account for aspirated consonants in modern dialects.
- Discuss the advantages of the proposal.



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.



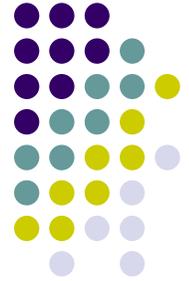
Two types of aspirates

- “First-row” aspirates = aspirates in modern Tai dialects that don’t show voicing alternation.
 - “old” Thai *t^haw^{C1}*, Lungchow *t^haw^{C1}*, also Saek *t^haw^{C1}*
 - ‘spicy’ Thai *p^het^{D1}*, Lungchow *p^hit^{D1}*, also Saek *p^het^{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:^{A2}/ 'to carry' = wrong initial
 - Saek (NT) /ke:^{A2}/ '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 ^h uə ^{B1}	t ^h u: ^{B1}	tuə ^{B2}	dəw'	豆
young male animal	t ^h ɯk ^{D1}	tɣk ^{D2} -t	tak ^{D2}	dək	特
chopsticks			tw: ^{B2}	driǎ'	箸
sugar		t ^h ɣ:ŋ ^{A1}		daŋ	糖
pond		t ^h um ^{A1}	tam ^{A2}	dəm	潭
to ride	k ^h i: ^{B1}	k ^h wi: ^{B1}	kwəj ^{B2}	giǎh	騎
eggplant	k ^h ɯə ^{A1}		kwə ^{A2}	gia	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 ^h -D	p ^h et	p ^h it		p ^h et
wrong	p ^h -D	p ^h it			p ^h it
knit	t ^h -D	t ^h ak			
cave	t ^h -D	t ^h am			t ^h am
small frog	k ^h -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 ^h -B	p ^h a:		pa:	破
to roll, to twist	p ^h -B	p ^h an	p ^h an	pan	反
clf. flat objects	p ^h -A	p ^h ɛn	p ^h e:n	pe:n	片
charcoal	t ^h -B	t ^h a:n	t ^h a:n	ta:n	炭
to lie athwart	k ^h -A	k ^h wa:ŋ	k ^h 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 ^h a:C1	xa:C1	ha:C1	ka:C1	*q-
'arm'	k ^h ɛ:n ^A ₁	xɛ:n ^{A1}	hɛ:n ^{A1}	ke:n ^A ₁	*q-
'leg'	k ^h a:A1	xa:A1	ha:A1	k ^h a:A1	*q-
'to sell'	k ^h a:j ^{A1}	xa:j ^{A1}	ha:j ^{A1}	ka:j ^{A1}	*q-



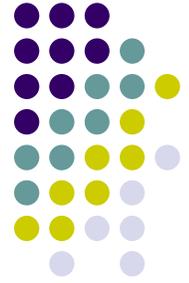
To sum up...

- 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
aspirated	*p^h	*t^h	*c^h	*k^h	
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

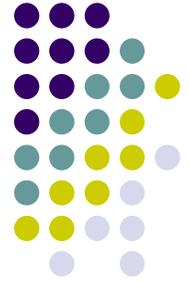


Aspiration of **Cr-* clusters

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



	Thai	Lungchow	Po-ai	Proto-Tai
				*pr- > pj-
'vegetable'	*pr- > *p ^{hr} - > p ^h -	*pr- > *p ^{hr} - > p ^{hj} -		*pr-
'limestone mountain'	p ^h a:A1	p ^h ja:A1		*pr-
hair	p ^h aj ^{A1}		pja	*tr- > *t ^{hr} - > *h ^r -
tail	ha:ŋ ^{A1}	ha:ŋ ^{A1}	la:ŋ ^{A1}	*tr-
louse	haw ^{A1}			*tr-
stone	hin ^{A1}			*cr- > *c- > ɛ-
to plough	t ^h aj ^{A1}	t ^h aj ^{A1}	ɕaj ^{A1}	*cr-
to beg	k ^h ɔ:A1	k ^h 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
 - ผิว $p^h i\omega^{A1}$ 'skin' from 膚 LMC $fjy\check{a}/fu\check{a}$
 - ฝัว $p^h u\theta^{A1}$ '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 ^h -	*_-				
*C-		*pl-			*kl-
*C̣-		*bl-			*gl-
*C ^h -	*-r-	(*p ^h r-)	(*t ^h r-)	(*c ^h r-)	*k ^h r-
*C-		(*pr-)	(*tr-)	(*cr-)	(*kr-)
*C̣-		*br-			*gr-

*C^h- did not exist in PT

*qr-, *k.r- etc.

*Cr- became *C^hr-

*p^h- *h- *t^h- *h_r-

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 ^{D1}	cit ^{D1}	ɕet ^{D1}	ts ^h it	ts ^h it	*ts ^h it
lung 肺	pɔ:t ^{D1}	pwt ^{D1}	pwt ^{D1}	p ^h uaj ^h	p ^h uas	*p ^h ots
duck 鴨	pet ^{D1}	pet ^{D1}	pit ^{D1}		p ^h it	*p ^h 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

Acknowledgement



- John Whitman
- Laurent Sagart
- Michel Ferlus
- Pranee Kullavanijaya
- Anthony Diller
- James Matisoff



- Department of Linguistics, Cornell University
- Southeast Asia Program, Cornell University
- East Asia Program, Cornell University
- Graduate School, Cornell University
- Anandamahidol Foundation
- UCLA Center for Southeast Asian Studies