RETROGRADE RECONSTRUCTION IN SOUTHEAST ASIA

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Chess problem solvers have long employed 'retrograde analysis' in working on difficult problems: a checkmate position (= the solution) is set up at the very start, with subsequent exploration of possible avenues for reaching it. Something of the same sort: 'retrograde reconstruction' is useful in working with the Austro-Tai languages of Southeast Asia, attempting to piece together the di- and trisyllabic roots of that stock that have undergone decomposition in both Kadai (typically CRL) and Miao-Yao (typically CRR). The three AT roots cited by way of illustration include one trisyllabic, with *-ŋi- as the (AN) 'connecting link', (TOOTH), and two disyllabic → (affixed) trisyllabic, (WEEP) and (I). In all three roots the AN forms provide 'solutions,' so to speak, and one ends up attempting to fit together assorted congeries of odd-looking cognates: P-Tai *ku^{A}, Lk. tsi^{A} and Laha ɔ^{A} 'I', showing excellent tonal agreement!

The primary SEA developments to keep in mind are:

1. Syllabic reduction throughout the area
   - AN: primarily /3/>/2/: the 'drive' (Brandstetter) or 'drift' (Blust) towards disyllabism
   - KD: both /3/ and /2/>/1/ (Chinese infl.) via canonical reduction on-the-left (CRL), with initial consonant clusters making for an important exception (CRR)
   - MY: as above, but on-the-right (CRR) for /2/>/1/ reduction

2. Split cognate formation
   Within AN~KD~MY as well as interfamilial

3. Vocalic transfer (VT)
   - AN: rare: in Chamic under mainland areal influence (Lee 1974)
   - KD: widespread/typical (Benedict 1979), often following reduction of V_1 to /ə/, yielding /ɨ/ in SYL-II
   - MY: uncommon; evidenced in some roots

4. Incorporation of morphological elements
   - PAT prefixed *qa- (destressed>ka-): nominal, proto-role undet.; widespread, especially in KD; probably→SEA 'animal prefix'
   - PAT suffixed *-a(n); nominal, proto-role undet.; uncommon
   - PAT pronominal marker *ʔi-; see I, below
   - PAT 'stative' prefixed *ma-: P-Tai *maw^{A} 'drunk'<*ma-bušuk
   - PAT personal/pronominal marker *tsi-; see I, below
   - PAT nominal/pronominal marker *ʔu-; see I and TOOTH, below
   - PAT infixed *-um- 'actor focus-marker' (AN role); (see Benedict 1991 for *ʔa(-um-)aRi 'come/return' [motion towards speaker])
   - PAT suffixed *-ən 'object focus-marker' and *-an 'referent focus-marker' (AN roles); (see Benedict 1989)
   - PAT infixed *-ɣ-, *-r-, *-l- and *-l-; roles unclear/undet.; see TOOTH, below

5. Nasal increments (NI)
   An absolute benchmark of AT, represented everywhere; well retained in MY whereas KD has *mp>/b/, *mb>/m/, etc.

6. Secondary aspiration and glottalization
   Aspirated or glottalized (including imploded) consonants always secondary, e.g., frequently ʔ+cons.<prefixed *qa- (above)

7. Consonant clusters (see WEEP, below) vs. dyads (see Benedict 1989)

8. Development of tonal systems (Chinese influence)
   PAT apparently had pitch-accent (retained in Japanese), replaced by tones (<basic 3 tones) in both KD and MY; tones late in AN: Oceanic; Chamic (Huihui/Sanya on Hainan) under areal influence

9. Procrustean cons. loss in KD (see Note 4)

TOOTH

PAT *tsaŋi(m)pan

/3/>/2/ split
- PAN (gen.) *(ŋ)ipən (typical SYL-III *a>/ə/)
- N. Phil. *saŋi<PAN-level *tsaŋi

with infixed *l — *lipən~*nipən doublet (Blust)

with infixed *ɣ — P-Atayalic *gipun (P. Li) <*ɣipən [Note 1]

/3/>/1/ — P-Miao *hmyẽ^{B}<PMY *hmye[m]^{B}<*h-myim^{B} (reg. shift) <*hŋim^{B} (PMY lacks *hŋ-) <*ts[a]ŋim[pan]

TOOTH
[continued]

/3/>/1/ [cont.]

with VT — Be ton^{1} (Sav./Haud.) ~tin^{1} (Hash.), from earlier *tian<*pian (reg. shift)

plus velar+ labial→ labialization — PKS *pywan^{A} (Thurgood)

with further→ dentolabial but without VT — P-Tai *van^{A} (reg. medial voicing)

Lakkia wan^{A}<*van^{A} (Lakkia lacks *v-)

same, with VT — P-Hlai *fyan^{A}: Matisoff reconstructs *fan^{A} but notes Jiamao tshaŋ^{1}<*tshan^{1}; add Xifang and Cunhua sen^{1}, also Mefuli xien (Stübel 1937)

with infixed *1 — Gelao *p(-1-)an^{A}: Wanzi (Gao) pan^{1}, Pudi (Ao) ma-ɦuŋ^{½}; Liuzhi (Duoluo) plaŋ½ [Note 2]

/1/+/3/>/2/ (and /2/) >/1/ with prefixed *ʔu- along with VT — PKD-level *tsuaŋ^{A}: Pubiao suaŋ^{1}~suoŋ^{1}, Pupeo šuoŋ, Buyang θo:ŋ^{1}, Laha cuŋ^{1}

PKD-level Recon: — *(ʔu-) tsaŋip(-1-)an or set up split doublet?

WEEP

PAT *pl̥aŋits

PMP *t(-m-)aŋis
Paiwanic *C(-m-)aŋits
Atayalic (Sediq) *1(-m-)iŋis (P. Li)
(*a>/i/assim.)

/3/>/1/

PMY *ʔŋem^{B}<*ʔŋim^{B} (reg. shift)
<*[pl̥a]ŋ-m[-its]

/2/>/1/

CRR

Oceanic: Yabem (Papua: N. Huon Gulf) taŋ
Lati cuŋ (init. cluster→CRR); cf. mcu 'eye' *mapra

CRC
(in-the-center)

P-Tai *phray^{B} [Note 3] <*phra[ŋ]i[ts][Note 4]
Lakkia pi$\tilde{e}^{A}$<*pya$\hat{\imath}^{A}$<*praŋi (typical sec. nasalization)

CRL

SW-Tai (Siamese) *hŋi^{C} '(comp.) sob, cry' <*ʔŋi^{C} (cf. KS), with loss of final in composition.

Buyang ñiet<*ŋit (palatalization ←SYL-I)

Laha ñit<*ŋit

Gelao: Baiyan (Gao) ñi^{6}, Pudi (Aou) ñe^{2}<*ŋi[t] (Gelao lacks stop finals)

CRL
(with VT)

PKS *ʔŋe^{B}～*ʔñe^{B}
(palatalization←SYL-I, from *ʔŋai^{B}

WEEP
[continued]

/2/>/1/ [cont.]

CRL (with VT)

Be ŋai$^{3/5}$<*ʔŋai^{B} (cf. KS)

P-Hlai *ŋai^{B} (See Note 4)

I

PAT *ʔa(ŋ)ku→

PAN *ʔaku~ (enclitic) *-(ŋ)ku

(enclitic)

PMY (N/W. Miao/Biao) *kou^{B}<*ku^{B} (reg. shift)

P-Tai (E. SW/N-Tai) *ku^{A}

Unmarked: (CRL/VT)

P-Tai (W. SW/C-Tai) *kaw^{A} (Tai Lue ku/kaw);Jiamao (Hlai), Pubiao/Pupeo kau^{A}; Lati kui (reg. -ui<*-aw)

*ʔu-marker:

Jap./Ryuk. *(w)anu<*(w)aŋku (reg. shifts) Note 5

CRR

Old Jap. (w)a- (enclitic)

PMY *wa[ŋ]^{B}: P-Miao (E. Miao) id.; She vɔŋ$^{B/C}$

CRM

Niala (Ceram) wau<*ua[g]u<*u-a[k]u

Laha ɔ^{A}<*uaw^{A}<*ua[g]u<*u-a[k]u Note 6

I
[continued]

*ʔi-marker:	Paiwanic *yaku<*ʔi-aku
CRR	Malaweg, Isneg (N. Phil.) *ʔiyaʔ <*ʔi-ak[u]
	P-Yao (Mien/Mun) *ʔya^{A}
CRR [cont.]	Be (Sav./Haud.) zea$^{3/5}$<*ʔya$^{B/C}$ (reg. shift)
	PKS (Mak, Gengfang, Maonan) *(ʔ)e^{A}, from *(ʔ)ia^{A}
CRM	Paiwanic: Saisiyat yako'~ya'o', Siraya ya-u/yao
	PKS (Kam, Sui, Xicun, Taiyang) *ya:w^{A}
	P-Gelao *ʔia$^{A/B}$<*ʔiaw$^{A/B}$ Note 7
*tsi-marker:	N. Phil.: Ilocano, Pangsinan syak<*tsi-ak[u] Sambal, Botolan hiku<*tsi[a]ku Bolinao siʔku<*tsi-ʔ[a]ku
CRL	PKD *qu^{A}: P-Hlai *xou^{A}, Laqua khəu, from *[tsi]ʔku
CRR	Shidong tsia^{A}; Lakkia tsi^{1} Note 8

NOTES

1. Reg. shifts; for infixed *ɣ, cf. PAN *ba-ɣ-qaŋ 'molar tooth' (→M1, Jv, P-PN 'jaw/chin'); PKD *( )(N) qaaŋ 'jaw/chin' (Tai, KS, Be, Hlai, Laha cgs.), showing VT, variable NI, with *( )(Hlāi) poss. reflecting an infix.

2. Pudi ma- not identified; for the reflex, cf. the closely parallel Gelao forms for 'dream': Wanzi pan[1], Pudi ɦuŋ½ (voiced h-), Liuzhi laŋ½ pla½ (laŋ½ is a preformative); note that Pudi has /šue/ for Wanzi pe in '10' as well as for Wanzi /pai/ 'fire' and 'walk', the latter apparently via -e<*-ai.

3. Benedict 1989 reconstructs P-Tai *pr- (cluster) vs. *p-r- (dyad), with suggestion that *phr- vs. *ph-r- (the *phl/r- of Li's *Handbook*) might also be required; WEEP fits here nicely:

		P-Tai		Ahom	Nung	SaekCf.Paiwan	Atayalic
		(SW-T)	(C-T)	(N-T)			
eye	*pra^{A}	ta	tha/ha	pra	*maCa	-masa 'eyeball' (Atayal)	
bamboo withe	*p-rVk	tɔk	phyo:k	pruk	*buluq	'small/arrow bamboo'	
weep	*phray^{B}	hai	hai	tai	*Caŋits	*liŋis (Sediq)	
rock	*ph-ra^{A}	phra	phya	phra	*barasaq	'stone/int. calc.'	

4. These CRC and CRL (with VT) forms all show typical Procrustean loss of final; KD lacks *-ait and the like.

5. Old Jap. i- only for '2nd', si-<*tsi- for '2nd', '3rd'.

6. Laha has -aw/-ow for P-Tai *-a(a)w but -ɔ for *-uaw; cf. /kɔ/ 'scratch', Saek (N-Tai) /khuaw/; Paiwanic *kuɣaw/kaɣaw.

7. Gelao /ʔi/ but /ya/ in early source (de Beauclair); reconstruction uncertain but there are parallels for the indicated -ia<*-iaw.

8. PAN *tsi is also used to mark personal names and the same usage is found in Kadai: Saek (N-Tai) si^{A}<*tsi^{A}.

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