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 *kuA, Lk. tsiA and Laha ɔA '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 V₁ to /a/, yielding /i/ 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 *mawA '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 *-en 'object focus-marker' and *-an 'referent focus-marker' (AN roles); (see Benedict 1989)
   PAT infixed *-γ-, *-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 imploked)
   consonants always secondary, e.g., frequently
   ?+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

PAN (gen.) *(ŋ)iŋən (typical SYL-III
*ə>/ə/)

/3/>/2/ split

N. Phil. *saŋi<PAN-level *tsaŋi

with infixed *l

*liŋən~*niŋən doublet (Blust)

with infixed *

P-Atayalic *gipun (P. Li)

<*ŋiŋən Note 1

/3/>/1/

P-Miao *hmyeB<PMY *hmye[m]B<*h-
myimB (reg. shift) <*ŋiŋimB (PMY
lacks *ŋiŋ-) <*ts[a]ŋim[pan]
TOOTH
[continued]

/3/>/1/ [cont.]
with VT Be ton¹ (Sav./Haud.) ~tin¹ (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 tshan¹<*tshan¹; add Xifang and Cunhua sen¹, also Mefuli xien (Stübela 1937)

with infixed *1 Gelao *p(-1)-an^A: Wanzi (Gao) pan¹, Pudi (Ao) ma-fuŋ½, Liuzhi (Duoluo) plan½^Note 2

/1/+/3/>/2/
(and /2/)
/>/1/ with prefixed *?u-
along with VT PKD-level *tsuan^A:
Pubiaog suan¹~suoŋ¹, Pupeo šuoŋ, Buyang ŋoŋ¹, Laha cuŋ¹

PKD-level Recon: *(?u-) tsanip(-1-)an or set up split doublet?
PAT *planits  PMP *t(-m-)anis
Paiwanic *C(-m-)anits
Atayalic (Sediq) *1(-m-)inis (P. Li)
(*a>/i/assim.)

/3/>/1/  PMY *ŋem<*>ŋim (reg. shift)
<*[pɁa]ŋ-m[-its]

/2/>/1/  CRR  Oceanic: Yabem (Papua: N. Huon
Gulf) tan
Lati cuŋ (init. cluster→CRR); cf. mcu
'eye' *mapra

CRC  P-Tai *phray<*>phraŋi[ts] (typical
(in-the-center) sec. nasalization)

CRL  Lakkia pie<*>pya<*>praŋi (SW-Tai (Siamese) *ŋi 'comp.') sob,
cry' <*ŋi (cf. KS), with loss of final
in composition.

Buyang ñiet<*>jit (palatalization
-SYL-I)

Laha ñit<*>jit

Gelao: Baiyan (Gao) ñiɣ, Pudi (Aou)
ñe<*>ŋi[t] (Gelao lacks stop finals)

CRL  PKS *ŋe<*>ŋe (palatalization-SYL-I, from *ŋai)
Be ŋaï³⁵<*ŋaiB (cf. KS)
P-Hlai *ŋaiB (See Note 4)

I

PAT *ʔa(ŋ)ku→ PAN *ʔaku~ (enclitic) *-(ŋ)ku
(enclitic) PMY (N/W. Miao/Biao) *kouB<*kuB
(reg. shift)
P-Tai (E. SW/N-Tai) *kuA

Unmarked:
P-Tai (W. SW/C-Tai) *kawA (Tai Lue kauA; Jiamao (Hlai), Pubiao/Pupo ku,kaw); 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 vɔŋB/C

CRM Niala (Ceram) wau<*ua[g]u<*u-a[k]u
Laha ɔA<*uawA<*ua[g]u<*u-a[k]u Note 6
*ʔi-marker:

Paiwanic *yaku<*ʔi-aku

CRR

Malaweg, Isneg (N. Phil.) *ʔiya? <*ʔi-ak[u]

P-Yao (Mien/Mun) *ʔya^A

CRR

Be (Sav./Haud.) zeα^3/5<*ʔya^B/C (reg. shift)

PKS (Mak, Gengfang, Maonan) *(ʔ)e^A, from *(ʔ)ia^A

CRM

Paiwanic: Saiisiat 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, Pangasinan 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 khœu, from *[tsi]ʔku

CRR

Shidong tsia^A, Lakkia tsì^1 Note 8
NOTES

1. Reg. shifts; for infixed *γ, cf. PAN *ba-γ-qaŋ 'molar tooth' (M1, Jv, P-PN 'jaw/chin'); PKD *(N) qaan '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 pan¹, Pudi ʔuŋ⁹ (voiced h-), Liuzhi laŋ⁹ ʔlaŋ⁹ (laŋ⁹ is a preformative); note that Pudi has /ʃue/ 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 *ph/l/r- of Li’s Handbook) might also be required; WEEP fits here nicely:

<table>
<thead>
<tr>
<th>Atayalic</th>
<th>P-Tai</th>
<th>Ahom</th>
<th>Nung</th>
<th>Sack/Cf. Paiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td>(SW-T)</td>
<td>(C-T)</td>
<td>(N-T)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>eye</td>
<td>*pra₄</td>
<td>ta</td>
<td>tha/ha</td>
<td>pra</td>
</tr>
<tr>
<td>bamboo</td>
<td>*p-rVk</td>
<td>tok</td>
<td>phyo:k</td>
<td>pruk</td>
</tr>
<tr>
<td>withe weep</td>
<td>*phray₄</td>
<td>hai</td>
<td>hai</td>
<td>tai</td>
</tr>
<tr>
<td>rock</td>
<td>*ph-ra₄</td>
<td>phra</td>
<td>phya</td>
<td>phra</td>
</tr>
</tbody>
</table>

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/kəɣaw.
7. Gelao /i/ 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.

REFERENCES


