

**On the common morphological origins
of word families in Southeast Asia**

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In a series of papers presented since 1978, James A. Matisoff has developed what he calls the "organic semantic" approach to Sino-Tibetan (ST) reconstruction.¹ According to Matisoff 1985:421, the key to this method is recognition that cognate identification must take into account variation on both phonological and semantic levels. On the phonological level, such variation is handled by organizing lexical data into word families comprising suspected alternants or "allofams" which may differ from each other by choice of prefix, initial-consonant voicing, presence or absence of a medial glide or suffix, and so on. On the semantic level, the chosen allofams may reflect shifts of meaning from point to point in semantic space.

For each word family, an abstract pan-allofamic formula is extracted, the constituent segments of which represent the entire range of phonological variation within the family. In turn, this formula is broken down into individual proto-allofams which are based on what supporting forms are available to justify them. One such pan-allofamic formula and its principal proto-allofams are shown in Table 1.

In Austroasiatic (AA) and Austro-Tai (AT), the other two great language families of Southeast Asia, such systematic treatment of phonological and semantic variation in cognate identification is not often seen, and the word-family concept is hardly used at all. This is not because such variation does not occur or word families do not exist. Quite to the contrary, AA and AT possess both, and some of their word families bear remarkable resemblances to ST word families. In his discussion of the above-cited ST word family, Matisoff (1985:426, footnote 18) refers to the existence of similar forms in AA and AT, citing Khmer *kliək*, Indonesian *ketiak* 'armpit', and Cham *kələk* 'tickle'. Table 2 shows that these are only the tip of a lexical iceberg.

Although this listing may not be exhaustive, it demonstrates sufficiently well that these ST, AA, and AT word families possess an unusual degree of lexical, phonological, and semantic congruency. What is not obvious from the table is whether or not there also exists a grammatical (morphological) congruency. The purpose of this paper will be to argue that such is the case

¹ The basic work is *Variational Semantics in Tibeto-Burman: the 'organic' approach to linguistic comparison* (Matisoff 1978). The only paper of the series to which I have had access is Matisoff 1985 (see references), and it sparked the interest that led to writing this paper.

$$\left\{ \begin{array}{c} d- \\ g- \\ p- \end{array} \right\} \begin{array}{c} l \\ y \end{array} \quad ak \quad or \quad \left\{ \begin{array}{c} d- \\ g- \\ p- \end{array} \right\} l^y ak$$

| | |
|---------------------|---|
| *lak | WB ?əlak, WT lag-pa 'hand' |
| *yak | Newari yāk-wa 'armpit', Proto-Lolo-Burmese *ʔyak 'tickle' |
| [*yak >] zak | OC *ziǎk, Lushai zak 'armpit', Zeme mi-zak 'side (of body)' |
| *d-lak | Jinghpaw lətáʔ, Hsi-hsia (Tangut) *lda 'hand' |
| *d-yak | Gyarung təyǎk 'hand' |
| *d-[l]ak | Namsung dak 'hand' |
| *g-lak | OC *klâk 'armpit' |
| *g-yak | OC *kiǎk 'leg, foot', WB gyak-kəli 'armpit' |
| *p-yak | WT p'yag 'hand (respect language)', OC *piěg 'arm' |
| *(g, d)-yak > *dʒak | Garó dža 'foot', džak 'arm', Lepcha jak 'tickle' |

Abbreviations: AA (Austroasiatic), AK (Austro-Kadai), AN (Austronesian), AT (Austro-Tai), MUK (Muong Khen), N (Northern), OC (Old Chinese), PM (Proto-Mon), PW (Proto-Waic), PWMP (Proto-Western Malayo-Polynesian), VN (Vietnamese), W (Western), WB (Written Burmese), WT (Written Tibetan).

Table 1

| AA | AT |
|---|--|
| <p>PW *sʔwok, Mundari ukaʔ 'elbow', Khmu' sɔk 'distance from elbow to tip of hand', Katu salóók 'underarm to fingertip', VN thươc 'meter'</p> | <p>*[tsu]ruk, *tsu[ra]k 'angle, elbow', AN *seruk, PWMP *suyuk 'angle, corner', Thai *so(o)k 'elbow, forearm, cubit'</p> |
| <p>Nyah Kur (Tha Pong) cəwaak 'fork, area where parts join or diverge', cəwaak ɲlak 'armpit', Pacoh choaq 'use feet to measure, length of two feet'</p> | |
| <p>Bahnar bók ak 'armpit', Pacoh lpaq 'underarm', Souei lampaaʔ 'shoulder'</p> | <p>PWMP *apaqpaq 'armpit, crotch', Rade päl-ak, W Cham pa-ak, N Ronglai ala pa-âq 'armpit'</p> |
| <p>Pearic prəkak, Chrau quaq 'armpit', MUK quac 'shoulder'</p> | |
| <p>Santali hatla'k, PM *knlak 'armpit'</p> | |
| <p>Brao diak 'armpit', Chrau diêq 'rib (back)'</p> | <p>Malay kətiak 'armpit'</p> |
| <p>Jehai (Semang Plus) ləḍā 'armpit', PM *k[r]n'dak 'to elbow'</p> | <p>Ong-Be khak-dok 'elbow'</p> |
| <p>Thavung thavaak, Ruc luvák 'armpit'</p> | |
| <p>White Striped Riang (ɔk)yak 'armpit'</p> | |
| <p>VN nách, MUK néc 'armpit'</p> | |
| <p>Khmu' klʔek 'armpit', Pacoh caléc</p> | <p>*kele(/kele), *qeḷe/q(e)ḷe 'tickle', AN kilik, *kili[ʔ,h] 'armpit, shoulder, carry on arm', *gi[t]ik, *ki[C,t]ik 'tickle'</p> |
| <p>Rengao tǝng plík 'armpit'</p> | |
| <p>Bahnar 'mɔ 'mrɔk 'tickling sensation'</p> | <p>AN *(q)irək 'armpit'</p> |

Table 2

and to propose that the word families of all of the Southeast Asian languages share features which may have originated at least in part in a common morphological system.

The AA, AT, and ST languages have been too long in geographic proximity for the above-noted congruency to be accidental and thus typological in the narrowest sense of the term. The congruency must hence reflect either a genetic or contact (loan) relationship or both; however, the genetic kind must be rejected for the present. According to Paul K. Benedict (1975:135ff.), AA and AT are linked only by an early contact (substratum) relationship while ST is not genetically related to either. Some Austroasiaticists reject that view of Austric (AA plus AT), and this writer hopes to publish in the near future a series of papers which will confirm the genetic relatedness of AA and AT.² Other comparatists have pointed out lexical and other correspondences between ST and various Austric subgroups, but Benedict also reports a distinct absence of lexical correlation in the Austric and ST core vocabularies. Consequently, it will be assumed here that the above-noted congruency reflects a genetic relationship between AA and AT and a loan relationship between Austric and ST. These assumptions permit us to present a proposed model of the ancient Austric morphological system and point out briefly the features of it which ST appears to have borrowed.³

For Proto-AT, Benedict (1975:149ff., 1990:19ff.) reconstructs a *canonic* syllable, (C)V(C), with consonant clusters occurring in the C₁ slot, and a *lexeme* (vocabulary morph) composed of up to three such syllables, the most common type being disyllabic. He reconstructs only one morphological process, affixation (prefixation, infixation, suffixation), but identifies reduplication and alternation of consonant voicing as possibly additional ones. The affixes occur in C(V)/, /(a)C/, and /(V)(C) formats.⁴

In my ongoing comparison of AA and AT, it has proven useful to propose a slightly different system for Proto-AA and Proto-Austric. Two *canonic* roots are reconstructed, (C)V(C) and (C)V(C)V(C), with consonant clusters occurring in the C₁ and C₂ slots (but not finally). These roots could be inflected by three affix complexes (described below). Other possible morphological processes were reduplication and alternation of vowels and the voicing of certain consonants.⁵

² Cf. Hayes 1993 (forthcoming).

³ To assume otherwise, i.e., that Austric borrowed the ST morphological system, would offer no greater heuristic advantage at the moment, even if it could somehow be shown to be historically more accurate.

⁴ Parentheses, (), are used to denote optionality; brackets, [], uncertain reconstructions; and slashes, /, morphological boundaries.

⁵ See the AA and AT forms indicating *p(i,a,u)k (note 12 below). In some modern AA languages, such vocalic alternation denotes differences in size or intensity. Some of the consonant voicing alternation is unexplained, but much of it appears to be phonologically conditioned, e.g., Vkv > VgV.

The Prefix Complex. Canonic (C/)(V/)(R/) from earlier (C/)(V/)(C/). The C(onsonant) prefix class comprised most of the proto-consonants; its members may have functioned as classifiers, verbal markers, and/or pronominal referents. The V(owel) prefix class comprised most, if not all, of the proto-vowels; they may have served as articles, gender markers, and/or spatial or temporal deictics. The R(esonant) prefix class comprised a homorganic nasal and probably the laterals, */l, ɭ, r/; the nasal is evidently the phonologically conditioned reflex of a larger set of consonantal prefixes (including the laterals). This class probably served to verbalize nominal stems, nominalize verbal stems, and/or form derivatives from both types of stems. Some typical examples are shown in Table 3.

To display the full range of affixes, a form such as

*[c/](i,a,u)/(n/)qan̄ or *[c/](i/)(n/)qəw̄a/(s)/(i)

could be used. Note the similarity to Matisoff's pan-allofamic formula.

The Infix Complex. Canonic /(V/)(R/)(C/). This complex mirrors the prefix complex and evidently evolved from it through transposition due to such factors as nasalization of the R-class prefixes. Hence, the prefix and infix classes were probably composed originally of the same morphophonemes. Typical examples are given in Table 4.

The *p infix apparently formed collectives, e.g.:

*q/ap/ar 'a group of two', whence *n/qap[ar] > VN c̣ăp 'pair, couple'.

Cf. AT *(N)qa(m)bar 'twin, double(d), two', *(q/)obots 'ended', Atayalic *ma/ta.ɭu 'six'.

The Suffix Complex. Canonic (/N/)...(/C/)(V/)(C/) from earlier (/C/)(V/)(C/), with "..." representing the stem's final consonant. The identity and functions of the suffixes are less well known due to widespread attrition of such affixes at later stages. Quite likely, the suffixes served to denote morphosemantic distinctions roughly equivalent to the nominal cases and verbal declensions of the Indo-European languages. The "infix" suffix may have been transposed for euphonic reasons, i.e., *kuk/n > *ku/n/k (the nasal infix may be the reflex of other non-nasal suffixes), cf. AT *[i]ŋkuk, [i](ŋ)kuŋ 'bend/bent', AN *biŋkuk 'bent', *[C,t,T]ikuŋ 'bend'; AA

| Gloss | Root | Word Form | Austroasiatic | Austro-Tai |
|-------|-------|---|---|----------------------------|
| bone | *qəŋ | *c/i/qəŋ *c/a/n/qəŋ *c/u/qəŋ | Khasi (Amw) síang Lamet cəŋʔaəŋ VN (*cɜhaŋ >) xuong | *(q/)(n)tuɿaŋ ⁶ |
| I | *qu | *m/i/n/qu *n/qu/a/(n) *a/qu | Pareng miŋgu VN qua, Thavung kan Jeh au | *va(ŋ)ku |
| nine | *qəva | *c/i/qəva *c/i/n/qəva *t/i/n/qəva/s/i | Khasi (Amw) hunshia VN chin Ngeq takias | *ts[i][qə]wa |

Table 3

6 Benedict now proposes *CuqVh/əɿ/əŋ with *C a cluster such as *p[l,ɿ,r] and *q perhaps from metathesized *qa/ (personal communication). For AN *[t]uʔ[ɿ]əŋ, *[t]u/q/əɿ/əŋ may be adequate, cf. Chrau nting, Loven ktəŋ < (prefixed) *t/[ɿ]/qəŋ 'bone', and perhaps *ts/u/n/qəŋ for Proto-Miao-Yao *tsuŋ ~ *suŋ 'bone'. Benedict's more complex reconstruction is evidently intended to integrate Thai *ʔduuk and Kam-Sui *ʔdlaak 'bone' into the paradigm.

| Root | Derivative | Root | Derivative |
|--------------------|----------------------|---|--|
| *qar | *q/(i, a, u)/(n/p/ar | Sengoi har 'we two' | Khmer b̄ir, Juang ambar, Kharia ubar 'two' |
| *taɭu ⁷ | *t/(i, a)/(n/p/aɭu | Alak t̄arau 'six' | Kharia t̄ibru, Jeh todrau, Semaq Beri tem-per̄u 'six' |
| *qoc | *n/q/ob/oc/(i) | Santali go'j 'dead', Pearic ho:c 'die' | Temoq keb̄os 'die' |

Table 4

⁷ Reflexes of this root have in ST a final velar, cf. Tibetan d rug 'six', and in some AA idioms a final glottal stop, often a reflex of *q. Presumably, suffixation by *k and/or *q, both reconstructible for Austric, is involved.

**n/kuk*, VN *gục* 'bend down (head)', **ku/n/k*, Khmer *kuñ* 'bend', **ku/n/k/[eq]*, Chrau *cungeq* 'head to side'.^{8, 9}

Since the time of Proto-AA (ca. 2000 BC or earlier), the morphological system has slowly disintegrated. The primary process of change has been compression of affixes into stems, which probably originated in response to disruption of ancient stress patterns. This process has proceeded in two phases, the first a trend to disyllabism affecting the whole of Austric, the second a trend to monosyllabism affecting primarily mainland AT and eastern AA (Mon-Khmer). The latter trend is still in progress. The second most important process of change has been incorporation of affixes into stems, which has also affected the whole of Austric. This process has often been recurrent, such that layers of accreted affixes have developed. As a result of these change processes, the ancient affixes have been to a great extent lost, replaced, or concealed in stems, making recovery of the ancient grammatical system a most difficult and time-consuming enterprise.

The affix-complex concept permits us to analyze the AA and AT correspondents to the above-cited ST word family as reflexes of inflected allomorphs of a single proto-morph. The root form of this lexical morph was **ak* or **ʔak*; the latter is used in the provisional proto-forms reconstructed in Table 5. Some reflexes suggest a morphophonemically shifted doublet, **ʔuk*, but vocalic transfer and assimilation, i.e., **u/ʔak* > **ʔuak*, **ʔu(:)k*, **ʔwak*, etc., can plausibly account for its occurrence. The above-cited Austric etyma can now be analyzed morphologically (see Table 5).

Although all of the cited allomorphs are possible under the rules of the proposed morphological system, some of them are quite likely innovations appearing in the post-Proto-AA era. The various semantic contents probably also appeared at different times, and determining the earliest reconstructible semantic content is a most difficult task. Two basic questions to be answered are: whether the paradigm includes any independent roots possessing **ak* as a constituent phonological element, and whether independent but homonymic roots are to be reconstructed. At the moment, the answers can be stated only in terms of possibilities. For example, some evidence suggests that an independent root, **lak*, could be set up, cf. Riang *plak*, Katu *palaang* 'palm, sole'; AN **gəlaŋ* 'armlet, bracelet', Paiwan **balaja* 'wing'. The

⁸ The infixal suffix is suggested by several observations, e.g., the frequent alternation of final stops with their homorganic nasals (not totally explained by reduplication), sporadic alternation of nasal and non-stop finals, and development of infixal prefixes upon nasalization of the R-class prefixes; similar alternation in ST is apparently conditioned by suffixation, cf. Bahing *kūk-o* (transitive), *kūñ-yi* (passive), *kūñ-ʔo* (reflexive) 'to crook' (Shafer 1966:16f.).

⁹ Here too ST has a lookalike word-family: **kuk/ŋ* & **guk/ŋ* 'bend, crooked' (cf. Benedict 1972 ["STC"], pp. 125, 182). The PTB etymon **ku·ŋ* 'tree, branch, stem' (STC #359, p. 77) also evidently belongs in this word family, with the semantic link provided by forms like WB *kūiŋ* 'hang over in a curve; bend downwards (as a branch)'. See also Proto-Lolo-Burmese **gok* 'crooked, bent; return, go back' (Matisoff 1972, set #2). [Ed.]

| Word Form | Allomorph | Austric |
|---------------------|--|---|
| *c/u/(r)?ak | *cu?ak *cur?ak | Pacoh choaq, Khmu' sɔk; PWMP *suyuk, Thai *so(o)k PW *sʔvok, VN thươc, Nyah Kur cərwaak, Thavung thavaak; AT *[tsu]ruk, *tsu[ra]k, AN *seruk |
| *(i/a,u)?ak | *u?ak/i?ak *a?ak *u?aka[q] | White Striped Riag (ɔk)yak Bahnar bɔk ak; Rade pǎl-ak Mundari ukaʔ |
| *?/ap/ak | *?apak *[ʔ]la(m)pak | PWMP *apaqpaq Pacoh lpaq, Souei lampaaʔ |
| *k/((i,a,u)/(l))?ak | *ka?ak *ku?ak *kal?ak *kil?ak | Pearic prəkak Chrau quaq, MUK quaq PM *knlak Khmu' kɭʔek, Pacoh caléc; AT *keɭe(keɭe), AN *kilik |
| *t/(i,a)/(l)?ak | *ti?ak *tal?ak | Malay kətiak Santali hatla'k |
| *d/(i,a,u)?ak | *da?ak *di?ak *du?ak | Jehai lědā', PM *k[r]n'dak Brao diak Ong-Be khak-dok |
| *l/u/?ak | *lu?ak | Ruc luvák |
| *i/n/?ak | *in?ak | MUK néc |
| *p/(i,a)/(l)?ak | *pa?ak *pil?ak | W Cham pa-ak Rengao tɔng plík |
| *(q)i/r/?ak | *(q)ir?ak | AN *(q)irek |

Table 5

occurrence of *ak as a possible nucleus in such forms as AT *tsa[r]ak 'separate(d)', *()kr[i][l]ak 'split', *(q/)biyak, *piyak 'divide, split', and AK *[ts,tš]i(m)pak 'strip, split' (all have AA correspondents) suggests that *[?]ak 'to split' may underlie most of the above-cited allomorphs, since most of them refer to body parts which are "splits" in or off of the human anatomy.¹⁰ Another possibility is that a set of onomatopoeic alternants, *ak and *ik, underlie the 'tickle' etyma, cf. AN *qakqak 'laughter', *kikik 'giggle', *qikqik 'giggling'.

If one assumes that the same morphological structure underlies the above-cited ST forms, then Matisoff's pan-allofamic formula can be converted to read *(d/,g/,p/)(i/,a/)(l/)ʔak and his proto-allofams reanalyzed as shown in Table 6.

| <i>Matisoff</i> | <i>Reanalysis</i> | <i>Corresponding Austric Form</i> |
|-----------------|------------------------------|-----------------------------------|
| *lak | *l/a/ʔak and/or *ʔ/al/ak | |
| *yak | *i/ʔak | *i/ʔak |
| *d-yak | *d/i/ʔak | *d/i/ʔak |
| *d-[]ak | *d/[a]/ʔak | *d/a/ʔak |
| *g-lak | *g/(a/)l/ʔak or *k/(a/)l/ʔak | *k/a/l/ʔak |
| *g-yak | *g/i/ʔak or *k/i/ʔak | *k/i/ʔak |
| *p-yak | *p/i/ʔak | |

Table 6

This reanalysis makes explicit the correlation of the constituent phonological elements of the ST proto-allofams to the Austric grammatical and lexical proto-morphs. This correlation looks very much like genetic morphological correspondence, which Radoslav Katičić (1970:84) defines as phonemic correspondences of any part of phonemic strings expressing word forms, but only of such parts having the same position with respect to the other parts of the words compared. However, genetic morphological correspondence presupposes genetic phonemic correspondence, and the latter cannot be claimed to exist between Austric and ST, especially on the basis of the small data sample presented here.

¹⁰ *[?]ak may actually be the nucleus of a macro-word family. Besides the above-cited verbal stems and body parts, cf. also AN *paŋa[ʔ.h], *saŋa[ʔ.h] 'fork', *[d,D]aŋan 'branch', AA *(n/)kak 'branch, fork', and Proto-Tibeto-Burman *ka 'k' 'branch, fork', all suggesting alternants *[?]ak and *[?]aq.

It remains to be determined whether ST simply acquired certain Austric words as complete forms or borrowed both lexical and grammatical morphs along with the rules for combining them into word forms. The answer to this question might be provided by evidence that ST lexical morphs of non-Austric origin were inflected by borrowed Austric grammatical morphs. Some of the pan-allofamic formulae in Matisoff 1985 do have Austric-like affixes but no known Austric lexical correspondents, e.g., {k,g}(r)ut 'hand/arm'; hence, it would appear likely that ST did borrow at least in part the Austric morphological system. This borrowing cannot be confirmed, however, because the writer does not possess enough information on ST comparative grammar to distinguish between grammatical elements of indigenous origin and those that can be positively identified as Austric loans.

In applying this sort of morphological analysis, it is often difficult to decide how far it can be taken. If one assumes, for example, that the suffixed allomorph, $*?a/n/k$, occurred in the inflectional paradigm, then one can add to the above-cited word families the additional allofamic groups shown in Table 7. In this case, the only AT correspondents identified thus far appear to have been borrowed from AA, e.g., W Cham kuk kiang 'elbow'.

Matisoff's ST formula is shown in the data table, but it can clearly be reanalyzed as $*(k/g)(i/a)(r/?a/n/k)$. This analysis produces phonological equivalence where initially none is clearly present but semantic equivalence is; unfortunately, it cannot decide for us whether the cited forms are not better explained as reflexes of an unrelated lexical morph, $*\gamma a\eta$, forming the nucleus of the word form represented by $*(k/)(i/a)(n/r)\gamma a\eta$.

In another case, two of Matisoff's pan-allofamic formulae and several Austric proto-forms may be integrable into one word family. Plausibly, the nuclear lexical morph is $*pa$, and for this demonstration, the AA reconstructions are morphologically analyzed as if this were true. More likely, several lexical morphs, i.e., $*pa$, $*pak$, $*pag$, and $*ta\eta$, are involved, but sorting them and their reflexes out is at present not an easy task. See Table 8.

Another group of word families seems well interconnected, even if the phonological and semantic variation is wide. The earliest meaning of the root, $*lab$, may have referred to actions of birds accompanied by beating the wings.¹¹ See Table 9.

The above presentation is not intended to be a criticism of Matisoff's organic semantic method. Similarly, the reanalysis performed on his proto-allofamic reconstructions implies no rejection of them, for they apparently refer to a time stage more recent than the one during which ST borrowed from the Austric morphological system and may properly reflect internal changes occurring between those stages. It should perhaps not go unsaid that the affix-

¹¹ Cf. the article by Robert S. Bauer in this issue, where this fluttery etymon is put into a broad areal context. [Ed.]

| | | | |
|----|---------------|---|--|
| ST | {k,g}-(y,r)aŋ | *yaŋ *raŋ *k-yaŋ *k-raŋ *g-raŋ *k-[]aŋ | Konyak yang 'wing' Nocte arang 'wing' Mzieme miba-kengkieng 'arm' Wanang ka-rang 'wing' Dimasa bagarangthong 'wing' Yacham Tengsa shikang 'wing' |
| AA | *ʔa/n/k | *k/i/?a/n/k *k/i/n/?a/n/k *k/a/n/?a/n/k *p/i/?a/n/k *[p/]i/n/?a/n/k | Khmu' (Yuan) kerleey kiaŋ, Katu takiêng 'elbow', Bahnar kiêng 'tail' Jehai kəñɛŋ, Sengoi kengyek Sengoi kanang 'elbow' White Striped Riang piaŋ 'wing' Khasi thapniang 'wing' |

Table 7

complex concept was born in the writer's own efforts to comprehend the complex phonological variation found in AA and the difficulties it poses for cognate identification and historical comparison.

Actually, the differences between the organic semantic method in ST, Benedict's comparative methodology in AT, and the writer's approach to AA and Austric reconstruction are not all that great. Matisoff focuses on cognate identification and says little about comparative morphology, apparently because his lexical data give him little to work with in this area. He often proposes multiple proto-forms (proto-allofams) and definitions in order to account for phonological and semantic variation. Benedict also operates with "likely cognate groups" (word families) and has more to say about morphology, but the inferences he draws are limited, when compared to the writer's, largely because ancient grammatical distinctions have been almost totally lost in mainland AT, and AN reconstruction has been, in the writer's opinion, ultra-conservative in recognizing possible traces of the ancient morphology. The writer's approach is more radical in its attempt to ferret out the traces of the ancient Austric grammatical system and explain much of the phonological and semantic variation as the result of diachronic changes affecting that system. In all three cases, the resulting reconstructions, whether called pan-allofamic formulae, proto-allofams, or proto-(word)forms, are quite similar methodologically and differ mainly in the amount of information they attempt, or are able, to reveal about the ancient phonology and morphology of the respective language stocks.

As a working hypothesis for comparative morphology in AA and Austric, the affixal complex concept appears to be highly informative in accounting for a large variety of associated synchronic and diachronic lexical, phonological, and morphological phenomena. But as is so often the case in comparative linguistics in Southeast Asia, some caveats are *de rigueur*. The concept has not been fully tested in AA, much less in AT; hence, it must be regarded with due caution pending accomplishment of a more comprehensive evaluation. The data and commentary presented here suggest that the concept may be equally useful in ST comparative studies, but the accuracy of this impression must also depend on the results of a wider and fuller survey of the ST comparative material.

| | | |
|-----------|--|---|
| ST | *pak or *p(r)ak 'flat of hand, palm' ¹² *{p,b}aŋ | Lisu lá ⁶ -hpá ² 'hand', Chepang krutpāk 'palm' Tangkhuḷ pang 'hand', pangthei 'arm', Maring khutbang 'arm' |
| AA | *t/a/pa *t/a/(n)/pa/n/k *t/a/(n)/pa/[G,s] *p/l/a/[G,s] *p/al/a/k *(n)p/l/a/k > *(n)tak *(t/)a/pa/t | Mundari t̥apa 'to fan' Katu t̥apaang 'top of hand/foot', Sre mpang 'palm/sole' Thavung t̥pah, Katu mpah 'slap' Katu chaplah 'fingers/toes' Riang Lang plak 'palm/sole' PW *r̥ndak, Khmu' (Yuan) k̥etaak 'palm/sole' Bahnar tap, Pacoh apat 'slap' |
| AT | *ta(m)paŋ[a] *[ta](m)pak *[ta]pa/pak *[ta](m)pa/p[ag] | N Thai *v̥i: aŋ 'hand', Laqua paŋ 'arm', Proto-West A (Miao) *mpaŋ 'hand/arm' AN *ta(m)pak 'palm/sole', *t̥epak 'hit with hand', *la(R)pak, *[d,D]a(R)pak 'slap' Thai *faak 'slap' Thai *fa, PWMP *Da(m)pa 'palm/sole' |

Table 8

¹² Matisoff (1985:430) also glosses *pak/p(r)ak as 'leaf; flat object' and opines that these are its basic meanings. Note the following Austric forms and their divergent finals: AT (Benedict 1975:325) *pa[x]/pa[x], *(q/)(m)p/al/a[x] (/pa[x]), AK (Benedict 1990:217) *paGpaG 'leaf'; AA *pa[G] (unattested), *p/l/a[G], *p/al/a[G]/(a), Pacoh atáh 'palm branches', pláh 'sheet, leaf', Santali palha 'leaf'. Also note AT *pak/pak, *pik/pik, *(m)puk/(m)puk 'beat, flutter, wing'; AA *pak, *pik, *puk, VN bá c 'scramble (eggs)', Pacoh púc 'to fan', Khmer puk 'pound'. Perhaps three roots are to be distinguished, i.e., *pa 'palm', *pa[k,G] 'leaf', and *pak or *p(i,a,u)k 'beat'.

| | | | |
|----|----------------|--------------------------------|---|
| ST | *{p-,s-}l(y)ap | *lap *slap | Limbu ku-lap 'wing' Written Tibetan hlab-hlab 'flutter to and fro' |
| | | *s-lyap *p-lap *p-(l)yap | Written Tibetan hlab-ma 'wing' Hayu blop 'feather' Tamang pyāhp 'wing' |
| AA | *lab | *(b)(e,a)lab | Chrau valăp 'wrist'; Jeh lăp-lăp krōng 'kneecap', Sengoi gulap 'carry on shoulder' |
| | | *kilab *s(e,a)lab | PW *[klip] 'shoulder' Khmer slăp 'feather, wing', Chrau chăp 'egg', Pacoh xáp 'nest' |
| | | *laba[q] | Mundari laba? laba? 'flap, wave up and down' |
| | *[p]/lab | *(t)(e,a)tab | Chrau tap 'hit', VN đáp 'to alight', Jeh tətăp 'egg' |
| | *[b]/lab | *(i,a,u)dab | Sengoi dep, Jeh dop 'to alight', PM *k[l,m]dap '(hen) sit on (egg), brood, hatch' |
| AT | *(n/)[p]/lab | *() (n)tab | Thai *dap 'beat' |
| | | *(n)tatab | Proto-Miao-Yao *(n)taat 'wing' |
| | | *tabtab | AN *tabtab 'beat', Thai *thaap 'fly, move wing' |
| | | *[tə]təb | Thai *top 'beat, flap (wings)' |

Table 9

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