Proto-Indonesian and Mon-Khmer

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In 1906 the German anthropologist Pater Wilhelm Schmidt promulgated a double-headed hypothesis on the relationships between a large number of the languages of southern Asia (Schmidt 1906). On the one hand Schmidt combined into an Austroasiatic stock the language groups known as Munda and Mon-Khmer. On the other hand he linked this Austroasiatic with the better-known Austronesian (Malayo-Polynesian) stock under an Austric phylum.

It may be mentioned as a reminder to nonspecialists that the Austronesian languages, studied intensively since the time of Wilhelm von Humboldt (1767-1835), fall into three main divisions commonly referred to as Indonesian, Melanesian, and Polynesian. Languages of the Indonesian division are distributed for the most part through Island Southeast Asia and are exemplified by Tagalog, Javanese, Balinese, Malay, Batak, Dayak, Malagasy, and Cham on the coastal plain of central Vietnam. The less well-known languages of the Austroasiatic stock, by contrast, are distributed for the most part through the mainland of southern Asia. Those of the Munda division are found chiefly on the Chota Nagpur plateau in central India, while those of the Mon-Khmer division include Khasi in northern Assam, Aslian (Semang, Semai, Sakai, etc.) in the interior of the Malay Peninsula, Nicobarese, Mon in lower Burma and Thailand, Khmer in Cambodia, Vietnamese, and a host of “minor” languages (e.g., Stieng, Bahnar, Wa, Palaung) spoken in the upland zone stretching from Burma across Thailand and Laos into Vietnam and Cambodia.

Schmidt’s hypothesis, in proposing genetic relationships extending all the way from India to the eastern Pacific, was greeted with mixed reactions. The majority of linguists, it seems fair to say, felt it was premature and that its author had failed to substantiate it with a convincing body of evidence; above all, he had not demonstrated any regularity of sound correspondences between Munda and Mon-Khmer.

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on the one hand and between Austroasiatic and Austronesian on the other. The Austroasiatic hypothesis was nevertheless accepted by many, albeit with reservations and in the absence of a more plausible alternative. But, while there was no question regarding the unity of Austronesian, the thesis of an historical relationship between Austronesian and Austroasiatic was shelved as a more or less remote possibility (Sebeok 1942; Thomas 1964). Since Schmidt’s day almost no work has been done toward demonstrating it.

Our purpose here, therefore, is to reopen the Austric hypothesis by focusing attention on the possibility of a cognate relationship between Indonesian and Mon-Khmer. As far as origins are concerned, the work reported here should be thought of as a by-product of one of three parallel projects undertaken some years ago for the purpose of investigating the non-Indic segment of the Khmer lexicon. This project was addressed at first only to the identification of Indonesian (principally Cham, Malay, and Javanese) loans in Khmer. As work progressed, however, we had increasing reason to believe that we were collecting, in addition to Indonesian loans in Khmer, respectable numbers of Mon-Khmer loans in Indonesian and, more importantly, what appear to be cognates linking the two groups. The original project was hence enlarged to include broader linguistic relationships, and for the past year or more we have focused our attention on the question of a genetic relationship between Austronesian and Austroasiatic. The data and views offered hereafter represent a small sampling of our results so far. For reasons to be explained, we prefer to think of the present statement as a purely exploratory comparison between proto-Indonesian and proto-Khmer. Since our whole argument rests upon the methodology used, it behooves us to describe the latter in fair detail.

We have thought it prudent as well as convenient to confine our preliminary examination to Dempwolff’s reconstructions as published in the third volume of his Vergleichende Lautlehre des austronesischen Wortschatzes of 1938. We have assumed as a working procedure that any reconstruction found in the Austronesisches Wörterverzeichnis (Dempwolff 1938) is, as far as our immediate objective is concerned, established as such and requires little or no demonstration by us. In other words, we have taken Dempwolff’s forms as constituting the axiomatic portion of our comparison and as needing no qualification except that which is stipulated below. To facilitate comparison we have modified Dempwolff’s original orthography in the direction of that used by Dyen.

It is necessary to emphasize at this point that Mon-Khmer studies lag far behind Austronesian. While excellent progress has been made since the 1950s in the discovery of certain alignments within the group, we are still a long way from having reconstructed a protolanguage for Mon-Khmer as a whole. The main thrust of our present effort has consequently been in the direction of establishing cognates of Dempwolff’s forms in Mon-Khmer, rather than in the reverse direction or rather than treating the two areas of comparison as existing on the same echelon. In the absence of any systematic reconstruction of Mon-Khmer such an attempt may be premature and fraught with unforeseen risks. To minimize the latter we have compared Dempwolff’s forms with a proto-Khmer based upon all of the internal evidence at our disposal but subject to minor adjustments as Mon-Khmer historical studies take on greater depth. Since this proto-Khmer cannot carry the same weight
of authority as Dempwolff's reconstructions, we have sought to substantiate it in all cases by adducing evidence from other languages of the Mon-Khmer group. In the interest of brevity, we have elected to include only a small part of these collateral data in the wordlist to follow. It is nevertheless worth noting that this extra-Khmer evidence is also intended to underscore the distribution of given items in Mon-Khmer generally and thereby reduce the possibility of our mistaking old loans for cognates, a liability of which we are acutely conscious.

Our first step in approaching the question of a genetic relationship between proto-Indonesian and Mon-Khmer was to examine Dempwolff's work from what might be called a Mon-Khmer perspective. This examination resulted in a number of observations that appear to have a bearing on the problem. There are of course numerous extralinguistic cultural features linking speakers of Mon-Khmer and speakers of Indonesian languages. Among these is the system of collective quantifiers progressing by \(4 \times 10\), described briefly in Jenner (1974).

Among other things, we have noted that Dempwolff's reconstructions appear, from the "Mon-Khmer point of view," to be divisible into six groups on the basis of their form:

1. CV(F) monosyllables (e.g., pa'ı, bun, tas)  
   1.4%
2. CV'V(F) syllables (e.g., ba'u', da'up, na'ık), which we are not sure how to interpret at the moment but favor grouping with the preceding  
   1.9%
3. CV(F)² reduplicated monosyllables (e.g., diŋdiŋ, namnam, ɗa'ɗa'), which are also to be grouped with monosyllables  
   6.5%
4. Dissyllables (e.g., banar, laŋkaq, saŋdan) which, as in Mon-Khmer, can be analyzed into presyllables of the shape CV(N) plus main syllables of the same shape as CV(F) monosyllables  
   85.7%
5. Trisyllables (e.g., paŋaŋaŋ, b'alaŋaŋa', 'aliməs), most of which appear to contain affixes and to be reducible to dissyllables  
   4.3%
6. Three quadrisyllables, apparently consisting of dissyllables compounded  
   0.14%

If our assumptions regarding groups 2, 3, 5 and 6 are not incorrect, one might advance the proposition that the great mass of Dempwolff's reconstructions can be reinterpreted as consisting of monosyllables (9.8%) and dissyllables (90.14%). For the mon-khmerisant, moreover, the temptation is irresistible to see the great majority of the latter as consisting of a monosyllabic base plus a prefix or infix.

At any rate, this situation seems to be paralleled closely by Mon-Khmer. Proto-Khmer shows the canonical forms CV(F) for monosyllables and, for dissyllables, the same monosyllabic main syllable following presyllables of three shapes: Čn-, ČnN- (where N = an assimilating nasal), and ČnR- (where R = a liquid), the last being comparable with proto-Indonesian *pay- (cf. Malay per-, Tagalog pag-) and the like. Of a corpus of 6428 random items from modern Khmer, CV(F) monosyllables accounted for 38% of the total; CCV(F) subdissyllables, monosyllabic on the phonemic level but monosyllabic or dissyllabic on the phonetic level, accounted for 30%; and ČnN- and ČnR- dissyllables together accounted for
32%. (Of this third group 11%, coming under a late, secondary system of affixation, showed one or the other presyllable plus a CCV(F) main syllable.) The correspondences with proto-Indonesian may be expressed as follows:

<table>
<thead>
<tr>
<th>PROTO-INDONESIAN</th>
<th>PROTO-KHMER</th>
<th>MODERN KHMER</th>
</tr>
</thead>
<tbody>
<tr>
<td>monosyllables</td>
<td>CV(F)</td>
<td>CV(F)</td>
</tr>
<tr>
<td>CV- + CV(F)</td>
<td>Ca- + CV(F)</td>
<td>C- + CV(F)</td>
</tr>
<tr>
<td>disyllables</td>
<td>CVN- + CV(F)</td>
<td>CaN- + CV(F)</td>
</tr>
<tr>
<td>CaY- + CV(F)</td>
<td>CaR- + CV(F)</td>
<td>Cr- + CV(F)</td>
</tr>
</tbody>
</table>

The nature of the CV(N) presyllable is of particular interest. The four-vowel alternation (a, ɔ, i, u) of Dempwolff's forms, which frequently suggests vowel harmony with the main syllable, has no counterpart in proto-Khmer, where the vowel is nondistinctive. In other respects, Dempwolff's presyllables show initial p, b, m, t, d, ɖ, c, z, k, q, r, y, s, and ' before all four vowels, both with and without syllable-final N. Initial ŋ never occurs, while the remaining initials are limited to the following environments: n only before -a(N), -i, -u; [d’d] only before -a, -ɔ, -u; ʈ only before -a(N), -ɔ, -un; ŋ only before -a, -i; g only before -a(N), -ɔ(N); ŋ only before -i, -u; w only before -a(N), -i; and j only before -a, -u. In proto-Khmer (where there is no counterpart of ʈ, d’d, ŋ, j, ’) the initial of Ca- presyllables has the same range of variability except for w, j, h (which do not occur), if we assume that proto-Austronesian ʒ = proto-Khmer ʒ and proto-Austronesian r, ɣ = proto-Khmer r. The initial of CaN- and CaR- has the same range except for the four nasals. The relationship becomes all the more striking if the principal presyllables of modern Khmer are compared with Malay:

<table>
<thead>
<tr>
<th>KHMER</th>
<th>MALAY</th>
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<tbody>
<tr>
<td>p-</td>
<td>pɔ-</td>
</tr>
<tr>
<td>pum-</td>
<td>pɔm-</td>
</tr>
<tr>
<td>prɔ-</td>
<td>pɔr-</td>
</tr>
<tr>
<td>t-</td>
<td>tɔ-</td>
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<tr>
<td>tum-</td>
<td>tam-</td>
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<tr>
<td>tro-</td>
<td>tar-</td>
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<tr>
<td>c-</td>
<td>ca-</td>
</tr>
<tr>
<td>cum-</td>
<td>cɔm-</td>
</tr>
<tr>
<td>crɔ-</td>
<td>cɔr-</td>
</tr>
<tr>
<td>k-</td>
<td>ka-</td>
</tr>
<tr>
<td>kum-</td>
<td>kɔm-</td>
</tr>
<tr>
<td>krɔ-</td>
<td>kɔr-</td>
</tr>
<tr>
<td>qam-</td>
<td>ɔm-</td>
</tr>
<tr>
<td>r- / l</td>
<td>ra- / lɔ-</td>
</tr>
<tr>
<td>rum-</td>
<td>rɔm-</td>
</tr>
<tr>
<td>s-</td>
<td>sɔ-</td>
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<tr>
<td>sam-</td>
<td>sam-</td>
</tr>
<tr>
<td>sra-</td>
<td>sɔr-</td>
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</tbody>
</table>
This formal similarity of the presyllable in proto-Indonesian and proto-Khmer, especially when taken in conjunction with the formal similarity of the word in general in the two groups, has two main implications favoring our comparison.

In the first place, similarity of form suggests similarity of function. Since the Mon-Khmer presyllable either incorporates or itself constitutes an affix, we hypothesize that Dempwolff’s dissyllabic and polysyllabic reconstructions contain a variety of old prefixes and infixes. Similarity of function, moreover, suggests similarity of the meanings assignable to affixes in the two groups. But this is an area into which we have no intention of trespassing for the present: affixation in Khmer has so far been only roughly sketched out, and it is our understanding that the situation is similar in proto-Indonesian.

In the second place, the presence of presyllables in the two groups and their morphological role in Khmer encourages the isolation of main syllables as bases of a formerly more productive system of derivation than is the case with present-day Indonesian languages. It is this second implication that, in our view, provides the basis for a comparison of proto-Indonesian and Mon-Khmer. In the analysis of Khmer morphology this approach has been not only necessary but successful, and has led to recognition of several hundred wordbases no longer occurring independently and which, as far as Khmer is concerned, may never have occurred independently.

From a Mon-Khmer perspective, therefore, we have found it not enough to recognize in proto-Indonesian the presence of vaguely associated recurrent partials; on the contrary, for comparative work we have thought it essential to proceed along the lines clearly indicated by Dempwolff himself and to postulate that the proto-Austronesian main syllable is in many cases equatable on the morphological level with the wordbase.

In pursuing this idea we have manipulated Dempwolff’s data in such a way as to build up a corpus of about 317 presumed sets of derivatives from common bases, to each of which we have assigned a tentative gloss. Exemplifying these sets are *-paj ‘to be limp, dangle’ > kapaj ~ kipaj ‘hin und her bewegen’, gapaj ‘schwach sein’, lampaj ‘schwach sein’, and sampaj ‘hangen’, and *-gal ‘to loose, leave’ > ta(ñ)gal ‘loslösen’, tingal ‘übrigbleiben’, and tungal ‘einzig sein’.

What is more, this operation has inevitably led us into acceptance of a good many allomorphs or doublets of such hypothetical wordbases. In some cases this appears to be suggested by Dempwolff himself, e.g., *-lat, s~lat, s~lal) all glossed ‘Zwischenraum’, imply a base *-lat ~ -læq ‘space, gap’. In the same way, his ‘iyal) ‘hochrot sein’, biyal) ‘eroßen’, ‘iyaq ‘rot, sein’, [d<;l]ayaq ‘Blut’, and ‘iyan ‘dunkelfarbig sein’ imply a base *-yan ~ -yaq ~ -yæq ‘to be dark, red’.

We have not gone so far as to admit a connection between this latter and *-læm ‘to be dark’, but we have grouped with this the allomorphs *-læm ~ [-r]æm ~ -dæm and recognized another derivational set consisting of such reconstructions as [']ælæm ~ malem ‘Nacht’, rlæm ‘Inneres, Tiefe’, rlæm ~ kælm ‘dunkel sein’, lælm ‘düster sein’, lælm ‘kraftlos sein’, ka[r]æm ‘versinken’, pa[r]æm ‘Früchte künstlich zur Reife bringen’, and tælm ‘finster sein’.

In many cases we have been less sure of our ground and have kept sets such as *-nis ‘to steam, fume’ (> bænis ‘zornig sein’, tanis ‘weinen’, nisan ‘zischen’) separate from sets such as *-nus ‘to snort’ (> ‘nus ‘schneuzen’, qanus ‘schnaußen’) with which it may well be connected.
For the most part we have restricted our comparison to Austronesian main syllables which show two or more putative derivatives of the type just described. The few cases in which a comparison is made with a main syllable apparently yielding no such sets (e.g., -nuŋ < gunuŋ 'Berg' in item 46) are of more than ordinary interest to Mon-Khmer.

Thus the basis of our comparison on the Austronesian side has had to be one of our own devising. This is an important qualification of what was said above regarding our having taken Dempwolff's reconstructions as "axiomatic." We feel reasonably certain that this is the best approach to the question of a cognate relationship between proto-Indonesian and Mon-Khmer, and the only approach likely to reduce the danger of bringing old loans into the comparison.

**Wordlist**

**Abbreviations**

D Otto Demwolff (1938)
IMA Inscription inventory number of the *Inscriptions Modernes d'Angkor*
K. Inscription inventory number as listed in the *Liste générale des inscriptions du Cambodge* (Coedes 1966: 73-225)
MK Middle Khmer
MM Middle Mon
mod.K modern Khmer
mod.M modern Mon
OK Old Khmer
OM Old Mon
PIN proto-Indonesian
PK proto-Khmer

1. PK -pit and -piat 'to pinch, press':
   (a) OK *pit /pit/ and *piec /pic/, > mod.K pid /bat/ 'to shut, cover', bit /bit/ ~ pyt /to press (up) against', and by metathesis cip /cyp/ 'to pinch between thumb and forefinger'; whence OK epic /copic/ and mod.K epic /cbac/ 'to seize with the fingertips' as well as OK capec /capec/ and mod.K crapac /crabac/ 'to squeeze, knead, massage'; cognates in Aslian, Bahnar, Biat, Boloven, Chrau, Katu, OM, mod.M, Srê.
   (b) OK *pyat /piat/ and *byat /byet/, > mod.K piat /biat/ 'to press, be close to' and sbiat /spiat/ 'to be pressed flat' as well as tsiap /tbiat/ 'to hold by gripping (as under the arm or in a split-bamboo clamp)', > tampiat /tombiat/ 'split-bamboo holder (for cooking fish, bananas, and the like); clip, hairpin', cognates in Stieng.
   PIN -pit 'to pinch, be narrow':
   pipit 'to pinch, squeeze, press' [D 119b]; ko(m)pit 'to hold together, pinch, grip' [D 78b]; ka(m)pit, ga(m)pit, ha(m)pit, 'to hold together, grip' [D 75a, 53a, 62a]; sa(m)pit 'to be tight, close, constricted' [D 151b].

N.B.: Khmer bniat /pniat/ 'pen or corral for not more than eight elephants; numeral classifier for eight elephants' (-pfiat /to shut in, pen' + infix /-n-/ 'instrumental') appears to have been loaned to Malay as pendiat 'elephant corral', with epenthetic -d-. Malay diat 'earthwork serving as a trap for elephants' is presumably a back-formation from the latter.

2. PK -pak and -pek 'to break, split':
   (a) OK pak /pakan/, > mod.K pâk /bak/ 'to be broken'; whence pranak /pranaak/ 'cutter for areca nuts' and numerous other derivatives.
   (b) OK pek /pek/, > mod.K pêk /baaék/ 'to split, divide' and pêk /pæek/ 'part, side', with numerous derivatives and cognates in Bahnar, mod.M, and Stieng.
   PIN -pak, -bak, and -puk 'to beat, break':
   papak 'to be flat, level' [D 114b]; pakpak 'to hit, beat (wings)' [D 112a]; pulspuk 'to pound (with tool)' [D 121a]; topak 'to slap, clout' [D 135b]; dupak 'to stamp, trounce; ka(m)pak
'to crack by striking' [D 74b]; ra(m)pak ~ rampak ~ lapuk 'to break up, fall to pieces' [D 101b, 103b]; and various others.

3. PK -pan 'to close, bar':

4. PK -puut 'to pluck':
OK pūt [puut], > mod.K pūt /bōot/ 'to pull or slip off (up, out, loose)' and poc /bəooc/ 'to pull'; whence mod.K cūt /cəooot/ 'to grip and pull (as a length of hair, wet garments, animal tail) with a wringing motion' and rapūt /rəooot/ 'to come loose, slip off'. Cognates in Aslian, Bahnar, Biat, Chrau, Katu, Mnong Gar, OM, MM, mod.M, Palaung, Praok, Riang-Lang, Sedang, Srē, and Stieng.

5. PK -puk and -pak 'to beat, pound':
(a) OK *puk /puk/, > mod.K puk /bok/ 'to pound (with a pestle)'; whence several derivatives and cognates. (b) OK *pāh /bāk/ > mod.K pāh /bāk/ 'to beat, flutter, fan; to blow (of wind)'; whence OK pamāk /pəmək/ 'punkah-puller (slave)' and several other derivatives. Cognates in Biat, OM, mod.M, and Stieng.

6. PK -pum and -bun 'to swell, be swollen':
(a) OK *kampuŋ /kampuŋ/, > mod.K kampaŋ /kampŋ/ 'to swell, be round, gather':
punpun 'to gather together' [D 122b]; baŋbaŋ 'to spread, be enlarged' [D 24a]; buŋbuŋ 'to be concave, hollow' [D 36a]; ka(m)baŋ ~ kambaŋ 'to swell or puff up, to unfold, blossom' [D 71b, 76b]; kampaŋ 'belly' [D 79a]; rabuŋ 'sprout, shoot' [D 102b]; and various others.

7. PK -poos 'to wipe, sweep':

8. PK -pot and -bot 'to bend, turn':
(a) OK pat /pat/, > mod.K pa't /bat/ 'to fold, turn', with cognates in Chrau, Stieng, and Vietnamese. (b) OK bat /bat/, > mod.K ba't /put/ 'to bend', with cognates in Bahnar, Biat, and Stieng.

9. PK -pok 'skin':

10. PK -pool and -paal 'to stick, cluster':
(a) OK *pol /poal/ 'to stick together', > t(h)pol /təpol/ 'clump, cluster, copse', > tampal /təmpaal/ 'grouping, cluster, settled area' (Thai təmpal /təmbon/ 'tambon, subdivision of an amphoe'), > mod.K tampaŋ /təmbon/ 'tambon ~ dambon/ ‘district, region, country’). Cognates and derivatives in Bahnar, Biat, Mnong Gar, Srē, and Vietnamese. (b) Pre-Angkorian 'ampal /ampalaal/ (K-49, line 12) and Angkorian 'ampal /ampalaal/ 'group', > MK 'ampal ~ ampal /ampalaal > qampaal/ 'id.'

N.B.: Probably cognate is Khmer sampor /sambaor/ 'nasal mucus', to be compared with
OM *sīmora < sam mora > mod.M *sawo /ham/ 'id.', Aslian /lumpos/ 'dirt, mud', and Malay lumpur 'slime'. The relationship of Khmer kramal /kramal/ 'heap, lump (classifier)' (cf. Malay gemal 'clump, cluster') is less sure.

PIN -pal, -pol, -bal and -pul 'to be greasy, sticky, clotted':

tabol 'to be dense, thick' [D 132b]; dampul 'glue, gum' [D 39a, 40a]; kāp 'to be thick, fat, bulky' [D 75a]; kimpal 'to clot; lump' [D 81a]; kumpul 'to form a lump or mound, amass' [D 84b]; sumpal 'stopper, bung' [D 158a].

11. PK -pos 'to pound':

OK pos /pos/ 'to pound, grind' (> Thai pat /bôt/ 'to grind, pulverize'), > MK pos /boh/ 'to pound, crush, grind (drugs), gin (cotton)', > mod.K pos /boh/ 'to pound, drive in (nail), strike (coin), stamp, affix (seal)'.

Cognates in Bahnar, Biat, Chrau, Cua, Halang, Sedang, Sre, Stieng, and Vietnamese.

PIN -pas and -pis 'to beat, pound':

paspas 'to shake, agitate' [D 115b]; topas 'to press flat, flatten' [D 135b]; kipas 'fan' [D 81a]; and various others.

12. PK -baa 'to crush':

OK *bā /baa/ 'to grind, tread, pounce', > mod.K dambā /tumpia/ 'to chew' and rambā /tumpia/ 'prey, quarry'; cognates and derivatives in OM and Stieng.

PIN -bu', -buk, and -paq 'to grind':

'abu 'ashes' [D 11a]; 'abuk 'dust, powder' [D 11a]; dabuk 'ashes, dust; to be gray' [D 41b]; kalubu 'to be ash, gray' [D 82b]; rabu 'to be dirty' [D 100b]; yabol 'dust, powder' [D 57b]; sa(m)paq 'to chew up' [D 151b]; and various others. See item 23.

13. PK -baaj and -bīj 'pit':

(a) OK *bān /bān/ 'pond, pool', > travan /travan/ and mod.K trabaññi /traepaññi/ 'pond, marsh'.

(b) OK *piñ /piñ/ 'pond, pool', > mod.K piñ /bīy/ 'id.' Cognates and derivatives in mod.M, Sre, Stieng, and Vietnamese.

PIN -bañ and -baj 'pit':

la(m)bañ 'pit, hole; grave' [D 93b]; lubañ 'pit, hole' [D 98b].

14. PK -baaj 'to hang loose':

OK bāj /baj/ 'to dangle, hang down, be limp', > mod.K bāj (bāj) /piñaj-piñaj/ 'to be careless, negligent'; whence mod.K bāj /piñaj 'to hang or carry over the shoulder' and spi /spaj 'women's long shawl worn over the shoulder'; cf. also rambāj /rumphāj/ 'to dangle; tassel, fringe, flounce', with unexplained aspiration of the wordbase initial. Cognates and derivatives in OM and mod.M.

PIN -baj 'to dangle, swaying':

'a(m)baj 'to move to and fro' [D 11a]; i(baj) 'quesiness, nausea' [D 66b]; za(m)baj 'to hang down, dangle, flap' [D 44b]; y(i)m'baj 'to hang, be suspended' [D 38b].

15. PK -but and -bot 'to wrap, cover':

OK *but /but/ 'to cover oneself', > MK sambūt /sambuting > sampūt/ 'saboot /saboot' > sapuast [IMA 4B, line 23; IMA 4C, line 21], > mod.K sambāt /samput /sampūt/ 'lower garment; length of cloth'; with other derivatives and cognates in Chrau.

PIN -but, -bost, and -put 'to roll (up), envelop':

kabot 'to roll up (into a ball)' [D 76b]; kabot 'to furl, fold up' [D 77a]; saput 'to wrap up; shroud' [D 149b]; siput 'snail' [D 154b].

16. PK -buun 'to heap up':


PIN -bun and -pun 'to gather, abound':

'ia(m)puun ~ 'aia(m)puun ~ ri(m)puun 'to gather, amass' [D 70a, 139a, 103b]; bun 'to be plentiful' [D 35a]; bunbun 'to gather, amass' [D 35a]; ta(m)bun 'to twist, amass' [D 125b, 136b]; ya(m)bun 'cloudiness' [D 57b].

17. PK -bus 'to foam, boil':


PIN -bus and -bis 'to break off, detach':

'ubus 'to be ended, finished, done' [D 159b]; bisbis 'to fall in drops, trickle, drip' [D 31a]; and others.

18. PK -buh 'ashes':

OK *buh /buh/ > mod.K phebh /phebh 'ashes'. With the initial cf. Kuy /pho/, with the vowel Atjehnese abē and Khasi /depi/. Eastern MK *buh, > Biat būh, Stieng būh ~ mbūh, Mnong Gar bubuh, Chrau vuh 'ashes', Cua vuh 'to
burn off', Srê buuh 'ashes', Brou bâh, Katu blah.
PIN -buk, -bu' and -paq 'to grind':
As in item 12.

19. PK -bew and -boo 'cane':
(a) OK *amêau /amêəw/, > mod.K *amhau
/amhpəw/ 'sugar cane', with cognates in Chong,
Chrau, OM, and mod.M; and OK teau /taəw/, >
mod.K dhbau /tpəw/ 'millet', with cognate in
Bahnar. (b) OK *sabô /saɓəo/, > mod.K sbo
/spo/ 'sorghum', with cognates in Bahnar and
Mnong Gar.
PIN -bu' 'cane':
tabu 'sugar cane' [D 133a].

20. PK -book and -buk 'to heap up, amass':
(a) OK *bob /bobk/ > mod.K pâk /pôk/ 'to
heap up; heap, hump'. (b) OK vuvâk /vuak/
( > vnuâk /nuək/ 'group'), > mod.K buq
/pûuk/ 'group, company, party'. Cognates in
Alak, Boloven, Katu, Khmu?, [D 139b].
PIN -buq ~ -baq 'to add':
bubuq 'to add on, bring to' [D 124b]; tambaq
'to carry with one, take (bring) along'
[D 124b]; tu(m)buq 'to add':
"abuk 'dust, powder' [D 11a];
dabuk 'ashes, dust; to be gray' [D 41b]; yabuk 'dust, powder
[D 57b]. Cf. -bu' 'dust, dirt': 'abu' 'ash'
[D 11a]; rabu 'to be dirty, soiled' [D 100b];
lubu 'dust, powder' [D 94a]. See item 12.

24. PK -bôk 'bank, shore':
OK kamnuə /kamnə/, > mod.K kamba'ni
/kambo/ 'beach, landing place; settlement along
a riverbank'.
PIN -wâq 'to flow':
sawâŋ 'shore, beach; landing' [D 150a].

25. PK -maa 'uncle':
OK mâ ~ mâ /mɑа/, > mod.K mà /mîa/
'younger brother of either parent'. Cognates in
Bahnar, Halang, Jeh, mod.M, Stieng. With OM
kamnuə /kamnə/ 'uncle (younger than parent?)',
Palaung va 'younger sibling', and Srê-wa 'oncle
paternel', cf. Malay wa ~ vak 'uncle or aunt
older than father; old man'.
PIN -ma' 'father, uncle':
anna 'father' [D 15a]; mamâ 'mother's brother'
[D 105b].

26. PK -maas 'gold':
OK mäs /maas > maha/, > mod.K mā /mîa/ 'gold'. Cognates in
Bahnar, Halang, Jeh, Kâhô, Srê, Stieng.
PIN -maa 'gold':
amas 'gold' [D 50a].

27. PK -must 'to be soft', = MK -boot:
OK lamwat /lumıt/ > mod.K łumput /lumput/
'to be soft yet firm (of flesh, dough)'. Various
MK cognates.
PIN -but 'to pound':
labut 'to beat, pound' [D 77a]; Isambut 'to be
soft, tender' [D 94a].

28. PK -muu 'bovine', = MK -boo:
OK tmur /tamu/ 'cow, bull'; Bahnar /romo
/ /jaro/ > Jarai /jaro/. Chrau and Katu
/bu/, Vietnamese bô 'cow, bull', Lamet /mûp/.
A connection with OK chîlu /cliui/ 'second of
the duodenary cycle: the Ox' and OM jîlou /jîlou/
'ox, bull, cow, cattle' is doubtful.
PIN -bu' 'bovine':
lambu 'ox' [D 94a].

29. PK -tic 'to be little':
mod.K tic /tîc/ 'to be little, few' (akin to tîc
/tîc/ 'to be small'). Cognates in Chrau, Khasi,
mod.M, OM, Srê, Vietnamese.
30. PK 'tak 'to draw':
OK tik /tyk/; > mod.K tik /dyk/ 'to haul, draw, lead'. Biat tøk, Mngon /ti/?, OM tik /tuk/; Sre /ti/, Sëng dæk ~ dak ~ tik, Muong tâch, Vietnamêse dãt.
PIN -tok 'to draw, tow': batak 'to draw, drag, haul' [D 24b].

31. PK -tañ ~ -dan and -tañ ~ -dãn 'to stretch out':
(a) mod.K trâñ/trodaxãñ 'to stretch (e.g., a length of cloth)' and phâñam jpeteax 'flat surface, panel' and (b) mod.K tiñ /tyñ/ 'to be tight, tense, stiff' and possibly diñ /tyñ/ 'to balance, poise'; with numerous derivatives. Cognates in Khasi, mod.M, OM, Vietnamese.
PIN -toñ 'to stretch' and -zañ ~ -dãñ 'to be long, broad':

32. PK -taar 'to be flat, level':
PIN -tay 'to be even': tatay 'to regulate, regularize' [D 131b], datay 'to be even, level, flat' [D 43a].

33. PK -tar ~ -dar 'to move':
mod.K dâdar /turaar/ 'to tremble, quake'. Various cognates.
PIN -pr [r] 'to move': ka(n)te[r] 'to quake, quiver' [D 79b].

34. PK -tus 'to rub':
mod.K tus /doñ/ 'to rub, scrub', > tratus /tradoh/ 'to rub vigorously (on or against)'. Various cognates.
PIN -dus 'to rub': kâðus 'to scrape, scratch' [D 71b].

35. PK -bëh 'breast':
PIN -da 'breast': ñaða 'breast, chest' [D 42a].

36. PK -tok 'to break up, remove':
OK tok /took/, > mod.K tak /daok/ 'to pull out or off, uproot'. Numerous cognates.
PIN -tak 'to beat, break': han[tak] 'to beat, pound, knock' [D 68b]; lantak 'to beat, strike, pound' [D 92b]; sintak 'to jerk, twitch' [D 155a].

37. PK -tañ 'drop; to drip':
mod.K ta'k /tak/ 'onomatopoeia for the falling of drops', > tampek /tammak/ 'drop (of liquid)', tata'k /tak/ 'to drip', and panta'k /bantak/ 'drop; dot'; presumably related to item 36. mod.M tok /to/.
PIN -tuk ~ -dã 'to beat': tuk'tuk 'to beat, pound, knock' [D 145b]; ñað 'thud, thump' [D 43a].

38. PK -diïñ 'wild ox':
mod.K khîdiñ /ktîñ/ 'the black gaur, Bos gaurus'; mod.M katiñ ~ talinn /kaloiai/.
PIN -tiñ 'wild ox': bøîñ 'wild ox' [D 25a].

39. PK -tes 'to be hot (peppery)'
mod.K mdes /meth/ 'chili, Capsicum frutes-cens'; Peer moteh, Kuoy prates.
PIN -dæs 'to be pungent, peppery' [D 116a]; cf. po[d]'liq 'to smart' [D 116a].

40. PK -dum 'to be ripe, dark':
OK dum /dul/, > mod.K dum /tum/ 'to be ripe, old, dark'. Numerous cognates.
PIN -damin 'to be dark': tidam 'to be dim, dull, gloomy' [D 137a]; ñaðam 'to be dark' [D 43a]. Probably related to -lam ~ -lam ~ -[r]am 'to be dark': '[r]alam ~ malam 'night' [D 14b, 105a]; ps[ra]m 'to ripen artificially' [D 117a]; lmam 'to be dismal, gloomy' [D 95a].

41. PK -dul ~ -dual 'to swell, protrude':
(a) OK dul /dul/, > mod.K dul /tul/ 'to bulge; belly flesh (of certain fish)'. Cf. Sré kondul 'belly'. (b) OK deal /dual/, > mod.K dol /tûul/ 'mound, knoll, hillock', whence kandul /kantûul/ 'bump, swelling (as of a mosquito bite)'. Numerous cognates.
PIN -dul 'to swell':
42. PK -dwp 'to close, cover':
   OK dap /dwp/, > mod.K da’p /tup/ 'to bar the way, obstruct, restrain', whence kha’p /ktp/ 'to close, bar, cut off.' Numerous cognates.
   PIN -tup ~ -təp 'to close, cover':
   tutup 'to cover, close, shut' [D 144a]; ‘tətap ~ qatap ‘roofing, thatch' [D 16b, 62b]; tatap to be firm, fixed' [D 136a].

43. PK -dsk 'bran':
   mod.K kanda’k /kantuk/ 'bran'. Cognates in Bahnar and Stieng.
   PIN -dak 'bran':
   đadak 'bran, chaff' [D 43a].

44. PK -neh 'this':
   OK neh /neh/, > mod.K neh /né/h 'demonstrative pronoun; this'. Alak, Boloven, Lavé, Niaheun, Süé /nè/, Aslian /n̄h, ná/, doh, dəh/, Chrau /n̄hè/, Katu dò, ḍa 'here, this', Kóho /dó/ 'this', Sré /dó/ 'here', Kuoy /né/, mod.M ná /ná/?, Stieng nèi, Vietnamese nay, ni, dâi 'this, here'.
   PIN -ni 'this':
   'ini 'demonstrative pronoun: this' [D 69a].
   Cf. Cham ní (nî) and nik, Rôglai nê, Jarai anai.

45. PK -nom 'hill, mountain': = MK -nom ~ nòo:
   OK uiam /b̥nom/, > mod.K bhnam /pnum/ 'hill, mountain'. Aslian /bn̄om/ ~ bənom/, Chong /n̄o/, Chrau /n̄ūg, gu/, Maa /banom/, Palaung pana, Pear and Samrê /no/, Sré and Stieng /banám/.
   PIN -nuŋ 'hill, mountain':
   günŋ 'hill, mountain' [D 57a].

46. PK -cak 'to pick, prick' and -cak 'to peck':
   (a) mod.K cā’k /cak/ 'to pierce, stab' and
   (b) mod.K cik /cyk/ 'to peck'. Numerous cognates.
   PIN -cak ~ -cak 'point':
   pu(n)cak ~ pu(n)cuk 'peak, top, summit' [D 121ab]. Cf. Malay chohok 'to pierce', Javanese /cucog/ 'to peck', Iban /tucok/ 'to peck', Rôglai /kok/ 'to stab', Jarai /coh/ 'to peck'.

47. PK -caa(r) 'to break, split':
   mod.K chår /char/ 'to crack, split', with unexplained aspiration of initial. Aslian /c̥l á cel/ 'to be broken', Bahnar /tɔca ~ tɔsə /'to be worn down' and /car/ 'to crack, split', Katu /car/ 'to crack in pot'.
   PIN -c̥a[r] ~ -c̥ə[r] ~ -caq 'to break, split':
   paʃca[c̥] ~ paʃca[r] 'jet (spurt) of water' [D 112b]; bucu[r] 'leak in water craft' [D 33b]; pəcaq ~ caqac 'to be in pieces' [D 116b, 86a].

48. PK -çuŋ 'end, tip':
   OK cuh /cuh/, > mod.K cuh /coh/ '(far) end, tip, extremity'. Numerous cognates. See item 53.
   PIN -cəŋ 'point'::
   tänəŋ 'peninsula, cape' [D 126b]; quzəŋ 'tip, point' [D 65b]. Cf. jənuŋ in 'iŋəŋ ~ uŋəŋ 'nose' [D 67a].

49. PK cacok '(onomatopoetic) house lizard':
   OK cıkɔk /cəkɔk/ 'insect (= Sanskrit krmi)', > mod.K jɪn ca’k /jiinj/ cək /'house lizard'. Several cognates.
   PIN -caɔcok '(onomatopoetic) gecko':
   cacok 'name of a lizard: the gecko' [D 86b].

50. PK -cco 'dog', = MK -cco ~ -xə:
   OK ca /cco/, > mod.K ca /coh/ 'eleventh of the duodenary cycle: (year of) the Dog', whence Thai ca’a /coa/. Palaung so, Sré (and Kóho) so;/ Katu acho, Muong and Vietnamese chò; Khasi ksew. Uncertain is the relationship of MM cluaw ~ cluāw /klaw/, > mod.M klau w /klæ/, Kharia sola ~ ˈsələ, Juang solok, and Semang chelong 'wild dog'.
   PIN -su 'dog':
   'asu 'dog' [D 17a]. Cf. Atjehnese asè, Cham səu, Chru asew, Jarai asao, Rhadé /asaw/, Rôglai asau ~ asou.

51. PK -jii 'elder kinsman':
   OK ji /ji/, > MK ji /ji/ > cií 'term of address for males', > mod.K ji /ji/ 'respectful term of address for young males', as in nãi ji (niñə qoi/ and yãy ji /jiwə ciíj (Buddhist or Catholic) nun.' Cf. Thai jì /chii/ 'ascetic (of either sex)'. A connection with Vietnamese chi 'elder sister' seems doubtful, but note Cham jì 'nun'.
   PIN -ji 'elder kinsman':
   'a(ŋ)ji' 'kin (mostly younger)' [D 12b], qa(ŋ)ji 'kin (mostly of the opposite sex)' [D 60a]. Cf. Atjehnese chì 'old'.

52. PK -jar ~ -saar 'gum, resin, sap':
   OK jar ~ jär /jar/, > mod.K jär /coar/ 'gum, (poisonous) sap' (whence Thai jän /chan/
53. PK -jaŋ 'leg/foot, stand':


54. PK -jul 'to buy':

OK jual /jual/ 'to engage, employ for compensation', > mod.K jul /cəul/ 'to hire (people or things)'. Cf. Stieng /cual/ 'to let, rent' and Wa cue 'to sell'.

55. PK -jul 'to line, row':

OK juar /juar/, > mod.K juər /cəur/ 'line, row; furrow', whence bhjotr /pətər/ 'to plow'. Biat cəar 'line'; Stieng cuər 'to plow'.

56. PK -kit 'to adjoin, adhere':

mod.K kit /kət/ 'to be (stuck) close to' and Vietnamese khiit 'to be well-joined, flush, connected; to be near, close'.

57. PK -keer 'to gnaw':

(a) mod.K kaker /kkər/ 'to gnaw, nibble' and (b) mod.K satkiar /səŋkiər/ 'to have one's teeth set on edge'. Cf. OM kir ~ kər 'to dig'.

58. PK -kes 'to scratch':

OK *kes /kes 'to scratch'/ > mod.K keh /kəh/ 'to scratch' (whence kakeh /kəkəh/ 'to scratch vigorously or continuously') and chkeh /kaəkəh/ 'to scrape', with variants and other derivatives. Numerous cognates.

59. PK -kap ~ -gap 'to grip, squeeze':

(a) OK *kāp /kap/ 'to hold, clamp', > mod.K tankāp /tankap/ 'tongs, pliers, pincers', with numerous cognates; and (b) OK *gaap /gaap/, > mod.K kiip (for gāp) /kiap/ 'to squeeze, carry under the arm', > thkiap /thiap/ 'to squeeze, pinch' and tankīp /tankiap/ 'claw, pincers (of crab); tweezers', with various cognates.

N.B.: A relationship with the preceding item seems likely.

60. PK -kat:

mod.K thhāt /tkat/ 'to be sick'. Cf. Jeh /sakit/ 'medicine' and Katu /səŋaət/ 'to be very sick'.

N.B.: A relationship with the next item seems likely.

61. PK -kan 'to hold, grasp':

OK kān /kan/, > MK kān /kan/ 'to hold, clutch; to hold to, head for', > mod.K kān /kan/ 'to hold, take, carry, entail; to, toward'. With MK thkān /tkan/ 'to, toward' compare OM taguin /tagon/ 'to observe, keep' and tgin /tgon/ 'to apply'. Note also mod.M kān /kan/ 'to keep close together'.

62. PK -kaŋ 'to open, spread':

OK *kāŋ /kaŋ/, > mod.K kāŋ /kaŋ/ 'to spread apart (wings, arms, clothes)', whence chkāŋ /kaŋ/ 'to crucify'.

N.B.: A relationship with the next item seems likely.
PIN -kaaj 'to scratch':
mod.K khay /kaaj/ (with variant khāy /khaaj/) 'to scratch, scrape, dig out', whence intensive frequentative khahāy /kkaaj/. Aslian /kay ~ kawaj 'to scratch'; OM khāy /khaay/ 'to dig' > mod.M khāy /khaj/ 'to dig'; Pacoh /kay/ 'to plow'; Srē kae 'to peck after scratching the ground'; Vietnamese gāi 'to scratch' and cāy 'to plow'.

PIN -kur 'to scratch':
qukaj 'to dig up (out)' [D 65b]. Cf. [sk]akaj '(to scratch upward) to climb, scale' [D 147a].

64. PK -koor 'to scrape':
OK 'kor /koor/, > mod.K kor /kaor/ 'to shave' (whence Thai kaun /koon/ 'to shave'). Cf. Vietnamese cō, to scrape, shave' and cāo 'to scratch, claw, rake'. The connection with OM kās /kas/ 'to shave oneself' as well as with items 57, 58 and 63 is unclear.

At this stage of our work it would be manifestly premature to voice any conclusions. Like Schmidt, we do not at this point have control of a sufficient number of data to permit the setting up of reliable sound correspondences. We nevertheless feel that the material collected thus far justifies a reexamination of the Austric hypothesis by modern linguists. Without wanting to indulge in idle speculation, we believe it reasonable to suggest that demonstration of a genetic relationship between Austronesian and Austroasiatic would be as significant to linguists, anthropologists, and archaeologists as demonstration of such a relationship between Indo-European and Semitic.

REFERENCES


