Possible Proto-Asian Archaic Residue and the Statigraphy of Diffusional Cumulation in Austro-Asian Languages¹

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Abstract

This speculative paper considers the Proto-Asian hypothesis (PASn-Hyp), viz., most modern languages found in Asia, Southeast Asia, and Austronesia may descend from one mother language called Proto-Asian (PASn).² Thus, Austroasiatic (AA), Austronesian (An), Japanese-Korean, Kam-Sui (KS), Miao-Yao (MY), Sino-Tibetan (ST), and Tai-Kadai (TK) may possibly subgroup together.³ A second purpose of this paper is to begin a

¹ I would like to thank the numerous scholars at 10-ICAL who gave me feedback on an earlier draft of this paper.

² I propose the term Austro-Asian be extended to include the area between Rapanui (Easter Island) and Tibet (East-West) and China and New Zealand (North-South).

³ Abbreviations used and data sources in this paper not found in Larish (1999) include the following:

AA Austroasiatic,

Asl Aslian [MK],

An Austronesian.

JAM James A. Matisoff (2003),

KS Kam-Sui,

MY Miao-Yao,

OC Old Chinese [(Coblin 1986, Matisoff 2003) = Karlgren's "Archaic Chinese"],

OJpn Old Japanese (Martin 1987, Benedict 1990),

PAJ Proto-Austro-Japanese (Benedict 1990).

PAJ Proto-Austro-Tai (Benedict 1990, 1975),

PAK Proto-Austro-Kadai (Benedict 1990),

PAn Proto-Austronesian (Blust 1997),

PAsn Proto-Asian,

PAsn-hyp Proto-Asian hypothesis,

PKB Paul K. Benedict (1990, 1975, 1972),

PLB Proto-Lolo-Burmese (Matisoff 2003),

PMACM Proto-Moken-Moklen-Acehnese-Chamic (Larish 1999),

PMM Proto-Moken-Moklen (Larish 1999),

PST Proto-Sino-Tibetan (Coblin 1986),

PTai Proto-Tai (Li 1977).

PTB Proto-Tibeto-Burman (Matisoff 2003),

STC Sino-Tibetan: A Conspectus (Benedict 1972),

TK Tai-Kadai,

methodological and theoretical discussion on the problems of sorting out genetic archaic retention from diffusional cumulation in Austro-Asian languages. The principal data (Appendix 1.1) in this paper were obtained by comparing Proto-Austronesian (PAn), Proto-Sino-Tibetan (PST), and Proto-Tibeto-Burman (PTB) core vocabulary, as reconstructed by Blust (1997), Coblin (1986), and Matisoff (2003), respectively. Sixty-two (62) possible cognates were found in Blust's revised Swadesh 200-word list. Appendix 2 presents supplemental evidence comparing a number of Austro-Asian languages, incorporating data from Benedict (1990, 1975): Proto-Austro-Thai (PAT) and Proto-Austro-Japanese (PAJ). The evidence in the appendices tentatively supports the PASN-Hyp. It may take decades for the main question raised in this paper (and others) to be answered. Moreover, it will probably be answered—beyond doubt—computationally by future comparativists.

1. Introduction

1.1. Overview

This paper is divided into two major sections. Section 1 outlines the theoretical perspective, methods, and references that relate to this ongoing research. Section 2 presents the results of this research, exploring whether the **PASN-Hyp** is workable. Many of subsections that follow this discussion are derived from an unpublished chapter extracted from Larish (1999). They provide specific phonological and lexical examples relating to the lexical affinities between mainland-Austronesian and Mon-Khmer languages; they illustrate some of the problems of distinguishing between archaic genetic retention and more recent diffusional cumulation.⁴

1.2. Theoretical Perspective

Unlike Lexicase Theory, languages are not monostratal in terms of their accumulation of vocabulary over time (see Starosta 1988:2). Moreover, unlike archaeologists, who dig until they reach culturally sterile soil, historical comparativists—historical linguists, cultural anthropologists, historians, and linguistic geographers, for example—have no theoretical time-depth limits unless they are imposed by tradition, basic underlying assumptions, or major theoretical constraints. Linguistic texts, for instance, often include a claim that the historical-comparative method cannot reach past 6,000 to 8,000 years before present, the depth at which recurrent sound correspondences become problematic (cf. O'Grady, Archibald, Aronoff, and Rees-Miller 2005:327). However, proto-language to proto-language comparison—referred to as *long*-

For additional abbreviations, refer to Larish (1999:xxxix).

⁴ These terms were first used by Swadesh (1964) in Hymes's classic reader.

range comparison or palaeolinguistics, extends this limit deeper into the remote past (cf. Starostin 1992:76, Trask 2000:66-7).

In the course of researching the PASN-Hyp, two new acronyms were developed in order to clarify my thinking about the distinction between direct genetic heritage and the subsequent diffusion between languages that may or may not be genetically related to each other. To put archaic residue and diffusional cumulation into layman's terms, I developed the distinction between Vertical Genetic Retention (‡VGR) and Lateral Loan Relationship (→LLR). VGR must be determined before LLR can be ascertained. To complicate matters, the historical linguist will be confronted with numerous LLR, from old to recent (see Figure 1 below). The number of LLR depends on how many times language contact has occurred. Language contact can occur between languages with VGR or without VGR. In Asia and Europe, the former case appears to be more common. Consider, for example, the various diffusional influences in English by both Germanic and non-Germanic relatives within Indo-European. Describing the various strata of VGR and LLR is the task of the historical comparativist.

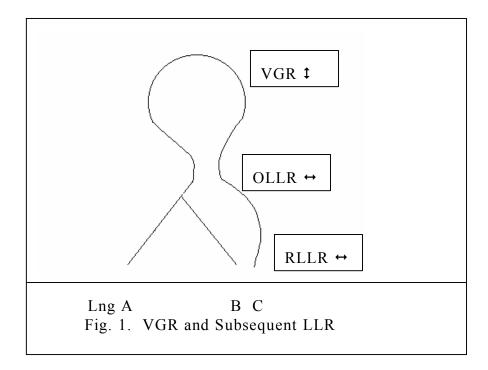


Figure 1 represents two groups of people who separated in a remote period, then drew close again due to migration or population expansion. The neck of the octopus represents an Old Lateral Loan Relationship (↔OLLR) where remote language contact occurs. After Lng A splits from Lng B, speakers of Lng B interact with speakers of Lng C, creating a Recent Lateral Loan Relationship (↔RLLR).

1.3. Methods

The comparanda in Appendix 1 focus on core vocabulary to get to the genetic heart of the PAsn-Hyp. Ideally, reconstructions with the greatest depth ought to be used in this analysis.⁵ Therefore, PAn etyma from Blust (1997) were compared with Proto-Sino-Tibetan (PST) forms from Coblin (1986) and Proto-Tibeto-Burman (PTB) forms from Matisoff (2003).

Although not explicitly stated, I have followed many of the procedures outlined in Reid's (2005) "The Current Status of Austric." For example, Appendix 1 is separated into section 1.1 (PAn and PST/PTB comparanda) and section 1.2 (PMP and PTB comparanda) since the former will have higher "probative value" than the later. Furthermore, to augment the Swadesh 200 data in Appendix 1, Appendix 2 was included. Appendix 2 mainly compares Benedict's (1975) PAT with PTB forms (Matisoff 2003); however, some PAJ and PAK (Benedict 1990) forms are included in Appendix 2 to demonstrate that **OJpn** etyma may also fit into the **PASN** hypothesis. Knowing that Benedict's (1990) PAJ and PAK reconstructions and his (1975) PAT reconstructions are controversial, I have used them for two reasons: (1) Even if future research does not support his reconstructions, Benedict has collected an amazing corpus of hard-to-find languages. (2) PAT reconstructions have the time depth needed to support the PASN-Hyp. In fact, in many cases, Benedict's (1975) PAT reconstructions bring us closer to the PASN level. However, the long-held debate about the place of Sino-Tibetan languages in Asian Linguistics must be sustained until a consensus can be reached. Benedict's (1975) point of view is that **PST** does not subgroup with Austro-Thai. In his "Summary and Conclusions for Part 3," (Benedict 1975:116-33, republished from 1967), Benedict's main thesis is that the affinities between ST and AT are the result of "extensive cultural contact between early Chinese and AT peoples" (p. 123) and "that the AT cultural influence extended also far to the west, providing many loan-words (and presumably cultural items) to the TB peoples" (p. 125). Although diffusional cumulation is a likely explanation for some affinities, theoretically speaking, an examination of Vertical Genetic Retention (\$VGR) must be considered prior to hypotheses about Lateral Loan Relationships (↔LLR). As far as I can determine, not having examined all of Benedict's work in his highly productive career, I could find no in-depth comparison/discussion on core vocabulary between PST and PAT. Again, not having examined Sagart's (2005) data and conclusions in Sagart, Blench, and Sanchez-Mazas, I know from Reid's (2005, p. 9) conclusion that Sagart will

Whenever possible, proto-languages are compared, taking us further back in time. The farther we can push back the depth of the comparison, the better the comparison, for reconstructed etyma are based on a number of languages (at least two). Until reconstructions are available, we remain less sure of genetic or diffusional affinities, for we may be simply comparing lexemes that accidentally look alike

suggest—and has been suggesting for many years—that "With the accumulation of evidence presented by Sagart in this volume and elsewhere, that Austronesian can also be shown to be genetically related to the Sino-Tibetan family of languages." Therefore, the present paper can be viewed as an independent study that uses different data which may ultimately support Sagart's conclusions.

1.4. Literature review

In three more years, we will reach the one-hundredth anniversary of Schmidt's (1909) Austric hypothesis. For review/expansion on the Schmidt's (1909) Austric hypothesis, see Benedict (1976:1-36), Ruhlen (1991:151-7), and Reid (2005). Reid (1997:19) concludes that 'we need no longer cautiously refer to this family with the sobriquent "Austric Hypothesis". Professor Reid has also reviewed the work of La Vaughn Hayes in a positive light. Hayes (1992, 1996, 1997, 1999) has been steadily working toward establishing the Austric language family by examining phonological evidence and basic vocabulary. Larish (1999, Appendix C) and Thurgood (1999) have identified a large number of possible Mon-Khmer loans in mainland-An languages.

1.4.1. Benedict (1990, 1976, 1975, 1972)

Benedict (1976) argues for the demise of Austric by suggesting a remote contact relationship between AT and AA. I do not find the following argument convincing: 'a mainland branch of AT, now extinct, became "substratumized" by AA, yielding up certain roots in the process' (1976:28). Benedict's most convincing argument is the general lack of cognates between An and AA in core vocabulary, but Diffloth (1994) counters by proposing that much core vocabulary can be replaced over extreme time depths. Furthermore, Diffloth (1994) suggests that a "probable" genetic AN-MK connection can be observed in the words for dog, fish, centipede, wood, eye, bone, hair, tongue, and left.

Examining PKB's (1975) PAT reconstructions is difficult yet productive; for example, Benedict (1975:346-8) proposes seven PAT variant reconstructions for 'open/gape/stand open/force open/force apart/oppose/separate/bay/river' followed by about two pages of data. Unfortunately, the PAT reconstructions are aligned laterally. When you line them up vertically, it is easier to see the interrelationships to his variant reconstructions (see Appendix 2).

1.4.2. Matisoff (2003)

Matisoff's (2003) 800-page Handbook of Proto-Tibeto-Burman: System and Philosophy of Sino-Tibetan Reconstruction is an exemplary corpus of solid scholarship and a primary data source for the present research. It can be obtained on-line: http://repositories.cdlib.org/ucpress/ucpl/vol_135.

2. Remote Austro-Asian Connections

2.1. Introduction

Two possible remote connections between Austro-Asian languages must be considered:

- (i) A vertical genetic relationship between **Pre-An** and other Asian languages
- (ii) Remote contact between **Pre-An** and other Asian "language families" or between possible "branches" of one family

This problem is perhaps best illustrated by the far-reaching lexical agreement for "river" across a number of language families. Matisoff describes the word for "river" as an "East/SE Asian Wanderwort." Widely distributed lexemes can result from two sources: Vertical Genetic Retention (\$VGR) and Lateral Loan Relationship (\$\to\$LLR). Consider the following data:

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PAT-75
            *[(m)b]anaq
                                    'open/gape/stand open/force open/force
                                     apart/oppose/separate/bay/river'
            *[b/]n/a\eta[aq]
                                    (Benedict 1975:346-8)
            *[(m)ba]\eta a[q/]\eta a[q]
            *[(m)b]akaq
            *[ba]ga[q/]gaq
            *[ba]gan(/gan)
            *[ba]kan(/kan)
                      *?-nak<sup>L</sup> 'open wide'
PLB-JAM
                                                 (Matisoff 2003:606L)
PLB-JAM
                *kan<sup>2</sup>
                          'spread/stretch out'
                                                 (Matisoff 2003:266, 595L)
PTB-JAM *s-bu
                    'open/bud'
                             (Matisoff 2003:184, 585C, 660R, cf. STC#260)
PTB-JAM
              *m-ka
                          'open/opening/mouth/door'
                             (Matisoff 2003:594C, 660R, cf. STC#468)
                          'door/opening' (Matisoff 2003:173)
OC
                *g'0
PTB-JAM
                      *klu(:)\eta \sim k(1)uk 'valley/river'
                                       (Matisoff 2003:287, 524, 596L, 665L)
PTB-JAM
                      *klyon~*k(l)uk
                                       'valley/river'
                                           (Matisoff 2003:294, 596L, 665L)
                       *lan1
                                    'stream/river/valley'
PLB-JAM
                                           (Matisoff 2003:266)
OC
                                       (Matisoff 2003:287)
                      *kŭn
                             'river'
PTB-JAM
                      *klu(:)η~*k(l)uk 'valley/river'
                                       (Matisoff 2003:287, 524, 596L, 665L)
                                       'valley/river'
PTB-JAM
                      *klyon~*k(l)uk
                                           (Matisoff 2003:294, 596L, 665L)
                       *lan<sup>1</sup>
PLB-JAM
                                    'stream/river/valley'
                                           (Matisoff 2003:266)
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OC
                    *kŭn
                                        (Matisoff 2003:287)
Thai-C
                     k<sup>h</sup>lə:ŋ
                                  'canal'
[Mon-Khmer] Proto-Monic *kroon, PNyK *kroon 'large river', PMon *krain
        'stream, creek, small river'
                 *nana(h)
PMACM
                               'to open (mouth)'
                 *ŋaŋah
PMM
                               'to open (mouth)'
                 *ŋǎŋáh
                               'open (mouth)'
PPh
                               'agape'
Mal
                  nana
PMACM
           *muka[:]?/*buka[:]?
                                  'to open'
PChm
           *pŏk revised as *po[:]?/k/h
                                              'to open' (< Pre-Chm
        ?*po:q) > Rad, Jor pšk, Rog po? [Chm-Mou pə:h 'ouvrier (to open)',
        Chm-Mou bo:? 'ouvert (open)', cf. Chm-Mou prù:h 'lever (to lift)']
PBtk
           *unkab
                  'open/bud'
PTB-JAM *s-bu
                            (Matisoff 2003:184, 585C, 660R, cf. STC#260)
                      'open/opening/mouth/door'
PTB-JAM
           *m-ka
                            (Matisoff 2003:594C, 660R, cf. STC#468)
PMP
           *buka (poss. *buká?)
                                        'to open, uncover'
PMal
           *buka? > Mal, UL buka
PPh
           *bŭká?
                         'open, v.; opened'
UAN
           *buka
                         'open, v.'
[Mon-Khmer] Proto-Monic *pok, PNyK *pok 'to open (a door, the lid of a
        pot . . .), to expose (a wound, breasts), to lift (a curtain, a skirt, the
        corner of a mat . . .) (in order to look underneath)', PMon *pok 'to
        open, uncover, expose'
BM habap-patan, TM pak, NyK chlak/yùk (TLW) 'lift'
            Tembi, Serau. bu:ka'
                                     (bu:kak) 'to open'
Asl-SkBl
PAC-Trg **?aha/**ha 'open (mouth to say sthg.)' (Thurgood 1999:309, §1.2:
        MK origin)
           *?aha/*ha revised as ?x(?a)ha 'to open mouth' (poss. MK loan) >
PChm
        Rad, Jor, Chm ha, Rog ?aha/ha;
[Mon-Khmer] Proto-Monic *(n)haa?, PNyK *(n)haa? "to open one's mouth,
        or beak" PMon *ha~ha? 'to gape open, open wide'
Nic
            tom-âng-hala; ong-âng-ha-chakâ
                                              "to open one's mouth"
PJH
           *ha
                      'open mouth'
PSBnr
                      'open mouth'
           *ha
PEK
                      'open mouth'
           *kah?
Mkl-BDCkhlo:n/klo:n (prob. MK loan, poss. indirectly via Thai)
                     'river' (Thurgood 1999:324, §1.2: MK Origin)
PAC-Trg **kro:n
Ach-Saw
            kruən
PChm
           *kro:n >Rad kron, Jor, Chm kron [Chm-Mou kro:n 'fleuve']
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Mal
             sungai
Png
             ílog
             ilog
Tag
Thai-C
             mê: ná:m
                             'river'
Thai-C
             k<sup>h</sup>lo:n
                          'canal'
                                   (prob. MK loan)
[Mon-Khmer] Proto-Monic *kroon, PNyK *kroon 'large river', PMon *krain
        'stream, creek, small river'
BM
             krən
                          'river (small)'
BM
             bi, TM bi, NyK menam (TLW)
                                                    'river (large)'
                                                        (< 'waterway?')
             klan, TM klòn, NyK trəw
BM
                                              'road'
             tùənlè
                          'river'
Khm
PEK
            *kru:n
                          'river'
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Do vou see Vertical Genetic Retention (\$VGR) or Lateral Loan Relationships (↔LLR) in the above data? Matisoff (2003:3) defines "allofams" as "variant forms of the same word-family." I applaud Benedict's (1990, 1975) and Matisoff's (2003) efforts to identify allofams in their data. Rather than provide one or two-word glosses, which is traditional in much historical-comparative research, future computational analysis of such allofams across thousands of Austro-Asian languages will probably play a central role in establishing or rejecting the PASN-Hyp. In speaking with various scholars in Puerto Princesa, Palawan in January 2006, I noted that Benedict's multiglossed reconstructions helped me discover connections in my own data that I had not previously noticed. Robert Blust (pers. comm.) asked me for an example of such a discovery. One instance is presented in the data block above. I had not noticed the phonosemantic parallels between the ultimate syllables in the following etyma reconstructed in Larish (1999, Book 2, Appendix C): PMACM *nana(h) 'to open (mouth)' and PMACM *muka[:]?/*buka[:]? 'to open'. This phonosemantic parallel suggests that these etyma may have developed from a common PASN monosyllabic root.

2.2. Results of the present research

Sixty-two (62) possible PAn/PST, PAn/PTB or PMP/PTB cognate sets are presented in Appendix 1.1 and 1.2. Some of these sets will probably be rejected by future research, for I have determined that the Swadesh-200 list is insufficient for establishing recurrent correspondences in proto-language to proto-language comparison. While the Swadesh-200 is sufficient to establish recurrent sound correspondences for closely related languages, the number of comparanda for long-range comparative work must be extended to perhaps 500 core-type sets. Until this work is complete, I will refrain from listing possible correspondences. However, I would like to discuss three possible consonant correspondences. First, **PAn** *R appears to correspond to **PTB** *y in Appendix 1.1 (numbers 1, 9, 16, 20, 25), but other data demonstrate *R to

r (17, 20, 35) or R to l (26, 27, 30). Second, instances of the possible correspondence between PAn *t and PST/PTB *k (12, 24, 42, 45) can be noted. Finally, another salient correspondence that appears recurrently in the present research is k to h. It is found in sets 24 pound/strike, 38 burn, and 42 red in Appendix 1.1. Due to the significance of PMM *k to PACM *h (< **PAn** *q) in mainland-Austronesian subgrouping arguments (see Larish 1999:363-7, see especially Figure 7.1 and Table 7.1; Larish 2005:514), it was surprising to discover that this correspondence may have a PASN provenance (TVGR ?) or may result from areal convergence (LLR ?). For example, h to k is found in a number of PTB allofams. The following examples are from Matisoff (2003:593): **PTB** *ha~*ka 'earth/ground/soil', **PTB** *ha(:)k~*kak 'gag/choke', PTB *hi:l~*ki:l 'bind/twist/roll/angle', and PTB *hu~*kaw 'steal'. Note that this correspondence is also found in MK reconstructions: Proto-Monic *kntaam '(fresh-water) crab' > PNvK *kəntaam, PMon *hətam (Diffloth 1984:77.N52), **Proto-Monic** *knciem 'bird' > **PNyK** *kenciam, PMon *hacem (Diffloth 1984:71.N30), and Proto-Monic *gnaay 'to chew [V.tr]' > PNyK *khənaay, PMon *finai (Diffloth 1984:249.V268).

PAn/PMP *aa to **PST/PTB** *aa appears to be the most stable possible vowel correspondence. **PAn/PMP** *u to **PST/PTB** *u and **PAn/PMP** *ə to **PST/PTB** *a also appear to be recurrent. Vowel correspondences require further investigation, however; additional data (more possible cognates) are needed. References on ablaut changes in PST/TB must be considered in determining vowel correspondences (cf. Matisoff 2003, Ch. 12).

Some lexical evidence demonstrates possible shared morphological prefixes between PAn and PTB—see numbers 2 (right side) and 4 (walk/go) in Appendix 1.1. Some monosyllabic PST/PTB words appear to correspond across two Pan syllables (e.g., 1, 2, 4, 6, 9, 12, 15); In other cases PTB words appear to correspond to one or the other PAn syllable. The fact that the PTB monosyllabic word may correspond variously to different PAn syllables may be helpful in attempting to reconstruct the stressed syllable in Pre-An or PAn (see Larish 1999:371-376, cited in Pittayawat Pittayaporn's paper at 10-ICAL).

⁶ For a discussion on r and y variation in Burmese, see Benedict (1972:41, especially footnote 134).

⁷ Since I could not find the symbol that represents allofamy—overlapping "more than" (>) and "less than" (<) signs—I have used the tilda symbol (~) instead.

This phenomenon reminds me of my E.S.L. teaching days in Japan, where the beginning student of English might say [sinku] for "think," a disyllabic form corresponding to a monosyllable.

Unfortunately, I still have not been able to obtain a copy of Sagart, Blench, Sanchez-Mazas (2005). As far as I understand Sagart's position, he has been working toward establishing a genetic connection between PAn and PST for a number of years now. For Sagart to posit that PAn and PST comparanda are cognate, he expects that both the affix and root agree (pers. comm.). When considering the whole range of Austro-Asian languages, however, I suspect that a consistent correspondence between both affixes and roots will not be found due to the large number of languages that are monosyllabic. Thus, if recurrent PAsn sound correspondences can be established, efforts must be made to reconstruct a corpus of PASN roots without regard to affixes. Core roots can be found that reflect genetically shared forms when affixes are peeled off. If PAsn began as a monosyllabic language, then the development of prefixes, infixes, and suffixes may have been a secondary phenomenon in certain branches of PASN and may ultimately provide evidence for subgrouping. Since the evolution of languages often parallels biological evolution, it seems likely that a monosyllabic to polysyllabic development may better explain the evolution of PAsn, just as complex plants and animals evolved from single-celled organisms.⁹

In some cases, one independent PTB monosyllabic lexeme may correspond to the penultimate syllable of the PAn word and another distinct monosyllabic lexeme with the same or similar meaning may correspond to the PAn ultimate syllable. Here are two examples taken from Appendix 1 that illustrate this phenomenon:

30 & 31	Proto-Forms	Glosses	Sources
PAn (30)	*qasiRa	salt	125A/200 Blust (97)
PTB	*la	salt	JAM 03:599L, 665R
	*m-t(s)i	salt/yeast	JAM 03:617L, 665R
	*tsa	salt	JAM 03:616C, 665R
PAn (31)	*timus ^a	salt	125B/200 Blust (97)
PTB	*m-t(s)i	salt/yeast	JAM 03:617L, 665R
	*tsa	salt	JAM 03:616C, 665R

The data in 30 and 31 suggest that the PAn word may have developed by compounding monosyllabic words with similar meanings.

51 & 52 Proto-Forms Glosses Sources

⁹ Grace Odal-Devara (pers. comm.) informed me that E. Arsenio Manuel, an Anthropologist in the Philippines, has hypothesized that Proto-Asian may have been originally monosyllabic (Documenting Philippine Asian, 1996?).

PAn (51)	*esa	one	197A/200 Blust (97)
PTB	*t(y)ak	one/only	JAM 03:616C, 660R
PAn (52)	*isa	one	197B/200 Blust (97)
PTB	*?it	one	JAM 03:583C, 660R

This phenomenon suggests that PAsn and early Pre-An may have been originally monosyllabic languages. Proto-Asians may have begun with a largely monosyllabic lexicon and through a process of linguistic accretion compounding, prefixation, suffixation, infixation, and especially reduplication—Pre-An may have begun to develop its trend toward largely disyllabic forms. Perhaps, Tai, OC, and PTB conserve original features of PAsn. Consider the ubiquitous sentence-final particle in Austro-Asian languages. Although some rare cases of disyllabic S-final particles can be found, the majority are monosyllabic. As a speaker of three Austro-Asian languages (Moklen, Thai, and Japanese), my impression is that there is a high degree of phonosemantic similarity in the form and function of S-final particle among these three languages. Do they represent archaic fossilized monosyllabic elements from a distant Asian past? For now, let me present examples from Mandarin and ask my Austronesian colleagues to e-mail me if they see parallels in the languages that they study. Li and Thompson (1981, Chapter 7) present numerous examples and extended discussion on the following six S-final particles in Mandarin Chinese: le 'Currently Relevant State', ne 'Response to Expectation' [ne/ne: in Japanese and na in Central Thai], ba 'Solicit Agreement', ou 'Friendly Warning', a/va 'Reduce Forcefulness', and ma 'Question'.

A possible problem with Benedict's (1975, 1990) PAT and PAJ reconstructions is that he often takes the PAn form as conservative. That is, he reconstructs a PAT or PAJ form similar to PAN and then posits erosion to get monosyllabic languages (see Benedict 1990:20).

2.2.1. Austronesian and Sino-Tibetan/Tibeto-Burman Affinities

Taken as a whole, the possible cognates presented in Appendix 1 and 2 generally support the **PASN-Hyp**. As far as individual comparanda go, I am uncertain whether future research will support each case. However, in sixty-two data sets in Appendix 1, we find examples of PAn/PMP etyma that may be cognate with PST/PTB forms, possibly reflecting PAsn roots.

Sino-Tibetan is one essential "missing link" in establishment of a genetic connection between Austro-Asian languages. The data presented in Appendix 1 tentatively suggest that this link may be eventually connected. ((I have much more data to include in Appendix 2 but could not due to time

constraints.)) For the time being, I propose that establishment of recurrent PAsn sound correspondence must be left to future research.

2.2.2. Austronesian and Austroasiatic Affinities

Three potential arguments can explain the affinities between Austronesian and Austroasiatic languages:

- (i) A vertical genetic relationship (VGR) between **Pre-An** (equals Austro-Tai?) and Austroasiatic (Munda and MK)
- (ii) Remote contact between **Pre-An** and **PAA**, i.e., Old Lateral Loan Relationships (see Figure 1)
- (iii) More recent contact, i.e., Recent Lateral Loan Relationships

The first possibility (i), usually referred to as the 'Austric hypothesis', is too chronologically remote—Diffloth (1994) tentatively suggests ten to fifteen thousand years B.P.—to account for some lexical affinities between mainland-AN and MK languages. Relative to the extreme time depth required by the Austric hypothesis, more recent contact (possibility iii) is suggested when words group in a fairly limited set of semantic domains (Larish 1991:8). The Austric controversy (i) has been percolating for over ninety years since Schmidt (1906) coined the term 'Austric'. For articles in support of Austric, see section 1.5.

2.2.2.1. PMM and PChm Long Vowels: Austric Retention?

The affinities between Austronesian and MK are due either to prolonged contact or a genetic relationship. If genetic, this would imply that Proto-Austric had a vowel-length distinction like Proto-MK. Cowan (1991:2) argues that if 'the feature of vowel length distinction, which is a grammatical phenomenon, has a common genetic MK/PAN origin . . . it must have been preserved in PCA [= PAC] through PAN . . . confirm[ing] that those who had concluded already long ago that PAN originally must have had vowel length distinction were right'.

Table 1. Reconstructed Austronesian and Mon-Khmer Vowel Length Compared

	dog	fish	wood	left (side)	bone
PMK	*?a-c(uə)?	*?a-ka:?	*kəjh(u:)?	*jwi:?	*j-l-?aːŋ
P-Monic	*clur	*kaa?	*chuu?	*jwii?	*j[1]uut
PNyK	*[khl/ch] <u>u</u> r	*k <u>a</u> a?	*ch <u>u</u> u?	*chəw.ii?	*chəluut
PMon	*kl <u>ə</u>	*k <u>a</u> ?	*ch <u>u</u> ?		*cut
PMACM	*?asu[:](?)	*(?i)ka[:]n	[?] *kayi:w	*ka-uiri[:]	*tuqəlá[:]ŋ
PMM	*?əy	*(?e)ka:n	*ka?ĭ:[ow]	*kɛləy	*kəla:n

					*kəla:n
PAC	*?aseji	_	*kayu:	_	*tuláːŋ
	*?asɛiฺ??				
<ach></ach>	aseə	<wŋkot></wŋkot>	<kayeə></kayeə>	<wi>iə></wi>	<tuluaŋ></tuluaŋ>
		<wŋkət></wŋkət>			
PChm	*?asəu	*?ika:n	*kaiəu	*?iãu	*tula:ŋ
PMal	*asu?	*ikan	*kayu?	*kA-iri	*tulaŋ
				*kiba?	
PBtk		*dəŋkəy	*kayu		
PPh	*?á:su	_	*ká:yuh	*kǎ-wǐ yí?	*tuqilán
PMP	*ásu	*iSəkan	*kaSiw	*ka-wiyi	*tuqəláŋ

The data in Table 1 demonstrate a strong correlation between PNyK, PChm, and PMM long vowels, on the one hand, and PMon and PMal short vowels on the other. This correlation suggests that there may have been two separate linguistic areas influencing early Southeast Asian history and/or divergent shifts in stress placement (see Larish 1999, §7.1.2). The data show that the branches of PMACM have been subject to dissimilar areal influences. Although the boundaries and time depths of these areas are beyond the scope of the present study, they provide interesting possibilities for further research.

2.2.2.2. Lexical Evidence for Austric or Remote An-AA Contact

In addition to the core vocabulary examined in Table 1, a considerable number of additional lexemes, mainly anatomical terms, demonstrate strong An-AA affinities. Diffloth (1994:30) suggests a 'probable Austric' connection in the word for 'tongue'. Comparing PMP *dilag 'tongue' with Proto-Monic *klntaak 'tongue' shows that PMP *-q corresponds with Proto-Monic *-k. It is easier to account for PMM *kolě?? 'tongue' as a reflex of Austric (or an MK loan) than it is to compare this etymon with **PACM** *dilah 'tongue'. To do so, we must posit a number of sound changes (e.g., PMM *kəlě?? 'tongue' < **Pre-MM** * $t \ni l \not \in :$? < **Pre-MM** * $d \ni l \in :$? [*d \rightarrow *t \rightarrow k/ 1?]). Since Pearic (Pr) dialects show an alternation between t and k in C_f position for 'tongue' (Pr rotait, srotaik, koltáit, soltáik, kotáik, táik), where PMP has *q, this feasible correspondence supports the possibility that **PMACM** had a t/k alternation medially in the words 'armpit' and 'knee' (first compared in Larish 1999, Table 7.9). When **PMM** *pw?a:k 'armpit', **PChm** *pa?a:? 'armpit', Mal kətiak 'armpit' (cf. Proto-Monic *knlak 'armpit') and PMM *twlot 'knee', PChm (t/ki)?ut 'knee', Mal lutut 'knee' are compared, the ultimate syllables of Malay and the mainland-AN languages appear to show good correspondence, but the penultimate syllables do not. Since Malay has -t- in both 'armpit' and 'knee', this suggests that in some cases where *-?- is reconstructable for **PMACM**, there may have been an alternation between t and k in medial

position. If so, the medial glottal stop could have been conditioned by dissimilation of the medial consonant before final t or k. According to Diffloth (1984:97.N117), Mon dialects normally use a compound form pan(ka)nak for 'armpit', which shows a strong affinity to pan(ka)nak 'armpit' and pan(ka)nak 'armpit'. The close correlation between these forms suggests that they were borrowed from a Monic language nearly at the same time and/or place (or that pan(ka)nak) but the addition of data from Borneo (cf. Biaju Dayak penang; Maanjan apenang 'upper arm') may suggest an Austric connection.

The evidence for 'heel (of the foot)' is noteworthy considering that Moklen and Chamic words look related to MK on the one hand, and Moken and Acehnese appear cognate on the other (cf. Mkn-Dng k honim 'heel', Ach-Lws geunòë). The Moken and Acehnese forms correspond phoneme-by-phoneme, except for the unexplained final -m of Moken, which could be a suffix. Compare Mkl-BDC kadwn and Mkl-Lmp cadon with Rad kdwl, Jor koldul, Rog kalduon, Rad-DB kldul 'talon', Chm-Mou kadol-takay 'talon', Rad-DB joy 'pied, patte, jambe (foot, paw, leg)' (< PChm *kaldu:[nl] < Pre-Chm *kaldu:[nl]) 'heel'. The Moklen and Chamic forms correspond across both syllables, whereas only the major syllables of An and MK forms appear cognate: Proto-Monic *juŋ, PNyK *cuŋ, PMon *caiŋ 'foot' (Diffloth 1984:97.N120). 11

Another significant anatomical term is 'neck'. There is a high degree of lexical overlap between Austronesian, Mon-Khmer, and Thai words in the block of data presented below which is complicated by the fact that it is difficult to establish the exact meaning of a lexeme by simple one-word glosses. A tentative hypothesis is that forms with t- initials mean 'nape', those with t- initials mean 'front of the neck', and b- initial forms mean 'throat'. This is supported by ItgB 'liyig' front (of neck)', ItgB ti'ngid 'nape', where the distinction between the front and back of the neck is clearly evident (Reid 1971.203.192).

In reconstructing **PMACM** * $ti(\eta)qu:[\eta k?]$ 'nape of neck', MAC languages do not retain the prenasalized consonant seen in Mal $ti\eta kok$, but **PAC** and **PMM** agree in having heavy major syllables. In addition, the mainland languages give us a range of final velar consonants to examine. As Thai and MK languages show strong affinities to **PMACM**, this word may

Skeat and Blagden (1966:630.H69-70) first observe curious similarities between Chamic, Aslian, Nicobarese, and Andamanese words for *heel* (e.g., cf. Andamanese Beada *taxkuzduzl-de* and Kol *o.m-keztel-che*).

¹⁰ Lewis (1960:66) compares Mkn-Lws kenim 'heel' and Ach geunòë 'id'.

The word *neck* involves a number of related semantic domains (e.g., nape, throat, base of the neck, top of the neck, Adam's apple, and so on).

have Austro-Thai and/or Austric connections (cf. **Proto-Monic** * $k \circ \circ$?, Thai-C $k \circ \circ$).

neck (nape) 25/200, Mkb84, Benj72, Ray123, Reid192

```
PMACM *tiku[:]n
                          'nape of neck'
PMM
          *(tw)ks:\eta/*[n/l]wks:\eta
                                       'nape of neck'
Pre-Mkn
             tuk<sup>h</sup>o:
                          'nape of neck'
             tuk<sup>h</sup>o
                          'back of neck'
Mkn-Dng
Mkn-VP tukho:
                       'neck'
Mkn-Lws
             tuko'
                          'neck'
             tukho:
                          'the neck'
Mkn-Rw
             *[n/l]wko:n 'neck'
Pre-Mkn
Mkl-BN
             nuko:n/(lu)ko:n
Mkl-BDC luko:n
                       'neck'
                          'the neck'
Mkl-Lmp
             lako:n
Mkl-Lmp
                          'to be necked (of a nose)'
             Scheg
           ?*takuəi
PAC
Ach-Col takoeë
             lihiə/lihe
                          'neck'
Ach-Saw
Ach-SkBltakuə
PChm
            *takuai
                          'neck' > Rad kkue, Jor təkuai, Rog takuai, Chm
        təkoy [Chm-Mou takəy (phò:?) 'nuque (nape)', Jar-SkBl tökoi, Chm-
        SkBl takuəi]
PMal
            *lihər > Mal leher, UL lihel; Mal tənkok 'nape of neck'
                                'uvula'
Ma1
             anak təkak
PMP
            *liqəy
                          'neck'
Png
             bíkliw
                          'neck'
PPh
            *lí:qəy
[PhML] Agta lig, Atta bullaw, Blw ba'gang, Btk liqig, BilK liqal, BilS liqal,
        Bkd 'liqig, BonG ba'gang, DgtC 'leg, Gad buqlaw, IfgAg ba'gang,
        IfgBt bagang, IfgBy bagang, Isg buglaw 'neck, throat', IvtI ragaw,
        ItgB 'livig 'front (of neck)', ItgB ti'ngid 'nape', Ivt lagaw, Klg livig,
        KlaG ba'gang, KlnKy bukliw, KlnKl buklew, KnkN ba'gang, Mmn
        liqig, Ata liog 'throat, neck', MbAD 'liqig, MbI liqig, MbKC liqig,
        MbS liqag, MbT liqig, MbCW liqig, Msk liyig, Sml killong, SblBt
        'liqiy, Snl 'rerik, San leheq, SubS dliig, SubSc glig, Tbl lihol, TbwA
        liqig, TbwK dikil, Tsg liqug 'neck'
             batok
                          'nape'
Tag
             liig/leég
                          'neck'
Tag
```

UAN *lihiy 'neck'
Thai-C kho: 'neck'

[Mon-Khmer] Proto-Monic *koo?, PNyK*koo?, PMon *koo?

BM ko?, TM ko?, NyK ko:? 'neck'

Khm ko: 'neck'

Nic dialects on-lô-na, ne:, uain, en- lô-na, an-lô-na, lik-kun

Pr ko:k 'neck'

Asl-Benj: Ks tənkəg, Je tənkəg, BN tənkək, Sn tənkəg, Sa tənkəg, LY tənkəg, KB cənəd, Mr ?unut, BD nut, Mt ?ənəut, LJ tanun, Tm tanən, SmI tanən, SmII tanən, CW ləne?, JH ləne?, Sl ləne?, Tq ləne?, SB səmaron 'neck'

Sen lani 'neck'

Sen tankok 'nape of neck' (MLW?)

neck (throat) Reid315 (throat)

Mkn-Dng bulo:n 'throat'

Mkn-KS bulo:n 'neck, throat'
Mkn-Lws bulong 'neck, throat'

Mkn-Rw bulo:n 'the neck, the throat'

Mal kəronkonan 'throat'

Other lexemes that support the Austric hypothesis are briefly considered here. Another case involves **PMACM** *ri[?]buŋ 'bamboo shoot' and **Proto-Monic** *t6aŋ 'bamboo-shoot' where the major syllables show a partial phonological resemblance, yet **PPh** *(qa)Dəbuŋ shows a broader resemblance across two syllables.

Since BonG ta'mong, Ata qapongag 'cheek' (Reid 1971:59.45) are likely cognate with Mkn-Dng təbŏːŋ 'cheeks', Mkn-Rw təboːŋ 'the cheeks', Mkl-BDC kəbəːŋ (fast)/ kubəːŋ (slow), and Mkl-KY tabəːŋ, affinities with Aslian could go back to Austric, albeit Aslian could have borrowed from an Austronesian source (cf. Sem Pa. Max, Sem Buk. Max kĕbang; Sem. K. Ken. kabaː or kapá; Tembi kapong or kapång, Sem. Plus peng-peng; Sen. Cl. mêng (Skeat and Blagden 1966:556.C81,84). Note also that Sen. Cl. mêng appears connected with Chamic: Rad mieŋ, Jor mĕŋ, Rog miaŋ [Rad-DB mieŋ 'joue', Chm-Mou mieŋ 'joue', Chm-SkBl amiöng] (< PChm *miõŋ 'cheek, jaw'). Since the AN-MK affinities appear in a core-type word related to the body, this supports the Austric hypothesis. The m/b variants in Cm position and vowel differences in Vm are curious.

Another core-type word with Mkn-Mkl and Aslian affinities is 'chin'. Compare Sem. Kedah 'ngkek or 'ngkez' 'chin' (Skeat and Blagden

1966:559.C113) with Mkn-KS təkĕik, Mkn-Lws tekék, Mkn-Rw təkiik, Mkn-Rw təkiik, Mkl-BDC twkwik, Mkl-KY twkəik, Mkl-Lmp təkəik (< PMM ^{?x}təkĕik 'chin'). The fact that only the major syllables show phonetic agreement makes the possibility of borrowing less likely.

Two further items of core vocabulary support the Austric hypothesis:

PMACM *(mə-)nɨpi: 'to dream' > PMM *mipuy/*n/lipuy, PAC *lu(m)pi: > Ach-Dur lumpəə, PChm *lupɛi (possibly *lɨpɛi), PMal *impi > Mal bər-mimpi, UL mipi (< PMP *(mi)-Səpi, *nipi/*nupi); Proto-Monic *([k]m-)pɔɔ? 'to dream' > PNyK *([]m-)pɔɔ?, PMon *kəpɔ? > Pr phok/pho?, Khm yùəl sɔp(t), Nic enfu:a-chakâ, Asl-SkBl Sem. Kedah ĕm-pa', Lebir ĕm-pa', Kerbat (ĕm-pak), Krau Tem. ĕm-pûa', Sen. Cliff. ĕm-po';

PMACM [?]*kikít 'to bite' > PMM *mokŏ:t, *n/loko:t, PChm *ke? (possibly *kε?), PMal *gigit > Mal gigit, UL gige? (< PMP *katkat/*kətkət/*kitkit/*kutkut (poss. unified as Pre-MP [?]*kitkít); Proto-Monic *kwt, PNyK *kwt, PMon *kit > BM kic, TM kic, NyK kit; Pr khat, Khm cγk (cf. Thai-C kàt); ¹³

2.2.2.3. Morphological Evidence for Austric or Remote An-AA Contact

Morphological evidence for a genetic connection between Austronesian and Austroasiatic has been examined by a number of scholars (cf. Reid 2005, 1994). Such evidence supplies considerable weight to the Austric hypothesis, given the fact that morphological systems are not likely to be borrowed. For example, Nils M. Holmer, a megalocomparativist (according to Matisoff 1990), notes the striking resemblance between prefixation and infixation throughout Asia:

In Austronesian the 'derivational' prefixes are based chiefly on the consonants p-, t-, k-, m-, s-, and zero (which latter might be identified with one of Dyen's 'laryngeals') . . . The interesting thing is that the same type of consonant reappears in written Tibetan, e.g., the b-, d-, and g- of the verbal inflexion, further the initial '- or h-. In Tibetan words beginning with consonant clusters we often notice b-, d-, g-, m-, s- as initial consonants. The same is the case in reconstructed Ancient Chinese, where the prefixes take the forms *p-, *t-, *t-,

Thieme (1964:589) states that 'morphological correspondence is . . . the safest indication of genealogical relationship'.

¹³ In addition to this set ending in final stops, see 'bite, v.' in Appendix C for numerous instances of bilabial finals (e.g., Ach kap, Nic opkâp, Asl kap/kab).

*m-, *s-, and *h-. ¹⁵ Among the 'derivational' formatives we also have to consider the infixes, chiefly with -n-, -m-, -l-, and -r-, which play an important part in the Austronesian languages. They are also found in Mon-Khmer (-l-, -r-, -n-, and -m-) and in Munda (-l-, -r-, -n-) (Holmer 1963:21). ¹⁶

Furthermore, Matisoff (2003:88) suggests that the relative age (ancient vs. recent) of prefixed elements or "formatives" in **PTB** correlate with semantic opaqueness (ancient prefixes) and semantic transparency ("relatively recent"); he discusses seven **PTB** prefixes: *s-, *m-, *a- [?(\mathfrak{p})], *b-, *g-, *d-, and *r- (2003, 4.2 to 4.4), noting that the first three (*s-, *m-, *a-) are 'highly important, with relatively well-defined semantic content' (2003:87-8).

The close resemblance between Moken-Moklen and Aslian affixes warrants repetition of the following quote from Skeat and Blagden's 'Grammatical Notes', augmenting Holmer's summary:

The common verbal prefixes are Sĕmang ma-, Sakai $\check{a}m$ - ($\check{e}m$ -), $n\check{e}$ -, $n\check{e}$ -+a consonant anticipating the final consonant of the root (this last seems to be typical of Northern Sakai, but appears also to occur in Sĕmang, and may be of Sĕmang origin) hi-, ki-, and Bĕsisi ka-. Pa- (with variants pi-, $p\check{e}$ -, etc.) and ta- (tan-, $t\check{e}$ -, teng-) in several dialects form causal and sometimes transitive verbs. In Bĕsisi na- and ta- form adverbial and adverbial demonstratives. There appear to be many other prefixes.

The commonest infixes are -ĕm- (-am-, -um-) and -in- (-ĕn-, -an-). It is curious that these (like some of the prefixes) are common to the Mon-Khmer and Malayo-Polynesian families, still more curious that Sĕmang and Northern Sakai frequently use the -in- infix in words with Malayan affinity, though it is as good as non-existent in Malay itself.

The Jakun dialects use Malayan prefixes and suffixes, not, however, always absolutely identical with their ordinary Malay forms: meng- is sometimes represented by ma-, $b\breve{e}r$ - by ba-, di- is not necessarily passive in Jakun (Skeat and Blagden 1966/06:774).

To qualify as evidence for common heritage, cognates between MK and Austronesian languages must be found in Austronesian languages distant from mainland Southeast Asia. The diffusion of MK lexemes might extend as far as the Philippines (e.g., alcohol, eggplant).

The criteria for distinguishing remote contact or common origin from more recent diffusional resemblances must be considered. In more remote cases, phonetic agreement might only be found in major ultimate syllables. Larish (1991) considers such cases for the following reasons:

¹⁵ Holmer also notes the parallel between these initial consonants and those of Old Mon.
16 Holmer neglects to provide examples from Sino-Tibetan. Wolfenden (1929) notes the r-, -l-, and -s- infixes of Tibetan, -ri- in Dima-Sa (Bodo), -r- in Mikir (Naga-Bodo) and
-rr-, -r-, -ra-, and -ro- infixes of Old Kuki and their identity with Mikir -r-.

First, MAC [Moken, Moklen, Acehnese, and Chamic] and MK languages erode phonologically on the left; consequently, one might expect main syllables to be relatively more stable over time than presyllables and minor syllables. Second, MAC and MK languages optionally drop non-ultimate syllables (Larish 1991:7).

Recent contact is suggested whenever lexical affinities are shared only among MK and mainland-AN languages; recent loans usually demonstrate phonetic similarity in both major and minor syllables.

Headley (1976b) and Diffloth (1994) are useful sources, for they consider the directionality of possible and probable loans between Austronesian and Mon-Khmer languages. Out of 96 comparanda, Headley (1977b) proposes that 72 sets are 'words of probable Mon-Khmer or Austroasiatic origin (pp. 454-64), 11 sets are 'words of probable Indo-European origin' (pp. 464-6), 9 sets are 'words of uncertain origin' (pp. 467-8), yet only 4 sets are identified as 'words of probable Austronesian origin' (p. 466). Given the probable importance of Austronesian groups in the early Southeast Asian history, as argued in Larish (1999, Chapter 8), we should expect more instances of Austronesian loans being incorporated into MK languages (e.g., spoon, swim, needle). Although Headley (1976b:469) only briefly addresses the Austric question, he presents fourteen items of basic vocabulary between AN and MK (ibid.:470). Again, I do not support a genetic connection in the all the cases that Headley identifies as basic vocabulary: back, bird, catch, cut, to fly, intestines, leaf, leg/foot, pull, river, sand, swim, warm, and wash. Instead, the data indicates mixed etymologies, both genetic (‡VGR) and diffusional (↔LLR). The data in Table 2 suggest a possible Old Lateral Loan Relationship (↔OLLR) between PMM and PAC:

Table 2. Evidence for Contact between Acehnese-Chamic and Moken-Moklen (excluding Malay)

gloss	MK	PMM	Ach	PChm	PMal
bird	Nic-Car checho:n	^x cicum/ ^x (ti)cum	<cicem></cicem>	^x cĭ m	*buruŋ
nephew	PMonic *k()muun	^{?x} kamɔ[ː]n	_	^{?x} ?amuə̃n ^{?x} kamuə̃n	_
fruit/egg (clsf)	Asl-Sn 'fruit'	Mkl-BDC <phoh> 'classifier'</phoh>	<hoh></hoh>	*boh 'egg, fruit, ball'	*buah
fish hook	NyK <chwàk> 'hook, v.'</chwàk>	*c ^h əwă:k *c ^h /suwiək	culawiə? (with infix)	Chm-Mou <wah> 'hameçon (fishhook)</wah>	mata kail

The fact that Moken-Moklen, Acehnese, and Chamic (MAC) share a number of MK loans and parallel structural convergence toward MK, where Malayic languages apparently do not, supports that the MAC languages may have been in contact after Acehnese-Chamic broke off from Malayic. It is probable that the MK influence first began when the MAC languages were in contact due to the strong structural parallels exhibited by the mainland-AN languages. It seems unlikely that these words could have been borrowed at separate times and places. It is easier to posit one case of borrowing rather than two or three. Therefore, the data in Table 2 support Cowan's (1948) hypothesis for a special (betrekking) relationship between MAC & MK (see Larish 1999, Book 1, p. 57 for a summary).

The evidence for 'bird' deserves detailed examination since MAC & MK comparisons illustrate a full range of possibilities, including sound symbolism and chance similarity. These last two possibilities are rarely an issue. The mainland-AN and MK languages share such an abundance of structural and lexical affinities that chance similarity is ruled out by the quantity and quality of the evidence (cf. Shorto 1975, Larish 1991, Larish 1997). In comparing PMM *(ti)cum and Ibl, KlnKy (Phil) titit 'bird' (Reid 1971:51), however, sound symbolism becomes an issue, as both forms could be onomatopoeic or imitative. Even if they are, by comparing their rhymes, it becomes readily apparent that PMM *(ti)cum, Ach cicem, and PChm *cim are more similar to MK (e.g., Nic shichu:a compared with Vtn chim) than to the Philippine forms. Sound symbolism may account for the affinities between the Southeast Asian mainland languages (including MK) and Ibl, KlnKy titit. In cases where such an explanation is not available, affinities between MK and insular-An languages must be considered possible evidence in support of (i), the Austric hypothesis. When **PChm** *cim with Ach-Col titiem, Ach-Dur cicem 'bird' are compared, it appears that the Chamic languages dropped the presyllable. If so, PAC 'x (ci)cim can be reconstructed. Comparing PMM xcicum/x(ti)cum and PAC $^{?x}(ci)$ cim suggests PMACM $^{?x}(ci)$ cim, where $i \rightarrow u/m$ and $i \rightarrow i$ through vowel harmony. Another possibility, that of separate MK influence, also appears feasible. The C_p and C_m consonants of Mkn-KS cicum and Ach cicem appear closest to Nic-Car chechom, and the initial consonant of the most commonly heard Moklen form ticum may correspond to Proto-Monic *kin *kpciam. Rad, Jor cim 'bird' and Chm cim 'oiseau' (< PChm xcim) are identical with Aslian Sn, Sa, MM, Sl cim, yet similar to Vtn chim. Rog cip is closest to Aslian LJ, LY, Tm cep and Tq cip. The fact that Chamic languages share the same C_f alternation with Asl-C and Asl-S suggest a possible contact relationship. Unique lexemes such as Mal burun 'bird' and Asl-Ks kawaw 'bird', which is representative of Asl-N, obviously show no connection to the data which strongly supports the EMAC-MK sprachbund, first discussed in Larish (1999, §7.2).

2.2.2.4. Kinship Terms

In discussing the kinship terms in Larish (1999, Table 6.9), the AN-MK affinities are attributed to borrowing, hence they are labeled **PMACM** lexical innovations. Cowan (1991:10-11), however, suggests an alternative hypothesis. He claims that the similarities between the mainland-AN and MK words for 'grandchild' are Austric retentions in Acehnese and Cham. If such is the case, then **PMM** *[t/c]ocŏ? 'grandchild' could also be an Austric retention. An important factor is that the mainland-AN languages have been in contact with MK speakers much longer—perhaps two millennia as claimed by Thurgood (1999)—than most insular-An languages. Two thousand years ago, early Austronesians and Mon-Khmers who were in contact probably recognized their linguistic kinship to a better degree than we can today. This being the case, they may have tended to retain mutual linguistic elements that aided in communication, elements that would be archaic in other areas of Austronesia.

We should note one more lexeme that was probably borrowed from MK by speakers of **Pre-Mkl**, one which is not evident in Moken, Acehnese, or Chamic:

Pre-Mkl *bwlaw 'wife' > Mkl-BS bilaw, Mkl-BDC bwlaw, Mkl-KY bwlaw, Mkl-Lmp bolaw 'a wife';

Proto-Monic *braw, PNyK *phraw 'wife', PMon *prez 'woman, wife' (Diffloth 1984:115.N174), BM hayan-prèa, TM prèa, NyK phràw 'wife', BM makì, TM nìh-prèa/makì (old), NyK phràw-phràw 'woman', Pr čhəŋɨ(:)n, Khm prəpùən(th), Nic kân/kâna, Asl-SkBl Ben. New. malau 'woman', malaulau 'wife' (Skeat and Blagden 1966:601.69)

Clearly, **Pre-Mkl** *bulaw 'wife' shows a closer affinity to either NyK or Aslian here, but it matches closely with **Proto-Monic** *braw 'wife', suggesting that it may be an old loan from MK.

2.2.2.5. Animals

Except for Nicobarese and Andamanese, an important distinction must be made between land-based Mon-Khmers and island, coastal, and river-based Austronesians. This opposition allows us to predict somewhat the direction of borrowing. By and large, most of the lexemes in the plant and animal domains appear to be borrowed from MK into An, especially for land-based plants and animals. The large number of apparent loans in the animal domain that were borrowed from MK languages into Moken-Moklen, Acehnese, Chamic, and Malayic suggests that these early Austronesian speakers settled on the mainland after the MK, adopting many of their names.

The following list is representative. The reader is referred to the data in Larish (1999, Book 2, Appendix C):

```
ant
bat; butterfly
bird
bird-of-prey (hawk, eagle)
crab (generic)
crow, n.
dog
dove; pigeon (see lexeme 1)
duck, n.
fly (insect) (see lexeme 2)
fly, v.
nest, web
spider
squirrel
tiger
wing
```

The following extended examples are typical of the type of lexical similarity found between MK and mainland-AN languages. In this first case, borrowing is suggested by the close phonetic agreement between MK and An etyma:

```
PMM
             x?ada:
                       'duck, n.' (prob. MK loan)
Mkn-Dng
             ?ara
                       'duck'
Mkn-KS ?ada:
                   'duck'
Mkn-Rw
             ?ada:
                       'duck'
             ?ada: [?a•<sup>21</sup>.'da:<sup>232</sup>]
Mkl-KY
             ?a?da:
                       'a duck'
Mkl-Lmp
Ach-Saw
             ?ite?
Chm-Mou
             ?atà: < x?ada:
                             'canard' (prob. MK loan)
Mal
             itik, UL iti?
UAN
            *itik
                      'duck'
[Mon-Khmer] Proto-Monic *(?a)da:, PNyK *taa, PMon *(?/kə)tag
BM,TM ?atèa, NyK tàa,
Vtn con vit
Nic wet
```

The strong affinity between **PMM** *?a'da: and Chm-Mou ?atà: (< *?ada:) 'canard' suggests that **PMM** and **PChm** borrowed from the same MK source or, perhaps that speakers of **PMM** obtained the word indirectly from **PChm** or vice versa. Since most Aslian languages have borrowed *itek* from a Malayic language (Skeat and Blagden 1966, II:585; Means and Means1987:124), neither Vietnamese *con vit* nor Nicobarese *wet* can be the loan source.

The phonetic similarity between **PMM** *cicum/*(ti)cum kəla:ŋ 'bird of prey (hawk, eagle)' and **PMon** *kəniəŋ 'kite' is striking, yet in this case Austric retention cannot be ruled out. The possible correspondence between mainland-An a: and Monic iə is typical of a difference in tense/lax phonation type (Larish 1999, pp. 316-9, §6.2.3.2.2).

bird of prey (hawk, eagle) Lrb225, Hdly1.38

```
PMM
            xcicum/x(ti)cum kəla:n 'bird of prey (hawk, eagle)' (poss. MK
        loan)
Mkn-KS cicum kəla:n
                          'bird of prey'
                              'hawk'
Mkn-Rw
             kəla:n
Mkl-KY
                              'bird of prey'
             ticum kla:n
                              'hawk'
             kla:n ?uk
Mkl-Lmp
PChm
            *kala:n revised as *kala:n
                                           'hawk'
             nók vi:aw
                          'bird of prey, hawk; eagle; kite; harrier'
Thai-C
             nok<sup>21</sup> vi:aw<sup>453</sup>
Thai-S
[Mon-Khmer] Proto-Monic *lin-lian, PNyK *lin-lian 'hawk: Spizaetus sp.'
        PMon *kəniən 'kite'
Nic
                       'white-bellied sea-eagle (Cuncuma leucogaster)'
             kalâng
PCNB
           *klan
                       'kite, eagle'
PJH
            *klan
                          'kite, eagle'
PSBnr
                          'kite, eagle'
            *klan
```

PTB *glaŋ 'eagle/vulture/falcon/bird of prey' (Matisoff 2003:590) shows that this lexeme has a wide distribution

2.2.2.6. Plants

The following lexemes are representative of lexical affinities between MK and An languages within the plant domain. The reader is referred to the data in Larish (1999, Book 2, Appendix C):

```
bamboo
bamboo shoot
bean
corn
fruit, n.; classifier
jackfruit
leaf
pandanus spp.
pepper (black)
pepper (red-hot)
```

root, n.

Examination of the plant lexicon suggests both archaic residue (\$VGR) and diffusional cumulation (\$\top LLR\$). Lexical relationships within the plant domain are characterized by different strata of historical connection, some possibly genetic (bamboo shoot, fruit), older loans (jackfruit), and others more recent loans (bamboo, bean, corn, papaya, pepper). Cases where a plant is not endemic to Southeast Asia are particularly important, for they can be easily identified as loans. For example, some plants (e.g. corn, papaya) were probably introduced into Southeast Asia subsequent to European exploration and concommitant discovery of exotic species in Africa, South and Central America, and other new areas. For example, in examining the comparanda for corn (endemic to South America) and papaya (endemic to Central America), we can see various lexical sets which suggest that the lexical diffusion of these words may have begun in different locations.

2.2.2.7. Aquatic Domain

Larish (1999, Chapter 8, Table 8.1) describes the early politico-cultural zones in Southeast Asia where Austronesians and Mon-Khmer speakers developed local trade networks. The fact that the Austronesians and Mon-Khmers may have originally lived in complementary environments is important in understanding why AN-MK interaction succeeded. If both groups had been in competition for the same resources, this would have led to conflict. Austronesians maintained a distinct advantage in ocean, coastal, and riverine environments, so in words related to aquatic domains—unlike plant and animal loans—we might expect that the normal direction of borrowing is from Austronesian into MK. The following lexical items are representative of this domain: boat, coral, crocodile, swim, v., wind (from the west), and monsoon.

2.2.2.8. Evidence for Early Contact between Moken-Moklen and Aslian Languages

A number of striking lexical and phonological affinities between Mkn-Mkl and Aslian languages are presented in Table 3. These lexical agreements appear to be most consistent between Mkn-Mkl and the southernmost representatives of the Northern Aslian subgroup, especially the Monra? (Mr), Bateg De? (BD), Bateg Non (BN), and Ce? Won (CW). In discussing the demographics of these Aslian tribes, Benjamin (1976:47) notes that Monra? live 'along the midreaches of the Kelantan River around Kuala Krai and Bertam' and also on the lower Lebir River; the Bateg De? live on the 'Aring River in south Kelantan...

_

¹⁷ For a map of illustrating the distribution of the three Aslian subgroups (Asl-N, Asl-C, Asl-S), refer to Benjamin (1976:46).

ranging over into Trengganu and Pahang'; the *Bateg Non* dwell in 'villages near Jerantut in Pahang'; and, finally, the *Ce? Won* live 'on the southern slopes of Gunong Benom between Raub and Kuala Krau in Pahang'. Benjamin (1976:47) classifies the *Monra?* and *Bateg Non* as 'Negritos, the *Bateg De?* as "nominally 'Negritos', but with a large proportion of non-Negrito elements in their physical and cultural makeup," and the *Ce? Won* as 'non-Negritos'. Most of these Aslian people are 'semi-settled' in the locations described above, but some are nomadic. According to Benjamin (1976:47), the total population of these four groups is close to 800.

If speakers of PMM or Pre-MM came from the East Coast of the Malay Peninsula, as their descendants consistently claim (Larish 1993:1316, 1999:443), some linguistic trace of this movement should remain. Although limited in quantity, lexical and phonological agreements between Mkn-Mkl and the languages of southernmost tribes of the Northern Aslian subgroup are qualitatively striking enough to lend support to the oral history of the Mkn-Mkl. What is significant about these Aslian tribes is that they inhabit the rivers of northeast Malaysia. In terms of trying to deduce the former movements of the ancestors of the Moken-Moklen, the evidence in Table 3 points to a strong genetic (‡VGR) or old diffusional relationship (→OLLR) between the Moklenic and Aslian people. These affinities are presented in Table 3:

Table 3. Lexical Affinities between Moken and Moklen and Aslian Languages

	flower	good	drink, v.	nurse, v.	small
Asl-N	Ks, KB	Mr ?abən	Mr, BN,	Sem. Buk.	Mr, BN,
	buŋa?, Je		BD ?am	Max.	CW kanet
	boŋε?, BD			maː'ek	
	boŋa?, Mt			am/ek	
	boŋa?			ma:'am 'to	
				suckle'	
Asl-C	Tm bona:?,	SmI bo:r		Sem. K.	SB ke?net
	SmI	SmII bor		Ken. man-	
	boŋa:?,			mä:m	
	SmII bona?			'teat', Sen.	
				Cliff. tê-u	
				mem 'to	
				suck'	
Asl-S	MM bona?				Tq kanit
PMM	buŋa:?	*?amɔ:n	*(ma)?am	Mkl-Lmp	*nek
		*?amŏ:n		<mam> 'to</mam>	(cf. Mkl
				suck milk	kanek

				(of a baby)'	'small pot for cooking rice')
Ach	buŋɤŋ		<minom></minom>	mom 'female breasts'	_
Chm- Mou	pìŋu:	<pre> <bon> 18 'facile'</bon></pre>	<munum></munum>	_	<neh> 'petit'</neh>
PChm	buŋã: poss. buŋɨ:	*siam	*mwnum	*măm 'to suck'	Jar-Lws <net></net>
PMal	buŋa(?)	*baik	*inum	<məntéték> 'to suckle'</məntéték>	*kəcik *kəcil
PPh	búːŋah 'fruit'	*pĭ[y]a *?upĭ[y]a	*?inum	_	
PMP	*buŋa [?] *buŋa?		*um-inum	UAN *dibdib 'suck (at the breast)'	*ke(n)Diq?
P-Monic	pkaaw		*soon		
PNyK	k <u>a</u> aw		*¢ <u>o</u> oŋ		_
PMon	k <u>a</u> o̯	_	*s <u>x</u> iŋ		_

Other AN-Aslian data that show a *sprachbund* relationship (which excludes Malayic languages) include *breathe*, true, root, drink, leaf, small, dog(?), fruit, not, and dry. The following data block from Larish (1999, Book 2, Appendix C) demonstrates affinities between Moklenic and Aslian:

bat; butterfly Lrb28, Lrb55, Ray26, Reid37 (butterfly)

Pre-MM ^{?x}k/tawan, ^{?x}k/tiwin, ^{?x}k/tib^win, or ^{?x}k/tawar PMM ^{?x}kawan/^{?x}tawan 'bat; butterfly' (poss. MK loan) Mkn-Dng kawan 'butterfly'

Mkn-KS kobun 'butterfly'

Mkn-Rw kawan 'a butterfly' Mkl-BDC kawan/tawan 'bat, butterfly'

Mkl-KY tawan 'bat, butterfly' [ta-21.'wan343] {ta:hwan2}

Mkl-KY tuwo:t 'bat'

Mkl-Lmp tawan 'butterfly'

Lewis (1960:47) suggests several affinities: Burm. əmuŋ, Skt bun, and Pang Sam aːbön 'good'.

```
'bat'
Mkl-Lmp
             kawan
Ach-Saw
             banban/bamban 'butterfly'
Chm-Mou
             katit, ?inu: patà:y 'papillon (butterfly)'
                             'butterfly'
Mal
             kupu-kupu
Mal
             kəlawar
                             'bat'
PPh
            *păní:ki
                             'bat (fruit)'
[PhML] IvtI kulivaavang, Ivt kodibaabang, Klg kalibangbang, MbKC
        kilibangbang
                          'butterfly'
Tag
             paruparo, mariposa (Spn loan)
                                                           'butterfly'
             talibatab, panikì, bayakan, kabag-kabág
                                                           'hat'
Tag
                             'bat'
UAN
            *kalu'aŋ
                             'butterfly'
UAN
            *kupu'
Thai-C
             p<sup>h</sup>ĭ: swî a
                             'butterfly'
[Mon-Khmer data]
BM, TM
             kawa?
                             'bat'
                                           (ANLW?)
Pr
             mo:k
                             'bat'
Pr
             təkliw
                             'butterfly'
                                          (cf. Nic, Mal 'bat')
Nic
             alo:âa
                             'bat (Miniopteris pusillus)'
Nic
             kalu-mâwa
                             'butterfly'
                             'flying fox (Pteropus Nic.)'
Nic
             mokngeaka
Asl-SkBl: Sem. Jarum tawag 'butterfly'; Söm ; Pang. Sam. tawag; Sem. K.
        Ken. tauáng; Bes. K. L. tawong; Sem. K. Ken. tabó<sup>g</sup>ng 'dragon-fly'
        (Skeat and Blagden 1966:551.B481)
Note also:
Mkn-Lws
             lolak
                             'flying fox, bat'
Mkn-KS lolak
                                       (cf. Nic 'bat')
                          'bat'
Mkl-KY
             ?alo:?
                             'Red Squirrel' (poss. TLW)
                             'bat'
UAN
            *kalu'an
Thai-C
             krarî:k
                             'squirrel'
                                          (ANLW?)
Thai-S
                15:k
                             'Red Squirrel'
```

Mkl $h\tilde{a}?/h\tilde{\epsilon}?$ 'at, to' shows phonetic similarity with the Aslian Besisi dialects, which Benjamin (1976:128) calls Mah Meri (MM). Note, for example, Asl-SkBl Bes. K. Lang. ha 'at, in', Bes. Malac. ha 'to, with', Bes. Sep. A. I. ha 'to, towards', Bes. Sep. A. I. ha, hang 'with, against' (Skeat and Blagden 1966:519.A178). In addition, the unexpected nasalized vowel of Mkl $h\tilde{a}?/h\tilde{\epsilon}?$ 'not' could be plausibly explained as a trace from $-\eta > -k > -?$. ¹⁹ Compare, especially, Bes. Sep. A. I. ha, hang 'with, against' with Mkl $h\tilde{a}?/h\tilde{\epsilon}?$.

¹⁹ For a case that is similar, compare Ach 'flower' with Mkn-Mkl and Aslian data.

One of the most interesting putative MK loans is **PMM** ?x?okaŋ 'mouth (human, animal)' due to the possible correspondence between Mkn-Mkl k and Aslian h [cf. **Proto-Monic** *paːŋ, **PNyK** *paːŋ 'mouth (human, animal); opening; entrance; doorway' **PMon** *pain 'mouth, mouthful, quantifier for speech' > BM, TM pan, NyK paːŋ; Asl-Benj: KS, KB, BD han, CW hon, Asl-SkBl: SemBuk Max hảing 'mouth', Sem Pa Max hǎng 'mouth'.

On the possible affinity between **PMM** *? okaŋ 'mouth' and Nic \hat{a} - $f \hat{a} \eta / oal - f \hat{a} \eta$ 'id.', the likelihood of a connection is increased by the fact that the Southern Thai and Moklen people often employ $[k^{hw}]$ where Central Thais use [f]. This possible correspondence is supported by the possible correspondence between Mkl-Lmp kwa.p 'to yawn' and Nic $f \hat{a} p$ 'to yawn'.

Comparing **PMM** *? okan and [Asl-SkBl] Sem Buk Max håing 'mouth', Sem Pa Max häng 'mouth' (Skeat and Blagden 1966:664.199) provides another feasible connection.

In regard to the possibility of secondary loan routes, some loans may have been borrowed indirectly by one or more of the mainland Austronesian languages. One possibility is primary MK influence on PAC or one of its daughter languages with secondary borrowing into PMM, Mkl, and/or Mkn from PAC, PChm, PAch, or their daughter languages. Other MK loans may have been borrowed indirectly into Mkn-Mkl via Thai.

If trans-peninsular trade was as important as most histories of the Thai-Malayan Peninsula claim, then we should be able to find linguistic correlations to the trade routes illustrated in Map 8. The lexical comparison that follows supports the probability of AN-MK trade along trans-peninsular river routes:

```
'flower'
PMACM
           *buna[:]? (poss. *buni[:]n)
           *buna:?
                      'flower; country (kingdom)'
PMM
Mkn-Dng
            buna:?
Mkn-Rn
            phuna:?
                         'country'
            p^huna:?[p^hu\cdot na:?][b\sim p^h]
Mkn-KS
Mkn-Lws
            bunga
Mkn-Rw
            buna?
            muna:? [mu·21.'na:?] {mu:na:k<sup>8</sup>} 'flower; country'
Mkl-KY
Mkl-Lmp
            buna:?
PAch
           *buηλη > Ach-Dur buηγη, Ach-Saw buηρη (-η unexplained)
           *bunã revised as *bunã: (poss. *buni:]) 'flower' > Rad mna, Jor
PChm
        bəna, Rog buna, Chm pənu [Rad-DB mna: 'fleur', Chm-Mou pinu:
        'fleur'];
PMal
           *buna(?) > Mal, UL buna
PMP
          *buna (poss. *buna?)
POL-MUL *bu:na:?
```

```
PPh
           *bú:dak
PPh
                        'fruit'
            búːŋah
PNPh *sa:bun
                  'country' I: Lemanak benoa/menoa, Singhi binoa; II:
[Ray (Borneo)]
       Bolongan b'nua; III: Bekiau bagun, Bisaya pagun;
UAN
           *buna'
UAN
           *majan
                     'flower (young spike of)'
[Mon-Khmer] Proto-Monic *pkaaw, PNvK *kaaw
                                                   'flower', PMon *kao
Asl-Benj: Ks buna?, KB buna?, Je bone?, BD bona?, Mt bona?, Tm bona:?,
       SmI bona:?, SmII bona?, MM, bona? 'flower' [prob. ANLW, poss.
       from PMACM or one of its branches]
```

Trans-peninsular trade contact may explain the extensive Austronesian influence in Asl-N, Asl-C, and Asl-S words for 'flower'. Routes 7 through 10 of Map 8 (Larish 1999, Book 1, p. 439)) connect this widespread loan. Since it is widely distributed, this indicates that it may be an early loan. The borrowing in Aslian languages could, therefore, have its source in **PMACM** or one of its daughters. Geographically, the southern or central Thai-Malayan Peninsula is the most logical place for the **PMACM** homeland, for, like spokes in a wheel, here we find the only geographic hub connecting the present-day locations of **PMACM**'s daughter languages. The Aslian 'flower' data suggests that the first breakup of **PMACM** occurred when the various branches of the subgroup moved into different estuaries (e.g., routes 7 and 8 on Map 8, Larish 1999, Book 1, p. 439).

Returning to trade items, let us examine another commodity that was probably commonly exchanged in AN-MK interaction:

```
PMACM
            *sira:(?)
                               'salt. n.'
PMM
            *chela:?/*sela:? 'salt, n.'
                                            (< Pre-MM *sira:?)
Mkn-KS chela?
                           'salt, n.'
Mkn-Lws
                               'salt'
             chéla
                                         (more recent data suggests è)
Mkn-Rw
             sela?
                               'salt, n.'
                                            [c^h \varepsilon \cdot ^{21}.'la:?^{45}] {che:la:k}
             chela:?
                               'salt'
Mkl-KY
             chela:?
                               'salt'
Mkl-Lmp
PACM
                               'salt, n.' > PAC * sira[:]
            *sira[:]
PChm
            *sara revised as *sara: 'salt' > Rad, Jor hra, Rog saia, Chm sara
        [Rad-DB hra: 'sel', Chm-Mou sara: 'sel']
```

```
'salty, salted; briny, brackish'<sup>20</sup> > PAC *masin
PACM
           *masin
        (cf. SubS, SubSc masin 'salt' in PhML)
                             'salt, briny'
Ach-Shr
            masen
PChm
                            'salted' > Rad msin, Jor masin/masin, Rog
           *masin
        masit, Chm mintin [Chm-Mou muthin 'brine', Jar masin, Rög mösin]
PMal
           *garəm > Mal garam, UL garap [cf. Brunei Malay sira]
           *qasiya poss. ?*(qa-)siyá[:](?); PMP *timus
PMP
                                                             'salt'
           *ma-gasin
PMP
PPh
           *qăsin
                         'salt' > Png, Tag
                                                      asín
[PhML
            'salt'] BilK, BilS, Tbl kahi?, numerous instances of ?asin and
        ?ahin, MbI, MbKC timus, SubS, SubSc masin
[Ray (Borneo)] I: Matu siah, Dali wai, Berawan usan, Kanowit siah, Tanjong
        chia / Sibuyau garum, Lemanak garam / Quop garo, Sau galu; II:
        Manyan rangi / Bologan garam, Tarakan asin, Sesayap masin, Sibuku
        asin / Uma Baloi hia / Lepu Tau usĕn, Long Bangan osan; III: Kelabit
        tuchu /Balait tucho / Padas usi / Kajaman siya, Rejang usen / Sibop
        uchen / Ukit jio, Bakatan ijo / Kadayan usan / Tagal masin / Dalit
        usun, Tampassuk asin, Ida'an silan, Lanun timus, Buludupi tagai,
        Buludupi mawsin, Brunei Malay sira
[Purwo (Indo-C) 'salt']A: Ind garam, Snd uyah, Jav uyah, Mad buja, Bal uyah
[Purwo (Indo-C) 'salt']B: Ind garam, Snd—, Jav sarem, Mad —, Bal tasik
Rej
            siləy
Sulu
            arsin
           *'at'in
                         'salt'
UAN
Thai-C
            klwa
[Mon-Khmer] Proto-Monic *b?ur
                                         'salt' > PNyK *pha?ur, PMon *6a
BM, TM
            dən, NyK pə?ur
                                'salt'
Pr
            lu(:)k/lo(:)k
Khm
            ?ombxl
                                'salt, n.'
Asl-SkBl Sem. Craw. Hist siyak, Sem. Plus siãk/siã', Sem. Ked. And. siyah,
```

Note that the Aslian languages with probable An loans for 'salt' could not have borrowed these words from Malayic, since we find **PMal** *garam 'salt' > Mal garam, UL garap. Note also that **PAC** *sira[:] 'salt' has no glottal final. Thus, these Aslian forms were probably borrowed from either **PMACM** *sira:(?) 'salt, n.' or **PMM** *c *bela:?/*sela:? 'salt, n.' (< **Pre-MM** *sira:?).

Sem. Kedah siak

²⁰ Blust (1994:40) proposes *masin 'salty' as a **PACM** morphological innovation.

Additional Aslian words with final -k include 'wash clothes' and 'wet' Skeat and Blagden 755.W75). These words are significant, for Aslian final -k may be attributed to either **Pre-MM** or **PMACM** influence; they cannot be loans from **PACM** or one of its daughter languages, where *q > h is expected.

3. Conclusion

The fact that AN-MK data cluster into specific semantic domains suggests a possible early trading relationship between the mainland-AN languages and one or more MK languages. The nature of the borrowing is complex, and in many cases, especially in core vocabulary, the relationship between Austronesian and MK is probably not diffusional at all, but one of remote common origin. The mainland-AN languages may retain more Austric wordstock than insular-AN because extended contact may have encouraged the retention of common vocabulary. Even in the cases where borrowing is suspected in Moken and Moklen, no consistent, discernible MK source can normally be pinpointed, suggesting early borrowing. Moken and Moklen share affinities variously with Aslian, Nicobarese, Monic, and Nyah Kur languages. In cases where no direct source can be determined, this may suggest that some words that appear to be loans are, in fact, the result of a genetic connection. Other possibilities are that the Mon-Khmer influence came through conquest, intermarriage, or trade—each implying a certain degree of bilingualism.

When Moken-Moklen and MK data are compared, especially Aslian data, lexical similarities suggest that contact existed between speakers of **PMM** and early peninsular MK speakers. Austronesian and Mon-Khmerspeaking groups largely exploited different domains, yet they were drawn to interact through barter or trade. If in fact the **PMM** or **Pre-MM** participated in trans-peninsular trade, they would have frequently interacted with interior peoples.

Appendix 1.1: Comparanda between PAn (Blust 1997), PST (Coblin 1986), and PTB (Matisoff [=JAM] 2003)

1 PAN PTB	Proto-Forms *ka-wiRi *bi(y) *b ^w ay	Glosses left side left	Sources 2/200 Blust (1997) JAM 03:584R, 585R, 657L
2	Proto-Forms	Glosses	Sources
PAn	*ka-wanaN	right side	3/200 Blust (1997)
PTB	*g- ra~ *g- ya	right hand right side	JAM 03:609C, 664R
3	Proto-Forms	Glosses	Sources
PAn	*qaqay	leg/foot	4/200 Blust (1997)
PTB	*kaŋ~ *keŋ	leg/foot/stem/stalk	JAM 03:595C, 657L
4	Proto-Forms	Glosses	Sources
PAn	*sakay	walk/go	5/200 Blust (1997)
PST	*sywjay	go	Coblin (1986:86)
OC	*gwjag	go	Coblin (1986:86)
PTB	*s-ka-y	go/stride	JAM 03:594C, 652R
-		esent striking comparanda.	C
5	Proto-Forms	Glosses	Sources (1007)
PAn	*zalan	road	6/200 Blust (1997)
PTB	*lam	road	JAM 03: 559L, 665L
6	Proto-Forms	Glosses	Sources
PAn	*CuqelaN	bone	15/200 Blust (1997)
PTB	*g-rus ^a	bone	JAM 03:
	*s-rus		102/611C/650R
	*m-rus		
a. Cf. PLB *rəv		C1	G.
7 & 8	Proto-Forms	Glosses	Sources
PAn (7)	*-ajem	think	21A/200 Blust (1997)
PST	*niəm	think	Coblin (1986:148)
OC	*niəmh	think	Coblin (1986:148)
PTB	*s-nyam	think	JAM 03:605C, 671R
PAn (8)	*nemnem	think	21B/200 Blust (1997)
PST	*nyəm	think	Coblin (1986:148)
OC	*njəmx	think	Coblin (1986:148)
PTB	*s-nyam	think	JAM 03:605C, 671R

9	Proto-Forms	Glosses	Sources
PAn	*daRaq	blood	23/200 Blust (1997)
PST	*khrjak	red/blood	Coblin (1986:123)
OC	*khrjak	red/blood	Coblin (1986:123)
PTB	*ts yak	red/blood/gold	JAM 03:617R, 641R
a. cf. dz(y)ak	~*ts(y)ak 'drip/drop'		
10	Proto-Forms	Glosses	Sources
PAn	*liqeR	neck	25/200 Blust (1997)
PTB	*s-ke-k	neck/neck shaped	JAM 03:595C, 659R
11	Proto-Forms	Glosses	Sources
PAn	*nipen ^a	tooth	31/200 Blust (1997)
PTB	*na	tooth	JAM 03:605R, 672C
a. <i>Cf.</i> PAT *	2	(PKB 1990:255, 1975:411)	·
12	Proto-Forms	Glosses	Sources
PAn	*tanek	cook	39/200 Blust (1997)
PTB	*k lak	cook/boil	JAM 03:595R, 645C
PAn	*kaRat ^a	bite	41/200 Blust (1997)
PTB	*ts at	bite down on	JAM 03:616R, 641C
a. PAn k <ar></ar>			
13 & 14	Proto-Forms	Glosses	Sources
PAn (13)	*susu	breast	18/200 Blust (1997)
PTB	*tsyup~	suck/kiss/breast/	JAM 03:618L/642C
	*tsyip	milk	
PAn (14)	*sepsep	suck	42/200 Blust (1997)
PST	*tsop~	suck	Coblin (1986:144)
	*dzop		
OC	*tsəp	suck	Coblin (1986:144)
PTB	*tsyup~	suck/kiss/breast/	JAM 03:618L/642C
	*tsyip	milk	
PTB	*dzyut	suck/kiss/breast/ milk	JAM 03:589C/642C

a. PAn susu 'breast' and PAn sepsep 'suck' are probably members of the same word family (allofams, see Matisoff = JAM 03). Although the TB semantics have a wider range, the phonosemantic overlap between two etyma in PAn (breast and suck) and their affinities to PTB support the PASN-Hyp. The PAK data in Appendix 3 present another case for possible cognicity. PTB has a wealth of variant forms (allofams) that are not presented here (Cf. JAM 03:642C).

15	Proto-Forms	Glosses	Sources
PAn	*maCa	eye	45/200 Blust (1997)
PST	*myikw	eye	Coblin (1986:76)
OC	*myəkw	eye	Coblin (1986:76)
PTB	*s-myak~ *s-myik	eye	JAM 03:602L, 649C
16	Proto-Forms	Glosses	Sources

PAn	*Rumaq	house	61/200 Blust (1997)
PTB	*k-yum	house	JAM 03:620C, 654R
	*k-yim		
17	Proto-Forms	Glosses	Sources
PAn	*zaRumª	needle	68/200 Blust (1997)
PTB	*k-ram∼	needle	JAM 03:609R, 659R
	*k-rap		
			/or u , and/or a , I hypothesize that they may
		. 301 for related discussion).	0
18	Proto-Forms	Glosses	Sources
PAn	*panaq	shoot	70/200 Blust (1997)
PTB a. The unint	*m-p uk	shoot	JAM 03:607R, 667L analysis: *p <an>aq (see Reid 2005,</an>
Table 2).	iixed PIB form supp	orts hayes s (2000) inflixed	analysis: "p <an>aq (see Reid 2003,</an>
19	Proto-Forms	Glosses	Sources
PAn	*Cakaw	steal	73/200 Blust (1997)
PST	*rkhuy	rob	Coblin (1986:126)
\mathbf{OC}	*khugh	rob	Coblin (1986:126)
PTB	*r-kəw ^a	steal/thief	JAM 03:595R, 669C
	*r-kun		
	*r-kut		
`	986:126) recontsructs		C.
20	Proto-Forms	Glosses	Sources
PAn	*taRaq	cut (wood)	78/200 Blust (1997)
PTB	*ts yat~	break/cut	JAM 03:617R, 646L JAM 03:602C, 646L
	*m rak~ *b rat~	cut/tear cut apart/cut open	JAM 03:002C, 040L JAM 03:585L, 646L
	*p rat	cut apart/cut open	77117 03.302E, 010E
	p rat		
21	р.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	C1	Sauraca
21	Proto-Forms *Cazem?	Glosses	Sources 81/200 Blust (1997)
PAN PST	*slyam	sharp sharp	Coblin (1986:131)
OC	*sjam	sharp	Coblin (1986:131)
PTB	*s-ryam	sharp	JAM 03:612L, 666R
110	5 1 9 4111	ы ш р	
22	Proto-Forms	Glosses	Sources
PAn	*Ribawa	swell	87/200 Blust (1997)
PTB	*b wap	swell up/swollen/ stout/calf of leg	JAM 03:585R, 671L
		3.040, 5411 01 105	
23	Proto-Forms	Glosses	Sources
PAn	*baliw	buy	91/200 Blust (97)
	beli		
PTB	*m-lay	change/exchange/	JAM 03:599C, 643C

	*r-ley	buy/barter	
24	Proto-Forms	Glosses	Sources
24 PAn	*tutuh	to pound	93/200 Blust (1997)
PAII PST	*khuka	strike/knock	Coblin (1986:142)
0C	*khugx	knock	Coblin (1986:142)
OC .	*khugh		,
PTB	*r- tuk	strike	JAM 03:615R, 670L
of t to k and		atopoetic words, but I have	included this set to present instances
25	Proto-Forms	Glosses	Sources
PAn	*qiCeluR	egg	98/200 Blust (1997)
PTB	*t way	water/egg/spit	JAM 03:616L, 648R
1110	*?u	egg/sit on eggs	JAM 03:583C, 648R
	1 4	699, 211, GH 6992	,
26	Proto-Forms	Glosses	Sources
PAn	*SimaR ^a	fat/oil	104/200 Blust (97)
PST	*s ayw	fat/grease	Coblin (1986:77)
OC	*s agw	fat/grease	Coblin (1986:77)
PTB	*tsi 1	fat/grease/oil	JAM 03:612R, 617L,
	*s a:w		650L
PTB	*ts ow-s	fat/omentum	JAM 03:617 650L
	· -	Hayes's (2000) reanalysis a	
27	Proto-Forms	Glosses	Sources
PAn	*Su laR	snake	106/200 Blust (97)
PTB	*s-b/m-ru:l ^a	snake	JAM 03:611C, 668L
a. Cf PLB *	m-r-wəy¹ 'snake'		
28	Proto-Forms	Glosses	Sources
PAn	*kakaCu	spider	110/200 Blust (97)
PTB	*kaŋ~	spider/spin	JAM 03:595L, 668R
	*waŋ		
29	Proto-Forms	Glosses	Sources
PAn	*Sikan	fish	111/200 Blust (97)
PST	* ŋyay	fish	Coblin (1986:80)
OC	* ŋyag	fish	Coblin (1986:80)
PTB	*s-ŋya	fish	JAM 03:606C, 650R
30 & 31	Proto-Forms	Glosses	Sources
PAn (30)	*qasiRa	salt	125A/200 Blust (97)
PTB	*la	salt	JAM 03:599L, 665R
	*m-t(s)i	salt/yeast	JAM 03:617L, 665R
	*tsa	salt	JAM 03:616C, 665R
PAn (31)	*timus ^a	salt	125B/200 Blust (97)
PTB	*m-t(s)i	salt/yeast	JAM 03:617L, 665R

*tsa JAM 03:616C, 665R salt a. Pre-An *ts can possibly be reconstructed here based on internal evidence: *si- in 125A & *ti- in 125B <? *tsi).32 & 33 Glosses Sources Proto-Forms *bulaN moon 129A/200 Blust (97) PAn (32) *s/g-la moon/month JAM 03:599L, 659L PTB *qiNaS moon 129B/200 Blust (97) PAn (33) JAM 03:606C, 659L PTB $*s-\eta^{w}(y)a-t$ star/moon Proto-Forms Glosses Sources 34 133/200 Blust (97) *quzaN rain PAn Coblin (1986:122) PST *rywjay rain *gwjagx Coblin (1986:122) rain \mathbf{OC} *g-wa~ rain JAM 03:618C, 663R PTB *s-wa *r-wa 35 Proto-Forms Glosses Sources 134/200 Blust (97) *deRun(?) thunder PAn JAM 03:585C, 672L *m-b r uŋa~ thunder/dragon PTB *m-b r uk ^{a.} This may be disassimilation: $d \rightarrow b/r$? Glosses Sources 36 Proto-Forms 135/200 Blust (97) PAn *likaC lightning JAM 03:590R, 657C *gle:ka thunderbolt/ PTB lightning a. possible metathesis 37 Proto-Forms Glosses Sources *bali wind 136/200 Blust (97) PAn JAM 03:600L, 675L PTB *g-ləva wind (n.) a. y < *i: ?? For similar changes in mainland Austronesian languages, see Larish (1999:395-402). Proto-Forms Glosses Sources 38 *CuNuh burn 144/200 Blust (97) PAn PTB *duka burn/kindle JAM 03:587C, 643L a. Note -h may correspond to -k. 39 Proto-Forms Glosses Sources 145/200 Blust (97) *qebel smoke PAn *kəw-n/t JAM 03:595C, 668L PTB smoke 40 Proto-Forms Glosses Sources *CeneN black 147/200 Blust (97) PAn black/dark JAM 03:616C, 641R PTB *tyan 41 Proto-Forms Glosses Sources PAn *ma-puNi white 148/200 Blust (97) white/silver/money JAM 03:607L, 674R PTB *p lu

42	Proto-Forms	Glosses	Sources
PAn	*ma-taNah(?)	red	149/200 Blust (97)
PST	*khrjak	red/blood	Coblin (1986:123)
OC	*khrjak	red/blood	Coblin (1986:123)
PTB	*tsyak	red/blood/gold	JAM 03:617R, 664L
	*dzya-n	blush/red	JAM 03:588R, 664L
	*t(y)a-n	red	JAM 03:616C, 664L
	*n(y)a-n	blush/red	JAM 03:605C, 664L

*n(y)a-n blush/red JAM 03:003C, 664L

a. These are striking comparanda. The **PST** and **PTB** reflexes of a possible **PASn** form suggest that **Pre-An** *N may reflect a consonant cluster. In addition, here we find additional possible correspondences between **PAn** t- and **PST** k- and **PAn** -h and **PST** -k.

•		and 151 k- and 1 An -n and	
43	Proto-Forms	Glosses	Sources
PAn	*inaduq(?)	long (objects)	155/200 Blust (97)
PTB	*duŋ∼	long/length	JAM 03:587C, 657R
	*tu:ŋ		
			_
44	Proto-Forms	Glosses	Sources
PAn	*ma-NiSepis	thin (materials)	156/200 Blust (97)
PTB	*ly ap∼	thin/flat/flat object	JAM 03:599R, 671R
	*l ep∼		
45	Proto-Forms	Glosses	Sources
PAn	*ma-kaSepal	thick	157/200 Blust (97)
PTB	*r-tas	thick/solid/coarse	JAM 03:614R, 671R
46	Proto-Forms	Glosses	Sources
PAn	*ma-tuqaS	old (people)	162/200 Blust (97)
PTB	*b-gres	old	JAM 03:591L, 660R
PTB	*r-ga	old	JAM 03:589R, 660R
			_
47	Proto-Forms	Glosses	Sources
PAn	*qalejaw	day	168/200 Blust (97)
PST	*nyi?	sun/day	Coblin (1986:145)
\mathbf{OC}	*njit	sun/day	Coblin (1986:145)
PTB	*nəy ^a	sun/day	JAM 03:604R, 646C
	86:145) reconstructs		
48	Proto-Forms	Glosses	Sources
PAn	*i-taqas	above	175/200 Blust (97)
PTB	*l-tak	ascend/lift/raise/top	JAM 03:614C, 640L
49	Proto-Forms	Glosses	Sources
PAn	*ma-azaNih	near	179/200 Blust (97)
PST	*nyiy	near	Coblin (1986:111)
OC	*njirx	near	Coblin (1986:111)
PTB	*s-ney	near	JAM 03:604C, 659R
	*s-na:y		

50	Proto-Forms	Glosses	Sources
PAn	*ma-dawiN	far	180/200 Blust (97)
PTB	*g-wəy-n	far	JAM 03:619C, 649R
51 & 52	Proto-Forms	Glosses	Sources
PAn (51)	*esa	one	197A/200 Blust (97)
PTB	*t(y)ak ^a	one/only	JAM 03:616C, 660R
PAn (52)	*isa	one	197B/200 Blust (97)
PTB	*?it ^b	one	JAM 03:583C, 660R

^{a.} Here is another case of phonosemantic overlap between two sets of etyma. For another, see breast/suck.

Appendix 1.2: PMP (Blust 1997) vs. PTB (Matisoff 03) Comparanda

53 PMP PTB 54 PMP PTB	Proto-Forms *qabuk/qapuk *mu:k Proto-Forms *qinep *s-yip *s-yup	Glosses dust detritus/dust Glosses lie down sleep/put to sleep/ conceal/hide (v.)	Sources 11/200 Blust (1997) JAM 03:602R, 648L Sources 49/200 Blust (1997) JAM 03:620C, 667R
55	Proto-Forms	Glosses	Sources
PMP	*tudanª	sit	51/200 Blust (1997)
PTB	*m-duŋ/k∼	sit	JAM 03:587C, 667C
	*m-tuŋ/k		
a. Note UAN	*dukduk 'to sit' > N		
56	Proto-Forms	Glosses	Sources
PMP	*si laq	split	80/200 Blust (1997)
PTB	*(t)si: t~	split	JAM 03:588C, 669L
	*(d)zi: t~	split	
	*dzi k	split/mince	
57	Proto-Forms	Glosses	Sources
PMP	*buka	to open	92/200 Blust (1997)
PTB	*s-bu	bud/open	JAM 03:585C, 660R
PTB	*m-ka	open/opening/ mouth/door	JAM 03:594C, 660R
58	Proto-Forms	Glosses	Sources
PMP	*bulu	feather	99/200 Blust (1997)
	Outu	10001101	22.=00 21000 (1997)

b. Cf. PAK *?itsa 'one' (PKB 1990:224-5)

PTB	*g-mul	hair (body)	JAM 03:602R, 650L
59 PMP PTB	Proto-Forms *kabut *r/s-mu:k~ *mu:ŋ	Glosses fog/mist overcast/foggy/dark/ sullen	Sources 132/200 Blust (97) JAM 03:603L, 646C
60 PMP PTB PTB	Proto-Forms *ma-kunij *hwan *hwa:r~ *yar *hwa:r	Glosses yellow shine/bright/yellow white/yellow/bright/ shine fire/burn/shine/white	Sources 150/200 Blust (97) JAM 03:593R, 675R JAM 03:593R, 675R JAM 03:593R, 675R
61 PMP PTB	Proto-Forms *kepit *gyap	Glosses narrow narrow/crowded	Sources 158/200 Blust (97) JAM 03:592C, 659R
62 PMP PTB	Proto-Forms *ma-sakit *tsa-t	Glosses sick, painful hot/hurt/pain/ill	Sources 160/200 Blust (97) JAM 03:616C, 661C

Appendix 2: Expanded Comparanda

Proto-Lng PAT-75	Proto-Form *k[i]] i/(k[i]] i)	Gloss tickle/armpit	Source PKB 1975:410	GT G 2 6 5
PTB	*g- li	armpit/tickle	JAM 03:600L, 639R	STC#265
PAT-75	*[(m)po(ŋ)]kor	behind/back buttocks	PKB 1975:230	
PTB	*r-tul~	dull/buttock/heel	2003:615R,	
	*r-til	rounded part	643L	
PAn	*likud	back	13/200 Blust (1997)	
PAT-75	*(qa/ka)ļ i[kuz]	back/behind	PKB 1975:223-4	
PTB	*s-nuk∼ *s-nuŋ	back/behind/after	2003:605L	
PTB	*m-kal~	kidney/small of	2003: 12, 590L,	STC#12
	*s-ga:l	back/loins	640C	
PAT-75	*[ku]ļuļ	backa	PKB 1975:223	
PTB	*m-g lun	kidney	JAM 03:73	
OC	diən	small of the back, reins	JAM 03:73	

^{a.} Although the semantics appear dissimilar (i.e., **PAT** 'back' and **PTB** 'kidney'), the TB data in Benedict (1972:18, STC#12) demonstrate overlap between kidneys/loins/small of the back/back. Moreover, the possible phonemic correspondence between **PAT** and **PTB** is striking.

Proto-Lng	Proto-Form	Gloss	Source
PAT-75	*(q/)u(m)pak	bark, rind, skin, pod, husk	PKB 1975:225
PAJ	*kaba	skin	PKB 1990:242
PTB	*k wa(:)k	skin	JAM 03:667C
PTB PTB	*kok~ *r-kwa(:)k	outer covering/bark (n.)/rind/skin outer covering	JAM 03:596L/640C JAM
Day 4a I a a	()	Ç	03:596L/640C
Proto-Lng PAT-75	Proto-Form *(m)baļ i	Gloss exchange, change, buy, sell	Source PKB 1975:282
PTB	*b-rey	buy/barter	JAM 03:610L/640C
PTB	*r-ley~ *g/m/s-lay	change/exchange/buy barter	JAM 03:599C/640C

Proto-Lng PAT-75 PTB	Proto-Form *()(m)pran *s-bran	Gloss bee fly (n.)/bee	Source PKB 1975:229 JAM 03:585L/641L
Proto-Lng PAT-75 PTB	Proto-Form *[kə]mpuŋa *pu:k~ *bu:k	Gloss belly belly/cave	Source PKB 1975:230 JAM 03:607R/641L
PMonic	*bu[u] ŋ	belly (of humans, animals, jars)	Diffloth 1984:98
PAT-75	*[i](ŋ)kuŋ (m)b/[i](ŋ)kuŋ *[i] ŋkuk *(m)b/[i] ŋkuk *b/u ŋkuk *uguk	bend/bent, arched, crooked	PKB 1975:231
PTB	*gu(:)k ~*m-ku(:)k	crooked/bent/knee/ angle	JAM 03:591R/641L
PTB	*?uk~ *kuk	crooked/bent/knee/ angle/return/back	JAM 03:583C/641L
PAT-75 PLB	*(q/)γay[a] *k-ri(y) ²	big, long big	PKB 1975:233 JAM 03:611L
PAT-75	*(ts)[i]rat	bind, tie, knot, squeeze	PKB 1975:233
PTB	*k(y)it/k~ *g(y)it/k	tie/bind	JAM 03:592R/641C
PTB	*g rak	cord/bind/tie	JAM 03:591L/641C
PAT-75 PTB	*ntsa[a]mu[?] ^a *tsyak	blood red/blood/gold	PKB 1975:235 JAM 03:617R/641R
PTB	*ts(y)ak~ *dz(y)ak	drip/drop (n.)	JAM 03:617R
PAn	*daRaq	blood	23/200 Blust (1997)
a. Cf. P-Monic PAT-75	*chim 'blood' (Diff *[ts]ə(m)put (/(m)put)	loth 1984:103) blow, wind	PKB 1975:236
PTB	*s-mut	blow	JAM 03:641R

PAT-75 PTB	*[da]Giŋ *guŋ	body/flesh body	PKB 1975:238 JAM 03:592L/642L
PTB	*s-kəw	body/corpse	JAM 03:595C/642L
PAT-75 PAT-75	*ts[a]ŋa *[da]Nqa *[(n)da](N)qa/n *[da](ŋ)ka *[d]aka/n	fork, branch, groin branch	PKB 1975:297 PKB 1975:240-1
PTB	*s-ka:k	fork/branch	JAM 03:594R
PTB	*ku:ŋ	tree/branch/stem	JAM 03:597R
PAT-75	*nu[h](/nu[h])	breast	PKB 1975:242
PTB	*nəw	breast/milk	JAM 03:642C
PAK-90	*tśitśi	breast	PKB 1990:173
PTB	*tsyip~ *tsyup ^a	suck/kiss/breast/ milk	JAM 03:618L/642C
PAn	*susu	breast	18/200 Blust (1997)

a. For additional variant forms, see JAM (2003:642C). Many **PTB** etyma appear related: **PTB** *g-ts(y)i-t/n~*zəy 'urine', *m-ts(y)il~*til 'spit/spittle/saliva', suggesting that Pre-TB *tsyimay have meant 'liquid' (JAM 03:617-8).

PAT-75	*[ta]pats(/pats)	sweep, dust, shake, broom	PKB 1990:173
PTB	*py(w)ak	sweep/broom	JAM 03:609L/642R
PAT-75 PTB	*g[a]lak ^a *duk	burn/blaze burn/kindle	PKB 1975:244 JAM 03:587C/643L
PTB	*g- dukb	daytime/noon	JAM 03:587C/643L
PLB	*?-duk ^L	burn/kindle	JAM 03:587C/643L
PLB	*?-gaŋ¹	roast/toast/burn/be dry	JAM 03:590L

a. Could the PAT form have an <-al-> infix?

b. This set illustrates the methodological problems inherent to this research. Given a possible g-d-l correspondence (*Cf.* Larish 1999:173, Table 3.2), the comparanda can vertically alligned in a number of different ways.

PAT-75	*(q/)(n)tulan	bone ^a	PKB 1975:238
PAJ-90	*[ts,tš]aRap	offal	PKB 1990:224
PTB	*g-ra	fishbone/spine	JAM 03: 609L/650R

OC	*glio	spine	JAM 03:173	
PTB	*s-rus	bone	JAM 03:	
	*m-rus		102/611C/650R	
	*g-rus ^b			
\mathbf{OC}	*kwət	bone	JAM 03:465	
PAn	*CuqelaN		Blust (1997:43)	
PMP	*tuqəlán	bone (condylar)		
	*tuqəláŋ			
PPh	*tuqĩ láŋ	bone	Larish (99:20)	
PTai	*?dl/ruok D1L	bone	Li (1977:129, 267)	
PMK	*j?aaŋ	bone ^c	,	
a. The data fr	om PMY *tshun (Be	enedict 1975:239) supports	the reconstruction of ini	tial *t∫.
b. cf. PLB *rə				
° PMK *j?aa	an, Proto-Monic *j[l]uut, PNyK *chəluut, PMo	n *cut	
PAT-75	*[q]aplay	liver, entrails, heart	PKB 1975:332	
		(emotions), mind		
PTB	*b-ka-n	bitter/liver	,	STC#8
OC	1- 2	livon	657R JAM 03:451	
OC	kân *qaCay	liver liver	17/200 Blust	
PAn	qaCay	11761	(1997)	
			(1777)	
PAT-75	*(m)ba/ba	carry (on back)	PKB 1975:246	
PTB	*ba	carry (on back)	JAM 2003:643C	
		/		
PAJ-90	*ga(ŋ)kiª	crab	PKB 1990:178	
OJpn	*[]-n-kani	crab	Martin 1987:437	
PTB	*d-k(y)an	crab	JAM 2003:645R	STC#51
PMonic	*kntaam	fresh-water crab	Diffloth	
			1984:77.N52	
	T	crab' based on PNPh da		i.
PAJ-90	*talak	cook/roast	PKB 1990:177	
PAn	*tanek	cook	39/200 Blust (1997)	
PTB	*k lak	cook/boil	JAM 03:595R, 645C	
PAT-75	*(n)dza[a](m)bot	t to t correspondence behavior, beard	PKB 1975:306	
PTB	*tsam~	hair (head)	JAM	STC#73
	*sam	nan (neau)	2003:616R/653R	31C#/3
	Sam	<u> </u>	2000.01010/00010	<u> </u>
PAT-75	*[gu]mul	hair (body)/eyebrow	PKB 1975:308	
PTB	*g-mul	hair (body)/cycorow	JAM	STC#2
	8 11141	nun (oouy)	2003:602R/653R	
PTB	*s-mul~	hair (body)/fur	JAM	
	*s-mil*s-myal	feather	2003:603L/653R	
			•	

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