On *pa-, *pa<ŋ>- and *pa<ŋ>-

1.0 Intro

Ross 2002: Three morphological innovations in PMP -

\[
\begin{align*}
*paŋ & \quad \text{DISTRIBUTIVE} \\
*paR & \quad \text{DURATIVE, RECIPROCAL} \\
*paka & \quad \text{APTATIVE, POTENTIAL}
\end{align*}
\]

“The Proto Malayo-Polynesian verbal system, however, underwent innovations that introduced complexities absent from Formosan systems. Among other things, Proto Malayo-Polynesian added the derivational prefixes *paŋ- ‘distributive’, *paR- ‘durative, reciprocal’ and *paka- ‘aptative, potential’.”

Two questions:
(i) Were these prefixes innovated ex nihilo? If not, what were there components?
(ii) Could these components have been productive in PMP?

Here, I will argue three related points in trying to answer the above:

(i) There existed an outer and inner causative in PAn, both of the form pa-. While the outer causative was a bona fide causative, the inner causative appears to have functioned more as a verbalizer for a particular set of roots (cf. Wolff, this session).

(ii) The three prefixes above were morphologically complex (cf. Dempwolff 1934-38, Brandsetter 1916, Blust 2003a *inter alia*) but *<ŋ> and *<R> fused with *pa- due to a universal tendency to externalize infixes. On the other hand, *pa- and *ka- fused because of the stochastic-paradigmatic issues discussed by Blust (2003a:470). *p<ŋ>a- *p<aR>a- *pa-ka-

\[
\begin{align*}
<\text{PL}>\text{CAUS} & \quad <\text{MID}>\text{CAUS} & \quad \text{CAUS-HAVE-} \\
\end{align*}
\]

(see Kaufman to appear for PAn *ka as HAVE)

(iii) The fusion of *pa- with *<R> and *<ŋ> also resolved an uncomfortable morphological ambiguity in PAn: the actor voice of the stative was identical to one of the dynamic actor voice paradigms (Ross 1995:740-741).

If correct, this allows us to make a welcome (but hitherto highly elusive) generalization over the PAn morphological inventory: At some point in reconstructable history, all *p- initial prefixes contained a CAUSATIVE component and all corresponding *m- initial prefixes contained both CAUSATIVE and ACTOR VOICE components.
2.0 Inner and outer causatives

The inner causative resembled Dowty's DO/MAKE – more basic than causative (This is the *pa- found in PMP *paR- and *paŋ-)

Wolff (this session) on PAn pa-

“The most important and most productive affix, both in Paz and in the Philippine languages, is the reflex of the morpheme that I consider to be an affix with no function other than to derive a verb.”

*pa- is more like a verbalizer than a causative - obligatory for certain verbs:

**Puyuma**

\[
\text{maatəl ku qa kabuŋ} \\
p<um>a-atəl=ku qa=kabuŋ \\
<AV>\text{CAUS-throw}={1S.NOM} \text{OBL}=\text{hat} \\
\text{‘I threw away a hat’} \quad \text{(Tan 1997:45)}
\]

**Mayrinax**

\[
\text{maqabuβiŋ} \quad \text{maqunas} \\
p<um>a-qabuβiŋ p<um>a-qunas \\
<AV>\text{CAUS-hat} <AV>\text{CAUS-song} \\
\text{‘put on a hat’} \quad \text{‘sing’} \quad \text{(Huang 2000:379)}
\]

Inner *pa- frozen with certain lexemes by PMP, e.g. 'to bathe':

**Inati**

\[
\text{pa-ridos} \quad \text{(with characteristic *R>d from PAN *diRus)} \\
\text{CAUS-bathe} \\
\text{‘to bathe’} \quad \text{(Pennoyer 1986-87)}
\]

This was due to a semantic distinction holding in PAn roots - some PAn roots were patient-oriented while others were event-oriented (cf. Himmelmann 2008, Kaufman 2009 for Tagalog). Patient-oriented roots required pa- to function as event-denoting predicates.

(But reconstruction of the classes is far from clear; e.g. Paiwan t<em>ulu ‘to teach’, formed from a root which requires *paR- in Philippine languages to form ‘teach’)

Because of a phonological reduction which seems to have already occurred by PAN, both, *p<um>a- <AV>CAUS and *k<um>a- <AV>HAVE surfaced as *ma-.

This situation is still reflected in Amis, among many other Formosan languages:

**Amis** (Wu 2005)

\[
\text{ma-palu} \quad \text{ma-tayal} \\
k<um>a-palu p<um>a-tayal \\
<AV>\text{HAVE-beat} <AV>\text{CAUS-work} \\
\text{‘to be beaten’} \quad \text{‘to work’}
\]

Note, that this was only a feature of the dynamic verbs. Inherently stative verbs required *ka in the “active” as well.
BUDAI RUKAI (Chen 1999:46)

macwake ku kisi  
pakacwake ku kisi ka lasu
k<um>a-cwake ku=kisi  
pa-ka-cwake ku=kisi ka=lasu
<AV>HAVE-break DET=bowl  
CAUS-HAVE-break DET=bowl DET=man
‘The bowl is broken’  
‘The man broke the bowl’

A morphological ambiguity between active and passive/stative is highly marked and thus various strategies for maintaining contrast in the actor voice were recruited. PMP’s strategy was to recruit two morphemes which had already been in the PAN inventory *<R> MID and *<ŋ> PL and to stretch their function to cover all cases of *p<um>a- <AV>CAUS.

<table>
<thead>
<tr>
<th>PAN</th>
<th>PMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>*k&lt;um&gt;a-</td>
<td>*k&lt;um&gt;a-</td>
</tr>
<tr>
<td>&lt;AV&gt;HAVE-</td>
<td>&lt;AV&gt;HAVE-</td>
</tr>
<tr>
<td>*ma-</td>
<td>*ma-</td>
</tr>
<tr>
<td>&lt;AV&gt;CAUS-</td>
<td>&lt;AV&gt;CAUS-</td>
</tr>
<tr>
<td>*p&lt;um&gt;a&lt;ŋ&gt;-</td>
<td>*p&lt;um&gt;a&lt;ŋ&gt;-</td>
</tr>
<tr>
<td>&lt;AV&gt;CAUS&lt;PL&gt;-</td>
<td>&lt;AV&gt;CAUS&lt;PL&gt;-</td>
</tr>
<tr>
<td>*maŋ-</td>
<td>*maŋ-</td>
</tr>
<tr>
<td>&lt;AV.PL</td>
<td>&lt;AV.PL</td>
</tr>
<tr>
<td>*p&lt;um&gt;a&lt;ŋ&gt;-</td>
<td>*p&lt;um&gt;a&lt;ŋ&gt;-</td>
</tr>
<tr>
<td>&lt;AV&gt;CAUS&lt;PL&gt;-</td>
<td>&lt;AV&gt;CAUS&lt;PL&gt;-</td>
</tr>
<tr>
<td>*maŋ-</td>
<td>*maŋ-</td>
</tr>
<tr>
<td>AV.PL</td>
<td>AV.PL</td>
</tr>
</tbody>
</table>

2.1 The causative conundrum

(i) *p- prefixes are causative while their *m- correspondents are not (Blust 1999b, 2003b)

Pazeh  ma-dawan  pa-dawan
‘to bathe (oneself)’  ‘to bathe (someone else)’

Eastern  mag-anak  pag-anak-on
‘to give birth’  ‘to make give birth’ (Hurlbut 1988:52)

In other words, *pa- was not necessary in the non-Actor Voices. Cf. MP:

“From available Philippine data, it seems probable that no PV or LV forms incorporating *paR- occurred. Instead the primary root was used.” (Ross 2002:50)

The patient orientation of the root would be naturally compatible with the non-Actor Voices, but not the Actor Voice:

Non-Actor Voices with PAN *beRay ‘gift’ (Patient oriented)
Locative Voice *beRay-an  ‘gift recipient’
Conveyance Voice *Si-beRay  ‘centrifugal gift’
Actor Voice with PAN *beRay ‘-gift’ (Patient oriented)
Actor Voice *b<um>eRay ‘BE a gift’
Actor Voice + CAUS *pa-beRay ‘MAKE a gift of’

*pa- thus behaved much like a light verb with patient-oriented roots. Light verbs create objects but typically disallow diathesis:

<table>
<thead>
<tr>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>John troubled Mary</td>
<td>Mary was troubled by John</td>
</tr>
<tr>
<td>John made trouble for Mary</td>
<td>*?Trouble was made for Mary by John</td>
</tr>
<tr>
<td>John took a shower</td>
<td>*?A shower was taken by John</td>
</tr>
<tr>
<td>John and Mary never made love</td>
<td>*?Love was never made by John and Mary</td>
</tr>
</tbody>
</table>

John wa murabito ni ookami ga kuru to keikoku o *shi-ta
J. TOP villagers to wolf NOM come COMP warning ACC do-PAST
‘John warned the villagers that a wolf would come’ (Isoda 1991)

*Keikoku ga John niyotte murabito ni ookami ga kuru to s-are-ta
warning NOM J. by villagers to wolf NOM come COMP do-PASS-PAST
(For, ‘The warning was made by John that the wolf would come’, (Isoda 1991))

The light verb status of *pa- also explains another one of its common uses across Philippine and Formosan languages: deictic/directional predicates –

<table>
<thead>
<tr>
<th>TAGALOG</th>
<th>BIKOL</th>
<th>TAUSUG</th>
</tr>
</thead>
<tbody>
<tr>
<td>pa-rito</td>
<td>pa-digde</td>
<td>pa-kari</td>
</tr>
<tr>
<td>CAUS-here</td>
<td>CAUS-here</td>
<td>CAUS-here</td>
</tr>
</tbody>
</table>
| ‘to come here’ | ‘’          | ‘’           | cf. English ‘I made it here.’

With event-denoting roots, *pa- behaved much like a real causative:

PAN *kaen ‘-eating’ (Event oriented)
*kain-an ‘eating place’
*Si-kaen ‘eating benefactee/instrument’
*k<um>aen ‘BE eating’
*pa-kaen ‘MAKE eating’

3.0 Reconstructing the infixes *(a)R> and *(a)n>

“The formative r-, which can also unite with the formative a- to form ar-, and with the ma-
for form mar-. Here, too, as between r- and mar- we have the same relation as in the case
of ng- and mang-. The r- just like the ng-, was originally an article in Old Jav. it is an
unemphatic pronoun of the third person.”

– Brandsetter (1916:172)
3.1 PAN *(a)R* as middle voice

There existed a “lexical” *(a)R* infix denoting sounds (Li, this session) but this is difficult to connect to the derivational *(a)R* found with prefixes.

As shown by Zeitoun (2002) (see also, Liao 2004), the latter appears reconstructable to PAn with a reciprocal and reflexive meaning. I attribute a more general function to *(a)R*:

**Middle Voice** = Self-oriented (Reflexive, Reciprocal, *inter alia*)

“The implications of the middle (when it is in opposition with the active) are that the ‘action’ or ‘state’ affects the subject of the verb or his interests”

(Lyons 1968:373)

**Sanskrit**

*Devadattaḥ* *kaṭam* *karoti*

Devadatta:Nom mat:Acc makes:SG:Act

‘Devadatta makes a mat’

*Devadattaḥ* *kaṭam* *karute*

Devadatta:Nom mat:Acc makes:SG:MID

‘Devadatta makes (himself) a mat’ (Klaiman 1991:24)

**Fula**

‘*o born-ii* *mo ṭgapalewol*

he dress-past:ACT him gown

‘He dressed him in a gown’

‘*o born-ake* ṭgapalewol

he dress-past:MID gown

‘He put on a gown’ (Klaiman 1991:26)

*feemmb-o* *feemmb-it-o*

shave-MID shave-REFL-MID

‘get oneself shaved’ ‘shave oneself’ (Klaiman 1991:30)

**Classical Greek**

*hair-ō moiran* *hair-oumai moiran*

take:1SG:ACT share take:1SG:MID share

‘I take a share’ ‘I take for my own benefit a share’

*lou-omai* *lou-ometha*

wash:1SG:MID wash:1PL:MID

‘I wash myself’ ‘we wash each other’

(Barber 1975 via Klaiman 1991:28)
<table>
<thead>
<tr>
<th>SOUTHERN</th>
<th>mar’atjeneLay ti kivi ‘ati kapi</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAIWN</td>
<td>p&lt;um&gt;a&lt;ar&gt;-‘a-tjenELay ti kivi ‘ati kapi</td>
</tr>
<tr>
<td>PAN *R &gt; r</td>
<td>&lt;AV&gt;CAUS&lt;MID&gt;-PL-love NOM Kivi and Kapi</td>
</tr>
<tr>
<td></td>
<td>‘Kivi and Kapi love each other’ (Zeitoun 2002)</td>
</tr>
</tbody>
</table>

| marpakan ti kivi ‘ate kapi                                      |
| p<um>a<ar>-kan ti kivi ‘ati kapi                              |
| <AV>CAUS<MID>-eat NOM Kivi and Kapi                           |
| ‘Kivi and Kapi feed each other.’                              |

<table>
<thead>
<tr>
<th>mare-</th>
<th>maru-</th>
</tr>
</thead>
<tbody>
<tr>
<td>p&lt;um&gt;&lt;aR&gt;e-</td>
<td>p&lt;um&gt;&lt;aR&gt;u-</td>
</tr>
<tr>
<td>RECIPROCAL</td>
<td>SIMILARITY</td>
</tr>
<tr>
<td>(Early &amp; Whitehorn 2003)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>NANWANG</th>
<th>maro-kataquin i Ukak aw i Pilay</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUYUMA</td>
<td>p&lt;um&gt;a&lt;ar&gt;-kataquin i=Ukak aw i=Pilay</td>
</tr>
<tr>
<td>PAN *R &gt; r</td>
<td>&lt;AV&gt;CAUS&lt;MID&gt;-spouse NOM=Ukak and NOM=Pilay</td>
</tr>
<tr>
<td></td>
<td>‘Ukak and Pilay got married’ (Teng 1997:117)</td>
</tr>
</tbody>
</table>

| aDi ta par-ka-inaba’                                      |
| aDi=ta pa<ar>-ka-inaba’                                  |
| NEG=1P.NOM CAUS<MID>-HAVE-good                          |
| ‘We won’t reconcile’ (Ross 2008)                         |

<table>
<thead>
<tr>
<th>PAIWAN &amp; PUYUMA</th>
<th>Stative</th>
<th>Dynamic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mar-</td>
<td>marpa-</td>
</tr>
<tr>
<td></td>
<td>p&lt;um&gt;a&lt;ar&gt;-</td>
<td>p&lt;um&gt;a&lt;ar&gt;-pa-</td>
</tr>
<tr>
<td></td>
<td>&lt;AV&gt;CAUS&lt;MID&gt;-</td>
<td>&lt;AV&gt;CAUS&lt;MID&gt;-CAUS</td>
</tr>
<tr>
<td></td>
<td>(Zeitoun 2002)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RUKAI</th>
<th>ma?a-tina analo</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAN *R &gt; ?</td>
<td>p&lt;um&gt;a&lt;ar&gt;-tina analo</td>
</tr>
<tr>
<td></td>
<td>&lt;AV&gt;CAUS&lt;MID&gt;-mother that:PL</td>
</tr>
<tr>
<td></td>
<td>‘They are mother and daughter.’</td>
</tr>
<tr>
<td></td>
<td>(Zeitoun 2002, 2007)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAZEH</th>
<th>maa-kizip dadowa</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAN *R &gt; x,h</td>
<td>p&lt;um&gt;a&lt;ar&gt;-kizip dadowa</td>
</tr>
<tr>
<td></td>
<td>&lt;AV&gt;CAUS&lt;MID&gt;-pinch two</td>
</tr>
<tr>
<td></td>
<td>(Zeitoun 2002, Blust 1999b)</td>
</tr>
<tr>
<td></td>
<td>‘The two (of them) pinched each other’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AMIS</th>
<th>PAN *R &gt; l</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mala-kaka-ay</td>
</tr>
<tr>
<td></td>
<td>p&lt;um&gt;&lt;aR&gt;-kaka-ay</td>
</tr>
<tr>
<td></td>
<td>&lt;AV&gt;CAUS&lt;MID&gt;-brother-?</td>
</tr>
<tr>
<td></td>
<td>‘reciprocal brother relationship’</td>
</tr>
<tr>
<td></td>
<td>(Zeitoun 2002)</td>
</tr>
<tr>
<td></td>
<td>‘They shook hands.’</td>
</tr>
<tr>
<td></td>
<td>(Wu 2000:51 via Sung 2006)</td>
</tr>
<tr>
<td>Language</td>
<td>Word 1</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
</tr>
<tr>
<td>Siraya</td>
<td>päx-dimdim</td>
</tr>
<tr>
<td>PAN *R &gt; x,h</td>
<td>pa&lt;R&gt;-dimdim</td>
</tr>
<tr>
<td></td>
<td>CAUS&lt;MID&gt;-think</td>
</tr>
<tr>
<td></td>
<td>'think'</td>
</tr>
<tr>
<td></td>
<td>käwx-bulas</td>
</tr>
<tr>
<td></td>
<td>ka&lt;R&gt;-bulas</td>
</tr>
<tr>
<td></td>
<td>'become sad'</td>
</tr>
<tr>
<td>Pazeh</td>
<td>maxakekela</td>
</tr>
<tr>
<td>PAN *R &gt; x,h,∅</td>
<td>p&lt;um&gt;&lt;aR&gt;a-dimdim</td>
</tr>
<tr>
<td></td>
<td>&lt;AV&gt;&lt;MID&gt;CAUS-think</td>
</tr>
<tr>
<td></td>
<td>'to think' (Li &amp; Tsuchida 2001, Wolff, this session)</td>
</tr>
<tr>
<td></td>
<td>maka-tulala</td>
</tr>
<tr>
<td></td>
<td>p&lt;um&gt;a-ka-tulala</td>
</tr>
<tr>
<td></td>
<td>&lt;AV&gt;CAUS-HAVE-blossom</td>
</tr>
<tr>
<td></td>
<td>'to be full of blossoms'</td>
</tr>
<tr>
<td></td>
<td>maxu-papah</td>
</tr>
<tr>
<td></td>
<td>p&lt;um&gt;&lt;aR&gt;u-papah</td>
</tr>
<tr>
<td></td>
<td>&lt;AV&gt;&lt;MID&gt;CAUS:MOT-argue</td>
</tr>
<tr>
<td></td>
<td>'to argue, disagree over s.t.'</td>
</tr>
<tr>
<td></td>
<td>paxa-riak</td>
</tr>
<tr>
<td></td>
<td>p&lt;aR&gt;a-riak</td>
</tr>
<tr>
<td></td>
<td>&lt;MID&gt;CAUS-good</td>
</tr>
<tr>
<td></td>
<td>'behave good towards others' (Blust 1999b)</td>
</tr>
<tr>
<td>Thao</td>
<td>malha-qitan</td>
</tr>
<tr>
<td>PAN *R &gt; lh</td>
<td>p&lt;um&gt;&lt;aR&gt;a-qitan</td>
</tr>
<tr>
<td></td>
<td>&lt;AV&gt;&lt;MID&gt;CAUS-good</td>
</tr>
<tr>
<td></td>
<td>'behave properly' (Blust 2003a)</td>
</tr>
<tr>
<td>Bunun</td>
<td>mal-tala?</td>
</tr>
<tr>
<td>PAN *R &gt; l</td>
<td>p&lt;um&gt;&lt;aR&gt;-tala?</td>
</tr>
<tr>
<td></td>
<td>&lt;AV&gt;&lt;MID&gt;CAUS-wait</td>
</tr>
<tr>
<td></td>
<td>'to wait' (Jeng 1977:243) (cf. Arabic reflexive istanna 'wait')</td>
</tr>
<tr>
<td>Seediq</td>
<td>tege-liʔiŋ</td>
</tr>
<tr>
<td>PAN *R &gt; g</td>
<td>t&lt;AR&gt;a-liʔiŋ</td>
</tr>
<tr>
<td></td>
<td>&lt;MID&gt;?-hide</td>
</tr>
<tr>
<td></td>
<td>'to hide oneself'</td>
</tr>
</tbody>
</table>
The ge in tege- is described by Tsukida (2005) as optional but I take it to be a retention of the full form. The morphological reduction has progressed further in the reciprocals where *<aR> appears to have been lost altogether, cf. duŋus ‘spouse’; meke-duŋus ‘husband and wife’ (Tsukida 2005:322).

Blust (2003a:472) PAn *taR- ‘prefix of spontaneous or accidental action’

<table>
<thead>
<tr>
<th>PAZEH</th>
<th>taxa-uta</th>
<th>taxa-pi-hilud</th>
<th>taxa-kawas</th>
</tr>
</thead>
<tbody>
<tr>
<td>t&lt;AR&gt;a-uta</td>
<td>t&lt;AR&gt;a-p-i-hilud</td>
<td>t&lt;AR&gt;a-kawas</td>
<td></td>
</tr>
<tr>
<td>&lt;MID&gt;NVOL-vomit</td>
<td>&lt;MID&gt;NVOL-CAUS-LOC-urine</td>
<td>&lt;MID&gt;NVOL-speak</td>
<td></td>
</tr>
</tbody>
</table>

‘to feel like vomiting’ ‘to feel like urinating’ ‘to feel like speaking’

(Blust 1999b:350)

<table>
<thead>
<tr>
<th>AKLONON</th>
<th>na-tag-pa:naw</th>
<th>na-tag-ihi?</th>
</tr>
</thead>
<tbody>
<tr>
<td>k&lt;um&gt;&lt;in&gt;a-&lt;R&gt;-panaw</td>
<td>k&lt;um&gt;&lt;in&gt;a-&lt;R&gt;-ihi?</td>
<td></td>
</tr>
<tr>
<td>&lt;AV&gt;&lt;BEG&gt;HAVE-NVOL&lt;MID&gt;-go</td>
<td>&lt;AV&gt;&lt;BEG&gt;HAVE-NVOL&lt;MID&gt;-urine</td>
<td></td>
</tr>
</tbody>
</table>

‘to feel like going’ ‘to feel like urinating’

(Zorc 2005)

*taR- Independent of the voice system: tag-?ihi?-un ta<ar><ihi?-en

NVOL<MID>-urine-PV

‘to feel like urinating’

Zeitoun (2002) reconstructs two PAN reciprocals -

Stative PAn *maR-, paR- > PMP *maR- ~ paR-

Dynamic PAn *Ca-, ma-Ca (?)

As is very often the case in Austronesian, we can reconstruct other morphemes whose functions overlap: another PAN reciprocal *si- is evidenced by Kavalan *si(N)- and many MP languages (Central Philippine, South Sulawesi, Batanic).

3.2 PAN *<(a)ŋ> as PLURAL OBJECT/PLURALATIONAL?

“...traces of nasal substitution and of the prefixes *maN- and *paN- do appear in some Formosan and OC languages, and this suggest that their appearance as productive features in WMP languages is a retention from PAn.” (Blust 1999a)

PUYUMA maŋayaw ‘to hunt heads’

“Such examples of apparently fossilized NS in languages that have no active counterpart are rare, and generally difficult to interpret. Is Puyuma *maŋayaw ‘go headhunting’ the lone survivor of a once active process of NS in Formosan languages (hence in PAN)? Or did speakers of PMP reanalyze a structurally atypical base *maŋayaw as containing a shorter base *kayaw and an active verb prefix? [...] For the present, then, it seems safest to follow Dahl (1976) in concluding that NS probably was a PMP innovation...” (Blust 2004)
Wolff (2006): PAN *taRa ‘wait’ > ATAYAL mnaga
PAN *taqu ‘know’ > PUYUMA manaqu (‘see’)
PAN *tukub ‘cover’ > KAVALAN mnukub

PAZEH mana-dixipu (mana-rima ‘to wash the hands’,
PAn *ŋ > n p<um><aŋ>R>bigay ‘to give out’ (i.e. as in a collapsing ceiling)
CAUS<AV><PL>-dixipu ‘to wash the face’ (Blust 1999b)

THAO kim-bukay kim-bunaz kin-fatu
ki<ŋ>-bukay ki<ŋ>-bunaz ki<ŋ>-fatu
(Blust 2003b) GET<PL>-flower GET<PL>-sand GET<PL>-sand
‘to gather flowers’ ‘to gather sand’ ‘to gather stones’

PAIWAN man- with numerals ‘x number of people’

4.0 The role of *(a)R> and *(a)ŋ> in PMP

Hypothesis: *(a)R> and *(a)ŋ> functioned to differentiate dynamic ma-
(*p<um>a-) from stative ma- (*k<um>a-) . This explains the complementary
distribution between active *ma- (Formosan) and ubiquitous *maR-/maŋ-
(Malayo-Polynesian)

4.1 The function of *p<um>aR> in PMP

Similar to many Formosan languages, Tagalog also requires pa(g)- for a
certain class of actor voice forms.

TAGALOG bumigay mag-bigay
Entity-oriented: b<um>igay p<um>a<R>-bigay
<AV>give <AV>CAUS<AV>MID>-give
‘to give out’ ‘to give s.t.’
(i.e. as in a collapsing ceiling)

Event-oriented: umalis mag-alis
<um>alis p<um>a<R>-alis
<AV>leave <AV>CAUS<AV>MID>-leave
‘to leave’ ‘to remove’

Tentative claim: Non-causative pag- in Tagalog (i.e. mag-bigay) corresponds to obligatory pa- verbs in Formosan languages.

Note that Philippine forms reflecting *maR- show both reflexive and causative features:
<table>
<thead>
<tr>
<th></th>
<th>Non-reflexive</th>
<th>Reflexive</th>
<th>Non-causative</th>
<th>Causative</th>
<th>Non-dual and non-reciprocal</th>
<th>Dual or Reciprocal</th>
<th>Impulsive</th>
<th>Deliberate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>b&lt;um&gt;akal</td>
<td>magbakal</td>
<td>p&lt;um&gt;a&lt;R&gt;-bakal</td>
<td>&lt;AV&gt;CAUS&lt;MID&gt;-buy</td>
<td>‘to buy’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>mandiman</td>
<td>maydiman</td>
<td>p&lt;um&gt;a&lt;η&gt;-diman</td>
<td>p&lt;um&gt;a&lt;̄R&gt;-diman</td>
<td>‘to kill s.o.’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>mayweswes</td>
<td>manweswes</td>
<td>p&lt;um&gt;a&lt;η&gt;-weswes</td>
<td>p&lt;um&gt;a&lt;̄R&gt;-weswes</td>
<td>‘to turn s.t.’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>manja?mes</td>
<td>manja?mes</td>
<td>p&lt;um&gt;a&lt;η&gt;-emes</td>
<td>p&lt;um&gt;a&lt;̄R&gt;-emes</td>
<td>‘to bathe s.o.’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>mag-paka-matay</td>
<td>ag-paka-lukmeg</td>
<td>p&lt;um&gt;a-R-pa-ka-matay</td>
<td>p&lt;um&gt;a-R-pa-ka-lukmeg</td>
<td>‘to cause self to have death’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.1</td>
<td>rh&lt;em&gt;a-jama/qadau/qezemetj/serem</td>
<td>ag-paka-lukmeg</td>
<td>&lt;AV&gt;CAUS-MID-CAUS-HAVE-dead</td>
<td>&lt;AV&gt;CAUS-MID-CAUS-HAVE-fat</td>
<td>‘to cause self to have fat’</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Idiosyncratic uses: ‘the whole duration’ –

**Table 1.** -um- vs. mag- on identical stems (Pittman 1966)

- Old Bikol
- Modern Bikol
- Ivatan
- Ibaloy
- Tagalog
- Ilokano

**Old Bikol**

- **bumakal**
  - b<um>akal
  - <AV>buy
  - ‘to buy’

- **magbakal**
  - p<um>a<̄R>-bakal
  - <AV>CAUS<MID>-buy
  - ‘to sell’ (Lobel 2004)

**Modern Bikol**

- **magbakal**
  - p<um>a<̄R>-bakal
  - <AV>CAUS<MID>-buy
  - ‘to buy’

- **magpabakal**
  - p<um>a<̄R>-pa-bakal
  - <AV>CAUS<MID>-CAUS-buy
  - ‘to sell’ (Lobel 2004)

**Ivatan**

- **mandiman**
  - p<um>a<η>-diman
  - <AV>CAUS<PL>-kill
  - ‘to kill s.o.’

- **maydiman**
  - p<um>a<̄R>-diman
  - <AV>CAUS<PL>-kill
  - ‘to kill each other’

- **manweswes**
  - p<um>a<η>-weswes
  - <AV>CAUS<PL>-turn
  - ‘to turn s.t.’

- **mayweswes**
  - p<um>a<̄R>-weswes
  - <AV>CAUS<PL>-turn
  - ‘to turn oneself’

**Ibaloy**

- **manja?mes**
  - p<um>a<η>-emes
  - CAUS<AV><PL>-bathe
  - ‘to bathe s.o.’

- **manja?mes**
  - p<um>a<̄R>-emes
  - CAUS<AV><MID>-bathe
  - ‘to bathe oneself’

**Tagalog**

- **mag-paka-matay**
  - p<um>a-R-pa-ka-matay
  - <AV>CAUS-MID-CAUS-HAVE-dead
  - ‘to cause self to have death’

**Ilokano**

- **ag-paka-lukmeg**
  - p<um>a-R-pa-ka-lukmeg
  - <AV>CAUS-MID-CAUS-HAVE-fat
  - ‘to cause self to have fat’

**Paiwan**

- rh<em>a-jama/qadau/qezemetj/serem
  - <um>Ra-jama/qadau/qezemetj/serem
  - <AV>MID-morning/day/night/evening
  - ‘The whole morning/day/night/evening’ (Egli 1990:93)
4.2 Was \( *p(a)R > \) still productive in PMP?

If productive, we expect to find reflexes of \( *<R > \) in contexts besides \( *paR-\). \( *<R > \) never appears to be productive in roots: It is an outer affix, but we do find reflexes of all three expected combinations: \( *ka<R >, *ta<R >, *paki<R > \)

4.3 The function of \( *p<um>\eta - \) in PMP

**Ivatan** When \( <\eta > \) alternates with \( mang- \) then \( <\eta > \) forms intransitives, and \( mang- \) forms transitives. \( May-\) almost always forms intransitives (reciprocals/reflexives). (Hidalgo & Hidalgo 1971)

**Tagalog**

\[
\begin{align*}
\text{mag-damag/hapon} & \quad p<\text{um}>a<\text{R}>-\text{damag/hapon} \\
<\text{AV}>\text{CAUS}<\text{MID}>-\text{night/day} & \quad \text{‘The whole night/day’}
\end{align*}
\]

\[
\begin{align*}
\text{Bikol} & \quad \text{kag-balay} & \quad \text{Cebuano} & \quad \text{makig-away} \\
\text{ka}<\text{R}>-\text{balay} & \quad p<\text{um}>a-\text{ki}<\text{R}>-\text{away} \\
<\text{AV}>\text{MID}>-\text{house} & \quad <\text{AV}>\text{CAUS-SOC}<\text{MID}>-\text{fight} \\
\text{‘owner of the house’} & \quad \text{‘to fight with each other’}
\end{align*}
\]

In Mamuju (SSul), \( ma\eta - \) is an “intransitivizer” which is only permitted for bivalent, not monovalent verbs, i.e. it requires an (indefinite) object. True intransitives are formed with \( ma-, mo- \) (\( *maR-\)), \( me-\).

**Mamuju**

\[
\begin{align*}
\text{mo-\text{lanj}} & \quad \text{mu-\text{dende}} \\
\text{p<um>a<\text{R}>-\text{laj}} & \quad <\text{um}>\text{dende} \\
<\text{AV}>\text{CAUS}<\text{MID}>-\text{swim} & \quad <\text{AV}>\text{run} \\
\text{\( *ma\eta-\text{lanj} \)} & \quad \text{\( *ma\eta-\text{dende} \)} \\
\text{cf.} & \quad \text{‘to see s.t.’} & \quad \text{‘to eat s.t.’}
\end{align*}
\]

4.3.1 Was \( *p\eta - \) a dedicated instrumental nominalizer by PMP?

**Ilokano**

\[
\begin{align*}
\text{panait} & \quad \text{‘to use for sewing (thread)’} \\
\text{paka-surat} & \quad \text{‘something with which one is able to write’} \\
\text{pag-wasay} & \quad \text{‘to use as an axe’} \\
\text{pag-punas} & \quad \text{‘to use to wipe’}
\end{align*}
\]
This suggests that *paŋ- became an instrumental nominalizer due to instruments being identified by their frequent use. The voice morpheme which donated the actual instrumental semantics (PAN *Si-) still shows up in tensed predicates:

**TAGALOG**

panülät

_Bolpen=mo  ang=i-p<in>anulät=ko_

pa<ŋ>-sulät

_bolpen=mo  ang=Si-p<in>a<ŋ>-sulat_

_Caus<Pl>-write_

_ballpen=2S.Gen  Nom=CV<Cbeg>Caus<Pl>-write_

‘writing implement’

‘Your pen is what I used in order to write’

Originally, instrumentals could have been formed out of a wider range of stems, as still seen in Cordilleran languages, among others, suggesting the following change:

**PMP**

*i-*pa<ŋ>- > *paŋ-

PLURAL ACTIONAL INSTRUMENTAL

*i-*pa<ŋ>R>- > *paR-

CAUSATIVE/MIDDLE INSTRUMENTAL

*i-*pa-ka- > *paka

ABILITATIVE INSTRUMENTAL

4.4 Was *<(a)ŋ> still productive in PMP?

(i) **PMP/PPh *<aŋ> ADJECTIVAL PLURALIZER**

**Kapampangan**

ma-lagu

_k<um>a-lagu_

<AV>HAVE-beauty

‘beautiful’

maña-lagu

_k<um><aŋ>a-lagu_

<AV><Pl>HAVE-beauty

‘beautiful (pl.)’

**Ivatan**

ma-vid

‘beautiful’

maña-vid

‘beautiful (pl.)’

**Bolaang-**

mo-lantud

moñò-lantud

‘tall’

‘tall (pl.)’

**Mongondow**

(Usup et. al. 1981:32)

**Maranao**

ma-taid

_k<um>a-taid_

<AV>HAVE-beauty

‘beautiful’

maña-taid

_k<um><aŋ>a-ta-taid_

<AV><Pl>HAVE-PL~beauty

‘beautiful (pl.)’

(ii) **PMP/PPh *<aŋ> VERBAL PLURALIZER**

**Old Tagalog**

ma-túlog

‘to sleep’

maña-túlog

‘to sleep (pl.)’
mag-arál
p<um>a<R>-áral
<AV><CAUS><MID>-study
'to study'

maŋag-áral
p<um><aŋ>a<R>-áral
<AV><CAUS><MID>-study
'to study (pl.)'

magkan-darapa?
p<um>a<R>-ka<ŋ>-da-rapa?
<AV><CAUS><MID>-HAVE<PL>-EMPH-fall
'to stumble repeatedly and fall'

(iii) PMP *m<ŋ>a ARGUMENT PLURALIZER

TAGALOG maŋa babaʔe
PL woman

WOLIO maŋa bawine
PL woman

Do only *maŋ- and *paŋ- trigger Nasal Substitution alternations? If so, this suggests a separate (longer?) history for *maŋ- and *paŋ- in relation to *kaŋ-, *taŋ- etc.

5.0 A brief note on PMP *paka- ABIL


PAN p<um>a-ka-dateng
<AV><CAUS-HAVE-arrive
'to have arrived.'

HAVE > accomplishment > ability (? > non-intentional)

PAN/PMP PAN??/PMP PAN??/?PMP

Cf. the similar grammaticalization of HAVE in Romance, Germanic, and countless other language families. (The polysemy between ability and non-intentional action is also evinced by the Salish “out-of-control” morpheme.)

PAIWAN Lakua ini pa-ka-katsu
but NEG CAUS-HAVE-carry
‘But he couldn’t carry (them)’ (Early and Whitehorn 2003:40)
6.0 Conclusion

PAN *pa- was both a bona-fide (or “outer”) causative as well as an actor-voice predicate formant (or “inner causative”).

PAN *<\(a\)R> may best be understood as a marker of MIDDLE “voice”, encompassing reciprocals, reflexives and other activities with effected subjects.

The infixed *<\(a\)R> and *<\(a\)ŋ> were employed in PMP to differentiate PAN dynamic *ma- (*p<um>a-) from PAN stative *ma- (*k<um>a-).

PMP *maR- thus had both causative and reflexive/reciprocal ingredients explaining its seemingly incompatible causative and reflexive/reciprocals semantics.

Two questions: (i) Null exponence for Actor Voice with outer causative in PAN?

\textbf{COTABATO MANOBO}

\texttt{i-pe-tadtad=ku} \hspace{1cm} \texttt{keniko sa=babuy} \hspace{1cm} \texttt{pe-tadtad-en=ku} \hspace{1cm} \texttt{kuna babuy}

\texttt{CV-CAUS-cut.up=1S.GEN} \hspace{1cm} \texttt{2S.OBL NOM=pig} \hspace{1cm} \texttt{CAUS-cut.up-PV=1S.GEN} \hspace{1cm} \texttt{2S.NOM pig}

‘I will get you to cut up the pig’ \hspace{1cm} ‘I will get you to cut up the pig’

\texttt{pe-tadtad=a} \hspace{1cm} \texttt{keniko babuy} \hspace{1cm} “The actor-case-focusing infix -um-, which is a regular feature of the case constellation of verbs of simple batteries, is not a feature of causative batteries.” (Kerr 1965)

\texttt{CAUS-cut.up=1S.NOM} \hspace{1cm} \texttt{2S.OBL pig} \hspace{1cm} ‘I will get you to cut up the pig’

(ii) Could dynamic Actor Voice *ma- have survived more widely in PMP?

\textbf{ARTA} \hspace{1cm} \texttt{ma-ratāŋ} \hspace{1cm} \texttt{ma-mula}

(Reid 1989) \hspace{1cm} \texttt{p<um>a-ratāŋ} \hspace{1cm} \texttt{p<um>a-mula}

\texttt{<AV>CAUS-buy} \hspace{1cm} \texttt{<AV>CAUS-plant}

‘to buy’ \hspace{1cm} ‘to plant’

References


Ross, Malcolm.1995. Proto-Austronesian verbal morphology: Evidence from Taiwan. In Austronesian studies relating to Taiwan, ed. by Paul Jen-kuei Li, Cheng-we Tsang,


