PROTO-MICRONESIAN PALATALS *L AND *N

WARD H. GOODENOUGH

UNIVERSITY OF PENNSYLVANIA

The consonant phonemes reconstructed by Jackson (1983, 1986) for Proto-Micronesian include a palatal *N (ñ). This paper extends the evidence for that protophoneme, and also presents evidence for a palatal *L.

1. INTRODUCTION. A reconstruction of the consonant phonemes of Proto-Micronesian (PMc)[1] has been made by Jackson (1983, 1986), who drew on the earlier reconstruction of Proto-Trukic (PTk) by Quackenbush (1968) and the unpublished work of Jeffrey Marck. He gives solid evidence for the following PMc consonants (I give his 1986 orthography in parentheses where it differs from that used here): *p, *pw, *f, *m, *mw, *t, *d (c), *s (d), *l. *n, *r, *k, *x, *G (ŋ), *N (ñ), *w. He also gives evidence for *c (T) and *S (z), which are more problematical and require further examination.

I have found evidence for two additional protophonemes for PMc: a palatal lateral *L and a palatal spirant *j. There is also the possibility that there will be need for a PMc palatal glide *y. PMc *L has not been reconstructed for Proto–Eastern Oceanic (PEO) or Proto-Oceanic (POc). PMc *j appears to be a reflex of what has been reconstructed as PEO and POc *j by Geraghty (1983, 1986) and Ross (1988), giving further support to that reconstruction; and loss of such POc consonants as *R and *q in PMc may have resulted in PMc *y under conditions as yet not clear, a matter for further study. Discussion of PMc *j requires a reconsideration of how Geraghty used the evidence for *j, especially its two Proto-Polynesian reflexes, *s and *t. I reserve discussion of PMc *j, therefore, for a separate paper. Here I shall present the evidence for PMc *L and also extend the evidence presented by Jackson (1983) for PMc *N. The sets of correspondences for all consonants are given in Table 1, which also shows the distinctive pattern of correspondences for *L and *j.

2. PMC *L. I was first drawn to the possibility of PMc *L by a small number of words in Chk with a base ending in /oyi/, as in /koyikoy/ 'a piping bird', /(o)-koyikoy/ 'a small whistle', and /mwoyimwoy/ 'green and white mountain dove'.

Oceanic Linguistics, Volume 34, no. 1 (June 1995)

They are exceptions to the usual patterns of vowel harmonics in Chk bases and demand explanation. Mrs /qel/ 'semi-palmate sandpiper' and Ksr /ule/ 'dove' suggested that a PMc */-aLu/ might account for them. The evidence, as things

TABLE 1. SOUND CORRESPONDENCES OF MICRONESIAN LANGUAGES

PMc	*p	*pw	*f	*m	*mw	*t	*c(T)	*d(c)	*s(d)	*S(z)	*j
Ksr	p	f	y,Ø	m,Ø	w,m	t,s	s	sr	t,s	Ø	s
PCMc	*p	*pw	*f	*m	*mw	*t	*s(T)	*c	*d	*d	*j
Kir	b	bw	Ø	m	mw	t,Ø	t	r	r	r	r
PWMc	*p	*pw	*f	*m	*mw	*t	*s(T)	*c	*d	*d	*Ø
Mrs	p	b	y,Ø	m	M	j	j	d	t	t	Ø
PTP	*p	*pw	*f	*m	*mw	*t	*s(T)	*c	*d	*d	*Ø
Mok	p	pw	p,Ø	m	mw	j,Ø	j	s	d	d	Ø
Pon	p	pw	p,Ø	m	mw	s,Ø	s	t	d	d	Ø
PTk	*p	*pw	*f	*m	*mw	*t	*s	*c	*d	*d	*Ø
Chk	p	pw	f	m	mw	s,Ø	s	ch	t	t	Ø
Mrt	p	pw	f	m	mw	s,Ø	s	sh	t	t	Ø
Pul	p	pw	f	m	mw	h,Ø	h	R,cc	t	t	Ø
Crl	p	bw,ppw	f	m	mw	s,Ø	s	sh,tch	t	t	Ø
Stw	p	pw	f	m	mw	s,Ø	s	R,cc	t	t	Ø
Wol	p	b,ppw	f	m	mw	t,s	t,s	sh,ch	t	t	Ø
Uli	p	b,ppw	f	m	mw	t,s	t,s	c	d	d	Ø
Pua	p	pw	d	m	mw	t,d	t,d	s	t	t	Ø
Sns	p	bw,ppw	f	m	mw	t,d	t,d	s	t	t	Ø
Map	p	b,u	v/f	m	ng/m	j,h,Ø	?	c	t/d	t	?

PMc	*l	*n	*r	*k	*x	*G(ŋ)	*N(ñ)	*L	*w
Ksr	l	n	l	k	k	ng	Ø	l	Ø
PCMc	*l	*n	*r	*k	*x	*G(ŋ)	*N(ñ)	*L	*w
Kir	n	n	Ø	k,Ø	Ø	ng	n	Ø	w
PWMc	*l	*n	*r	*k	*x	*G(ŋ)	*N(ñ)	*L	*w
Mrs	l,L,Lw	n,N	r,rw	k,q	Ø	g,gw	n	l	w
PTP	*l	*n	*r	*k	*x	*G(ŋ)	*N(ñ)	*L	*w
Mok	l	n	r	k	r	ng	Ø	l	w
Pon	l	n	r	k	r	ng	y,Ø	l	w
PTk	*l	*n	*r	*k	*Ø	*G	*N	*Ø,y	*w
Chk	n	n	r	k,Ø	Ø	ng,n	n	Ø,y	w
Mrt	l	n	r	k,Ø	Ø	ng	n	Ø	w
Pul	l	n	r	k,Ø	Ø	ng	n,ng	Ø	w
Crl	l	l	r	gh,kk	Ø	ng	l,ng	Ø	w
Stw	l/n	l/n	r	k,Ø	Ø	ng	l/n,ng	Ø	w
Wol	l,nn	l,nn	r,ch	g,kk	Ø	ng	l,ng	Ø	w
Uli	l	l	r	g,kk	Ø	ng	l	Ø	w
Pua	n	n	l	k	Ø	ng	n	Ø	w
Sns	r	r	l	g,kk	Ø	ng	r	Ø	w
Map	l	n	r	g/k	Ø	ng	Ø,n?	Ø	w?

Note: Adapted from Jackson (1986:202–203), his symbols in parentheses where they differ from mine. Reflexes separated by a comma are the result of conditioned change; those separated by a slash bar are free variants in the orthography of the source; and the reflex of PMc */t/ listed as /j/ for Map is variously written by Kubary as j, ty, dy, gy.

turned out, failed to support my hypothesis in regard to these two examples, but the search for other possible instances of PMc *L was productive. The contrasting distribution of reflexes of *L and *l is shown in Table 2.

2.1 EXAMPLES OF PMC *L. Examples of *l are numerous in the Micronesian languages. I present four to attest the contrast.[2]

1. PMc */lumi/ 'fold': Chk /nnum/ 'be creased, folded, bent, crumpled', /numi, nnumi/ 'bend it, fold it, crease it'; Pul /lúmi, limi-(y)/ 'fold it (as a mat)'; Crl /limi/ 'fold (something)', /limi-i-(ló)/ 'fold it up'; Wol /limilimi/ 'fold, folding, cover', /limi-(i)/ 'fold it up'; PTk */lúmi, lúmúlúmú/; Pon /lim/ 'to fold (something)', /limilim-(pene)/ 'be folded', /lim-ek/ 'be bent, smashed, mashed, dented'; Mok /lim/ 'to fold (something)', /limlim/ 'a fold, hem, cuff, to fold'; Mrs /lémlém/ 'fold, wrap', /lim-ék/ 'folded'; Kir /num/ 'be folded (of arms or wings)'; Ksr /lihm/ 'to fold (something)', /lihmlihm/ 'to fold'; PMP */lumi/ 'to fold, hem' (Blust 1983–4:81) (Aro /rumi/ 'fold'). See PPn */numi/ 'to fold'.

2. PMc */loGo/ 'inward': Chk /nong/ 'inward, southward', /(too)-nong/ 'enter'; Mrt /(too)-long/ 'enter'; Pul /-long/ 'inside, into, inland, ashore'; Crl /-long/ 'inward, eastward'; Stw /-long/ 'inland, into'; Wol /-longo/ 'into, inland, inward'; Pua /-nango/ 'into, inside'; PTk */-loGo/; Pon /-long/ 'inwards, into'; Mrs /légw/ 'neither high nor low, in between', /(te)-Legw, (je)-legw/ 'go to the interior of an island'. Compare Rot /loga/ 'towards the interior of the island'; Aro /ronga/ 'path to landing place or stream'; Bug /thonga/ 'go ashore', /(i)-longa/ 'landwards'.

3. PMc */kuli/ 'skin, bark': Chk /siin, sini-/; Mrt /kiil, kili-/; Pul /kiil, kili-/; Crl /ghiil, ghili-/; Crn /giil, gili-/; Stw /kili-/; Wol /giili, gili-/; Pua /kiini, kini-/; PTk */kiili, kili-/; Pon /kiil, kili-/; Mok /kil, kili-/; Kir /(te)-kun, kuni-/; Ksr /kulu-, kolo-/; POc /kulit (Ross 1988) (Fij /kuli/; PPn */kili/; Rot /'uli/; Aro /'uri-(na)/; Bug /guiguli/; Lak /kulikuli/).

4. PMc */walu-/ 'eight': Chk /waan, wanu-, wanú-, wani-/; Mrt /waal, walú-/; Pul /waal, walu-, walú-, wali-/; /waal, walu-, walú-/; Stw /waan, wali-/; Wol /waali, wali-, walu-/; Uli /walu-/; Pua /wanú-/; PTk */waanú, wanú-/; Pon /walu-/; Mok /walu-/; Kir /wani-/; PEO */walu/ (Geraghty 1983:363); POc */walu/ (Ross 1988) (Fij /walu/; PPn */walu/; Rot /valu/; Aro /waru/; Bug /alu/; Kwa /kwalu/; Lak /(i)-ualu).

2.2 EXAMPLES OF PMC *L. Of the eight possible instances of *L, given below, four seem reasonably solid, while four, marked with "?," are less so in varying degree.

TABLE 2. REFLEXES OF *L AND *L

PMc	Chk	Pul	Crl	Crn	Stw	Wol	Uli	Pua	Map	PTk	Pon	Mok	Png	Mrs	Kir	Ksr
*L	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	*Ø/y	l	l	l	l	Ø	l
*l	n	l	l	l	l	l	l	n	l	*l	l	l	l	l	n	l

1. PMc ? */Loo/ 'be caught, overtaken, found': Pon /lo/ 'to be caught'; Kir /ooa/ 'to overtake (someone)'; Ksr /loh/ 'found, retrieved, recovered'. Compare the following cognate set: Chk /o/ 'be caught, captured', /(ó)-yoo-w/ 'catch, capture'; Mrt /yo/ 'captured, caught'; Pul /yo/ 'to catch in the hands (as a turtle)', /(yó)-yoo-w/ 'to catch (something)', /yoo-fi-(y)/ 'catch (as a chicken)'; Crl /yoo-fi/ and Crn /yóó-fi/ 'grab or catch (a person or animal)'; Stw /yo/ 'captured, caught'; Wol /yogo/ 'be caught, captured', /(ga)-yogo-(o)/ 'capture it, catch it'; PTk */yoko, yoko-fi/ (cf. PEO */zoko/ 'caught in a net'; Fij /coko/ 'caught in a net') (Geraghty 1983:137). Note that the /g/ in the Wol form leaves us unable to include the Pon, Kir, and Ksr forms with the Trukic forms in an overall cognate set.

2. PMc */Lukuma/ 'bundle': Chk /é-ékúm, é-ékúme-n/ 'bundle (as of things in a cloth or mat), b. of', /é-ékúma/ 'make (it) into a bundle' (? from a causative */(ka)-úkúma/); Pon /lukom/ 'to wrap around (something)'; Mok /likim/ 'to fold (something)'; POc ? */Luku-m/ 'fold' (Kwa /luku, luuluku/ 'to fold up into a bundle'). Note Kir /nukuma/ 'to fold or do up (something) in a bundle' and Ksr /nukum/ 'clothe, wear, wrap (something)'. These forms appear to be cognate with Saa /nuku/ 'to kink, have corrugations, be shriveled or wrinkled' and /nukumi/ 'to crease, fold (something)', suggesting a PMc and POc doublet */nuku-m/ (Lak /luu, luluu/ 'to duck under' could derive from either one). Note also Rot /lo'u/ 'to bend at an angle, fold, crease, hem'; Aro /roku, roku-mi/ 'to fold up', /ro'u, ro'u-mi/ 'to bend, fold up'; Kwa /logu, logu-mia/ 'to fold, f. (something) up', /lo'ulo'u/ 'crook of the elbow', /lo'u-mia/ 'fold (something) up'; Saa /lo'u/ 'to bend, double back', from which we can resconstruct a POc */[lL]oku, [lL]oku-mi/.

3. PMc ? */Luuwe, Luwe-, Luwe/ 'sail': Crl /úúw, yúúw/ 'canoe sail'; Wol /úúwe, úwe-(li)/; Pua /úúa, úa-/; Map /ii/; PTk */yúúw[ae], yúw[ae]-/; Pon /lii/ 'boom sheet, sail rope'; Mok /li/ 'canoe line, sheet'; Kir /(te)-ie/ 'a sail', /ie, ieie/ 'to sail', /ie-a/ 'to sail for or to (a place)', /ie-aki-na/ 'to sail (a craft)'. The meanings of the Pon and Mok forms make their membership in this set and this PMc reconstruction open to question. Compare Fij /liwa/ 'to blow (of the wind)';

4. PMc */GiLi/ 'buzz, hum, make sound': Chk /ngi/ 'buzz, hum, sound, sing', /ngiingi/ 'tune, intonation, accent, voice', /ngii-ri/ 'sing it, hum it', /(e)-ngi/ 'softly sung love song', /(e)-ngii-(y)/ 'give voice to it, begin it (of a song)'; Mrt /ngiingi/ 'hummed note, dialect, intonation'; /ngii-re/ 'give the tune for a song'; Pul /ngiingi-(n)/ (sic) 'accent, voice, tune, pronunciation, sound of'; Crl and Crn /ngiingi/ 'sound, pronunciation, dialect' (cf. /ngingngi/ 'to cry out, squeal, of animals or machinery'); Stw /ngiingi, ngiingii-(n)/ 'intonation, squeaking sound, dialect, speech, his i.'; Wol /ngiingii/ 'humming sound made with the mouth, voice, to make sound, whine, make a low sound in the form of crying'; PTk */Gii, GiiGii/; Pon /ngiil, ngilɛ/ 'voice, tune, his v.'; Mok /ngil, ngilɔ, ngile-(n)/ 'voice, sound, his v., v. of'; Png /ngil/ 'voice, sound'; Mrs /gil, gilli-/ 'sound'. Note the final or stem vowel of the Pon and Mok forms is unexpected. See Yap /nguul/ 'to buzz, hum, a bee, wasp'. Compare PMc */Gici/

'chant, sing': Pon /ngiis/ 'a chant', /ngis/ 'to chant, be boisterous'; Mok /ngij/ 'chant in chorus, laugh out loud'; Mrs /giji-r/ 'chant while drawing up a canoe', /ggij/ 'groan, moan, mumble'; Ksr /ngihs, ngihsngihs/ 'laugh, guffaw'.

5. PMc */ma-[sS]aLu, ma-[sS]aLu[sS]aLu/ 'smooth (of surface': Chk /mwó-tow, mwo-towutow, mwó-towutow/ 'be smooth', /(o)-mwo-towutowu/ 'make (something) smooth'; Mrt /mó-tawutaw/ 'be smooth, shine'; Pul /mó-tówutówu/ 'be smooth'; Stw /mó-tawutawu/ (sic) 'smooth (of cloth)'; PTk */ma-dawudawu/; Pon /me-dendel/ 'smooth and flat (of a surface)'; Mok /mɔ-dɔndɔl/ 'smooth (of a surface)', Mrs /me-tal/ 'smooth, sleek, slick'; Kir /ma-rau/ 'somewhat soft', /ma-raurau/ 'quite soft'. I consider the /mw/ of Chk to be a secondary development. Compare Mrs /meyewyew/ 'soft to touch, smooth like fur, sleek, slick, velvety'. Compare also Saa /mwa-dau, mwamwa-dau/ 'be easy, possible, soft, pliable', /mwa-dau-si/ 'be easy for (someone)'.

6. PMc ? */paLu/ 'blow (of wind)': Chk /pé, péépé/ 'blow (of wind)', /péé-ni/ 'blow upon it'; Stw /(uru)-pé/ 'to fan'; Wol /péépéé/ 'blow gently (as a breeze)'; Uli /(rú)-péú/ 'to fan'; Pua /(úlú)-paú/ 'to fan'; PTk */paú, paúpaú/; Mrs /pal/ 'blow', /ppalpal/ 'wave (of a flag), flutter'; Ksr /pahpah/ 'blow, fan', /pahluh/ 'fan (it), blow on (it)'.

7. PMc ? */pweLe/ 'blister': Chk /pwpwoy, pwpwoyi-(n)/ 'be scalded, scalding of'; Pul /pwpwoy/ 'be blistered by a burn'; Crl /pwpwey/ 'burn on the skin, burn blister'; Wol /bbeye/ 'red mark resulting from a burn', /(ga)-bbeya-(a)/ 'cause it to turn red by burning'; PTk */pwpweye/; Pon /mpwel/ 'to blister from sunburn'; Mok /pwɔlɔl/ 'to blister'; Kir /bweebwee/ 'mildew', /bwe-(ari)/ (sic, ?/bwee-(ari)/) 'scorched, have a scorched smell' (/ari-a/ 'to perfume something'); Ksr /fulo-k/ 'to burn, scald, cauterize, sear (something)'. Compare Pua /pwpwali/ 'to hurt'; Pon /mpwet/ 'to blister'; Yap /pilpil/ 'blistered (as from a sunburn)'. Compare also TON /faa/ 'blister, be blistered'; Lak /palulu/ 'have a hives like swelling'. Compare also Rot /po'o, po'/ 'to blister, be blistered'; Bug /popoo/ 'to sting and blister (as from nettles'; Fij /boo-(daka)/ 'blister, be blistered'.

8. PMc */pwuLu/ 'flow': Chk /pwuu-/ (with directional suffixes) 'flow (of water)', /pwuupwu/ 'flow of a stream', /pwuu-ri/ 'carry or wash it along (in flow of a stream)'; Pul /pwu/ 'flow (as blood)', /pwuupwu/ 'river'; Crl /bwu/ 'to flow', /bwuubwu/ 'be running, flowing'; Wol /bii-, buu-/ (with dir. suffixes) 'go, move'; Pua /pwi-(take)/ (sic) 'go or come up'; PTk */pwuyu/; Pon /pwil/ 'flow (of water)'; Mrs /bewel-(tegteg)/ 'overflow of water'; Ksr /fuhl/ 'slip, drop, slide'. Compare Mrs /heL/ 'flow'; Ksr /pul/ 'fall with a splashing sound' (presumably a loan); Yap /luul', maluul'/ 'flow, stream, run (of water)'; Fij /kui/ 'flow', /vuu/ 'wash, cleanse with water', /vuluvulu/ 'wash the hands'; TON /puu/ 'go down, descend'; Rot /puu/ 'descend' (loan from TON), /puupuu/ 'rinse out the mouth'; Lak /puu/ 'fall (as rain), drop'; Bug /pulu-ngagi/ 'sink, subside', /puru-sagi/ 'overflow'. Note also PPn */puLu/ 'soaked'.

The possibility of PMc *L raises the question as to whether it is an innovation in PMc or is inherited from an older PEO, POc, or even PMP, for none of

which it has been reconstructed. If, indeed, it is an inherited phoneme, then we would expect it, if not present as a distinct phoneme in other Oceanic languages, to reveal itself in different mergers with other phonemes along with possible fronting of adjacent back vowels.

Possible cognates of the above eight forms in related languages are few. PMc */GiLi/ (no. 4 above) shows the widest range of possibilities. But here we encounter another problem. It involves the large number of roots reconstructed for PMP whose meanings relate to making vocal and/or nasal sounds. Blust (1980:121–122, 1983–4:89–90) gives us the following that are relevant to this discussion: */GiG, Gi(G)GiG/ 'buzz, hum'; */Gik, GikGik/ 'squeal, screech, shriek'; */GuG, Gu(G)GuG/ 'buzz, hum'; */Guk, GukGuk/ 'grunt, moan'; */GeG, Ge(G)GeG/ 'buzz, hum'; */Gurut/ 'growl, whine'. In addition Dempwolff (1938) provides */GisGis/ 'hiss, whisper'; and for PWMP Blust gives */Gut, GutGut/ 'mumble, whimper'; */guyGuy/ 'whimper'. In keeping with the example of PMP */miRmiR/ 'urinate' from which we get POc */mii, mimi/ (e.g., Fij /mii, mimi/), Blust (1980:121) derives Fij /gii/ 'make a shrill noise, squeak (as a bat), squeal (as a pig), buzz (as a mosquito)' from PMP */GiG/, and he derives Ngg /ngingi/ 'buzz (as a mosquito)' from the reduplicated form PMP */Gi(G)GiG/. Following this precedent, we expect the PMP forms listed above to provide a reduced set of POc forms as follows: */Gii, GiGi/ (TON /ngii/ 'whimper', Are /nini-(sua)/ 'bee', Ngg /ngingi/ 'buzz, as a mosquito'); */Guu, GuGu/ (TON /nguu/ 'grunt'); */Goo, GoGo/ (Kir /ngoo/ 'subdued complaint, murmuring', Kwa /ngongo/ 'murmur in one's sleep'; Pon /ngong/ 'to bark'); and */Guru/ (Bug /nguunguru/ 'roar', Saa /nguru, nguru-hi/ 'growl, roar [of animals], mumble, groan [of people]').

In addition to these, we have some other forms in the Oceanic languages that we cannot readily derive from any of the above PMP reconstructions. For instance we have Pon /ngiringir/ 'to growl, snarl, quarrel'; Mok /ngirngir/ 'to rumble'; Mrs /ggir/ 'groan, moan, mumble'; Ksr /ngihr/ 'roar, rumble', /ngihrngihr/ 'noisy, roaring, rumbling, buzzing, whirring'; PMc */Giri, GiriGiri/; Aro /ngiri, ngiringiri/ 'to whine, mew, hum, buzz' (cf. Aro /nguru, gurunguru/ in the same meaning) from which we reconstruct POc */Giri, GiriGiri/.

There are languages in which there is no contrast between what became POc */r/ and */l/ (e.g., PPn, Are, Aro, Kwa); but in Saa we have /ngulu/ 'to resound' beside /nguru/ 'growl, roar, mumble, groan'; and in Bug we have /ngiigili/ 'to shout, cry aloud' beside /nguunguru/ 'roar (of animals)'. And in the Trukic languages we have not only PTk */Gii/ that we are deriving from PMc */GiLi/ but also PTk */GúúGúú, Gúú-raki/ (Chk, Mrt, Crl, Stw /ngúúngú/, Wol, Pua /ngúú-ngúú/ 'moaning, groaning, droning or roaring of a plane engine' and Chk /ngúú-ngúú-res/, Wol /ngúú-regi/ 'be making such sounds'), which could come from a PMc */GuLu/ or */Guu/. PMc */GiLi/ can be considered cognate with Bug /ngiingili/, and the possible PMc */GuLu/ can similarly be considered cognate with Saa /ngulu/. If so then we must consider for POc a protophoneme */L/ and

the protoforms */GiLi/ and */GuLu/ from which the Saa, Bug, and PMc forms could derive. The hitherto unaccounted for forms with /l/ in Saa and Bug provide a modest bit of support for PMc */L/ as deriving from a POc */L/.

The foregoing suggests that POc */L/ fell together with */l/ in Bug and Saa. But what may have happened to it in other Oceanic languages where POc */l/ and */r/ remained apart? The evidence in regard to */GiLi/ and */GuLu/ is ambiguous, as in the case of Fij /gii/ 'make a shrill noise' and TON /ngii/ 'whimper', which could come from POc */Gii/ or *GiLi/. Similarly, TON /nguu/ 'grunt', /nguunguu/ 'hum' could come from POc */Guu/ or */GuLu/, and TON /ngungulu/ 'to growl (of dogs, pigs, lions)' could come from POc */Guru/ or */GuLu/; but the two TON forms cannot have come from the same source. The lack of clear possible cognates in the other examples of PMc */L/ leave us unable to decide whether POc */L/ is reflected by /l/ or was lost in Fij and TON. Obviously, more data are needed either to confirm what I am suggesting regarding PMc and POc */L/ or to provide an alternative explanation of the evidence I have presented here.

3. PMC *N. Preservation of PAN and POc *ñ as distinct from *n (Blust 1978) in PMc has already been recognized by Micronesian linguists (Jackson 1983, 1984). Evidence for that distinction need not be reviewed here. What is presented is further evidence relating to PMc *N (*ñ). Table 3 shows the contrasting distributions of reflexes of *N and *n in the Micronesian languages.

In the Trukic languages PMc */N/ fell together with PMc */n/, but before doing so it raised a preceding short */a/ to /e/ and a preceding short */e/ to /i/ in contrast to */n/, which did not raise these vowels (though following high vowels may also have raised them independently). */N/ also fronted a following */o/ to /e/ in some of the Trukic languages. I conclude that PMc */N/ was still present as a distinct phoneme in Proto-Trukic (PTk), at least in some environments. Jackson (1983:411) pointed to loss of */N/ in the third person singular possessive suffix in Map, a Trukic language (Jackson 1983:404–413), as evidence to the same effect; but Map shows no such loss in /non/ *'Morinda citrifolia'* (PMc */NoNu/ below). These are the only two apparent reflexes of */N/ in the short wordlist from Map (Kubary 1989:102–113). Nevertheless, we expect the pronominal suffix to be more likely to be an inherited form, whereas the name of the tree could well be a recent borrowing from another nearby Trukic language, such as Pua (not yet attested), or even from Kir (which exhibits an identical form),

TABLE 3. REFLEXES OF *N AND *N

PMc	PTk	Pon	Mok	Png	Mrs	Kir	Ksr
*N	*N,n	y,Ø	Ø	Ø	n	n	Ø
*n	*n	n	n	n	n	n	n

for crews on copra trading vessels in the nineteenth century tended to be recruited from the Gilbert Islands. At least one loan from Kir is attested for Pua, for example: Pua /lépakaú/ 'capable, able, smart' and Kir /rabakau/ 'skillful, dexterous, adept'.

3.1 EXAMPLES OF PMC *N. Jackson (1983:334) found five examples of PMc */N/ in Ksr. Among other things, the eighteen examples below bring the total of possible reflexes in Ksr to ten.

1. PMc */-Na/ 'of him, her, it': Chk /-n/; Mrt /-n/; Pul /-n/; Crl /-l/; Crn /-n/; Stw /-l, -n/; Wol /-le/; Pua /-na/; Map /-Ø/; PTk */-Na/; Pon /-Ø/; Mok /Ø/; Mrs /-n/; Kir /-na/; Ksr /-Ø/ (see discussion by Jackson 1983:334,443 fn. 18); PEO */-Na/ (Geraghty 1983:158); POc */-Na/ (Blust 1978:58; Ross 1988) (Bug /-gna/). (See also Jackson 1983:334.)

2. PMc */Naamwu, Namwu-/ 'mosquito': Chk /(towu)-nómw, -nómwu-(n)/ 'mosquito net'; Mrt /namwu-(kkék)/ 'mosquito'; Pul /nóómw/ 'mosquito', /(tówu)-nómw/ 'mosquito net'; Crl /lóómw. lómwo-(l)/ 'mosquito, m. of'; Crn /nóómw/ 'mosquito'; Stw /nóómw/ 'mosquito'; Wol /laamwu, lamwu-/ 'mosquito', /(tau)-lomwu/ 'mosquito net'; Pua /naamwu, namwu-/ 'mosquito'; Sns /raamwu/ 'mosquito'; PTk */naamwu, namwu-/; Pon /amwi-(se)/ 'mosquito'; Mok /amw-(je)/ 'mosquito'; Mrs /NaM/ 'mosquito'; Kir /(te-tai)-namwo/ 'mosquito net'; Ksr /em-(syac)/ 'mosquito'; PEO */Namu/ (Geraghty 1983:155, 295); POc */Namuk/ 'mosquito' (Blust 1978:58; Ross 1988:207). Note that the words for 'mosquito net' show problems and appear to be more recent loans, at least in some cases. (See also Jackson 1983:334.)

3. PMc */Nai-Sa, Gai-Sa/ 'when?': Chk /(i)-nee-t/ 'when?'; Mrt /(i)-ngee-t/; Pul /(yi)-nee-t, (yi)-nge-t/ (sic); Crl /(i)-lee-t, (i)-lee-ta/; Crn /(i)-nee-ta, (i)-lee-t/; Wol /(i)-lee-te/; Pua /(i)-ngae-ta/ 'when? (past)', /(wa)-ngae-ta/ 'when (future)'; PTk */(i)-nai-da, (i)-Gai-da/; Pon /(i)-aa-d/; Mok /ngee-d/; Mrs /gaya-t/; Kir /(ni)-ngai, (ni)-ngai-ra/; Ksr /ngac/; POc */Nai-za, Gai-za/ (Fij /(e)-nai-ca, (ni)-nai-ca/ 'when?'; Lak /(a)-lai-sa/ 'when? (past)', /gai-sa/ 'when? (future)', /gai/ 'soon, presently, in the near future'). These forms are not irregular but preserve one or another of the two forms of PMc and POc as the two Lak forms, one for past and one for future, testify. See also Fij /gica/ 'when' (Geraghty 1983); Bug /ngiha/ 'when?'; PEO */Giza/ 'when'; POc */Gica/ 'when' (Ross 1988:225, 461).

4. PMc */Nama/ 'make a noose or snare': Wol /lema-si-(i)/ 'make knots in (rope) without pulling it tight'; Pon /aam/ 'slipnoose or snare for catching animals'; Kir /nama/ 'to enter a snare noose (as a bird)'.

5. PMc */Nama/ 'taste': Mrs /nam, namnam/ 'taste, smell, flavor'; Ksr /em/ 'to taste something', /ema/ 'taste (something)'; PWMP */Naman/ 'tasty, delicious' and PMP */NamNam/ 'to taste, tasty' (Blust 1989:153–154). Note also Pon /namanam/ 'taste', /nam/ 'eat or taste (something)', /neme/ 'its taste, flavor'; Mok /namnam/ 'have taste', /nam/ 'to taste (something)', which I presume to be loans from Mrs. (See Jackson 1983:334.)

6. PMc */[nN]ami/ 'taste with the finger': Pon /neminem/ 'to eat, taste (used derogatorily)' (a possible loan from Kir); Kir /namnam/ (<*/naminami/) 'to eat up the remnant of soft or liquid food, as molasses, with the finger', /nam-ta/ (<*/nami-ta/) 'to taste of (a liquid or soft food) with the finger'; POc */Nami/ 'taste, tasty, pleasant feeling' (Blust 1978:59) (Bug /gnami/ 'nibble, bite, taste'). But note Rot /nami/ 'sip, taste'. Compare PPn */namu/ 'odor, flavor'; POc */Namu/ 'taste, flavor' (Jackson 1938:379).

7. PMc */NaNa, NaNaNa/ 'taste, flavor': Chk /nnen, nenna-(n)/ 'taste, flavor, its t.', /nne-ri/ 'taste it', /nne-(yar)/ 'taste sweet'; Mrt /nennan/ 'taste'; Pul /nennán/ 'taste, to taste'; Crl /llá-ri/ and Crn /nne-ri/ 'taste it'; Stw /nnan/ 'taste'; Wol /nnanne/ (<*/nanna/) 'to taste', /nna-ri-(i)/ 'taste it'; Pua /nna-(na)/ 'its taste'; PTk */NNa-, NaNNa-, NNa-ri-/; Mrs /nnan/ 'musty or moldy taste'; Kir /nana-ma/ 'to taste or test the taste of (food)'; POc */[nN]a[nN]a-m/ 'eat (baby talk)' (Blust 1978: 59); PMP */NamNam/ 'to taste, tasty' (Blust 1989:154). The raising of */a/ to /e/ in the noun forms in Chk, Mrt, and Pul is the only internal evidence here for */N/.

8. PMc */NaNau/ 'delicious, taste good': Chk /nné, (a)-nné/ 'delicious, tasty'; Mrt /nné/ 'delicious'; Pul /nné, nénné/ 'delicious'; Crl /(a)-llée-(w)/ and Crn /(a)-nnée-(w)/ 'make it taste better'; Wol /nnée/ 'taste good, sweet taste'; Pua /nnaú/ 'good taste, taste good'; PTk */nnaú/; Pon /yow/ (written *iow*) 'sweet, delicious'; Mrs /nnaw/ 'delicious'; Kir /nanai/ 'relishable'; Ksr /yuh, yuhyuh/ 'delicious'; PEO ? */Nau/ (Bug /gnou/ 'to bite, taste'). Compare POc */Napi/ 'taste, bite' (Blust 1978:59). I do not concur with Jackson (1983:379) that this is to be derived from POc */Namu/ with inexplicable loss of intervocalic */m/. (See also Jackson 1983: 334.)

9. PMc */NaNoa/ 'yesterday': Chk /nánew, #nánewi-(n)/ 'yesterday, y. of'; Mrt /nanaw/; Pul /nánewú/ (sic); Crl /lalew/; Crn /nanew/; Stw /nánew'; Wol /lalowe/; Uli /lalaow/; Pua /nanoa/; PTk */[nN]aNoa/; Pon /aio/; Mok /aio/; Mrs /(yi)-nney/; Kir /(ngkoa)-nanoa/; Ksr /(len)-yoh/ 'day before yesterday', /(ekuh)-yoh (ah)/ 'evening before last evening'; PEO */NaNoRa/ (Aro /nanora/ 'yesterday'; Saa /nonola/ 'yesterday'). Compare POc */NoRap/ 'yesterday' (Ross 1988:179); POc */NoRa[qØ]/ 'yesterday' (Blust 1978:58); and PMP */neRab/ (Blust 1980:116). (See also Jackson 1983:334.)

10. PMc */NoN[ui]/ 'tree, *Morinda citrifolia*': Pul /neen/ *'Morinda citrifolia';* Crl /leel, llel/; Crn /neen/; Wol /leeli, leli-/; Map /non/ 'tree or plant whose root was used as a brown dye' (i.e. *Morinda citrifolia*) (possible borrowing from Kir); Mrs /nén/; Kir /(te)-non/; Ksr /oi/ 'a tree'; POc */NoNum/ (Blust 1978:7,59). Compare POc */Nonu/ (Ross 1988:208). Compare also Pon /wei-(pwul), we-(mpwul)/ *'Morinda citrifolia'* (cf. /pwul/ 'immature, of fruit'); Mok /ween/ 'a tree', /ween-(pwul)/ 'a tree'; and compare Chk /nopwur/ *'Morinda citrifolia'* (root used as a yellow dye).

11. PMc */ma-[nN]awa/ 'alive': Chk /ma-naw/ 'life, health, be alive', /(a)-ma-nawa/ 'give (something) life'; Mrt /ma-nawa-(n)/ 'his life'; Pul /má-naw, (ya)-ma-nawa/; Crl /ma-law, (a)-ma-lawa/; Crn /ma-naw, (a)-ma-nawa/; Stw

/ma-nawa-(n)/ 'her life, existence'; Wol /me-lawe/ 'be alive'; PTk */ma-[nN]awa/; Mrs /me-newe-/ 'heart, breath', /me-newnew/ 'to breathe'; Kir /(te)-ma-nawa/ 'pit of the stomach'; POc */ma-Nawa/ 'breathe, belly, heart' (Blust 1978:59; Ross 1988:208).

12. PMc */masaiNo/ 'lethrinid fish': Chk /metiin/ 'a lethrinid fish'; Pul /metiin/ 'porgy *(Lethrinus variegatus)*'; Crl /meteeyil/ 'sp. of edible fish found outside reef'; Wol /metaile/ 'a kind of fish'; PTk */madai[ln][ea]/; Pon /medi/ 'a snapper *(Lethrinus lentjan)*'; Kir /maraino/ 'the gill of a fish'; Ksr /(ohlohl) muhta/ 'kind of fish' (/ohloh/ 'gill, /ohlohl/ 'kind of fish').

13. PMc */meeNa, meNa-/ 'thing': Chk /meen, mine-(n)/ 'thing, t. of, man (not woman), relative, friend, polite term of address to a man to whose authority one is not subject', /(ne)-min/ 'woman, polite term of address to a woman'; Pul /miin/ 'the person or thing under discussion'; Crl /miil, mili-/ and Crn /mini-/ 'person (known but not specified), thing, object'; Wol /mele/ 'this thing', /mele-(we)/ 'that thing', /mela-(i), min-(ni)/ 'thing, means, or tool for or of'; Pua /mene/ 'this one'; PTk */meeNa, meNa-/; Pon /mee, mee-(n)/ 'thing, one of, thing of'; Mok /mii-(n)/ 'thing of'; Mrs /men/ 'thing, matter, object'; Kir /(te)-mena/ 'thing'; Ksr /ma/ 'one, thing (indefinite pronoun)', /mwe-/ 'thing', /meh-(n)/ 'one of, thing of or for'. Compare Pon /maing/ 'sir, madam'; PPn */meqa/ 'thing'.

14. PMc */meNa-a/ 'do (something)': Chk /mina/ 'do something to (it), fix (it), take care of (it), disturb (it), harm (it), spoil (it)', /mina-a-(ngeni)/ 'do something to (it), mess with (it), fool with (it)'; Pul /min, mina-(a)/ 'treat, attend to, fix'; Crl /mila/ 'do something to correct (a problem)'; Pon /wia/ 'to do (something)', /wie-(mwangas)/ 'to make copra' /(e) wie (dɔdɔɔk)/ 'he is working (is doing work)'; Mok /wia/ 'to do (something)'; Kir /mena-a/ 'to do (something)'. Note the unexpected initial /w/ in the Pon and Mok forms. The raised first vowel in the Chk and Crl forms in contrast with the Kir form, however, attest to PMc *N, even if we rule out the Pon and Mok forms.

15. PMc */meNa/ 'live, dwell, exist': Wol /mile/ 'stay, live'; Pua /mine/ 'stay, live'; Pon /mi/ 'to exist (a locative verb), be (in a place)', /mie/ 'exist (an existential verb)'; Kir /mena/ 'abide, dwell'. Mok /mine/ 'exist, be at a place, live , reside, there is or are' looks like a loan. Compare Ksr /muhta/ 'live, stay'; Chk /meyi, mén, mmén/ 'be (in a condition)'; Lak /moi, momoi/ 'to dwell'.

16. PMc */paNipaNi/ 'sea cucumber, trepang': Chk /penipen/ 'a sea cucumber'; Mrt /penipen/; Pul /penipen/ 'trepang'; Crl /ppálepál, pele-(bwesh), pele-(shól)/; Crn /penepen/; Wol /pelipeli/; PTk */pa[nN]ipa[nN]i/; Pon /peipei/ 'small black sp. of sea urchin'; Mok /pɔipɔi/ 'sea urchin'; Mrs /(ji)-pénpén/ 'sea cucumber'; Kir /(nta)-banibani, (ta)-banibani/ 'sea slug'. Pon /penipen/ 'kind of sea cucumber' and Mok (ji)-penpen/ 'sea cucumber' are presumably loans from Mrs. Compare Ksr /el/ 'sea urchin'.

17. PMc */taNifa/ 'kind of small fish': Chk /senif, senife-(n)/ 'herring, h. of'; Pul /hánif, hánifá-(y)/ 'anchovy, a. of'; Crl /sálif/ 'sp. of small fish'; PTk */tanifa/; Pon /saip/ 'sardine'; Mok /jaip/ 'fish sp.'; Ksr /tuhi/ 'kind of fish'.

18. PMc */wooNu, woNu-/ 'sea turtle': Chk /wiin, wini-/ 'turtle'; Mrt /woon, wone-, wuni-/; Pul /woong, wongi-/; Crl /woong, wongi-, #wongo-/; Stw /woong, wongi-/; Wol /woong, wongi-/; Pua /woonú, wonú-/; Sns /woorú/; PTk */wooNú, woNú-/; Pon /weey/; Mok /woy, wei-/; Mrs /wén/; Kir /(te)-on, oni-/; Ksr /(ik) wac/ 'kind of turtle'; POc */poNu/ 'turtle' (Blust 1978:58; Ross 1988:207) (Bug /vognu/). The /ng/ of Pul, Crl, Stw, and Wol appears to be an innovation in the central Trukic languages.

Of these eighteen PMc forms, eight are already known for POc *ñ from other languages (nos. 1, 2, 6, 7, 9, 10, 11, 18). The remaining ten are additions to the possible number of instances in Oceanic languages.

NOTES

1. I use the following abbreviations for Trukic languages: Chk, Chuukese (Trukese) (Goodenough and Sugita 1980, 1990); Crl, Saipan Carolinian (Jackson and Marck 1991); Crn, Tanapag Carolinian (Jackson and Marck 1991); Map, Mapian (Kubary 1889:101–114); Mrt, Mortlockese (Bender et al., 1983); Pua, Pula Annan (Oda 1977); Pul, Puluwatese (Elbert 1972); Sns, Sonsorolese (Oda 1977, Bender et al., 1983); Stw, Satawalese (Bender et al., 1983); Uli, Ulithian (Elbert 1947, Bender et al., 1983); Wol, Woleaian (Sohn and Tawerilmang 1976). Other Micronesian languages are: Kir, Kiribati (Gilbertese) (Bingham 1908, Eastman 1948); Ksr, Kosraean (Kusaiean) (Lee 1976); Mok, Mokilese (Harrison and Albert 1977); Mrs, Marshallese (Abo, Bender, Capelle, and DeBrum 1976); Png, Pingelapese (Bender et al., 1983); Pon, Ponapean (Rehg and Sohl 1979); Yap, Yapese (Jensen 1977). Other languages are: Are, 'Are'are (Geerts 1970); Aro, Arosi (Fox 1970); Bug, Bugotu (Ivens 1940); Fij, Fijian (Capell 1957, Geraghty 1983); Kwa, Kwaio (Keesing 1975); Lak, Lakalai (Nakanai) (Chowning and Goodenough, n.d.); Ngg, Nggelu (Fox 1955); Rot, Rotuman (Churchward 1940); Saa, Sa'a (Ivens 1918); Ula, Ulawa (when different from Saa, Ivens 1918). Reconstructed protolanguages are: PTk, Proto Trukic (Bender et al., 1983, Jackson 1983, Goodenough n.d.); PMc, Proto-Micronesian (Bender et al., 1983, Jackson 1983, 1984, Goodenough, n.d.); PPn, Proto-Polynesian (Walsh and Biggs 1966); PEO, Proto–Eastern Oceanic (Geraghty 1983, 1986); POc, Proto-Oceanic (Blust 1978; Ross 1988); PWMP, Proto–Western Malayo-Polynesian (Blust 1980–1989); PMP, Proto-Malayo-Polynesian (Blust 1980–1989).
2. In the examples given here, I use *G* to represent the velar nasal in PMc, PEO, POc, and PMP, *g* to represent it in Mrs, Fij, and TON, and *ng* to represent it in other Micronesian languages. I use *N* for the palatal nasal of PMc, PEO, POc, PWMP, and PMP, and *R* to represent the retroflex continuent of Pul, Crn, and Stw. I use *á, é, ó,* and *ú* to represent the low front unrounded, the mid central unrounded, the low back rounded, and the high central vowels of the various Trukic languages. I use *ɛ* for the low mid front vowel of Pon and Png, and *ɔ* for the low back vowel of Pon and Mok. For Mrs I use *é* for the high mid vowel, *M* for the velarized labial nasal, *L* for the unrounded heavy lateral, *Lw* for rounded heavy lateral, *N* for the unrounded heavy alveaolar nasal, *Nw* for the rounded heavy alveolar nasal, and *gw* for the rounded velar nasal. My orthography for PTk is that of Jackson (1983), to which I add *s* and *y*, as is my orthography for PMc, except that I use *d, G, N, mw, pw, c* for his *t', g, ñ, m', p', T* respectively, and I add *z, y,* and *L*, the latter for the PMc palatalized lateral. Entries

preceded by # are presumed to be analogical back formations. I have left representation of the twelve vowels of Ksr *(i, e, ac, ah, ih, uc, uh, a, u, o, oh, oa)* as they are given by Lee (1976), whose dictionary does not indicate vowel length.

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