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DYEN'S LARYNGEALS IN SOME PHILIPPINE LANGUAGES

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1. INTRODUCTION

In his classic work on Original Austronesian, Otto Dempwolff reconstructed words employing a two-way contrast between the laryngeals *ʔ and *h in word-initial, word-final, and intervocalic positions.[1] In intervocalic positions in reconstructed words containing unlike vowels, one of which is *i or *u, Dempwolff used a three-way contrast between *ʔ, *h, and a semivowel *j or *w (depending on the contiguous vowels).

In his monograph on Proto-Malayo-Polynesian (PMP) Laryngeals, Isidore Dyen's reconstructions differ from those of Dempwolff in at least three important ways:[2]

(a) He aligns the correspondence sets differently into phonemes. Certain cases of Dempwolff's initial *ʔ are re-aligned with many cases of his intervocalic and final *h as Dyen's *q; and many cases of Dempwolff's initial *h are re-aligned with many cases of his intervocalic *ʔ and certain cases of his final *ʔ as Dyen's *h. He argues that this re-alignment of correspondence sets as phonemes is more consistent with the phonetic values involved in the correspondences.

(b) He identifies three laryngeal contrasts in all positions. Certain cases of Dempwolff's initial and final *ʔ and many cases of his intervocalic semivowels mentioned above are analyzed by Dyen as Hiatus, +0. He maintains that these are contrastive with his *h (though Dempwolff did not recognise this) on the basis of Tongan data for initial cases, and on the basis of Tagalog and Visayan morphophonemics for final cases.

(c) Dyen's reconstructions are based upon data which only partly overlaps Dempwolff's, and his phonetic interpretation of the written sources differs somewhat from Dempwolff's. Dempwolff reconstructed Proto-Indonesian from Tagalog, Javanese and Toba-Batak, and then regarded this as Proto-Austronesian after making only slight modifications on the basis of Malay, Ngaju-dayak, Hova, Fiji, Saa, Tonga, Futuna and Samoa. Dyen reconstructs Proto-Malayo-Polynesian from Tagalic (Tagalog, Bikol and Visayan are all regarded as a simple witness), Malay, Javanese and Tonga.

It is the purpose of this paper to examine four of the lesser known Philippine languages for possible evidence supporting Dyen's re-alignment of correspondence sets as PMP phonemes and his positing of a third PMP laryngeal contrast.

Kalamian is a language spoken on the island of that name in northern Palawan. It lies within the geographical area occupied by the Southern Family of the Philippine Stock of languages, though its affinity to the Southern Family has not yet been determined. Tagabili is spoken by some 20,000 and Bilaan by some 40,000 in the Cotabato Province on the southern coast of Mindanao. They both belong to the

South Mindanao Family of languages, which are possibly more related to the languages of Java than to those of the Philippines. Agta is spoken by about 600 Negritos in the Cagayan Province of Northern Luzon, and belongs to the Northern Family of the Philippine Stock of Languages.[3]

2. REFLEXES OF PMP NON-LARYNGEAL PHONEMES

The following tentative statement of the reflexes of Proto-Malayo-Polynesian phonemes is based upon the cognates between Dempwolff's and Dyen's lists of proto-morphemes and the four present day languages (100 cognates for Kalamian, 150 each for Tagabili, Bilaan and Agta). With few exceptions, only those reflexes have been listed for which at least three occurrences are attested.

Consonants

PMP *m, *n, *N, *t, *k, *l, *w, and *y, occur in all four languages as m, n. ng, t, k, l, w, and y respectively. The following show various reflexes:

PMP	Kalamian	Tagabili	Bilaan	Agta
*p	p	f initial h	f	p, before u
*b	b	b	b	b, initial h before u
*d *D	d	d	d	d, initial h before i
*g	g inter-vocalic h	g	g	g
*j	d, inter-vocalic r	d, inter-vocalic l	d, inter-vocalic l	d, inter-vocalic g
*s *c	s	s, inter-vocalic h	s final h	s
*r	l	l	l	r; l
*R	l; g	l; g	l; g	g; r

Reflexes separated by a comma are conditioned variants. Reflexes separated by a semi-colon both occur, no conditioning factor being apparent, and in some cases, contrasting. The data were inadequate to determine whether Dyen's four types of *R have distinctive reflexes or not. The data were also inadequate to determine reflexes for *n, *ñ, *Ñ, *ž, *Z and *T.

Vowels

PMP *a, *e, *i, and *u occur in Kalamian mostly as a, e, i and u respectively. In the final syllable *u occurs as either u or o with no apparent conditioning. Words containing *ə and *u in two contiguous syllables have u in the first syllable and either u or o in the second.

PMP *a, *e, *i, and *u occur often in Tagabili as, a, e, i and u respectively. *a followed by *e in the next syllable occurs as e, except that final *ey preceded by *a in the previous syllable occurs as ay and the *a occurs as a. Final *iq occurs as ék, and and sometimes the preceding vowel occurs as é also. *a followed by *u in the next syllable occurs either as o or a with no apparent conditioning. Words with *u in both syllables and with final *q or *k occur in words with o in both syllables. *a preceded by *u in the previous syllable occurs either as a or ú with no clear conditioning. Final syllable *a followed by *0 or *(h) occurring as h, occurs either as u or a.

PMP *a, *i, and *u occur in Bilaan often as a, i, and u respectively. Penultimate syllable *a occurs as either a or a: final syllable *a occurs as either a, e, or a. Penultimate syllable *e islost; final syllable *e occurs as either a or a'. Final syllable *i contiguous to *q or preceding *R occurs as é. Final syllable *u occurs as either u or o. Penultimate syllable *u followed by *u in the final syllable together occur as u..u, a..o, or o..o.

PMP *a, *e, *i and *u occur in Agta mostly as a, a, i and u respectively. The proto sequence vowel-laryngeal-vowel occurs as a fused single long vowel (e.g. aqu occurs as e) provided this sequence is followed by a consonant other than a laryngeal. When followed by a laryngeal the high vowel in such a sequence occurs as a semivowel (e.g. *aqi occurs as ay). An intervocalic consonant preceded by *e occurs as a geminated consonant. *a occurs as a' before final consonants other than q.

3. THE LARYNGEAL DATA[4]

Dempwolff	Dyen	English	Kalamian	Tagabili	Bilaan	Agta
Dyen's Intervocalic *q						
*liqiE	*liqeR	neck	dikel	lihol	liqal	líg
*paqit	*paqit	bitter	pakit	héqét	féqét	-pet
*(tT)uquD	*(tT)uquD[5]	stump, root, (stand firm)	tukod	tuhod	tuqad	-
*taqih	+taqi	excrement	takiq	kéq	téqé	qattay
*paqah) *paqih)	*paqa	thigh	pakaq	hahah	-	-
*bi(tT)uqen	*bituqen	star	bitukun	-	-	bitwan

Dempwolff	Dyen	English	Kalamian	Tagabili	Bilaan	Agta
+baRuh +b-aq-aRuh +beRuh +b-aq-eRuh	+baqaRu(h)	new	baklaq	-	-	báguq
+b-uqayah	+buqaya	crocodile	bukayaq	-	bwáyá	-
+tuquh	+tuquh	true	-	tahuh	toqo	-
+tuqah +tuwah	+tuqa(h)	old person	-	tuhah	tuqá	-
+puqun	+puqun	trunk, origin	-	fun[5]	fun	fún
+taqun	+taqua	year	taken	-	-	-

Dyen's Intervocalic +h

+dahun +(dD)awen +Daqen	+Dahun	leaf	daun	doqun	doqon	dón
+buhuk	+buhuk[6]	hair	buaq	wek	wak	húk
+kayuh	+kahiw[7]	tree, wood	qayoq	koyuh	kayu	kayuq
+buhat	+buhat	do, make, work	buat	moq	-imoq	-
-	+luhaq	tear (of eye)	look	lewok	lwak	-
+(tT)uhud	+(tT)uhu(dj)	knee	tood	-	-	túd
-	+luhu(dj)	kneel	lood	-	lkuqad	-
-	+pahuq	wild mango	pook	-	-	qapáw
+bahuh	+bahu	stench, smell	-	boqoh	-	-

Dyen's Intervocalic Hiatus

+(tT)awu(h)	+(tT)au	person	toaq	taquh	to	tolay
+bayih	+bei	woman	babai	boqih, béh[5]	biq, wéq[5]	babbay[8]
+kahen	+kaen	eat, food	-kan	ken	kaqán	kán
+banu(w)ah	+banua	town, country	banua	benwuh	banwe	-

Dempwolff	Dyen	English	Kalamian	Tagabili	Bilaan	Agta
+Rabih	+Rabii(h)	night	labiq	-	flaɓi	-rabiq
+bitis +betis +bentis	+betiis	calf of leg	bisit	ti	-	-
+niyuR	+ñiuR	coconut	ñoy	-	-	qaŋyog
+lahud	+laud	open sea	laud	-		lod[5]
Dyen's Final +q						
+mamaq	+mamaq	chew (betel)	mamak-	mamak	m-amáq	qamán
+puluq	+puluq	ten	-pulok	-foloq	-faloq	-fuluq
+dilaq	+dilaq	tongue	dilak	dilak	diláq	hilaq
+pusuq	+pusuq	heart	puputokon	hosoq	-	futuq
+bunuq	+bunuq	kill, struggle	bunuk	bunok	s-banoq	-
+ge(tT)aq	+getaq	coconut milk	gatat	ġataq	gatáq	gattak[5]
+panaq	+panaq	bow, arrow	panak	hanak	fanáq	panaq
+penuq	+penuq	full	punuk	henok	fnoq	pannuq
+piliq	+piliq	choose	pilik	mélék	n-alék	píliq
+huliq	+(qO)uliq	return, repeat	ulit	mulék	m-uléq	quliq
+ludaq	+ludaq[9]	spittle	ulak	dulak	duláq	-
+pecaq	+pecaq	break	napsek	misok[5]	m-isáq[5]	passaq
+lintaq	+lintaq	leech	lintaq	-	-	-
+taRuq	+taRuq	put, hide	talck	-	-	-
+buluq	+buluq	species of bamboo	buluk	-	-	huluq
+bu(tT)uq	+butuq	penis	butuk	-	-	hutuq
+zuRuq	+ZuRuq	liquid, blood	duguq	-	-	ziguq
+suluq	+suluq	torch, light	-	solok	saloq	-
+tubuq +tumbuq	+tubuq +tumbuq	grow	-	towok	taboq	tuhuq

Dempwolff	Dyen	English	Kalamian	Tagabili	Bilaan	Agta
+(tT)uñzuk +tuduq +tunduq	+tuZuq +tunzuq	finger point, show teach	tulduk	tolok, tedok	t-n-aloq tdoq	tulduq
+salaq	+salaq	error, sin	kasalak	salaq	saláq	-
+Rebaq	+Rebaq +Rembaq	destroy	nalbek	lebaq, gebaq	qalmoq	rabaq
+teNaq	+teNaq	middle, half-measure	-	tengaq	gu-tngáq	tangngán
Dyen's Final +h						
+habuh	+abuh	ashes	kabuq	-	qabu	-
+tuquh	+tuquh	true	-	tahuh	toqe	-
+tebuh	+tebuh	sugar cane	tubuq	-	tbu	-
+tuzuh	+tuzuh	goal, keep on course	katuyuwan[5]	-	t-an-luh	-
Dyen's Final Vowel						
+ñawah	+ñawa	soul, breath	linawaq	nawah	nawá	
+matah	+mata	eye	mataq	matah	matá	mataq
+huluh +quluh	+qulu	head	kuloq	kuluh	qulu	quluq
-	+gazi[10]	saw	lahariq	legadih	lugadi	ragádiq
+buNah	+buNa	fruit	-	bunguh	benge	hungaq
+sipak +simpak	+sipa	kick	sipaq	sifaq	sifáq	-
-	+-uRita	octopus, squid	pugita	-	klitáq	-
+datuh	+(dD)atu	clan head	-	datuq	dátuq	-
+pin(tT)uh	+pintu	deer	-	hintuq	fintuq	-
+hamah	+ama	father	-	maq	máq	qamaq
+taDah +tanDah	+tanDa	sign	-	tandaq	tandáq	tandán
+timbah	+timba	bucket	-	timbaq	timbáq	timbaq
+pukih	+puki	vagina	-	kiq	kiq	-

Dyen's Initial *q

*huluh, *quluh	*qulu	head	kuloq	kuluh	qulu	quluq
*quzan, *huDan	*quZan	rain	kuran	kulún	qulen	qudán
*hadaw, *handaw, *qajaw, *qaNjaw	*qajaw, *qanjaw	day, sun	kaldaw	kedaw	du	qarów
*hutaN	*qutaN	debt	qutang	qutúng	quteng	-
*hulej	*qulej	worm	kuled	kuled	-	-
*ha(a)uh	*qasu(h)	smoke	-	kohuq	-	qasok
*hatep, *qatep	*qatep	roof	katep	ketef	qataf	qatap
*hutak, *hutek, *huntek	*qutek	brain	utuk	qutek	qutak	qutak
*huban	*quban	grey hair	kuban	qubún	quben	qubán
*hayam	*qayam	animal, dog, chicken	ayep	-	qayem	qayám
*pejuh	*qapeju(h)	gall	apdog	-	-	qapduq
*qiliR	*qiliR	flow	ilig	-	-	-
*hatay, *qatay	*qatey	liver	-	katay	qatáy	qagtay
*hubih	*qubi(h)	yam	-	qubih	qubi	qubiq

Dyen's Initial *h

*hiyup, *tiyup	*t(ae)-heyup	blow	qeyep	meyuf	m-yuf	-
*qasaq, *qañsaq	*hasaq	sharpen	asak-	-	-	-
*qa-baRat	*habagat	west wind, storm	abagat	-	-	-

Dyen's Initial +h

+qasaN +qañsaN	+hasaN	gills	asang	-	-	-

Dempwolff	Dyen	English	Kalamian	Tagabili	Bilaan	Agta
+qipaR	+hipaR	sibling-in-law	-	fúg	feg	qipág
+qunih	+huni(h)	noise	-	qunih	quni	-

Dyen's Initial Vowel

+hijuN +hujuN	+ijuN	nose	orong	qilung	qiling	qigung
+hajeN +hujiN	+ujiN	charcoal	koring	qusing	using	-
+henem	+enem	six	enem	nem	nam	qannam
+hepat +hempat	+epat	four	epat	fat	fát	qappát
+hapuy	+apuy	fire	apuy	qofih	lifoh	qafuy
+huRat	+uRat	vein	ulat	qulat	qulat	qurát
+hikuR	+ikuR	tail (of amimal)	ikuy	-	-	-
+hanay	+anay	termite	anay	-	-	qanay
+hinih	+ini(h)	this	-	nih	(qa)ni	-in
+hamah	+ama	father	-	maq	máq	qamaq

	Kalamian	Tagabili	Bilaan	Agta
intervocalic ^{+}q	k	h; (q; rdn.)	q; (-; rdn.)	rdn.; (-)
intervocalic ^{+}h	-	-; (q; rdn.)	-; (q; rdn.)	rdn.; (-)
intervocalic hiatus	-; rdn.	rdn.; (q; -)	rdn.; (q; -)	rdn.; (-)
final ^{+}q	k; (q; t)	k; q	q; (k)	q; (k; n)
final ^{+}h	(q; w)	(h)	-; (h)	
Final vowel	q; (-)	q; h	q; -	q; (n)
initial ^{+}q	k; -; (q)	k; q	q; (loss)	q
initial ^{+}h	-; (q)	(-; q; loss)	(-; q; loss)	(q)
initial vowel	-; (k)	q; loss	loss; (q; -; l)	q; (-)

Given in parentheses are "reflexes" which are attested in fewer than three words. The reduction of a PMP vowel-laryngeal-vowel sequence to a single vowel reflex is represented by "rdn.". The loss of a word-initial syllable is represented by "loss".

Dyen's re-alignment of correspondence sets into PMP phonemes is supported by the Kalamian data. Kalamian k is a regular reflex of Dyen's ^{+}q in all positions, and no other PMP laryngeal has k as the regular Kalamian reflex.[11] The occurrence of k as a reflex of Dyen's ^{+}q in <u>all</u> word positions is clear evidence for the phonetic realism of Dyen's re-alignment.[12] The other three languages provide no better evidence on this point. But see ^{+}q in Tagabili.

On the other hand, none of the four languages lends support to Dyen's third PMP laryngeal contrast. In the data presented in sections 3 and 4 there is no evidence for a difference between the reflexes of Dyen's ^{+}h and $^{+}0$ in any position for any of the four languages.[13]

Whereas all but two cases of Dyen's initial $^{+}0$ reflect a single correspondence set, his final $^{+}0$ includes cases belonging to four differing correspondence sets.[14] If Dyen's grouping of these correspondence sets into a single phoneme is valid, then it is reasonable to expect that among the many languages of the Malayo-Polynesian group, at least one language will be found which has the same reflex for all these cases of final $^{+}0$ - a reflex which contrasts with those for ^{+}h and ^{+}q.

FOOTNOTES

1. Otto Dempwolff, Vergleichende Lautlebre des austronesischen Wortschatzes. Zeitschr. f. Eing.-Spr. (Berlin); 1. Induktiver Aufbau einer Indonesischen Ursprache, 15. Beiheft (1934); 2. Deduktive Anwendung des Urindonesischen auf Austronesische Einzelsprachen, 17. Beiheft (1937); 3. Austronesischen Wörterverzeichnis, 19. Beiheft (1938).

2. Isidore Dyen, The Proto-Malayo-Polynesian Laryngeals, William Dwight Whitney Linguistic Series, Linguistic Society of America, Baltimore, 1953.

3. For the classification of Philippine languages mentioned here, seen D. Thomas and A. Healey, Some Philippine Glottochronologies, 21 pp. typescript, 1957 (revised 1961).

The Kalamian data is presented in a broad phonetic script, being based upon a word list taken by H.P. McKaughan, supplemented by information from E. Ruch. The phonemic status of q in initial and final positions is uncertain, as is that of o and u. Two previous studies of Kalamian which the author has not had the opportunity to consult are: Father Jeronimo de la Virgen de Monserrate, Vocabulario Castellano - Calamiano, Archivo del Bibliófilo Filipino, Vol. 2, Madrid, 1896; N. Ogawa, Calamian and Agutaynon, in Prof. Ando Masatsugu Kanreki Kinen Ronbunshū (a collection of articles dedicated tc Professor M. Ando), Tokyo, 1938. Two neighbouring languages or dialects, Agutaynon and Northern Tagbanwa, are very similiar to Kalamian, and show almost identical reflexes of PMP phonemes.

The Tagabili data are taken from: V. Forsberg and A. Lindquist, A Tagabili Vocabulary, Summer Institute of Linguistics, Manila, 1955. The orthography used in the present paper is the one recommended in: Alice Lindquist, Vivian Forsberg and Alan Healey, The Phonemes of Tagabili, Summer Institute of Linguistics, Manila, 1957 (Philippine Journal of Science, 1960-1). In this orthography, e is a mid central unrounded vowel, é mid front unrounded, ú mid back rounded, and o low back rounded. Word final glottal is here written as q rather than as a grave accent. Words entered in the vocabulary with initial or final vowel are regarded in this paper as having initial q or final h.

The Bilaan data are taken from: James C. Dean, A Bilaan Vocabulary, typescript, 1955, supplemented by information from N. Abrams. The phonemes of Bilaan are described in: James C. Dean, The Phonemes of Bilaan, Philippine Journal of Science, 84, 311-22 (1955). The Bilaan orthography used in the present paper differs from Dean's with respect to three vowels, as mentioned by Lindquist, Forsberg and Healey, op. cit. In this orthography, e is a mid central unrounded vowel, é mid front unrounded, o mid back rounded, and á low back. Word final glottal is here written as q rather than a grave accent.

The Agta data are taken from: A. and P. M. Healey, A Short Agta Dictionary, 260 pp. typescript, 1957. The phonemes of Agta are described in: W.J. and L.F. Oates, The Phonemes of Central Cagayan Negrito, Occania Linguistic Monographs 3.34-46 (1958). The orthography used in this paper is listed in: P.M. Healey, An Agta Grammar, M.A. thesis submitted to the Department of Anthropology, University of Sydney, 1958 (Manila, 1960). i, a, u are short

vowels, and í, e, á, o, ú are long vowels. Words entered in the dictionary with initial or final vowel are regarded in this paper as having an initial or final glottal, q.

4. With such a small body of data it is not possible to establish all of the regular reflexes of PMP and their corresponding conditioning factors. In such a case it is pointless to specify and attempt to explain every deviation in the data of section 3 from the reflexes established in section 2. However, words whose forms are not completely accounted for by the reflexes of section 2 are given in italics. Vowels more frequently show deviant reflexes than consonants. Some of the deviations may also be due to unidentified affixes (especially in Kalamian) and to loan words (especially in Tagabili and Bilaan). Following Dempwolff's practice, few words have been retained in section 3 which show two or more deviant refelxes within the probable word base.
Reconstructions are marked with an asterisk (*). Symbols in parentheses indicate that the reconstruction is ambiguous at that point. E.g. *(tT)au means that the reconstruction is indeterminately *tau or *Tau. Final (h) indicates that it is indeterminate whether the reconstruction ends in *h or a vowel. A hyphen (-) marks a morpheme boundary.

5. The following deviant meanings may be noted:

Kalamian: katuyuwan 'purpose'

Tagabili: fun 'owner'; béh 'grandmother; misok 'hatch'

Bilaan: wéq 'term of address to female relatives; m-iság 'hatch' gattak 'milk'

Agta: tandán 'payment', 'wages', 'commission'; lod 'downstream'

6. As C.E. Conant has shown (The Pepet Law in Philippine Languages, Anthropos, 8.920-47 (1912), the Philippine languages reflect *e in the second syllable rather than *u, that is *buhek.

7. Since all of the cognates quoted by Dyen show syllabic u or o, a reconstruction of *kahyu or *kahiu seems preferable to his *kahiw.

8. Kalamian and Agta show reduplication. The Agta word reflects an earlier *bebei rather than *babai, lending support to Dyen's reconstruction of *e rather than Dempwolff's *a.

9. All three languages show reflexes of the metathesized form *dulaq.

10. These and other Philippine languages reflect an earlier (perhaps post-PMP) *r(ae)gazi.

11. The sole case of Kalamian k for Dyen's *h or *0 is koring 'charcoal' from *ujiN. It may be noted that the initial h of the Jarai (Viet Nam) cognate hedang is also the regular reflex of initial *q, but not of *h or *0. Thus, for the China Sea Superstock at least, a competing form, *qujiN, may be posited. The information on Jarai is taken from R. S. Pittman, Jarai as a Member of the Malayo-Polynesian Family of Languages, to be published in the Proceedings of the Ninth Pacific Science Congress, Bangkok, 1957. Also published in Asian Culture, Vol. 1, 1959).

12. The Kalamian and Tagabili k reflexes support Dyen's suggestion that *q may have had a velar, pharyngeal or glottal articulation, and lends weight to the suggestion that *q was a stop (Dyen, op. cit. p. 1).

13. This statement could conceivably prove inaccurate with a more extended body of data, and with a careful examination of the apparently competing reflexes listed in sections 2 and 4. With respect to this latter point, in Tagabili and Bilaan there is some correlation between the various competing reflexes, pointing to a possibility of identifying two or more strata of vocabulary, each having its own reflexes for PMP phonemes. Further evidence that these two languages contain a considerable body of loan words from one of the Lanao-Manobo group of languages is presented in Thomas and Healey, op. cit.

14. Dven, op. cit., p.24, sec. 96.