A DIACHRONIC NOTE ON MENDI VOWELS

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0. Introduction

The Mendi language, often called Angal or Angal Heneng by the people, consists of at least three major dialects with over 45,000 speakers. The language area lies wholly in the Southern Highlands, mainly in the Nembi, Wage, Lai, and Mendi valleys.

Linguistically, Mendi is within the same language family (Engan) as Enga, Huli, Ipili, Sau, Kewa, Wiru, and perhaps one or two additional languages.[1]

In this article the phonemically attested vowels of present day Mendi Proper are compared with those of other closely related languages, particularly Kewa. An attempt is made to determine how the vowels of Mendi are derived from Proto-Engan, the parent language. It is suggested that only five vowels were present in Proto-Engan.

1. The Mendi Vowels

According to W.M. and J.E. Rule (1960) the following eight phonemic vowels occur in present day Mendi:[2]

i	u
e	o
æ	ɔ
ə̈	a

The vowel symbols represent traditional phonetic values except that /æ/ is higher, /e/ and /ɔ/ are lower, and /a/ has an allophone [ʌ] which occurs word finally in unstressed syllables.

Some words employing these eight vowels are:

/i/	/ki/	'arm'	/u/	/ipu/	'3rd. sing.'
	/iri/	'hair'		/pul/	'I am going'
	/ri/	'wood, tree'		/sukum/	'snake'

/e/	/pe/	'bamboo'	/o/	/so/	'leaf'
	/epe/	'good'		/od/	'banana'
	/pesa/	'shoulder'		/nog/	'girl'
/æ/	/sæ/	'rain'	/ɔ/	/mɔ/	'taro'
	/æp/	'salt'		/ɔd/	'breast'
	/kæb/	'pitpit'		/sɔ/	'bird'
/a/	/ap/	'father'	/ä/	/äp/	'who'
	/kap/	'two'		/mä/	'uncle'
	/ad/	'house'			
	/ɔbɔla/	'yesterday'			

The four vowels in particular which prove troublesome, from a historical point of view, are: /ä/, /æ/, /a/, and /ɔ/. These will be examined in more detail and compared with other vowels in Engan languages.

2. Regular Vowel Correspondences

Four regular vowel and one vowel glide correspondences in present day Engan languages are demonstrated in Chart 1.[3]

Chart 1

vowel	gloss	K	M	S	E	H	I	W
*i	'bone'	kuli	uni	holiki	kuli	kuni	kulini	/tono/
	'hair'	iri	iri	itiki	iti	iri	itini	/pine/
	'hand'	ki	ki	kiki	kingi	ki	kini	/yono/
*u	'breast'	adu	ɔdu	andu	andu	adu	adu	adù
	'netbag'	nu	nu	nu	nuú	nu	nuu	/kà/
	'earth'	su	su	yu	yuú	—	yuu	/ítono/
*e	'tongue'	keke	hege	kekeke	kekenge	hege	eke	keke
	'brother'	ame	hame	hameme	kaimíningi	hameme	amene	wamene
	'sore'	rere	rer	tete	téte	dere	tete	—

vowel	gloss	K	M	S	E	H	I	W
*o	'that'	mo	mogo	mo	dóko	—	molo	—
	'bad'	kolea	ko	hoke	koó	ko	koo	póko
	'cough'	koro	or	hoto	kóto	ko	koto	totona
*ai	'cross-cousin'	aai	he	kãĩ	kaiingi	hani (ni)	aini	anai
	'salt'	aipa	äp	epi	aipi	ibi	ipi	—
	'banana'	ai	ai	dãĩ	saé	hai	ai	/kakà/
	'flying-fox'	kaima	keim	/ãtãẽna/	saima	gamia	—	kaima

By examining other dialects of Mendi we find in each a similar pattern : generally more than a five vowel system with the six or seven vowels low and often central ones. However, the proto-language never appears to reflect more than five vowel correspondences and a vowel glide, causing us to suspect that extra vowels in present day Mendi are recent and the result of syllable patterns where certain consonants are lost. We will return to the correspondences of the central vowel (the fifth one and not given in Chart 1) in the following sections.

3. Vowels without Regular Correspondences

We now turn to the vowels which do not have regular correspondences between Mendi and other Engan languages.

Mendi /a/ is low and central, occurring in all positions. In the final position of unstressed syllables it usually actualises as /ʌ/. It is reflected in other languages mostly in words which demonstrate the loss of a final vowel (or occasionally a suffix), or an initial consonant. The loss of this and other final vowels in reflected by equivalent voiceless vowels in cognates found in Enga and the Northwest dialect of Kewa.

Chart 2 gives examples of Mendi forms and their proposed proto-form counterparts for the single syllable words.

Chart 2

	Gloss	Mendi	Proto-Engan
(1)	'father'	ap	*apa-ŋke
(2)	'mother	am	*ama
(3)	'house'	ad	*anda
(4)	'pandanus'	ag	*aŋga
(5)	'neck'	ma	*ma-ŋke
(6)	'mother's sister	pap	*papa
(7)	'brother	ame	*xame-ŋke[4]
(8)	'mountain'	ar	*kari
(9)	'bark belt'	ak	*kako
(10)	'yesterday	ɔbɔla	—
(11)	'moon'	puda	—
(12)	'stone'	kupa	—

Mendi /a/ has come from *a, but usually accompanied by the loss of a final vowel or final syllable. In cases such as (7-9) the initial consonant has been lost, although in some dialects of Mendi k- > h-. The suffix *-ŋkV (1, 5, 7) is commented upon in more detail later.

Mendi /æ/ is front, low, and closed and contrasts with /ä/, which is also front and low, but open, (W.M. and J.E. Rule (1960) and J. Rule (1965)). These vowels are contrasted by the Rules in pairs such as:

(13) /æp/ 'salt' and (14) /äp/ 'who'
(15) /sæ/ 'rain' and (16) /mä/ 'uncle'

Few such contrasts appear in data given by the Rules and the present day functional load of /ä/ appears to be quite low. Other students of Mendi, such as M. and R. Reeson (n.d.) and V.K. Schlatter (n.d.) do not distinguish between the two vowels in the Nipa (West) dialect of Mendi. The functional load is not only low but the contrast apparently does not exist in other dialects of Mendi.[5] In fact, in Nipa the above words are written by Reesons as (13) eip, (14) æp, (15) sei, and (16) mæ.

In the rest of this paper /æ/ is written to cover Rules' /æ/ and /ä/. Examples of words with /æ/ in Mendi and their proto-Engan counterparts are given in Chart 3.

Chart 3

	Gloss	Mendi	Proto-Engan
(17)	'sister'	æki	*kaki - ŋki
(18)	'uncle	mæ	*ameya (?)
(19)	'edible greens'	ræn	*rani
(20)	'fine weather'	pæn	*pani
(21)	'rain'	sæ	*sai
(22)	'salt'	æp	*aipi
(23)	'today'	æbi	*abiya
(24)	'calf of leg'	ræpe	*ruakape
(25)	'garden fence'	pæp	*pape
(26)	'sweet potato'[6]	sæpi	*sapira (?)

/æ/ has come from either *ai or from *a, when it is followed by *i or *e in the syllable which is usually subsequently lost. Note that *a > /a/ in *ma-ŋke (5), *xame-ŋke (7), *kari (8), but that *a > /æ/ in *pape (25, *pani (20), and others.

Several additional comments should be made about the following reconstructions. First of all, the loss of a final vowel or syllable again influenced the development of /æ/, e.g., (17-20, 23-26). Secondly, reflections of the diphthong /ai/ as in (21-22) can be readily found in languages such as Kewa yai 'rain' and aipa 'salt'. In other dialects of Mendi this reflects as /ɛ^i/ commonly. Thirdly, the presence of initial *x can again be noted in (17). Fourthly, the loss of a medial k is suggested in (24) and this is by no means uncommon in other Engan languages. Note: *ruakape > *ruaape to probably Ræpe. Finally, (26) suggests a final syllable which is sometimes reflected in Huli and a form which in many respects is similar to present day Fasu (see Franklin and Voorhoeve 1973) supuru 'sweet potato'.

Mendi /æ/ reflects then a front vowel, as well as a phonemic dipthong (a central vowel followed by a high front vowel) which have merged. The process may be quite recent, resulting in the present /ɐ̈/ contrast. Further support is suggested from the Wola dialect, where /ei/ and /æ/ are recorded, rather than /ɐ̈/ versus /æ/. In other words in forms such as *sai (21) and *aipi (26) the Wola dialect has not merged the reflexes of *CaCi and *CaiCV.

Mendi /ɔ/ is well attested, as shown in Chart 4. However, there does not seem to be any basis to reconstruct this vowel in Proto-Engan. There are still problems on how to predict when *a > /a/ and when *a > / ɔ /; for example *kako (9) > ak, but *anda (3) > ɔd; *ma-ŋke (5) > ma, but *sya-ŋke (44) > ɣɔ. In other words it is not simply that in every case /ɔ/ has arisen from *a after the loss of a final vowel, initial consonant, or suffix. Rather the vowels /ɔ/ and /a/ have split from *a on the basis of the phonetic nature of the consonants and vowels. Basically the split follows this general pattern:

*a > a, where the suffix is usually absent in the proto-form, and adjacent consonants are not fricatives.

*a > ɔ where the suffix is usually present in the proto-form, and adjacent consonants have a quality of friction associated with them.

In cases where this does not hold other factors, such as vowel harmony, have to be taken into account.

Chart 4[7]

	Gloss	Mendi	Proto-Engan
(27)	'man'	ɔɬ	*xakalyi
(28)	'husband'	ɔɬi	*xakalyi-ŋki
(29)	'father' (reference)	ɔrɔ	*xara-ŋke
(30)	'sibling' (opposite sex)	bɔɬi	*balyi-ŋki
(31)	'father's sister'	erɔb	*arambo (?)
(32)	'head'	wɔsubɔ	*wasumba-ŋke
(33)	'forehead'	wanɔ	*weno-ŋko
(34)	'chin'	sɔgɔ	*syaga-ŋke

	Gloss	Mendi	Proto-Engan
(35)	'stomach'	robɔ	*rombe-ŋke
(36)	'back'	mes	*masya-ŋke
(37)	'shoulder'	pes	*pasya-ŋke
(38)	'breast'	ɔd	*andu
(39)	'possum'	sɔp	*syapa
(40)	'bird'	sɔ	*syaka
(41)	'sugar cane'	wɔɬ	*walyi
(42)	'taro'	mɔ	*anama (?)
(43)	'smoke'	rɔdɔɬ	*Rondo lyi
(44)	'we two'	yɔ	*sya-ŋke
(45)	'we plural'	nɔ	*nyi-ŋki

As a general rule Mendi /ɔ/ always corresponds to /aa/ in Kewa in open syllables; in checked syllables it usually corresponds to /a/.

4. A Comment on Other Factors

There is one further item which should be mentioned: the function of tone in Kewa and other languages of the family may sometimes carry the equivalent load of the extra vowel in Mendi:

K máá 'neck' and maa 'taro', are equivalent to M ma and mɔ;
K áá 'man' and aa 'foot' are equivalent to M ɔɬ and aga;
K yáá 'sky' and yaa 'bird' are equivalent to M rugi and sɔ.

In these cases, however, K aa corresponds to M a on the one hand (neck) but to ɔ on the other hand (man). As stated above Mendi ɬ and *ly appear to be the main contributing factor.

The interpretation of the central vowels in many languages of Papua New Guinea has always presented a problem and is undoubtedly linked to phonetic features of stress and tone, as well as syllable structure. With Mendi it is not simply the central vowels, but all low vowels, which reflect problems in the phonemic interpretation of vowels, both in present day Mendi and in Proto-Engan.

5. A Summary of the Engan Family

Wurm (1965:387), by means of a family tree diagram, suggested six major separations between proto-Engan and the present day languages of the family. His groupings of present day languages is: (1) Wiru; (2) Huli and Huliduna; (3) Ipili, (4) Enga and Kyaka; (5) Lemben; and (6) Augu, Sau, Pole, Kewapi, and Mendi.

It is now possible to clarify these groupings as follows:

(1) Wiru, according to Kerr (forthcoming) is "an isolated member of a more extensive language grouping with a greater time depth than that underlying the relationship between the families of the East New Guinea Highlands Stock." The reflection of the suffix *-nV is strikingly apparent between Wiru and Ipili;

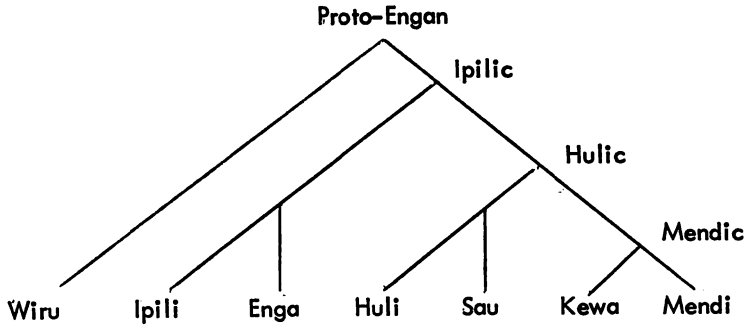
(2) Huli and Huliduna are the same language;

(3) Ipili, as noted, has at least one common retention with Wiru but in its free pronominal forms and other aspects is closely related to Enga;

(4) Enga and Kyaka are dialects;

(5) the status of Lemben is uncertain, but it is located in the middle Yuat area and is closest geographically to Kyaka;

(6) Augu is a western dialect of Mendi; Pole is the southern dialect of Kewa(pi); Sau is a separate language with certain features, such as the retention of -ke, similar to Enga, but with free pronominal forms more akin to Huli, Kewa, and Mendi. On the basis of free pronouns alone one historical diversion which can be suggested is:



FOOTNOTES

1. Other names for Mendi dialects are Wola, essentially west of the Mendi valley and the dialect with the major number of speakers; Augu basically the same as Wola but further south; Megi, in the valleys of the Lai River area, and Mendi Proper, which is north of the town of Mendi. The area well south of Nipa is also a dialect area. In this paper Mendi always refers to Mendi Proper. I wish to thank Alan Healey for comments on this paper, first presented at the 1974 Annual Congress of the Linguistic Society of Papua New Guinea.

   Historical aspects of the language family are commented upon by Wurm (1965), Franklin and Voorhoeve (1973), Franklin (forthcoming), and Kerr (forthcoming). Capell (1948-9) first published data which supported the existence of such a group, but it was Wurm (1960a, 1960b, 1962) who demonstrated in more detail the interrelationship of the West-Central language family - as he later (1965) called it. Lang (1970) suggests that Nete, (also called Gadio in another dialect area) lying to the north of the Enga area, also belongs to the Engan family. Lang (personal communication) believes that Lemben is an additional Engan language, located somewhere in the middle Yuat.

2. It seems that the distinction between ä and a are either neutralised in other dialects, or not really phonemic in Mendi. This will be dealt with later.

   Consonants in Mendi are: p, k (both voicless); b, d, g, j (each prenasalised), m, n; s, r (flapped medially, voicless and slightly retroflexed initially); l (flapped) and ɬ (voiceless, but sometimes alveopalatal); w, y, and h. Several orthographies have been devised over the years for Mendi and its dialects, including those by the Apostolic Christian Church, the United Church, the Capuchin Order of the Catholic Church, the Christian Union Mission, and W.M. and J.E. Rule (of the Asian Pacific Christian Mission). Almost all of these symbolise 17 consonants and either seven or eight vowels. For proto-forms the symbols for prenasalised stops are written as digraphs, in that this may influence the interpretation of syllable breaks. Hyphens mark suffixes. Other

symbols are equivalent to those used for Mendi, unless otherwise noted.

V.K. Schlatter (n.d.), of the Apostolic Christian Church, in his orthography outlines the following phonemes: p, t (voiceless and flapped finally), kl (a velar lateral), b, d, g, mb, nd, ng, nj, j, h, m, n, l, ɣ, w, y. His vowels are: i, e, æ, a, u, o, and ɔ.

3. Abbreviations used in this section are: (K) ewa, (M) endi, (S) au, (E) nga, (H) uli, (I) pili, and (W) iru.

4. The symbol x represents the protophoneme /*k^h/ which split into /*k/ and /*h/, representing some intermediate stage. The suffix -ne of this form and others and -ke in words such as (5) are retained strongly in several languages, e.g. Sau, Enga (-kV), Ipili, Wiru, and often Huli (-nV). Kewa and Mendi are weak in this respect, although not entirely. See also Note 7.

5. In my own materials of Mendi I have never phonemicised more than six vowels and a diphthong - which could be written or interpreted as a seventh vowel. My phonemic experience in Kewa undoubtedly influences such an interpretation. Reeson's and Schlatter's phonemicisation have seven vowels for the dialect in the Nipa area.

6. I have omitted verbs, mainly due to morpho-phonemic processes which often allow changes in the vowels in verb stems when tenses occur. Concerning loans, it is interesting to note that only /æ/ is found in Pidgin loan words such as popæ 'paper' and kopæs 'cabbage'.

7. In an intermediate stage two suffixes can be proposed: *-nV and *-kV. These undoubtedly reflect an earlier stage, probably *-ŋkV which split into the -kV forms, represented by Sau and Enga, and the -nV forms, represented by Huli, Ipili, and to a lesser extent by Wiru. Kewa has only an occasional nV or kV form and Mendi has neither. Both forms are retained in the reconstructions above.

The /*sy/ phone represents forms which reflect [s], [š], [ǰ], [z], and [y] in present day languages; /*R/ represents what is usually a retroflexed flapped lateral.

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