

PHONOLOGICAL TARGETS AND NORTHERN CAPE YORK SANDHI

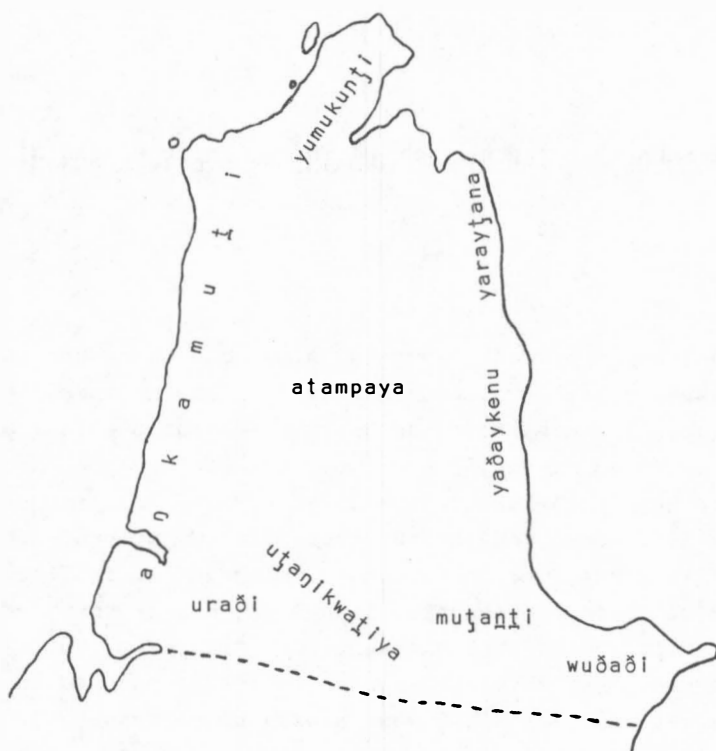
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0. INTRODUCTION

The present paper presents certain facts concerning the phonological systems of three closely related languages of the northern Cape York Peninsula area. The discussion centres on the phonological alternations that can be observed operating over word boundaries in each of the three languages, though in different ways in each. The reconstructed proto-language, it is claimed, had no such set of alternations. This paper presents a likely explanation for the development of at least some of these sandhi rules in the daughter languages, namely that even though there was a shift in the syllable structure from CV(C) to (C)V(C), the daughter languages strictly maintained their adherence to the morpheme structure target that any two V must always be separated by at least one C. The further development of the sandhi system was triggered by the acquisition of two new phonological targets: the avoidance of CC sequences over word boundaries and the avoidance of utterance final V.

1. BACKGROUND

The languages which are the subject of this paper are Atampaya, Angkamuthi and Yadhaykenu.¹ The three languages form part of a fairly well-defined sub-group that occupied the northernmost tip of the Australian mainland. There were considerably more members in the sub-group originally, but only the three languages mentioned have survived to the present. The map following delineates the sub-group referred to and shows the probable original locations of its constituent languages and dialects.



Thus, on the eastern side of the Cape, the sub-group extended northward from just below Cape Grenville, while on the western side it extended from Port Musgrave north as far as the tip of Cape York. Atampaya is the language of the upper MacDonald River; the Uradhi described by Hale (1976) is a very closely related dialectal variant of this language, which is spoken on the upper Skardon River. Angkamuthi occupies a very narrow coastal strip from Port Musgrave in the south to just beyond the Jardine River in the north, and Yadhaykenu originally occupied the coastal area about midway between Cape Grenville and Cape York on the east coast.

Linguistic differentiation within the sub-group is not great, and we could argue strongly for the claim that the sub-group actually comprises a dozen or so dialects of a single language (some of which possibly border on mutual unintelligibility), rather than a collection of closely related languages. Lexical sharing (in percentages) between the languages discussed in this paper is:

Yadhaykenu	
78	Angkamuthi
72	65 Atampaya

Taking into account all the languages/dialects for which we have data, we find that lexical variation seldom exceeds 40 per cent and almost never exceeds 50 per cent. In their morphologies, there are occasional differences of form, but almost no differences of category, and the syntax patterns almost identically throughout the sub-group. The phoneme inventory is identical. Since it is necessary to have an idea of the phonological segments that occur in the languages, the system is presented in Table 1:

TABLE 1

	labial	apical	lamino-dental	lamino-palatal	dorsal
stop	p	t	t̪	tʃ	k
nasal	m	n	ɲ	ɲ	ŋ
fricative	β	ð			ɣ
lateral		l			
trill		r			
retroflex continuant					
semi-vowel				y	w
high vowel				i(:)	u(:)
mid vowel				*e(:)	
low vowel				a(:)	

*e(:) is a marginal phoneme at best, and its inclusion here may even be mistaken.

2. SANDHI IN THE NORTHERN CAPE YORK SUB-GROUP

In this section a body of data is presented in the form of a set of statements for each of the three languages studied which account for the alternations that occur when words are strung together in sentential or phrasal constructions and when words occur in isolation.

2.1. ATAMPAYA SANDHI

The sandhi rules of Atampaya are discussed below, as they affect each segment or class of segments that occurs word finally.

The first set of sandhi rules accounts for alternations with forms which in unmarked environments end in what could be symbolised as -N. The rules for the realisation of -N in these environments are: [ŋ] after a back vowel (either a or u) and a fronted velar [ŋ'] after the front vowel (i). For example, the following forms are encountered in elicitation:

'person'	[amaŋ]
'tree'	[yukuŋ]
'morning bird'	[iwiŋ']

(Note that the marginal vowel *e* does not occur in final syllables and so does not come into consideration here.) The environments in which such forms are heard are:

- (i) in elicitation
- (ii) when used vocatively
- (iii) at the end of a sentence
- (iv) at the end of a 'pause group' where the pause is actualised.

The generalisation we can make about these environments is that there is never any linguistic material following. If we are willing to misinterpret the term 'utterance' for the purposes of the present discussion, we can characterise these -N final forms as being in 'utterance-final' environments.

These same forms however, when appearing in sentences and phrases with following lexical material, have different realisations in Atampaya. If the following word has an initial consonant, then the segment characterised by -N is dropped. Thus, the examples given above appear pre-consonantly as:

'person' [ama]
 'tree' [yuku]
 'morning bird' [iwi]

as, for example, in the sentence:

- (1) [yuku wampaŋ]
tree-S float-PRES
'The tree is floating (on the floodwaters).'

However, if the following word in the sentence is vowel-initial, then the whole -VN is lost. So, the same set of examples has the realisations:

'person' [am]
 'tree' [yuk]
 'morning bird' [iw]

as illustrated in the sentence:

- (2) [yuk ana:lun]
tree-S go-PRES-TO SPEAKER
'The tree is coming this way (with the flood).'

There is another set of sandhi rules that operate on words which in their utterance-final form have a final -n. Such words include:

'head' [wapun]
 'possum' [ulan]
 'dig-PAST' [aŋan]

If in a sentence, the following word begins with a consonant, these words can undergo one of two changes: they can either lose the *n* or

they can retain the n and add a prothetic a. Thus, the alternative forms are:

- 'head' [wapu(na)]
 'possum' [ula(na)]
 'dig-PAST' [aŋa(na)]

There is no conditioning factor apparent in the choice of variant, and informants vary freely between the alternative forms. These variations are illustrated in the sentence:

- (3) [ayu muɬ {aŋa } nani-mun
 aŋana]
 I-A grub-O dig-past ground-ABL
 'I dug the grubs from the ground'.

When the following word in the sentence begins with a vowel, then the final segment is realised as r rather than n. Thus, we find:

- 'head' [wapur]
 'possum' [ular]
 'dig-PAST' [aŋar]

as in the sentence:

- (4) [uŋkyaw mayi-wapur uŋyaw]
 flying fox-A food head-O eat-PRES
 'The flying fox is eating fruit'.

Any words which in their elicitation forms end in a laminal segment (i.e. ɲ, ɳ and ɣ) lose this segment if the following word begins with a vowel. The preceding vowel is lost if it is back; if it is i it changes to y, e.g.

	utterance final	prevocalic
'back'	[uðumpuɳ]	[uðump]
'dugong'	[watay]	[wat]
'flying fox'	[uŋkiŋ]	[uŋky]

The shortened forms are illustrated below in sentences:

- (5) [ul utay uðump iɣaŋaŋaŋ]
 he-A dog-O back-O break-PAST
 'He broke the dog's back'.
- (6) [ul uŋky amaŋ]
 he-S flying fox-S fly-PRES
 'The flying fox is flying'.
- (7) [ayuβa wat akyi-n]
 I-A dugong-O see-PAST
 'I saw a dugong'.

When the following word begins with a consonant, a prothetic a is often added as happens with an utterance final n. As with final n, there is

a second option, in that the final laminal can be deleted. There is a slight irregularity with the laminals however, because if the vowel of the final syllable is *i*, this becomes *ya*, e.g.

- 'back' [uðumpu(ɲa)]
 'dugong' [wata(ya)]
 'flying fox' [uŋkya; uŋkiŋa]

as illustrated in the sentence:

- (8) [_{mantina} uyuðiŋ']
 mantya
 ironbark-S tall
 'The ironbark is tall'.
 (9) [_{wataya} wuŋkamaŋ]
 wata
 dugong-S raw
 'The dugong is raw'.

There is one more set of correspondences in Atampaya, and that concerns words whose elicitation forms have final *w*. Such forms are:

- 'foot' [ɲukaw]
 'hole' [aðaw]
 'smoke' [ukyuw]

If such words are used in sentences with the following word having an initial consonant, then there is no change in the shape of the word, as in:

- (10) [aðaw naniŋuŋ]
 hole-S ground-LOC
 'There is a hole in the ground'.

However, if the following word is vowel initial, then the final *w* corresponds to *l*, e.g.

- 'foot' [ɲukal]
 'hole' [aðal]
 'smoke' [ukyul]

as illustrated by the sentences:

- (11) [ama:l aðal aŋaw]
 man-A hole-O dig-PRES
 'The man is digging a hole.'

All of the facts of Atampaya sandhi have now been presented and are summarised in Table 2.

TABLE 2
ATAMPAYA SANDHI CORRESPONDENCES

Utterance final	prevocalic	preconsonantal
-aŋ; -uŋ -iŋ'	-ϕ -ϕ	-a; -u -i
-n	-r	-ϕ/-na
*-aY; -uY -iY	-ϕ -y	-aYa; -uYa/-a; -u -iYa/-ya
-w	-l	-w

*Note that Y is used as a cover symbol for n, ŋ and y.

2.2. EXPLANATION OF THE CORRESPONDENCES

As the rules are summarised in Table 2, there is a certain amount of arbitrariness about them. We can simplify the statement of the facts somewhat if we accept the existence of underlying forms which do not necessarily have the same form as they have when given in elicitation. The suggested underlying forms, with the realisations according to the environment, are set out in Table 3.

TABLE 3
ATAMPAYA UNDERLYING FINAL SEGMENTS AND SANDHI REALISATIONS

underlying form	utterance final	prevocalic	preconsonantal
-V	-VN	-ϕ	-V
-n	-n	-r	-ϕ/-na
-VY	-VY	-ϕ	-V/-VYa
-l	-w	-l	-w

Most of the sandhi rules can be expressed quite simply as operations on these underlying forms. The rules that are needed are Atampaya are discussed below. The first of these is the rule:

I. $V \rightarrow \phi / _ \# V$

i.e. a vowel followed by another vowel over a word boundary is lost. Thus, in (1) above, the underlying form is yuku ana:lu; the u preceding the vowel a is deleted producing yuk.

The second rule that is needed is:

II. $\phi \rightarrow N/V _ \# \#$

i.e. an utterance final vowel takes a prothetic N. This rule accounts for the realisation of ana:lu as ana:luŋ in (1).

Concerning the treatment of underlying final -n, we need a rule of two parts:

$$\text{III. } n \rightarrow \left\{ \begin{array}{l} r / \text{---} \# V \\ \left\{ \begin{array}{l} \phi \\ na \end{array} \right\} / \text{---} \# C \end{array} \right\}$$

i.e. n is rhotacised between two vowels over a word boundary, but if there is a following consonant over a word boundary, the n is either deleted or a prothetic a is added.

To derive the various forms involving final underlying laminals, we will need the rule:

$$\text{IV. } y \rightarrow \left\{ \begin{array}{l} \phi / \text{---} \# V \\ \left\{ \begin{array}{l} \phi \\ ya \end{array} \right\} / \text{---} \# C \end{array} \right\}$$

i.e. a laminal is deleted when it is followed by a vowel over a word boundary. If there is a following consonant over a word boundary, the rule reads as for final n.

The application of this rule leaves the preceding vowel open to deletion by rule I. Thus, the derivation of the crucial items in (5) and (7) is:

uđumpun	watay	underlying forms
uđumpu	wata	Rule IV
uđump	wat	Rule I

There is of course a necessity to formulate a special rule to deal with -iY. These forms undergo rule IV. in the regular way, but the y is not then deleted by rule I. This special rule is:

$$\text{V. } i \rightarrow \left\{ \begin{array}{l} y / \text{---} \# V \\ ya / \text{---} \# C \end{array} \right\}$$

Actually, the second parts of rules III. and IV. can be collapsed into a single rule as the same process applies to n and the laminals preconsonantly. This revised rule would have the form:

$$\text{VI. } \left\{ \begin{array}{l} [+ \text{nasal}] \\ y \end{array} \right\} \rightarrow \left\{ \begin{array}{l} \phi \\ Ca \end{array} \right\} / \text{---} \# C$$

The only other sandhi rule that is needed for Atampaya is one to explain the alternation of l and w word finally. The rule we suggest has the form:

$$\text{VII. } l \rightarrow w / \text{---} \left\{ \begin{array}{l} \#\# \\ \#C \end{array} \right\}$$

i.e. l becomes w except before a vowel. So, in (10), the underlying form ađal becomes ađaw because the following word begins with n. If the following word begins with a vowel, as it does in (11), then the form is ađal. Note that utterance finally the l also becomes w.

It could be argued that instead of VII. which treats l as being the

underlying form, we should argue for an underlying w, since l occurs in only a very limited number of environments, whereas w is very frequently encountered. This would necessitate the reformulation of VII. as:

VIII. $w \rightarrow l / _ \# V$

It is not difficult to argue against this point however, because rules of the form $l \rightarrow w$ are very common in many languages of the world, whereas $w \rightarrow l$ rules are very rare. There is also clear historical evidence for regarding l as being prior. Hale (1976) gives the following etymologies for Uradhi (a very closely related sister dialect of Atampaya):

* η ka η l nukaw 'foot'
 *pa: η ka η l a η aw 'shoulder'

He writes the Uradhi forms with a final w but was evidently unaware that this w participated in a morphophonemic alternation with l. The fact that the $l \sim w$ alternation arose from an original *l further suggests that we can regard l as being synchronically prior.

2.3. YADHAYKENU SANDHI

Table 4 summarises the Yadhaykenu sandhi alternations.

TABLE 4
 YADHAYKENU SANDHI ALTERNATIONS

underlying form	utterance final	prevocalic	preconsonantal
-V	-V/-V η	- ϕ /-V η	-V
-n	- ϕ	-r	- ϕ
- η	- η	- η	- η a
-l	-:	-l	-:

There are several very obvious differences here, when compared to the Atampaya system. While rule II of Atampaya applies obligatorily in Atampaya, it is only optional in Yadhaykenu. For example, the following words are presented in their elicitation forms:

'person' [ama(η)]
 'tree' [yuku(η)]
 'water' [ipi(η)]

Note also that N in Yadhaykenu always has the value η , whatever the quality of the preceding vowel. Also, when a word with an underlying final vowel is followed over a word boundary by a vowel, Yadhaykenu can apply either rule I or rule II. Atampaya can only apply rule I. Thus in:

(12) [<sub>{ yap }
yapiŋ</sub>] aɾama wiŋɬuŋ]

forehead-S not wrinkled

'His forehead is not wrinkled.'

Yadhaykenu can have either yap or yapiŋ before aɾama, where Atampaya could have only yap.

Another significant difference in Yadhaykenu is in the treatment of final underlying n. In Table 4, in fact, there is no evidence for the existence of this n; rather, it suggests that we should posit the existence of r, with this r being lost in certain environments. There are two facts however, which suggest that we should treat it as being derived from n:

(1) All examples that take part in this alternation are clearly cognate with forms in Atampaya with final n. Compare the following forms as elicited in Atampaya and Yadhaykenu:

	Atampaya	Yadhaykenu
'beach'	ɾi:ɣin	yi:ɣi
'head'	wapun	apu
'hard'	ɾapan	yapwa
'swollen'	wampan	wampa
'passionfruit'	ampun	ampu
'mosquito'	iwan	iwa

(11) When these Yadhaykenu forms occur before a long pause, instead of saying 'hmm ...' while thinking as we do in English, the Yadhaykenu informant plays out the final syllable of the word, and in doing so inserts as n (and not an r) where this would historically be expected. e.g.

(13) [ul apuna:::: yaka]
he-S wallaby-S jump-PAST
'The wallaby ... hmm ... jumped'.

If we accept that there is an underlying n here, rule III in Atampaya needs to be re-expressed in Yadhaykenu as follows:

$$\text{III(Y). } n \rightarrow \left\{ \begin{array}{l} r / \text{ ___ } \#V \\ \phi / \text{ ___ } \{ \#C \} \\ \quad \quad \quad \{ \#\# \} \end{array} \right\}$$

In Yadhaykenu, the opposition between final underlying -n and -r is neutralised and the representation is -r, and all final -y in Atampaya (which are extremely rare in any case) are lost. So, rule IV. in Yadhaykenu treats only r rather than the cover symbol y. This rule becomes in Yadhaykenu:

IV(Y). $\phi \rightarrow a / r \text{ ___ } \#C$

i.e. preconsonantal *n* undergoes a prothesis at the end of a word.

For example,

- (14) [uyɸuɸa yaka]
fly-S jump-PAST
'The fly jumped'.

In (14), the underlying form for '*fly*' is *uyɸuɸ*.

There is also a major difference in *Yadhaykenu* with regard to rule VII. Essentially, the difference is that where *Atampaya* has *-Vw*, *Yadhaykenu* undergoes monophthongisation and has *-V:*. For example, we have the elicitation forms:

- '*foot*' [uka:]
 '*hole*' [aɔ̃a:]
 '*net*' [ata:]

The rule in *Yadhaykenu* for the treatment of *l* will need to be:

VII(Y). *VI* → *V:* / ___ {##}
 {#C}

The elicitation forms above show how forms which in *Atampaya* have *-Vw* in *Yadhaykenu* have *-V:*. The surfacing of the *-l* is illustrated by the sentences:

- (15) [aɹal uɔ̃ayki]
net-S small
'The net is small'.
- (16) [aɹum ukal upiri]
my-S foot-S painful
'My foot hurts'.

2.4. ANGKAMUTHI SANDHI

In Table 5, a summary of *Angkamuthi sandhi* is presented.

TABLE 5
 ANGKAMUTHI SANDHI ALTERNATIONS

Underlying form	utterance final	prevocalic	preconsonantal
-V	-V/-Vŋ	-ϕ/-Vŋ	-V
-V:	-V:ŋ	-V:ŋ	-V:
-n	-n	-n	-na
-ɸ	-ɸ	-ɸ	-ɸa

This sandhi system is different from both the *Atampaya* and *Yadhaykenu* systems with regard to the final underlying short vowels; the situation is essentially the same as for *Yadhaykenu* except that utterance final *ŋ* can also cause nasalisation of the preceding vowel and then itself be

deleted. So, the elicitation forms of vowel-final words presented earlier for Yadhaykenu are to be heard in Angkamuthi as:

'person' [ama, amaŋ, amä]
 'tree' [yuku, yukuŋ, yukū]
 'water' [ipi, ipiŋ, ipī]

Angkamuthi differs from the other two languages discussed in that it has underlying final long vowels contrasting with short vowels. Historically, these long vowels are derived from -Vl sequences. While this rule is still part of the synchronic phonology of Yadhaykenu (see rule VII(Y)), it has ceased to be a real rule in Angkamuthi. There is now no trace of the original l in this language. The sandhi correspondences for -V: are expressed by the rule:

IX. $\emptyset \rightarrow \eta$ /V: _____ {#V}
 {##}

i.e. before vowels and utterance finally, we add a prothetic η . Thus, from the underlying forms below we can derive the appropriate elicitation forms:

	underlying form	elicitation form
'foot'	uka:	uka:ŋ
'net'	ata:	ata:ŋ
'hole'	aða:	aða:ŋ

Sentence (17) illustrates the introduction of the prothetic η when the following word is vowel initial:

(17) [uka:ŋ upiri]
 foot-S painful
 'My foot hurts'.

while the lack of η can be observed in:

(18) [aŋum uka: waŋkaŋk awan]
 my-O foot-O mud-INST cover-PAST
 'My foot is covered in mud'.

where the following word is consonant initial.

The final -ŋ of Angkamuthi behaves in exactly the same way as it does in Yadhaykenu. However, Angkamuthi n has fallen in with ŋ in its sandhi alternations. Thus we need to restate rule VI. as:

VI(A). $\emptyset \rightarrow a$ / [+nasal] _____ #C

i.e. an epenthetic a is added between a nasal and a following consonant over a word boundary. Thus, Angkamuthi n is never deleted in Angkamuthi as it is in Yadhaykenu; nor does it ever have the realisation r.

3. PROTO-NORTHERN PAMAN AND ITS DAUGHTER LANGUAGES

Hale (1976) has reconstructed the major features of language from which the three languages described, together with many other languages

of the northern Peninsula, are descended. It is not necessary to examine his arguments and data in this paper; his proto-forms will simply be quoted as required.

The proto-language he reconstructs is phonologically very typical of Australian languages anywhere to the south. The phoneme inventory is shown in Table 6:

TABLE 6
PROTO-NORTHERN PAMAN PHONEMES

	labial	alveolar	(lamino-dental?)	lamino-palatal	dorsal
stop	*p	*t	*(tʔ)	*tʃ	*k
nasal	*m	*n	*(nʔ)	*ɲ	*ŋ
lateral		*l			
trill		*r			
retroflex continuant		*ɻ			
semi-vowel				*y	*w
high vowel				*i(:)	*u(:)
low vowel					*a(:)

Phonotactically, PNP (Proto-Northern Paman) adhered to the pattern of disyllabic stems with a CV(C)CV(C) structure, i.e. all stems began with a consonant and ended in a vowel or consonant, and no two vowels were found without one or two (occasionally even three) intervening consonants.

There is no evidence that PNP had a set of sandhi rules such as those discussed in 2. Thus, words in sentences were simply strung together one after the other, as in:

- (19) *kutakampu ɲapi ɲampunku paʃan
 dog-A I-O tooth-INST bite-PAST
 'The dog bit me with his teeth'.

So, even over word boundaries, the CV(C) syllable structure is maintained in PNP.

However, the three languages studies have innovated phonologically on PNP in a number of crucial ways. The innovations that are of importance to this discussion are those that took place word-initially. Essentially, what has happened is that the languages have lost many of the word initial consonants of PNP. The losses have been more thoroughgoing in Angkamuthi and Yadhaykenu than in Atampaya, but the overall result is that the number of possible word-initial vowels has jumped from zero in PNP to about two-thirds of the total of the lexical items

of Atampaya, Yadhaykenu and Angkamuthi. Examples of these changes are:

	Atampaya	Angkamuthi	Yadhaykenu
*kami 'mother's mother'	ami-	ami-	ami-
*kaʃa 'rotten'	yaʃa	aʃa	aʃa
*ɲipima 'one'	ɲipima	ipima	ipima
*ɲali 'we'	ali	ali	ali
*paŋa 'dig'	aŋa	aŋa	aŋa
*wanta 'put'	anta	anta	anta
*pama 'man'	ama	ama	ama

In the intermediate proto-language, which was descended from PNP, and which later split into the various languages of the tip of Cape York, including the three languages studied, sentence (19) became (20) *utayampu a_uni ampun_uku wa_utan by regular and well-attested phonological rules. This language now faced a serious dilemma. The loss of initial consonants had altered the basic syllable structure from CV(C) to (C)V(C), thereby allowing sentences such as (20) in which two vowels come together over a word boundary. This language had inherited the PNP structural constraint forbidding two vowels to occur one following the other. This structural constraint did not apply only within words, but also over word boundaries.

The languages which are described in this paper have inherited this structural constraint, which has not been changed since the time of PNP, despite all of the other phonological changes. It is clear that (20) violates this structural constraint, because it contains illicit VV sequences.

What could the languages do? They could act in one of two ways:

- (i) They could delete one of the offending vowels, or
- (ii) they could insert a consonant between the vowels.

In fact, they have done both. All three languages discussed above have rule I: $V \rightarrow \emptyset / _ \# V$.

It deletes the first of two vowels which come together. Yadhaykenu and Angkamuthi also have an alternative rule of the form:

$$\emptyset \rightarrow \eta / V _ \# V$$

in which η is inserted to keep the two vowels apart. So, by applying either of these two rules, these languages are able to keep within the structural constraint that there be no VV sequences.

4. FRILLS ON THE ANTI-VV CONSTRAINT

In the preceding section, it was shown that as, by a series of phonological changes, PNP evolved into a language with underlying VV sequences, the daughter languages acted to avoid such sequences on the surface by either vowel deletion or consonantal epenthesis. However, the sandhi systems of the modern languages have developed much further than this need would have compelled. We can explain the complexity of the modern systems if we assume the following facts:

- (i) PNP, and its daughter languages, have an anti-VV constraint, even over word boundaries.
- (ii) The daughter languages have acquired an anti-CC constraint over word boundaries since developing from PNP, and
- (iii) The daughter languages have acquired an anti-utterance final V constraint since developing from PNP.

The modern languages allow consonant clusters within words, but they do not allow clusters to occur word-finally. This is a target that was not aimed for in PNP. The modern languages could avoid CC clusters over word boundaries in one of two ways. They could incorporate either a rule of the form:

$$\phi \rightarrow V/C \text{ ___ } \# C$$

i.e. insert an epenthetic vowel between the consonants, or a rule of the form

$$C \rightarrow \phi / \text{ ___ } \# C$$

i.e. delete one of the offending consonants. In fact, variants of both rules can be found. The Angkamuthi rule VI(A) represents the former rule in its neatest form, while the latter rule is illustrated by the appropriate parts of rules III and IV.

There is a further phonological target that has been acquired by these languages since they developed from PNP, namely that utterance final forms should always end in a consonant. Rule II, or variants thereof, is universal throughout the group of languages being studied. This rule adds a η to utterance-final vowels.

It might be reasonable to ask why η has been chosen to act as utterance final consonant in such environments. One would expect a less marked nasal to be chosen, say n , which is supposedly the least marked nasal of all. However, apart from the evidence of the three languages described in the present paper, there is evidence from other languages of eastern Australia that η is chosen in preference to n as an 'unmarked' nasal. An interesting comparison we can make is with the languages of much of New South Wales. Certain Common Australian forms with final vowels appear in a New South Wales language such as Bandjalang

(Crowley, 1978) with a prothetic η , e.g.

CA	Bandjalang	
bina	bina η	'ear'
guna	guna η	'excrement'
gina	gina η	'foot'
gara	gara η	'leg'
dira	dira η	'tooth'
mipa	mipa η	'what'

These correspondences are obviously reminiscent of rule II. in Cape York.

N O T E S

1. The data in this paper come from my own fieldwork, which was carried out at Bamaga, North Queensland, in July and October 1975. My thanks go to my three field-consultants, Mr. Larry MacDonald, Mr. Roy Stevens and Mr. Willie Somerset, all long-term residents of Cowal Creek near Bamaga. As detailed a grammar of the languages is planned for some future date.

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