

# HATAM PHONOLOGY AND GRAMMATICAL NOTES

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## 1. INTRODUCTION

A phonological analysis is presented for Hatam, a non-Austronesian language spoken south of Manokwari on the north-eastern tip of the Bird's Head Peninsula, Irian Jaya. The analysis shares some features in common with analyses previously proposed for Kalam (Schrader ranges, Papua New Guinea), Haruai (Western Schraders, PNG), and Irarutu (Voorhoeve 1989), and reference is made to these analyses. Some basic grammatical information is presented, as well as a wordlist.

### 1.1 PREVIOUS STUDIES

There have been no previous studies on the Hatam language, beyond the collection of wordlists. Indeed, the existence of Hatam as a language separate from Manton or Meyah has been overlooked by some writers. Cowan, in his survey of the languages of north and east Irian (1953) appears to have missed Hatam – he noted the existence of a “Mansibabêr” in the hinterland behind Manokwari and behind the area south from there,<sup>1</sup> indicating the approximate Hatam language area, but the notes he gives on this language point to it being included in the East Bird's Head Phylum (see below), probably as a dialect of Meyah. Galis (1955) published a short wordlist in the Hatam language (Number 34; his wordlist consisted of thirty words, of which fourteen were numbers), and included a map. Voorhoeve (1975a), working from this material and unpublished wordlists collected by Anceaux, published a longer (forty item) wordlist, and classified it accordingly as part of the West Papuan Phylum.

### 1.2 CLASSIFICATION

Hatam has been classified by Voorhoeve (1975a; 1975b) under the name *Hattam* as an isolate in the West Papuan Phylum, but its very low lexical resemblance to the other, non-contiguous languages of the other stocks in the Phylum has made this early classification appear tenuous (Voorhoeve, pers.comm.). Geographically, Hatam is separated from the languages of the West Papuan Phylum by speakers of Meyah (Meax), a language of the East Bird's Head phylum spoken from the north coast near Manokwari south through the Merdei range. In the south, Hatam is bordered by the Sougb dialect of Manikion, also a language of the East Bird's Head phylum, near the northern side of Anggi Giji lake.

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1 Original quote: “Mansibabêr 3), gesproken in het achterland achter Manokwari en achter de streek ten Zuiden daarvan.” (p.8)

## 1.3 MISCELLANEOUS

I noted dialectal differences between the Minyambow and Anggi informants, mainly in the area of pronunciation and in a few lexical items, but the differences are not very great. The differences between these two speech varieties are not nearly as great as those between Hatam and the unrelated Meyah and Manikion, its western and southern neighbours. There does appear to be a consistent s/h correspondence between the Anggi dialect and the Moile dialect. Compare the following words:

TABLE 1: ANGGI-MOILE h/s CORRESPONDENCES

	Anggi	Moile
bird	<i>hap</i>	<i>sap</i>
earth	<i>tyhey</i>	<i>syey tyoy</i>
smoke	<i>hm mwp</i>	<i>sm mwp</i>

This could be the result of influence from the Manikion language, the Sougb dialect of which is spoken around the Anggi lakes, and which shows an abundance of /h/s. A further difference in pronominal use is discussed in section 3.1.

These notes were gathered during a short trip to the language area in August 1991, from informants from the Minyambow area in the centre of the Hatam area, and from around the Anggi district, in the extreme south of the language area. Additional (mainly lexical) data was gathered from tapes kindly supplied by Dr Voorhoeve, made on a survey trip that he conducted in 1982. All references to the Moile and Tinam dialects stem from the tapes that he made available, and sentences taken from his tapes are marked with (V.)<sup>2</sup> after the sentence.

## 2. PHONOLOGY

The phonological analysis presented here is similar to that adopted by Pawley for Kalam (1966), and for several languages of the Sepik and Ramu area (see Laycock 1991, Comrie 1991), in which there are no phonemic high vowels; realisations of [i] and [u] are assumed to be allophonic vowel variants influenced by an adjoining /y/ or /w/, respectively. This is motivated mainly by some rules of consonant lenition and data from the northern dialect in which the [i] and [u] vowels are often not present, pointing to their non-phonemic status. I

2 The following abbreviations are used:

A	agent	PF	perfective
(A.)	Anggi	PL	plural
BEN	benefactive	POSS	possessive
DU	dual	Q	question word
FUT	future	REL	relativiser
HORT	hortatory	S	subject
LOC	locative	SG	singular
(M.)	Moile	(v.)	verb
Mal.	Malay	(V.)	Voorhoeve texts
NEG	negative	VOC	Vocative
O	object	w/s.t.	with something

shall use the conventions of the International Phonetic Association in the presentation of material enclosed in phonetic brackets [ ].

## 2.1 CONSONANTAL PHONEMES

The consonant phonemes of Hatam are as set out in the Table 2. There are five contrasts in place of articulation for the stops, and they show a three-way contrast in manner of articulation: plain, prenasalised and nasal.

TABLE 2: HATAM CONSONANTS

	Labial	Alveolar	Palatal	Velar	Labio-velar	Glottal
Plain	p	t	c	k	k̠p̠	
Prenasalised	b	d	j	g	ɡ̠b̠	
Nasal	m	n	ɲ	ŋ	m̠ŋ̠	
Continuant		s				h
Sonorant		r				
Semi-vowel			y	w		

The various allophonic rules governing the realisations of the consonantal phonemes are presented below. Where no explicit environment is given, the forms are in free variation. Considerable allophony allows most of the allophones to occur in most of the environments; the form listed for each environment is the majority allophone in that environment.

/p/	Bilabial obstruent
→	[β] / v__v
→	[p̠], [ɸ] / #__
→	[b], [p]
/b/	Prenasalised bilabial obstruent
→	[mb], [mp]
/t/	Alveo-dental obstruent
→	[d], [t]
/d/	Prenasalised alveo-dental obstruent
→	[nd], [nt]
/c/	Palatal obstruent
→	[j], / v__v
→	[ç], [dç], [dʒ], [tʃ], [tʃ]
/j/	Prenasalised palatal obstruent
→	[ɲdʒ], [ɲdʒ], [ntʃ], [nts]

/k/	Velar obstruent
→	[q] / __v [+back]
→	[ɣ] / v__v
→	[g], [k]
/g/	Prenasalised velar obstruent
→	[ŋg], [ŋk]
/k̠p/	Labio-velar obstruent
→	[g̠b], [k̠p]
/g̠b/	Prenasalised labio-velar obstruent
→	[m̠ŋg̠b], [m̠ŋk̠p]

All the stops above are unreleased if syllable final and no vowel is added.

/m/	Bilabial nasal sonorant
→	[m]
/n/	Alveo-dental nasal sonorant
→	[n]
/ɲ/	Palatal nasal sonorant
→	[ɲ]
/ŋ/	Velar nasal sonorant
→	[ŋ]
/m̠ŋ/	Labio-velar nasal sonorant
→	[m̠ŋ]
/s/	Alveolar fricative
→	[s], [z]
/r/	Alveolar tap/flap
→	[r], [ɾ], [ɽ], [ɽ]
/h/	Glottal fricative
→	[h]
/w/	Labio-velar approximant
→	[w], [β] (but see section 2.4)
/y/	Palatal approximant
→	[j], [ɹ] (but see section 2.4)
→	[dʒ] / y__

2.2 VOWEL PHONEME CHART

The vowels of Hatam are displayed in Table 3. They contrast in height and backness.

TABLE 3: HATAM VOWELS

	Front	Back
Mid	ε	ɔ
Low	a	

Basic vowel allophony is straightforward:

- /o/ → [ɔ], [o]
- /e/ → [ε]
- /a/ → [ɑ] / \_\_C [+back]
- [æ] / \_\_C [+front]
- [a] / elsewhere
- v → v<sup>^</sup> / C [+high]
- v → v<sup>w</sup> / C [+back]

2.3 EPENTHETIC VOWELS AND THE BREAKING UP OF CONSONANT CLUSTERS

The great number of (phonological) consonant clusters are accounted for by a rule of epenthetic vowel insertion between (most) adjacent consonants. Allowed consonant clusters in the dialect of Singenia (north Anggi lakes area) are:

TABLE 4: CONSONANT CLUSTERS

Initial:	kw	gw	ɲw	hw	pr	tr	kr	br	(dr)	gr
Medial:	kw	gw	ɲw	sw	pr	tr	kr	br	dr	gr
	wC		yC							
Final:	wC		yC							

Notice how /hw/ initially patterns with /sw/ medially as allowed consonant clusters, pointing again to their common origin.

Between all other consonant clusters the following rule of epenthetic vowel insertion applies:

$$CC \rightarrow CiC$$

Thus in the Hatam word *tʃat* ‘I see’, the following derivation occurs:

Phonemically	/t-ŋat/	I see
Vowel insertion	{tɪŋat}	
Phonetic output	[dɪ'ŋat] (or [tɪ'ŋat], amongst other possibilities)	

In the Minyambow dialect, especially in the case of two consonants both preceded and followed by a vowel, many clusters that would be disallowed in Anggi are not separated by this epenthetic vowel. Compare the word for 'fourteen' in the two dialects:

	Minyambow	Anggi-Singgenia
Phonemically	/prymykptay/	/prymykptay/
Vowel insertion	{priymiykptay}	{priymiykpitay}
Vowel modification	{prumtkptaj}	{prumtkpitaj}
Phonetic output	[prumtɪgb'taj]	[prumtɪgbi'taj]

The epenthetic vowel is subject to considerable variation, depending on the surrounding segments. This can be towards the palatal region, before palatal consonants:

Phonemically	/kdy/ elder sibling	/myc/ foot
Vowel insertion	{kidiy}	{miyic}
Vowel modification	{kidty}	{miyc}
Phonetic output	[ki'ndɪj]	[miɪdʒɐ]

In the environment of a labial or velar consonant, the vowel is backed:

Phonemically	/krw/ thunder	/mbwc/ cloud
Vowel insertion	{kriw}	{mibiwc}
Vowel modification	{kruw}	{møbuwc}
Phonetic output	['kruwɐ]	[mɔ'mbu <sup>w</sup> dʒɐ]

Adjacent to an alveolar consonant, it tends to be fronted and lowered:

Phonemically	/tgm/ I'm hungry	/tmay/ butterfly
Vowel insertion	{tigim}	{timay}
Vowel modification	{tɛgɔm}	{temay}
Phonetic output	[dɛ'ŋgɔm] ~ [dɪ'ŋgɔm]	[dɛ'majɐ] ~ [dɪ'majɐ]

Notice the syntactically conditioned rule that optionally adds a low vowel after a final consonant of nouns<sup>3</sup> which are not the subject of the clause in which they appear, before a pause or in deliberate, slow speech:

C → Ca / \_\_\_# (nouns)

The range of phonetic spread shown by the epenthetic [i] sound can be summarised as follows:

[i]	→	ɪ	/	___	y, c, ñ
	→	i	/	y, c, ñ	___
	→	ɔ	/	___	h, k, ŋ
	→	u	/	h, k, ŋ	___, ___ w, p, m

<sup>3</sup> It does not appear that verbs or pronouns are bound to this rule, thus implying that it has some grammatical basis, but the environments in which it does or does not occur have proved elusive, so it is here described as a phonological property.

→	ə	/	w, p, m	—
→	ɛ	/	s, t, n	—
→	a	/		—#

It will be obvious that most of the above environments can occur in combination; for instance, in the word 'I see', /tʃat/, becoming {tʃat} after [i] insertion, the [i] is in the environments to be modified to a [u] or a [ɛ]. Rather than being taken as absolute indications of the realisation of the sound, these should be taken as an indication of the range of spread of the sound; thus the [i] in the example above can be realised anywhere in the phonetic space between [ɛ] and [u], with a tendency to remain unmarked and centralised as [i] or [ə].

These rules do *not* need to be ordered so that a peripheral glide has less effect on the vowel than an interior one; in the case of the word for path, *pwɪ*, there is no vowel insertion between the w and the y, as this is an allowed cluster in word-final position:

Phonemically	/pwɪ/	path
Vowel insertion	{pɪwɪ}	
Vowel modification	{pɔwɪ}	
Phonetic output	[p <sup>h</sup> ɔwɪ]	

Different phonotactic constraints at different parts of the word can lead to different phonetic outputs for the same phonemic sequence of consonants; compare the sequence /wɪ/ in 'path', above, example and in 'banana', following:

Phonemically	/wɪt/	banana
Vowel insertion	{wɪt}	
Vowel modification	{wɪt}	
Phonetic output	[wɪdɔ]	

Word-finally /w/ and /y/ can form a cluster, as in *pwɪ* 'path', but initially they cannot, and so an epenthetic vowel is inserted between them. The /y/ can form a cluster with the following /t/ in *wyt*. Note that the following /y/ has a much greater influence on the phonetic character of the epenthetic vowel than does the preceding /w/.

For the purposes of the allophonic rules given for consonants the epenthetic [i] is not a vowel; that is, being surrounded by the [i] sound does not suffice to lenite /p/ to [β] or /k/ to [ɣ]. Compare the phonetic behaviour of the /k/ phonemes in the following two cases:

Phonemically	/pketa/	rain	/yhakom/	all
Vowel insertion	{pɪkit}		{yɪhakom}	
Vowel modification	{pəkɛt}		{yɪhakom}	
Phonetic output	[pə'gɛda]		[jɪ'hɑɣɔm]	

In the case of *pketa*, the environment for lenition of the /k/ is not met, as it is not preceded by a vowel at a phonemic level, but by another consonant, the /p/. The /k/ in *yhakom*, however, is both preceded and followed by phonemic vowels, /a/ and /o/, and thus is in a suitable environment to allow it to lenite to [ɣ].

## 2.4 THE SOUNDS [i] AND [u]

Now that the need for the general, epenthetic vowel has been established by the above, the reasons behind the treatment of [i] and [u] as arising from the /y/ and /w/ phonemes can be addressed.

Regular rules account for the modification of this epenthetic vowel to give it the phonetic values [i] and [u] in environments contiguous to a palatal or labial/velar consonant, respectively. Examples are:

Phonemically	/mcm/ spear	/hm/ fire
Vowel insertion	{micim}	{him}
Vowel modification	{mictm}	{hɔm}
Phonetic output	['midʒimə]	['hɔmə]

These phonetic vowels differ from 'true' (phonemic) vowels in several ways. Firstly, they are subject to variation and even deletion, as outlined in the previous section. The word *mñey* 'water', has the following variants:

/mñey/    [m̥ñejə] ~ [m̥ñejə] ~ [m̥ñejə] ~ [m̥ñejə]

The high front vowel varies over a considerable range of the vowel chart, and can be completely absent. The only things that these forms all have in common are the consonantal values, the /e/ vowel, and the stress. The stress is especially important for determining the phonological status of words of the form /Cy(C)/ or /Cw(C)/, which are analysed as not containing any phonemic vowels. This analysis is supported by the reduced stress that accrues on these words when compared to CV(C) words. The stress is noticeably stronger on words containing [ɛ], [a] or [ɔ] than [i] or [u]. Compare the following:

/pet/	moon	['bɛ:də]
/cow/	nipah palm	['tʃɔ:wə]
/jap/	tomorrow	['ndʒa:βə]
/mwn/	night, dark	[mɔʷnə]
/syn/	small crow	[sɪnə]

Finally, when compounded the epenthetic vowel appears to be purely conditioned, and not basic to either of the components of the compound:

<i>d-prak</i>	left hand	[ǎndə'φra:ʏə] (< <i>dp</i> [ǎndəpə] + <i>prak</i> [φrakə])
<i>d-com</i>	right hand	[ǎndɪ'tʃɔ:mə] (< <i>dp</i> [ǎndəpə] + <i>com</i> [tʃɔmə])

## 2.5 HATAM AND KALAM COMPARED: EPENTHETIC VOWELS

Although the phonological rules for the generation of [i] and [u] segments through an epenthetic {i} vowel that apply for Hatam are almost identical with the rules that Pawley posits for Kalam, the phonetic realisations are somewhat different. In Hatam, there are often traces of the non-vocalic element at the peripheries of the phonetically vocalic segment, realised as strong post-vocalic frication in the place of articulation of the semi-vowel. Furthermore, the factors conditioning the quality of the vowel produced are not always absolute. By contrast, in Kalam the /y/ and /w/ phonemes always produce [i] and [u] vowels between two consonants (Pawley, pers.comm.). Compare the sequence *Cyt* in both Hatam and Kalam:



	Hatam	Kalam
Phonemically	/wyt/ banana	/pyt/ bamboo knife
Vowel insertion	{wiyt}	{ }
Vowel modification	{wiyt}	{ }
Phonetic output	['wiɪdɐ] ~ ['wiɪdɐ]	[ɸiɪ]

In Kalam, the semi-vowel /y/ loses all of its consonantal characteristics between consonants, whilst the Hatam /y/, in addition to modifying the epenthetic vowel, is often preserved as a fricative element after the vowel, unless it precedes a following semi-vowel (see *pwɪ* above).

A further difference lies in the case of long vowels that are in Kalam analysed as a sequence of two semi-vowels; the word [ku:ɾ] ~ [kɔwɔɾ] 'k.o. bird' is analysed as /kwwt/; nothing of this sort exists in Hatam, the rules for consonant cluster reduction predicting that the first of the transcribed forms given above would arise from /kwɾ/; the second, [kɔwɔɾ], is not found in Hatam. Forms with a /yy/ sequence appear to be rare in Kalam; some are found, arising from verbal affixes, forms such as *agyyak* arise:

*agy-y-ak*            They cooked.  
 cook-they-past    [ɛŋgɪjak]

in which the interpretation of the two ys seems to be in question, the two possibly collapsing to a single y, as the (hypothetical) *agyak* would have the same pronunciation (Pawley, pers.comm.). In Hatam, a sequence of two ys can arise only through affixing morphology, and in that case the second of the two phonemic ys dissimilates to become a stop:

*y-yem*            They eat.            *y-y*            Their house.  
 3PL-eat        [jɪ'dʒɛm]        3PL-house        [ɪdʒɐ]

It can be seen that whilst the phonological inventories of phonemes is quite similar for Hatam and Kalam, the application of certain of these rules is quite different in the two languages. This is particularly obvious when a sequence of two unlike semivowels occurs. Compare the sequence *Cwy* in Hatam and Kalam:

	Hatam	Kalam
Phonemically	/pwɪ/ path	/kwɪ/ odour
Vowel insertion	{pɪwɪ}	
Vowel modification	{pɔwɪ}	
Phonetic output	['pɪuɪɐ]	[kyj]

Clearly *Cwy* produces a more complex output in Kalam than is the case in Hatam; not only is the *w* made syllabic, but it is also fronted, assimilating in place to the *y*. In Hatam this is not the case, and the *w* becomes syllabic, but the resulting vowel is not affected by the following *y* since the regularly inserted {i} was never in contact with it. Kalam appears to have more complex rules of interaction for the syllabification of its semi-vowels than is the case in Hatam. In Hatam, a semivowel fully syllabifies before *any* other consonant, whereas in Kalam the process of syllabification depends on whether or not the following consonant is a semivowel or not. Note also that the rules given here for semivowel syllabification in Hatam disallow [Cwi] and [Cju] as possible phonetic realisations of Hatam forms that would be represented phonemically as /Cwɪ/ and /Cɪw/; they would be realised instead as [Cuɪ] and [Ciw], respectively.

## 3. GRAMMATICAL OUTLINE

## 3.1 PRONOMINAL FORMS

Pronominal prefixes mark the identity of the subject on the verb, and are also used to indicate some forms of possession on a noun. The forms of these prefixes are set out in Table 5.

TABLE 5: PRONOMINAL PREFIXES

	SG	DU	PL
1	<i>t-</i>	<i>s-</i>	<i>ñ-</i>
2	<i>a-</i>		<i>c-</i>
3	<i>∅-</i>		<i>y-</i>

Most of these are transparently derived from the initial consonant of the independent pronouns:

TABLE 6: PRONOUNS

	SG	DU	PL
1	<i>tany</i>	<i>sany</i>	<i>ñeny</i>
2	<i>nany</i>		<i>ceny</i>
3	<i>nony</i>		<i>yony</i>

In the Moile dialect the 3PL form *yony* has dropped in favour of the 2PL form *ceny*.

There are short forms of all of these pronouns, being identical to the long form but lacking the final *ny*; these are used in unemphatic positions as either subject or object. Noteworthy about the Hatam pronominal set is that there is no Dual-Plural distinction available for the second and first person forms, although there is a distinction made between the two persons.

The prefixes are obligatorily used on verbs to indicate the subject of that verb:

- (1) *Tany t-ŋat noni ∅-yem pas.*  
 I 1SG-see s/he 3SG-eat rice  
 I saw him eating rice.

The same prefixes can also be used to show possession, when used with inalienable/kin-term nouns:

- (2) a. *cy* father      b. *t-cy* my father  
       father                1SG-father

When used with alienable/non-kin items, a possessive construction *-te-* must come between the prefix and the noun:

- (3) a. *t-te-y* my house      b. \**t-ykpey*  
 1SG-POSS-house (V.)      1SG-house

### 3.2 DEMONSTRATIVES

The demonstrative system of Hatam shows a distinction in the third person forms based on the elevation of the referent relative to the speaker. The forms are as follows:

here	<i>s-ny</i>	this	<i>t-ny</i>
there	<i>s-ma</i>	that	<i>t-ma</i>
yonder	<i>s-nw</i>	yon	<i>t-nw</i>
yonder.lower	<i>s-mw</i>	yon.lower	<i>t-mw</i>
yonder.higher	<i>s-hw</i>	yon.higher	<i>t-hw</i>

### 3.3 ANAPHORA AND DELETION

Simple transitive clauses show SVO order and pronominal prefixing on the verb:

- (4) *Tany t-ŋat nany.*  
 I 1SG-see you  
 I saw you.

- (5) *Tany t-yem pas-a.*  
 I 1SG-eat rice  
 I eat/ate rice.

Conjoining two clauses with a coreferential agent requires the use of the infix *-ho-*:

- (6) *Tany t-ho-ŋat nany pa t-yem pas-a.*  
 I 1SG-ho-see you and 1SG-eat rice  
 I saw you and then I ate rice.

The use of *-ho-* is necessary only if there are coreferential *agents*, not subjects; if one of the arguments is the subject of an intransitive verb, and not the agent of a transitive verb, then the infix *-ho-* is not required to show coreferentiality:

- A → S  
 (7) *Tany t-ŋat pryeta t-w swtegbey.*  
 I 1SG-see night.demon 1SG-go Sutebei  
 I saw the demon and went to Sutebei.

- S → S  
 (8) *Nony ø-ha mñey pa ø-ykraw mswon-a.*  
 s/he 3SG-swim water and 3SG-arrive lake  
 He swam in the river and so arrived at the lake.

- S → A  
 (9) *Nony ø-poŋ tw lew ø-yem pas-a tw.*  
 s/he 3SG-sleep PF from 3SG-eat rice PF  
 He had already slept and then ate rice.

Without the *-ho-* infix, the interpretation of two conjoined transitive clauses cannot be that the agent of the first is identically coreferential with the agent of the second:

- (10) *Pryeta*  $\emptyset$ -*ŋat* *nony lene*  $\emptyset$ -*yem* *pkaw-a*.  
 night.demon 3SG-see he and 3SG-eat sweet.potato  
 The demon<sub>1</sub> saw him<sub>2</sub> and then he<sub>2</sub> ate a sweet potato.  
 \*The demon<sub>1</sub> saw him<sub>2</sub> and then he<sub>1</sub> ate a sweet potato.
- (11) *Tany t-ŋat noni pa ñeny ñ-yem pas-a tw*.  
 I 1SG-see s/he and we.PL 1PL-eat rice PF  
 I saw you and then we ate some rice.
- (12) *Tany t-ho-ŋat nany pa t-kwam ykpe*.  
 I 1SG-see you and 1SG-sit house  
 I saw you when I was occupying the house.

To summarise the restrictions on coreference, there appears to be an [S, A] pivot, except in the case that both the arguments are agents; in that case they are treated differently by the morphology, the verb obligatorily taking the infix *-ho-*. This could be viewed as a form of ergativity, isolating the A function from S and O as it does, but the operation of a [S, A] pivot is also clear from examples (7) to (9).

#### 3.4 CASES, ASPECT, NEGATION AND COMMANDS

Core cases are not explicitly marked: SVO word order makes the role of the arguments clear. There is a 'half-case' in the form of the epenthetic vowel that can be added to nouns in non-subject position. The addition of this *-a* is, as far as I could determine from the limited data, optional, but it was never observed on a noun in subject position. It may be a case marker in the process of evolving, as it is certainly more real than the epenthetic {i}s that are inserted between consonants, since it functions as a vowel for the purposes of lenition. The *-a* is marked where it was heard in sentences, but not glossed.

The case-marking postposition *lew*<sup>4</sup> is used in both the ablative sense of 'from' in spatial modification, as well as in the temporal senses of 'after' and 'because' when co-ordinating clauses:

- (13) *Tany t-kwe lew mswon-ty*.  
 I 1SG-come from lake-LOC  
 I came from the lake.
- (14) *Non*  $\emptyset$ -*poŋ tw, lew*  $\emptyset$ -*yem pas-a tw*.  
 s/he 3SG-sleep PF from 3SG-eat rice PF  
 He slept, after eating the rice.
- (15) *Ta t-ŋat nany lew maw tot tany*.  
 I 1SG-see you from not.FUT cut I  
 I saw you (first), so you didn't cut me.

<sup>4</sup> Logically this should be written *rew*; I have written it as *lew* because I have not heard it vary with [r].

- (16) *Kon tc, noro pc lew phm.*  
 carry stone succeed not from heavy  
 (Come and) carry this stone, I can't (lift it) because it's (too) heavy. (V.)

Local suffixes *-y* and *-typ*, the second containing the additional meaning 'on, above' are suffixed to the word that they modify. The general locative *-y* shows considerable allomorphic variation, appearing with a stop (perhaps homo-organic to a preceding consonant, although the data is insufficient to make a definitive statement) when attached to a word ending in a consonant; see (11) above. This suffix is optional with negative statements (see (18), (19) with (23), (24) and (25)):

- (17) *Tany t-kwam meca-ty.*  
 I 1SG-sit chair-on  
 I am sitting on the chair.
- (18) *Nony ø-kwam yk̄pe-y.*  
 s/he 3SG-sit house-LOC  
 She is sitting in the house.
- (19) *Ñeny ñ-cwk mñey-sy.*  
 We.PL 1PL-descend water-LOC  
 We are going down to the river. (V.)

Benefactives can be expressed through the particle *yp* appearing before the affected NP; this will occur after the theme/ direct object:

- (20) *Nony ø-yay pkaw yp ta.*  
 s/he 3SG-give sweet.potato BEN I  
 He gave the sweet potato to me. (V.)

This benefactive NP may be used without the direct object appearing:

- (21) *Tany t-yay yp yony tw.*  
 I 1SG-give BEN they PF  
 I've already given (it) to them. (V.)

Conditionals are presented as juxtaposed clauses; notice the aspect particle *to* that occurs phrase-finally to show the perfective:

- (22) *Ñey tw t-w mwcr-ry.*  
 hot PF 1SG-go Ransiki-LOC  
 If it's hot I'll go to Ransiki.

A negative statement can be made by using the particle *pc* phrase-finally:

- (23) *Tany t-w mswon-ty pc.*  
 I 1SG-go lake-LOC not  
 I'm not going to the lake.
- (24) *Pket-a pa tany t-w mwcr pc.*  
 rain and I 1SG-go Ransiki not  
 If it rains I won't go to Ransiki.

Notice that the *pc* in (24) does not modify the whole sentence, but only the last clause. Compare with (25):

- (25) *Pket-a pc tany t-w mwcr-ry.*  
 rain not I 1SG-go Ransiki-LOC  
 If it doesn't rain I'll go to Ransiki.

This can be expanded into 'not yet' with the addition of *-o*:

- (26) *Tany t-ηat no pc-o.*  
 I 1SG-see s/he not-yet  
 I haven't seen him yet.
- (27) *Nony ∅-kwe pc-o.*  
 s/he 3SG-come not-yet  
 He hasn't arrived yet. (V.)

Strong denials can be made with a further negative infix *-n-* in the verb:

- (28) *T-n-gwen pc.*  
 1SG-NEG-sick not  
 I'm *not* sick.
- (29) a. *Key!*                      b. *Kney!*  
       *∅-key*                        *∅-k-n-ey*  
       3SG-good                    3SG-NEG-good  
       (That's) good!              (That's) bad!

Commands are formed by using the un-inflected verb form for a positive command, and the negator *maw* plus an inflected form for prohibition:

- (30) *W!*  
 go  
 Go!
- (31) *Maw a-pym.*  
 not.FUT 2SG-cry  
 Don't cry!

### 3.5 MODIFICATION

Adverbial or instrumental elements are separate clauses:

- (32) *Tany (t-pap oya) t-rok pyey-a.*  
 I 1SG-use axe 1SG-cut wood  
 I cut wood (with an axe).
- (33) *Tany t-pry kapar tbar t-w mwcr.*  
 I 1SG-board airplane 1SG-go Ransiki  
 I am going to fly to Ransiki.
- (34) *Tany t-kow t-yem pkaw-a.*  
 I 1SG-not.want 1SG-eat sweet.potato  
 I don't want to eat sweet potato.

There appears to be a causative prefix:

- (35) a. *cwt*                      b. *pde-cwt*  
           fall                        drop (*pde* ([pi'ndɛ]? < Malay *pande*)

Modifiers of a noun appear as verbal elements after the noun, joined by the (relative clause?) marker *n-*:

- (36) *Tany t-ŋat nap-a n-dc.*  
 I 1SG-see pig REL-big  
 I see a big pig.
- (37) *Tany t-ŋat nap-a n-myen.*  
 I 1SG-see pig REL-small  
 I see a small pig.

Numbers can modify a noun by appearing after other modifiers, or by being joined with the prefix *n-*:

- (38) *Tany t-ŋat nap n-myen can.*  
 I 1SG-see pig REL-small two  
 I can see two small pigs.
- (39) *Pryeta n-kom ø-yem pkaw-a.*  
 night.ghost REL-one 3SG-eat sweet.potato  
 The night ghost ate the sweet potato on its own.

In this same position we find *maŋ* 'many', *poy* 'some' and *yhakom* 'all'. Demonstratives appear after the noun, but it is unclear where they appear with respect to other modifiers of a noun (but see (43)).

The relativiser is also found with some common nouns that could be considered part-of-whole elements:

- (40) a. *n-gramty*                      b. *n-meŋ*                      c. *n-gryp*  
           REL-branch                      REL-leaf                      REL-seed

One sentence in the corpus appears to show the object of one verb serving as the subject of a second verb in a serial verb construction:

- (41) *Tany t-ŋat nony pryeta ø-kmke may-ry.*  
 I 1SG-see s/he night.ghost 3SG-curse dead-LOC  
 I saw the night ghost curse him to death.

Sentences may be made into questions by the imposition of a questioning (rising) intonation pattern over the sentence, and the high-pitched question particle *é* at the end:

- (42) a. *Nony ø-kwe tw.*                      b. *Nony ø-kwe tw é?*  
 s/he 3SG-come PF                      s/he 3SG-come PF Q  
 He's already arrived.                      Has he arrived already?
- (43) *Kny ykpe a-te-ykpe é?*  
 this house 2SG-POSS-house Q  
 Is this your house?

At the other end of the sentence, a hortative is formed by the particle *y*:

- (44) Y    *sany*    *s-yem!*  
 HORT we.DU 1DU-eat  
 Hey, let's eat!

## 3.6 SOME SEMANTIC FACTORS IN COMPOUNDS

Whilst an in-depth study of the semantic characteristics of Hatam is beyond the scope of this paper, a few examples of compound nouns can be presented. Note the occasional loss of a final consonant from the first part of a compound.

mother	<i>mem</i>	child	<i>mot(ep)</i>
sole	<i>my-dp-mem</i>	little finger	<i>d-mot</i>
	leg-hand-mother		hand-child
intestines	<i>ηhop-mem</i>	child	<i>mot-ep</i>
	stomach-mother		child-?
thumb	<i>d-mem</i>		
	hand-mother	skin	<i>gek</i>
eye	<i>yay</i>	lip	<i>hw-gek</i>
pupil	<i>yay-gryp</i>		mouth-skin
	eye-seed	bark	<i>pyey-n-gek</i>
eyelash	<i>yay-daty</i>		tree-REL-skin
	eye-body.hair	bird	<i>hap</i>
face	<i>aysy</i>	cassowary	<i>ha-n-t-ηat</i>
sun	<i>pyay-aysy</i>		bird-of-I-see
	sun-face	cockatoo	<i>ha-yok</i>
face	<i>yem-aysy</i>		bird-put
	?eat-face		
	(-yem 'eat', tryem 'ashes')		
?bone	<i>wak</i>		
forehead	<i>η-wak</i>		
	?-bone		
fingernail	<i>d-n-wak</i>		
	hand-REL-bone?		

## 4. WORDLIST

English	Hatam		
airplane	kapar tbar	ashes	tryem
all	yhakom	axe	oya
and	kyη	baby	gwoη̄moy
and then	lene	back	ηhym
ant	ak̄pow	bad	-kney
anus	sow	bamboo	kebrym
arrow	tepor	banana	wyt
		bat	kom



big	ygy/mdc	curse	-kmke
bird	hap	cut, kill	-to(t)
cassowary	ha-n-t-ŋat	day	pyayaysy
cockatoo	ha-yok	dead	may
wing	ha-n-ñhey	descent	-cwk
black	-mwn (A.), -rom (M.)	dog	msyen
blood	grom	don't	maw
board (vehicle)	-pry	door	tmow
body	tap	drink	-twt
body hair	daty	dry	-ga
boil	phey	ear	tŋow
bone	jwm	earth	tyhey
book	srat (<Mal. <i>surat</i> )	eat	-yem
bow	prey	egg	kwry tgwey
branch	n-gramty/bram	eye	n-yay
break	-hat	pupil	yay-gryp
breast	top	eyebrow	yay-grop
butterfly	may	eyelash	yay-daty
buttocks	woysy	tear	yay-gwey
call	-cem	excrement	oy
can	-ty	face	yemaysy
car	oto	fall	-cwt
cassava	pkayswap	drop	-pde-cwt
chair	meca	fat	tadc
chest	get	father	cy/rc (VOC)
chicken	kwry	far	thyŋ
child	motep/gwom	feather	ha-n-tar
chin	syphey	fence	mwkw
chop	-rok	fire	hm
cicada	swem	fireplace	hm-tok
close	ttey	smoke	hm-mwp
cloud	pobhwc (A.), mbwc (M.)	fish	waw
coconut	twc	flower	n-tow
c. tree	twy	fly	kros
c. leaf	tw-n-men	blowfly	kros-try
cold	-how (water)	foot, leg	myc
	-tkok (personal)	thigh	d-my-hym
come	-kwe	calf	my-ŋon
corn	trem	ankle	my-gbk
crocodile	gor	sole	my-dp-mem
crow, big	acam	toe	my-dp-mom
crow, small	(k)(w)syn	forest	pykph̄ey
cry	-pym	frog	by
		from	lew

fruit	pyey-n-ŋat	long	n-cey
gall	keypysy	louse	man
garden	myay	machete	haboy
grass	mdap	man	pñay
ground	tyhey	many	maŋ
go	-w	meat	ŋ-hwc
good	-key	midday	jap
green	-mhay	moon	pet
hair	poŋ	morning	japcoty
hand	dp	mosquito	mhyp
arm	dp-aŋa	mother	t-mem/mey (VOC)
elbow	d-krosy	mountain	nŋkw
finger	dp-swm	mouth	hwc
fingernail	d-n-wak	lip	hw-gek
left hand	d-prak	name, be called	ñeŋ
little finger	d-mot	nape	gwpy
palm	d-tyatya	neck	kmam
right hand	d-com	new	-sep
thumb	d-mem	night	mwn
wrist	d-toty	midnight	mwn maw
have, exist	noka	night ghost	pryeta
head	pow	nipah palm	cow
forehead	ŋ-wak	nose	hwap
hear	-mwep	nostril	hwap-msy
heart	ŋona	no(t)	pc
heavy	phm	on	n-typ
hit (w/s.t.)	-pwc	one	kom
hot~fine	-ŋey (weather)	penis	acwm
house	ykp̄e/y	person	tŋwo tw
hungry	-gm	pig	nap
husband	cep	pork	na-n-ŋhwc
I	tany	place (v.)	-yok
inside	n-nsy	potato	syep
intestines	ŋhop-mem	potato, sweet	pkaw
kill as a result	Verb + mayry	rain	pket
knee	pyaw	rainbow	pwet
knife	sŋaw	rat	jop
know, can	-kan	red	-ŋwoy
lake	mswon	rib	dypow
leaf	n-meŋ	rice	pas
lightning	kcey	road	pwpy
liver	nsy	roast	-non
little	n-myen	roof	caw
live	-dak	root	n-kaw

rope	paw
sago palm	kop
salt	msym
sand	ykm
scar	k̄poka
sea	mkjesy
see	-ŋat
seed	n-gryp
short	-cwn
shoulder	ŋhat
sibling	
elder	kdy
younger	kjoy
sick	-gwen
sit	-ykwam
skin	gek
bark	n-gek
sky	kwam
sleep	poŋ
smell (v.)	-kñp
snake	wow
some	poy
spear	mcm
stand	-ksw
star	ham
stomach	ŋhop
sun	pyayaysy
stone	tc
storm (big wind)	korydy
sweat	hagwap
swim	-ha
tail	pw
take, give	-yay
teacher	kwrw
that	kma
this	kny
thorn	gwen
throat	-kpow
thunder	kwkrw
today	amany
tomorrow	jap
tongue	twep
tooth	kway
trunk	n-jem

two	can
under	smw
urine	bon
use	-pap
vagina	mat
valley	nrop
vein	dgalkw
village	kraw
voice, language	syet
wake up	-ksw
want	-coy
want, negative	-kow
wash	-gek-ñey-ty (skin-of water)
water, river	mñey
water, hot	kmey
we (du.)	sany
we (pl.)	ñeny
wet	-tota
white	-theyy
wife	tnem
wind	how
woman	sop
wood	pyey
yellow	-pwk
yesterday	amnany
you sg.	nany
you pl.	ceny

**Numbers**

one	kom
two	can
three	ŋgay
four	k̄ptay
five	mhwē
six	mhw-d kom
seven	mhw-d can
eight	mhw-d ŋgay
nine	mhw-d k̄ptay
ten	smnay
eleven	prymy kom
twelve	prymy can
thirteen	prymy ŋgay
fourteen	prymy k̄ptay

fifteen	smnay mhy-typ	thirty	ñatoŋwa ŋgay
sixteen	prymy kom netey	forty	ñatoŋwa pa ptay
seventeen	prymy can netey	fifty	ñatoŋwa kom pa mhwe
eighteen	prymy ŋgay netey	sixty	ŋŋowa mh-d kom
nineteen	prymy k̄ptay netey	seventy	ŋŋowa mh-d can
twenty	ñatoŋwa kom	eighty	ŋŋowa mh-d ŋgay
twenty one	ñatoŋwa kom pa kom	ninety	ŋŋowa mh-d ptay
twenty six	ñatoŋwa kom pa mh-d kom	hundred	ŋŋo ta smnay

## 5. WORDLIST 2

In view of the rather abstract phonological analysis proposed in this article, a sample of words is presented in a narrow phonetic transcription so the reader can compare these phonetic transcriptions with the phonemic transcriptions in the longer wordlist. The wordlist is the same as that used in Voorhoeve (1975a).

English	Hatam		
arm	ãndĩ'ɸaŋa	louse	'ma:nə
ashes	ətri'je'mă	man	tɔŋwɔ'du'wă
bird	'ha:βă, ha:p̄	name	a'ŋe'ŋă
black	mɔwnă, 'rɔ:mă	night	'mɔwnă
blood	'ŋgrɔ'mă	one	ɡɔm
bone	'ndʒuβmă	pig	'na:βă, na:p̄
come	ə'gwe	see	a'ŋat
dog	mĩsĩ'jenă	sit	jt'kwam
eat	ĩ'jem	skin	ŋge'k̄, 'ŋge'ɣă
egg	,kɔri 'dɔŋgwejă	sleep	a'bɔŋ
eye	nĩ'ja:jă	stone	'tu'fă
ingernail	,andə'nũ'wa:gă	sun	pɪja'ja:jsija
fire	'hɔmă	tail	'pɔwă
give	ĩ'ja:jă	tooth	a'kwa:jă
good	kɛj	tree	bĩ'jɛ:jă
ground	di'hɛ:jă	two	tʃan
hair	a'bɔ:ŋă	water	mĩ'ŋɛ:jă
head	a'bɔ:wă	we (du./pl.)	'sa'ni, 'ŋe'ni
I	'da'ni	you (sg.)	'na'ni
leg	'mi:jdʒă	you (pl.)	'dʒe'ni

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