

IAU SEGMENTAL AND TONE PHONOLOGY

Janet Bateman

A joint project of the Universitas Cenderawasih
and the Summer Institute of Linguistics

This is the fourth in a series of articles about Iau, a tone language of Irian Jaya, Indonesia. The preceding three articles dealt with the grammatical use of tone morphemes on Iau verbs and postverbal particles. This article describes the segmental phonology and tone system of Iau. While the segmental system is relatively simple, the Iau tone system is complex. It consists not only of sequences of tone on single syllables, but also clusters of more than one of these sequences on a syllable.

1.0 INTRODUCTION¹

Iau, a basically monosyllabic language of the Western Lakes Plains, Irian Jaya, has several interesting features in its phonology. While the Iau suprasegmental system of contrastive tone is complex, its segmental phonology is relatively simple. There are only six consonant phonemes, no consonant clusters, and eight vowel phonemes. The nucleus of a syllable may have one, two or three vowels. There are no nasal consonant phonemes in Iau.

2.0 SEGMENTAL PHONEMES

2.1 Consonants

Iau has six consonant phonemes: /t/, /k/, /b/, /d/, /f/, and /s/. The phoneme /t/ is a voiceless dental unaspirated stop. It occurs both word initially and word medially as illustrated in the following examples.

/te3/	[tɛ3]	'mosquito'
/ta4-3ta3/	[tɔ4-3tɔ3]	'star'

The phoneme /k/ is a voiceless velar unaspirated stop. It occurs both word initially and word medially as illustrated below.

/ko3-4/	[kɔ3-4]	'breadfruit'
/u2ki2/	[u2ki2]	'strap'

The voiced bilabial stop /b/ and the voiced dental stop /d/ are both implosive. Both have nasal allophones [m] and [n], respectively, which are in free variation with the implosive stop allophones, [b] and [d̥], when preceding /a/. The phoneme /d/ also has a liquid allophone [l] which occurs in free variation with the implosive stop allophones, [d̥] and [n]. Their occurrence word initially and medially is illustrated both with the phoneme /a/ and with one of the other vowel phonemes in the following examples.

/b/ Word initially:		
/bi4-3/	[bi4-3]	'grandchild'
/ba2-1bu2/	[bɔ2-1b 2] ~ [mɔ2-1bu2]	'this'
Word medially:		
/fi2bu2/	[pi2bu2]	'cowrie shell'
/i3ba3-4/	[i3bɔ3-4] ~ [i3mɔ3-4]	'afraid'

/d/	Word initially:		
	/du2/	[du2]	'wild pig'
	/da2-1/	[da2-1] ~ [na2-1] ~ [la2-1]	'dog'
	Word medially:		
	/sa3di3/	[sa3di3]	'a type of marsupial'
	/i3da2-1/	[i3da2-1] ~ [i3na2-1] ~ [i3la2-1]	'dirt on skin'

The phoneme /f/ is a voiceless bilabial fricative which occurs word initially, medially and finally.

When word initial, the bilabial fricative /f/ has free variation from [p] to [h] to [x]. The allophone [x] occurs only when preceding the high front vowel phonemes /i/ and /i/.

/fe3-4ki2-1/	[pæ3-4ki2-1] ~ [hæ3-4ki2-1]	'rock'
/fi2du2-4/	[pi2du2-4] ~ [hi2du2-3] ~ [xi2du2-3]	'fish'

The preference for the allophone [p] or the allophone [h] is influenced by dialect. Speakers whose families originated from the Foi dialect area in the villages of Taiyai and Barere prefer the allophone [h]. Speakers with family connections with the Turu dialect area in the villages of Turumo and Efo prefer the allophone [p].

Word medially and in compounds, only the allophone [h] occurs. For example:

/be2-1fe2-1/	[bæ2-1hæ2-1]	'snake'
--------------	--------------	---------

An example of the allophone [h] in compounds is as follows:

/bae4-3 fai2ta2/	[maε4-3 ha2ta2]	'end of the island'
------------------	-----------------	---------------------

Word finally the phoneme /f/ occurs as an unreleased bilabial stop [p]. There are a limited number of words with a final /f/. These are the only words with a final consonant in the Iau dialect. For example:

/kaf2-1/	[ka ^p 2-1]	'bow'
/of2-3/	[o ^p 2-3]	'arm'

The phoneme /s/ is a voiceless grooved alveolar fricative which may occur word initially and word medially. For example:

/si4-3/	[si4-3]	'woman'
/du3-4si2-1/	[du3-4si2-1]	'bird'

2.2 Vowels

Iau has an eight vowel system. Four front unrounded vowels, three back rounded vowels and a low central nasalized vowel. These are displayed in Figure 1 below.

	Front Unrounded	Central Unrounded	Back Rounded
High Fricativized	/ɨ/		
Close	/i/		/u/
Open	/ɛ/		/ʊ/
Mid Close			
Open	/e/		/o/
Low Close		/a/	
Open			

Figure 1 Iau Vowels

The high unrounded fricativized vowel /i/ does not occur as frequently as the other vowels. It occurs word initially and word finally as illustrated in the following examples. The vowel /i/ is symbolized as [ij] phonetically in the examples below.

/i4-3/	[ij4-3]	'head'
/i4-3su3-4/	[ij4-3su3-4]	'hair (on head)'
/bi3/	[bij3]	'rain'
/bai3-4/	[baij3-4]	'sun'

The high close front unrounded vowel /i/ occurs word initially, medially and finally as illustrated in the following examples.

/i2-3bu3/	[i2-3bu3]	'lice'
/di2fe2-1/	[di2he2-1]	'thing'
/o2-1ki2/	[o2-1ki1]	'wing'

The high open front unrounded vowel /ɛ/ occurs word initially, medially and finally as illustrated in the following examples.

/ɛ2-1/	[ɛ2-1]	'water, river'
/dɛ2-3dau2-3/	[dɛ2-3dau2-3]	'like this'
/a4-3tɛ2/	[a4-3tɛ2]	'mother'

The mid open front unrounded vowel /e/ also occurs word initially, medially and finally as illustrated in the following examples.

/e3/	[ɛ3]	'foot'
/be2-1fe2-1/	[bæ2-1hæ2-1]	'snake'

The vowel /e/ has the allophones [ɛ] and [æ] which occur in free variation in a few words as illustrated below.

/fe3-4ki2/	[pæ3-4ki2] ~ [pɛ3-4ki2]	'rock'
/be4-3/	[bæ4-3] ~ [bɛ4-3]	'path'

The following sets of words illustrate the lexical contrasts for the four front vowels in Iau.

/bi3/	'rain'
/bi3/	'message'
/bɛ3/	'door'
/be3/	'fire'
/bi2-4/	'chest'
/bi2-4/	'to draw a bow at someone'
/bɛ2-4/	'base of tree'
/be2-4/	'thorn'

The low central nasalized vowel /a/ occurs word initially, medially, and finally as illustrated below.

/a2-4/	[ã2-4]	'land'
/af2-4/	[ã ^p 2-4]	'daughter'
/ta4-3ta3/	[tã4-3ta3]	'star'

The high close rounded back vowel /u/ occurs word initially, medially, and finally as illustrated below.

/u3/	[u3]	'tree'
/du2/	[du2]	'wild pig'
/du3-4si2/	[du3-4si2]	'bird'

The vowel /u/ has the rounded allophone [u] and the unrounded allophone [ü]. The allophone [ü] occurs in the vowel sequence /aui/ as is

illustrated below.

/aui2/	[aüi2]	'front'
/bau3-4/	[baüi3-4]	'reach, come to'

The high open rounded back vowel /u/ occurs word initially, medially, and finally as illustrated below.

/u2-3/	[u2-3]	'heart'
/bu2-3si2/	[bu2-3si2]	'breath'
/tu2/	[tu2]	'sago'

The vowel /u/ has the rounded allophone [u] and the unrounded allophone [ü]. The allophone [ü] occurs in the vowel sequence /auL/ as is illustrated below.

/aüL2-1/	[aüL2-1]	'red'
/aL2-3taüL2-4-3/	[aL2-3taüL2-4-3]	'papaya'

The low close rounded back vowel /o/ occurs word initially, medially, and finally as illustrated below.

/o2-1/	[o2-1]	'sand'
/ko3/	[ko3]	'tobacco'
/o2-1ki2/	[o2-1ki2]	'wing'

The following sets of words illustrate the lexical contrasts for the three back vowels in Iau.

/fu2-1/	[pu2-1]	'hurt (incompletive)'
/fö2-1/	[pö2-1]	'canoe'
/fo3/	[pö3]	'wind'
/u3/	[u3]	'tree'
/u3-4/	[u3-4]	'toy arrow'
/o3/	[o3]	'times (frequency of something)'

2.3 Vowel Clusters

There is restricted distribution of the vowel sequences which occur within a syllable. None of the sequences begin with /i, i, L/. In a vowel sequence, /e/ is followed only by /i/; /u/ is followed only by /i/; /u/ is followed only by /L/; /o/ may be followed by either /i/ or /e/. The vowel /a/ may be followed by any vowel but /o/. See Figure 2 below.

	i	i	L	e	a	u	u	o
i								
i								
L								
e		ei						
a	ai	ai	aL	ae		au	au	
u		ui						
u			uL					
o		oi		oe				

Figure 2 Permitted Vowel Sequences

The following are examples of the two vowel sequences.

/ae4-3/	'bird type'	/uL3/	'blood'	/boe3/	'spirit house'
/ai4-3/	'cross-cousin'	/ui3/	'house'	/boi3/	'firewood'

/tai2-4-3/	'juice'	/bai3/	'fly'
/taɿ2-4-3/	'little taro'	/baɿ3/	'sago pounder'
/fau2-1/	'worm'	/kei2/	'pandanus dish'
/faʊ2-1/	'breeze'		

All sequences of three vowels begin with /a/. Of the three vowel sequences, only /aui/ and /aʊɿ/ occur. For example:

/aui2/	'sister'
/aʊɿ2/	'the front of something'

3.0 THE SYLLABLE

The syllable in Iau is defined as a nucleus with tone, with one, two or three vowels, with an optional consonant onset, and an optional final consonant.

	T	
(C)	V	(C)
	VV	
	VVV	

Syllables, then can be either simple or complex. Simple syllables consist of a single vowel plus tone. Complex syllables consist of a sequence of vowels plus tone. The following examples illustrate the contrastive syllable types in Iau.

V	/a2/	'I'
CV	/du2/	'wild pig'
VC	/of2-3/	'arm'
CVC	/kaf2-1/	'bow'
VV	/ai2/	'sister'
CVV	/bai3-4/	'fly'
VVV	/aui2/	'front of'
CVVV	/bau2-3/	'jaw'

The same tones or tone sequences occur with both simple and complex syllables. This is illustrated in Figure 3 on monosyllabic nouns and in Figure 4 on monosyllabic verbs.

	CV	CVV	CVVV	CVC
2	be2 'father-in-law'	faɿ2 'tree'	aui2 'sister'	baf2 'eagle'
3	be3 'fire'	faɿ3 'pigeon'	--	kef3 'leg bone'
2-1	be2-1 'belt'	aɿ2-1 'palm'	kaʊɿ2-1 'ginger'	kaf2-1 'bow'
4-3	be4-3 'path'	taɿ4-3 'rack'	aʊɿ4-3 'bird type'	of4-3 'bread fruit'
2-4	bc2-4 'thorn'	faɿ2-4 'arrow'	saʊɿ2-4 'tree'	af2-4 'daughter'
2-3	be2-3 'flower'	aɿ2-3 'tongue'	bau2-3 'jaw'	of2-3 'arm'
3-4	be3-4 'eel'	baɿ3-4 'cane blossom'	--	tof3-4 'young'
2-4-3	be2-4-3 'tree fern'	taɿ2-4-3 'new taro'	--	(ba3)kof2-4-3 'hawk'
3.2-3	da3.2-3 'mountain'	--	--	--
4-3.2-3	bu4-3.2-3 'bird type'	sae4-3.2-3 'knife'	bau4-3.2-3 'tree'	--
2-1.3	kɿ2-1.3 'bird type'	--	--	--

Figure 3 Contrastive Tone Sequences on Simple and Complex Monosyllabic Nouns

	CV	CVV	CVVV	CVC
2	ba2 'come TotPun'	tai2 'pull to TotPun'	taui2 'make TotPun'	--
3	ba3 'come ResDur'	tai3 'pull to ResDur'	bau3 'arrive ResDur'	--
2-1	ba2-1 'come TotInc'	tai2-1 'pull to TotInc'	taui2-1 'make TotInc'	--
4-3	ba4-3 'come ResPun'	tai4-3 'land on ResPun'	kaul4-3 'move ResPun'	--
2-4	ba2-4 'come TelPun'	tai2-4 'fall TelPun'	tau2-4 'tip over TelPun'	--
2-3	ba2-3 'come TelInc'	tai2-3 'fall TelInc'	tau2-3 'tip over TelInc'	--
3-4	ba3-4 'come TotDur'	tai3-4 'pull to TotDur'	bau3-4 'arrive TotDur'	--
2-4-3	ba2-4-3 'come TelDur'	tai2-4-3 'fall TelDur'	--	--
2-1.3-4	be2-1.3-4 'fill Temp ChangeState'	Tai2-1.3-4 'pull Temp ChangeState'	--	--
2-1.3	be2-1.3 'fill Achieve Temp ChangeState'	tai2-1.3 'pull Achieve Temp ChangeState'	--	--
4-3.3-4	ba4-3.3-4 'come Res ChangeState'	boi4-3.3-4 'down into Res ChangeState'	--	--
4-3.3	ba4-3.3 'come Achieve Res ChangeState'	boi4-3.3 'down into Achieve Res ChangeState'	--	--
4-3.2-3	--	boi4-3.2-3 'down into Inc Res ChangeState'	--	--
3.2-4	--	--	bau3.2-4 'arrive Achieve Tel Change State'	--
3.2-3	--	--	bau3.2-3 'arrive Inc Achieve Change State'	--
2.3-4	--	sui2.3-4 'pass away Enter Change State'	--	--
2.3	--	sui2.3 'pass away Achieve Enter Change State'	--	--
2-3.2-1	--	foi2-3.2-1 'ask Telic Future'	--	--

Figure 4 Contrastive Tone Sequences on Simple and Complex Monosyllabic Verbs

3.1 Stress

Stress in Iau is predictable. In disyllabic words, stress falls on the second syllable as illustrated below.

/sa3di3/	[sa3'di3]	'tree kangaroo'
/da3du2/	[da3'du2]	'and'

4.0 TONE

The function of tone in Iau is complex. It is used for lexical contrast and also for contrast of aspect and other grammatical function.

4.1 Tone Contrasts on Monosyllabic Nouns

There are eight different contrastive tones on monosyllables in Iau. Two are level tones and six are contrastive tone sequences. These are illustrated below.²

Level Tones

/be2/	'father-in-law'
/be3/	'fire'

Rising Tones

/be2-1/	'snake'
/be4-3/	'path'

Falling Tones

/be2-4/	'thorn'
/be2-3/	'flower'
/be3-4/	'small eel'

Fall Rise Tones

/be2-4-3/	'tree fern'
-----------	-------------

The following are examples of contrastive tone as it occurs on monosyllabic nouns.

/da2/	'young (pl)'
/da2-1/	'dog'
/fa2/	'feces'
/fa2-1/	'sago grub'
/fa3-4/	'ribs'
/fa4-3/	'bank, shore'
/sae2-1/	'brother in law'
/sae4-3/	'ghost, spirit'
/te2/	'pig wallow'
/te3/	'mosquito'
/te2-1/	'man, male (human)'
/te4-3/	'edible tuber'
/te2-4/	'calf (of leg)'
/te2-3/	'inlet of body of water'
/te3-4/	'flooring'

4.2 Tone Contrasts on Iau Verb Stems

Within the verbs, the segmental phonemes make up the meaning of the stems. The aspect is carried by the tone. Each of the eight tones in Iau represents a different aspect. These are listed below. See Bateman, 1986 for a more complete discussion of the meanings of the aspect tones in Iau.

/2/	'totality of action punctual'
/3/	'resultative durative'

/2-1/	'totality of action incompleted'
/4-3/	'resultative punctual'
/2-4/	'telic punctual'
/2-3/	'telic incompleted'
/3-4/	'totality of action durative'
/2-4-3/	'telic durative'

In the following examples, the segmental stem ba means 'to come'. The meaning 'to come' is modified by the various tone morphemes of aspect.

/ba2/	'came'
/ba3/	'has come, has shot'
/ba2-1/	'might come, could come'
/ba4-3/	'came to get'
/ba2-4/	'came to end point'
/ba2-3/	'still not at endpoint'
/ba3-4/	'come (process), shoot something'
/ba2-4-3/	'sticking to, attached to'

A word formed by a verb stem plus one aspect tone may frequently have a very different English translation from the same verb stem plus another aspect tone. This is illustrated in the example below. This example uses the verb stem tai which means 'locating in' or 'coming toward'. The English gloss changes as the meaning of the stem is modified by the different aspect tone morphemes.

/tai2/	'pull'
/tai3/	'has been pulled off'
/tai2-1/	'might pull'
/tai4-3/	'land on, (i.e. plane on airstrip)'
/tai2-4/	'fell to ground'
/tai2-3/	'fall to ground (incompleted)'
/tai3-4/	'pull off (process)'
/tai2-4-3/	'falling to ground (durative)'
/tai2-1.3-4/	'pull on, shake (hands)'
/tai2-1.3/	'have pulled on, have shaken (hands)'

Two aspect tones can occur on a single verb stem. When two tones occur on a single syllable, we have called it a tone cluster. There are eleven different clusters of aspect tone on Iau verb stems. In this section the tonal morphemes indicating these two aspects on a single stem have been separated by a dot as in /boi4-3.3-4/. Ten of these tone clusters form change-of-state verbs.

The two change-of-state tone clusters that begin with the high-level tone /2/ are /2.3-4/ and /2.3/. These tone clusters focus on entry into a new state. The following examples with the verb stem sui illustrate these two tone clusters. The verb stem sui means 'to enter into another state or location'.

/sui2.3-4/	'pass away into (world of dead) (process)'
/sui2.3/	'has passed away (achieved)'

The three change-of-state tone clusters that begin with the low-rise tone /4-3/ are /4-3.3-4/, /4-3.3/ and /4-3.2-3/. These tone clusters focus on the change of state as resultative. The verb stem boi means 'to go down through'.

/boi4-3.3-4/	'disappear down into (process)'
/boi4-3.3/	'has disappeared down into (achieved)'
/boi4-3.2-3/	'is disappearing down into (incompleted)'

The three tone clusters that begin with the high-rising tone /2-1/ are /2-1.3-4/, /2-1.3/ and /2-1.2-3/. These tone clusters focus on the change of state as temporary. The verb stem be means 'to be there at location' or

'to cause to be there'.

/be2-1.3-4/ 'to fill up (e.g. a gas tank) (process)'
/be2-1.3/ 'have filled up (e.g. a gas tank) (achieved)'
/be2-1.2-3/ 'partially fill up (e.g. a gas tank) (incompletive)'

The two tone clusters that begin with the low tone /3/ are /3.2-4/ and /3.2-3/. These tone clusters focus on the change of state as achieved. The verbs stem baui means 'to arrive'.

/baui3.2-4/ 'arrive at final destination (telic)'
/baui3.2-3/ 'arrive at intermediate location (telic incompletive)'

The final and eleventh tone cluster on Iau verb stems, /2-3.2-1/, is used to form a kind of future tense on telic verbs. The first tone sequence is the telic incompletive high-falling tone /2-3/. The second tone sequence is the incompletive high-rising tone /2-1/. This eleventh tone cluster only occurs on telic verbs when they co-occur with the intention particle se. The following is an example of a telic future verb /2-3.2-1/. The telic future verb and the intention particle se are underlined in the example below.

/bu4-3 foi2-3.2-1 se3-4/
I ask intend

'I will ask them'

In Iau, in our data, there are seventy-six different sets of verbs. Each set has the same segmental phonemes, but contrastive aspect tone. In the examples below, the meaning of the verb stem is given first. Then a list is given of the different contrastive aspects found on that verb stem in Iau.

/bL/ 'specify location, place in a specific location,
specify identity'

/bL2/ 'put away, store away'
/bL2-1/ 'store temporarily'
/bL2-1.3-4/ 'stop where you are, stop in your tracks'
/bL2-4/ 'is (identity or name of the thing)'
/bL3-4/ 'dance (a jumping or running in place motion)'

/baui/ 'arrive'

/baui3-4/ 'arrive at (process)'
/baui3/ 'have arrived at'
/baui3.2-4/ 'has finally arrived at endpoint location'
/baui3.2-3/ 'has not yet arrived at endpoint location'

/boe/ 'move down into'

/boe3/ 'muddy the water by stirring up the mud bottom'
/boe2-4/ 'throw down into'
/boe2-3/ 'throw down into (incompletive)'
/boe3-4/ 'show (i.e., hold it out for someone to see it)'

/da/ 'locate inside, cause to locate inside'

/da2/ 'ate, put it in (stomach)'
/da3/ 'has been loaded into (vehicle), be carrying'
/da4-3/ 'dip into water, wash something'
/da2-4/ 'has eaten it all up'
/da2-3/ 'eating it up'

4.3 Tone Combinations on Monosyllabic Nouns

Only three of the tone clusters that occur on verbs also occur on nouns. These tone clusters have contrastive lexical function. The following are some examples in which the level tone /3/ is followed by high-falling tone sequence /2-3/. A dot separates level tone /3/ from the high-falling tone sequence /2-3/.

/da3.2-3/ 'mountain'
/fa3.2-3/ 'bladder'

The following are examples of the tone cluster high-rise tone /2-1/ followed by low tone /3/.

/kʌ2-1.3/ 'hawk'
/oi2-1.3/ 'hand'

The following are examples of the tone cluster low-rise tone /4-3/ followed by high-falling tone /2-3/.

/sae4-3.2-3/ 'knife'
/bu4-3.2-3/ 'bird type'

4.4 Tone Contrasts on Two Syllable Words

In the approximately three thousand word Iau dictionary, there are a little over one hundred nouns with two syllables. The other nouns are monosyllabic. The following table shows the tone contrasts which occur on disyllabic nouns in Iau.

1st Syllable	2nd Syllable							
	2	3	2-1	4-3	2-4	2-3	3-4	2-4-3
2	x	x		x	x	x	x	
3	x	x	x	x	x		x	x
2-1	x	x	x			x		
4-3	x	x	x	x	x	x	x	
2-4	x	x	x	x			x	
2-3	x	x					x	
3-4	x	x	x		x		x	
2-4-3								

Figure 5 Contrastive Patterns of Tone on Disyllabic Words

The following are examples of one of each of the contrastive patterns of tone given in Figure 5 above.

/o2su2/	'light'
/di2ka3/	'pillow'
/ka2su4-3/	'wound'
/fi2dʊ2-4/	'fish'
/be2of2-3/	'vine'
/te2su3-4/	'caterpillar'
/be3fu2/	'fire starter'
/a3kʊ3/	'sweet potato'

4.5.2 There is also a downdrift when one high-falling tone /2-3/ follows another. This is illustrated in the following sentences.

1. /sa2-3dL2-3 b 3 bai2-1 de3 dL3-4/
 Contrastive for stay Stative Imperative
 Action

'You just wait (for me).'

2. /bu4-3 fi2-3au2-3 doe2-1 ai2-3 L3-4/
 I really know not Statement

'I really don't know.'

4.5.3 The high-low-falling tone /2-4/ is lowered when following a fall-rise tone /2-4-3/.

- /bi2-4-3 be2-4/
 up is there

'It's up there.'

4.5.4 The high-low-falling tone /2-4/ is also lowered following another high-low-falling tone /2-4/.

- /a2-1se2 L2-1 b 2-3si2 ba2-4 sui2-4/
 Sequence river mouth came to entered
 Marker

'They entered the mouth of the river.'

4.5.5 A low tone /3/ is lowered when following a low-falling tone /3-4/.

- /faf3-4 o3s 2 te3 be2-4/
 axe my where is

'Where is my axe?'

4.5.6 A high-level tone /2/ is lowered when following a low tone /3/.

1. /+L2-1 du3 bi2 be3-4/
 people secretly get maybe

'Maybe someone has stolen it.'

2. /aL3 da2ki4-3 e2-4/
 okay good alright?

'Okay, that's fine.'

4.5.7 The high-rising tone /2-1/ is lowered when following a high-falling tone /2-3/ and is also frequently lowered when following a low level tone /3/.

1. /bu4-3 fi2-3au2-3 doe2-1 ai2-3 L3-4/
 I really know not Statement

'I really don't know.'

2. /sa2-3dL2-3 bu3 bai2-1 de3 dL3-4/
 Contrastive for stay Stative Imperative
 Action

'You just wait for me.'

4.5.8 When one high-rise tone /2-1/ follows another, the second is slightly higher.

1. /bu4-3 ba2-3 be2-1.3 du2-1be2-1/
 I here put but
 'I left it right here, but ...'
2. /di2 o2-1 di2-1 ʌ3-4/
 you take realis- Statement
 Hypothetical
 'You could have taken her (as wife).'

NOTES

1. Iau is one of three dialects of Turu, a Papuan language spoken in the Lakes Plains area of northern Irian Jaya, Indonesia. Turu is classified by Voorhoeve (1975) as in the Tor-Lakes Plains Stock, Trans New Guinea Phylum. Iau is spoken by approximately 400 speakers living in the villages of Fauai and Bakusi along the Van Daalan River and its tributaries. Upstream to the west, Turu is spoken in the villages of Turumo, Efo, and Yererri. The third dialect, Foi, is spoken in the villages of Taiyai and Barere to the north of Fauai on the Rouffaer River.

Research for this paper was done under the auspices of a cooperative project of the Universitas Cenderawasih in Irian Jaya, Indonesia and the Summer Institute of Linguistics. I would like to thank Dr Ken Gregerson and John Clifton, both of the Summer Institute of Linguistics for helping with earlier versions of this paper and Eunice Pike, also of the Summer Institute of Linguistics for help with this final version.

2. In the Iau orthography system, used in previous papers (See Bateman 1986), each of the eight contrastive tones is symbolized as a single unit by a number. The table below shows the correlation between the symbolization of tone used in the Iau orthography and the representation used in this paper.

Representation of tone used in this paper	Iau orthography symbol
2	9
3	8
2-1	7
4-3	6
2-4	5
2-3	4
3-4	3
2-4-3	2
2-1.3-4	7-3
2-1.3	7-8
2-1.2-3	7-4
3.2-4	8-5
3.2-3	8-4
4-3.3-4	6-3
4-3.3	6-8
4-3.2-3	6-4
2.3-4	9-3
2.3	9-8
2-3.2-1	7-4

BIBLIOGRAPHY

- Baiteman, Janet
1986 "Tone Morphemes and Aspect in Iau." In Iau Verb Morphology.
NUSA 26:1-50.
- "Tone Morphemes and Status in Iau." In Iau Verb Morphology.
NUSA 26:51-76.
- 1990 "Pragmatic Functions of the Tone Morphemes on Illocutionary
Force Particles in IAU." NUSA 32:1-28.
- Voorhoeve, C.L.
1975 Languages of Irian Jaya: Checklist Preliminary Classification, Language Maps, Wordlists. Pacific Linguistics Series
B No. 31.