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References

Wolfenden, Elmer, 1971. Hiligaynon Grammar. Hawaii: University Press.

Zork, R. David, 1977. The Bisayan Dialects of the Philippines: Subgrouping and Reconstruction. Pacific Linguistics Series C-No.44. The Australian National University, Australia.

The Morphophonemics of Bantoanon

Introduction

Morphophonemic changes in Bantoanon occur as a result of several processes; morphemes coming together as in affixation, attachment and contractions; a change in the grammatical category of a base or its semantic meaning; a change in intonation patterns; fast speech.

The types of changes which occur in Bantoanon include stress shift, assimilation of one sound to another, change in position of two sounds, loss or addition of particular sounds, replacement of sounds, and various combinations of these types.

Morphological Use of Stress

As has already been stated in the paper on Bantoanon phonology (Kilgour, Hendrickson, July 1984), stress is constrastive. It is manifested as length on the vowel nucleus of open syllables and as voice emphasis or loudness in closed syllables.

The typical stress pattern of a word can be overridden by certain intonation patterns. For example, in the word for flowers buyak the stress occurs on the penultimate syllable [bú:yak]. However, in a sentence of great surprise or anger the length will remain but the stress will shift due to the exclamatory intonation pattern as in 'Don't step on the flower!' [Ayâ gidamaé kag bu:yák]. This intonation pattern and shift in stress to the ultimate syllable has also been observed in discourse at the end of pause groups and phonological paragraphs.

Stress and length are also affected by morphological changes such as affixation, syncope, epenthesis, etc.

1.1 Same Stress Shift

Many affixes do not affect the stress on the derivations; the stress remains in the same position relative to the last syllable. For example, prefixes such as nag- and i- leave the stress where it was in the base, either on the penultimate or ultimate syllable.

base	definition	prefixed form
sakáy	'ride'	nagsakáy
yúto	'cook'	nagyúto
butáng	'put'	ibutáng
sánrok	'dish up'	isánrok

1.2 Ultimate Stress Affixes (->)

There are affixes which operate in such a manner that the stress always occurs on the last syllable of the affixed word. In other words, if stress occurred on the penultimate syllable of the base, it will shift to the ultimate syllable in the affixed word. These affixations include inflections for verb tenses as well as derivational affixes.

1.2.1 Inflection of Verbs

When verbs are inflected for tense and the only affixation is either a prefix or infix (i.e., mag-, ma-, i-, -in-, -um-) there is no shift in stress. These are same stress affixes. However non-actor focus verbs which are affixed with suffixes can undergo ultimate stress shift depending on the syllabic shape of the verb base.

When bases with closed penultimate syllables #CVC.CV(C) are suffixed, the stress will always occur on the last syllable of the inflected form regardless of its position in the base (exceptions are in forms that undergo syncope. See section 4.1).

Bases with open penultimate syllables #CV.CV(C) retain the stress in the inflected form in its original position relative to the last syllable. Compare the following verbs inflected for future tense and imperative mood in undergoer focus.

base	definition	future	imperative
yúto	'cook'	ayutúon	yutúa
búnak	'wash clothes'	abunákan	bunáki
buyár	'dry in sun'	abuyarón	buyar
hímbis	'scale fish'	ahimbisón	himbisá
búsri	'errupt'	abusrión	busrií
istár	'live'	aistarón	

Some exceptions to the above rule have been oberved, mostly with goal focus verbs. The stress can be either on the penultimate or ultimate syllable of words whose bases exhibit penultimate stress.

base	definition	penultimate	<u>ultimate</u>
súkà	'vinegar'	asukáan	asúkaán
asúkar	'sugar'	aasukáran	aasúkarán
túyo	'soy sauce'	atuyúhan	atuyuhán
lána	'coconut oil'	alanáhan	alánahán

1.2.2 Adjectives

Adjectives which express moderation by reduplication of their bases occur with ultimate stress shift on both the base and its reduplication.

base	definition	reduplicated form
kúyang	'lacking'	kuyáng-kuyáng
maníwang	'thin'	maniwáng-niwáng
hinóg	'ripe'	hinóg-hinóg

Some stative verbs and change of state verbs can occur as unaffixed adjectives. These adjectives all have stress occuring on the ultimate syllable. Zork (1977) calls this the result of being suffixed with a 'zero suffix' which moves the stress to the right. Compare the following:

verb	definition	<u>adjective</u>
natápos	'finish'	tapós
nabásag	'break'	baság
nabasâ	'wet'	basâ
nahángit	'angry'	hangít

1.2.4 Spanish loan words

There are some Spanish loan words in Bantoanon which when affixed with the nominalizer -dor occur with stress on the ultimate syllable.

<u>verb</u>	<u>definition</u>	<u>noun</u>
trabáho	'work'	trabahadór
arádo	'plow'	aradór
lúgra	'no limit'	lugradór

1.3 Penultimate Stress Affixes (<-)

Some affixes involve a stress shift so that all the derivatives are stressed on the penultimate syllable. These affixes include aspectual affixes on verbs and derivational affixes on derived nouns and adjectives.

1.3.1 <u>-ka-</u>

The collective action affix -ka- on both the derived noun and the verb cause stress to shift to the penultimate syllable.

<u>base</u>	definition	verb	collect. noun	collect. verb
sakáy	'ride'	nagsakáy	kasákay	nagkasákay
nunót	'go with'	nagnunót	kanúnot	nagkanúnot
kláse	'class'		kakláse	nagkakláse

Other collective verbs expressing multiple actors also undergo penutimate stress shift.

base	definition	collective verb
basâ	'wet'	nagkabásà
buhô	'hole'	nagkabúhò
tíkrag	'fall'	nagkatíkrag

1.3.2 mag- -an

The reciprocal action circumfix mag--an.

base	definition	reciprocal action
baríl	'gun'	nagbarílan
istórya	'converse'	nagistoryáhan
súntok	'box'	nagsuntúkan
sugót	'agree'	nagsugtánan

1.3.3 -in-

The repetitive action suffix -in-.

base	definition	<u>verb</u>
bakáy	'buy'	nagbinákay
tawóg	'climb'	nagtináwog
uyán	'rain'	nagiinúyan
sáka	'go up'	nagsinákay
súyat	'write'	nagsinúyat

1.3.4 manog, inog

The immediate future action affixes manóg and inóg.

base	definition	IMF verb
tabók	'to cross'	manogtábok
butáng	'to put'	manogbútang
pánaw	'to walk'	maogpánaw
inóm	'to drink'	inogínom
tubâ	'coconut wine'	inogpánubâ
katúyog	'to sleep'	inogkatúyog

Note that in the last two examples, verbs with three syllables do not exhibit this stress shift.

The nominalizer actor topic affix $man \acute{o}g-$ and the instrument affix inog- also cause penultimate stress shift.

base	definition	<u>derived noun</u>
bunít	'fishing tackle'	manogbúnit
tawóg	'to climb'	manogtáwog
yúto	'to cook'	manogyúto
rabók	'firewood'	inográbok
lampáso	'to skate floor'	inoglampáso

1.3.5 Collective and Abstract Nouns with ka- -an

With derived collective and abstract nouns affixed with ka--an there is usually penultimate stress shift. There are some exceptions to this and many of these seem to be speaker dependent. Some of these differences may be due to the fact that neighboring dialects have a different stress pattern and perhaps Bantoanon speakers are sometimes using the borrowed forms. There are some words however where the difference in stress pattern is a contrastive feature, as in $kanid\acute{u}gan$ and $kan\acute{u}dug\acute{u}an$.

<u>base</u>	definition	derived noun	<u>definition</u>
nidúg	'coconut'	kanidúgan	'coconut grove'
		kanídugán	'pile of coconuts'
ibá	'accompany'	kaibáhan	'companion'
		kayb'hánan	
likót	'garbage'	kalikután	'place of garbage'
táwo	'person'	katawúhan	'mankind'
kayáki	'man'	kayakíhan	'men'
rágat	'ocean'	karagátan	'oceans'
		karágatán	
lángit	'sky'	kalangítan	'heavenlies'
		kalángitán	
guló	'noise'	kagulúhan	'noise'
dupít	'dirt'	kadupítan	'dirty place'
matuór	'true'	kamatuóran	'truth'
salâ	'wrong'	kasal-ánan	'sinfulness'
tápos	'finish'	katapúsan	'end of'
		katápusán	
búdlay	'tired'	kabudláyan	'tiredness'
parás	'active'	kaparásan	'commotion'
		kapárasán	
sádor	'know'	kasadorán	'knowledge'

1.3.6 The Completive Particle -ey

The completive particle -ey 'already' tends to cause penultimate stress shift in #CV.CV(C). Also most speakers tend to produce and write the particle as a separate word with a word initial consonant which is identical to the word final consonant of the preceding word. For this reason it may be better to write the particle attached to the word. This would produce a new syllable pattern CV.CV.CVC and primary stress then falls on the ultimate syllable (ey)

and secondary stress ('v) on the penultimate syllable of the verb base.

<u>verb</u>	verb + <i>ey</i>	attached <i>ey</i>	<u>definition</u>
nag-uyán	nag-úyan éy	nag-úyanéy	'rained already'
naghumán	naghúman éy	naghúmanéy	'made already'
hinóg	hínog éy	hínogéy	'ripe already'
basâ	básà éy		'wet already'
tahî	táhì éy		'sewn already'
wayâ	'yâ éy		'none left '

1.3.7 Adjectives with -non

Adjectives formed with -non have as their base words denoting location and the derived forms denote that the person is either from that place or has characteristics associated with the place. Besides penultimate stress shift there are other morphological changes with this affix including epenthesis (addition of ha, a, h and metathesis of h and n and the loss of word final n next to -non.

base	definition	<u>derived adjective</u>
búkir	'hills'	bukírnon
b nwa	'town'	banwahánon
lángit	'heaven'	langítnon
yáwas	'flesh'	yawásnon
Cebú		Cebuhánon
Odióngan		Odiongánon
Bantón		Bantoánon
Símara		Simaránhon
Calatráva		Calatrabánhon

1.3.8 The suffix -ero.

Penultimate stress shift has also been observed on both Bantoanon words and words of Spanish origin in which a noun or verb is suffixed to form an actor topic noun (final a = female, o = male). (Note the other morphophonemic changes with this suffix.)

<u>base</u>	definition	<u>derived noun</u>
aláhas	'jewelry'	alahéro
kusína	'kitchen'	kusinéra
libák	'back-bite'	libakéra
labá	'wash clothes'	labandéra
rigatón	'wholesale'	rigatunéro

1.4 Reverse Stress Affixes (<->)

Some affixes introduce a reverse effect on the regular stress pattern of the base. If the base has penultimate stress the derivation will have ultimate stress; if the base has ultimate stress and derived form with have penultimate stress.

1.4.1 Ma- -an Adjectives

Derived ma--an adjectives meaning to possess the quality denoted in the base.

base	definition	<u>adjective</u>
sínà	'jealous'	masínaón
úgot	'tantrum'	maúgutón
libák	'back-bite'	malibákon
sakít	'sick'	masakíton
ubós	'down'	mapainubúson

As with verb inflection, this shift seems to be dependent on the syllabic pattern of the base. Bases with closed stressed penultimate syllables C'VC.CV(C) do not exhibit this stress shift; stress occurs on the penultimate syllable of the derived form rather than on the ultimate. Note that this places stress on open syllables in the base. Compare the following.

base	definition	verb	<u>adjective</u>
úgot	'tantrum'	augúton	maugutón
libák	'back-bite'	alibakón	malibákon
sádya	'happy'	apasadyahón	masadyáhon
palángga	'love'	apalanggaón	mapalanggáon

when the repetitive infix -in- (`-) is added to CV.CV(C) verbs and derived adjectives, the resultant form can either be stressed on the ultimate or penultimate.

base	definition	<u>adjective</u>	
táhor	'honor'	matinahurón	matinahúron
búlig	'help'	mabinuligón	mabinulígon
palángga	'love'	mapinalanggaón	mapinalanggáon

1.4.2 Derived ka- -on nouns

Derived nouns with the ka--on affixation are similar to ma--on adjectives in that the reversing stress shift is dependent on the syllabic shape of the base. Open penultimate syllables exhibit this shift whereas closed penultimate syllables do not.

base	definition	<u>derived noun</u>
hángit	'anger'	kahangitón
támar	'lazy'	katamarón
putî	'white'	kaputíon
itóm	'black'	kaitúmon
púbri	'poor'	kapubríhon
gáb-i	'night'	kagab-íhon

Exceptions are also seen with epenthesis. Some of these forms occur with the addition of -n- preceding the -on suffix. The addition of the -on causes the stress to fall on the penultimate syllable in all cases. Compare the following. (Note the metathesis of the n with glottal and h.

base	definition	derived noun	
bátà	'child'	kabataón	kabatán-on
ága	'morning'	kaagahón	kaagánhon
babâ	'go down'	kababáon	kababán-on
kúyang	'lack'	kakuyangón	kakuyángnon

1.4.3 Substantives

Substantives (inflected verbs which are nouns in grammatical sentences) show this same reverse stress shift pattern on future tense, non-actor focus forms which are suffixed with -on and -an. Note that the substantive does not occur with the affix a-.

base	definition	verb	<u>substantive</u>
yúto	'cook'	ayutúon	yutuón
búnak	'wash clothes'	abunákan	bunakán
buyár	'dry in sun'	abuyarón	buyáron
kasáy	'marry'	akasáyon	kasáyon
plántsa	'iron'	aplantsahón	plantsáhon
rayá	'carry'	aráy-on	ray-ánon ray-únon
bakáy	'buy'	abákyon	bakyánon

In the last two examples where the verb has undergone syncope causing penultimate shift, the substantive form occurs with the addition of -an-. Alternately this could be the root being suffixed with -anon instead of -on.

These substantives can also occur in a plural form which occurs with ${\tt CV}$ reduplication and the verb stress pattern.

verb	substantive	(plural)
ayutúon	yuyutúon	
aráy-on	raráy-on	
abákyon	babákyon	

With past tense -in- these substantives do not exhibit this reverse stress shift.

base	verb	<u>substantive</u>
bakáy	binakáy	binakáy
buyár	binuyár	binuyár
búnak	gingbunákan	binunákan
yúto	gingyúto	niyúto

1.4.4 Derived Nouns

The following derived nouns are similar to the above substantives. These nouns are suffixed with -an and exhibit contrastive stress with their verb counterparts. They denote a place or object where the action is performed.

base	definition	verb	<u>derived verb</u>
búnak	'wash clothes'	abunákan	bunakán
dáyon	'stay somewhere'	adayúnan	dayunán
kórkor	'grate'	akorkorón	korkóran korkorán
hígra	'lie down'	ahigraán	higráan
yúp-og	'wallow'	ayup-ugán	yup-úgan
istár	'live'	aistarán	istáran

1.4.5 Pala-

The affix pala- 'fond of' introduces a reverse stress affect on the base. However with many speakers this reversed stress is only a variant. The most frequently used form is marked by \star .

<u>base</u>	definition	pala-	
bakáy	'buy'	palabákay	*palabakáy
áway	'fight'	*palaawáy	palaáway
katúyog	'sleep'	palakatúyog	

As with some ka--an derived nouns, the difference in stress placement may be due to a difference in meaning as in the following.

base	definition	pala-	<u>definition</u>
inóm	'drink'	palaínom	'fond of drinking liquor'
		palainóm	'fond of drinking water,
			milk, coffee, etc.'

1.5 Ultimate/Penultimate Stress Shift (-> <-)

There is a fifth pattern of stress shift observed on words with reduplicated bases. In this pattern ultimate stress occurs on the base and penultimate stress on the reduplication.

1.5.1 Intensive Adjectives

adjective	definition	intensive form
dupít	'dirty'	kadupít-dúpit
isót	'small'	kaisót-ísot
níwang	'thin'	kaniwáng-níwang
támar	'lazy'	katamár-támar

1.5.2 Repeated Action Verbs

verb base	definition	repeated action
liwás	'go outside'	nagliwás-líwas
abót	'arrive'	nagabót-ábot
bálik	'return'	nagbalík-bálik
líwat	'repeat'	nagliwát-líwat
túngon	'stop'	nagtungón-túngon

1.5.3 Pa- Adverbial Affix of Manner and Repeated Action

These are only variant forms; the other forms occur with no stress shift.

<u>base</u>	definition	pa- form	
bálik	'return'	pabalík-bálik	
íntik	'chop small'	paintík-íntik	paíntik-íntik
líwat	'repeat'	paliwát-líwat	palíwat-líwat
ralî	'hurrv'	paralî-rálì	paralî-ralî

1.5.4 Diminutive Action and Pretense

Diminutive action and verbs and nouns denoting pretense occur with reduplication of the base and/or a -|iu|r- infix.

base	definition	<u>diminutive acti</u>	<u>on</u>
yúto	'cook'	nagyutó-yúto	
pánaw	'walk'	nagpanáw-pánaw	nagpúpanáw-pánaw
káon	'eat'	nagkaón-káon	
tawóg	'climb'	nagtawóg-táwog	
base	definition	pretense	
táwo	'person'	nagtawó-táwo	
baríl	1 1	1	
	'gun'	baríl-báril	nagbaríl-báril

Bases with closed penultimate syllables and bases with three syllables do not undergo ultimate stress shift on the base although they do have penultimate stress on the reduplication. However, often the third syllable in the

base is dropped in which case the base exhibits ultimate stress on its shortened form. Compare the following.

base	definition	reduplicated form	
límpyo	'clean'	naglímpyo-límpyo	
kánta	'sing'	nagkánta-kánta	
lampáso	'skate'	naglampáso-lampáso	naglampá-lampáso
rayágan	'run'	nagrayágan-rayágan	nagrayá-ray'gan
balígya	'sell'	nagbalígya-balígya	nagbalíg-balígya

In the three syllable word *idamo* 'play' occuring with ultimate stress in the base, the reduplication does not undergo penultimate stress shift. However the base undergoes ultimate stress shift in its shortened form.

ídamô 'to play' nag-ídamô-idamô nag-idá-idamô

1.6 Use of Contrastive Stress on Bases

Many verb bases also occur as unaffixed nouns. With most of these there is no difference in stress placement on the two parts of speech. However there are a few instances where stress is contrastive. Compare the following.

<u>verb</u>	definition	noun	<u>definition</u>
higót	'to tie'	higót	'rope'
hímbis	'to scale'	hímbis	'scales'
rábok	'to burn'	rábok	'fire'
		rabók	'firewood'
yákot	'to mix'	yakót	'ingredients'

As stated before, stress is a contrastive feature. Stress placement on a base can be used to denote different parts of speech such as has already been demonstrated in sections 1.2.3, 1.4.3, and in the above. It can also be used on bases to denote different meanings of the same part of speech.

base	definition	derived form	<u>definition</u>
inóm	'drink'	palaínom	'fond of drinking
			liquor'
		palainóm	'fond of drinking
			(general)
nidóg	'coconut'	kanidúgan	'coconut grove'
		kanidugán	'pile of coconuts'
úsos	'slide'	usúson	'steep'
		ususón	'halfway down'
magúyang	'old'	magúyang	'parent'
		maguyáng	'older sibling'
tanóm	'to plant'	tanóm	'plant (general)'

tánom	'to plant rice seedlings'	tánom	'plant rice seedlings'
rábok	'to burn'	rábok rabók	'fire' 'firewood'

1.7 Form Classes with Fixed Stress Patterns

Certain stress patterns are based on analogies within form classes (Zork 1977). In these classes groups of words are part of a semantic or grammatical paradigm and therefore receive stress on the same syllable.

1.7.1 Pronouns

Nominative pronouns are found as either the topic of a clause or in emphatic position and are stressed on the ultimate syllable. The other pronoun sets (genitive and oblique) are stressed on the penultimate.

Nomin	ative	case	Geniti	ive case	Obliq	ue ca	<u>se</u>
$Ak\phi$	kitá	kamí	nákò	námò	ákò	ámò	átò
Ikáw	kamó		nímo	nínro	ímo	ínro	
Sidá	sinrá		nída	nínra	ída	ínra	

1.7.2 Deictics

Most deictics also occur with stress on the ultimate syllable.

kalí	kinâ	kató		
rahalî	rahinâ	rahagtó	raghágto	???
dilí	rahâ	rotó		

1.7.3 Negatives and Interrogatives

Most negatives and interrogatives occur in clause initial postion and therefore are emphatic. Most of these are stressed on the ultimate syllable unless the form has a closed penultimate syllable.

Negatives bukô wayâ indî ayâ

Interrogativ	<u>res</u>	
Sío	sín-o	
Nío	nín-o	
Kanío	kanín-o	nín-o
ásì		
hariín	riín	
saunó kaunó	sán-o kagunó	kasán-o
paunó maunó		
pilá tig-pilá		

1.7.4 Numerals

kumústa

The numbers one' through 'nine' as well as 'hundred' have stress on the ultimate syllable.

Number	<u>definition</u>
usá	'one'
ruhá	'two'
tatló	'three'
ap-át	'four'
lim	'five'
an-óm	'six'
pitó	'seven'
wayó	'eight'
sidám	'nine'
gatós	'hundred'

2. Morphophonemes

2.1 H

As stated in the Bantoanon phonology paper, there are no vowel sequences in Bantoanon without intervening consonants including glottal stop. Thus, when a verb root ending in a vowel is suffixed with a vowel initial morpheme an -h is inserted between the two vowels. This h even appears in derivatives that have syncopated (lost) one of the vowels. Compare the following.

<u>verb root</u>	definition	future tense with -on, -an
básà	'read'	abasáhon
bar	'block'	abarahón
límpyo	'clean'	alimpyuhán
ibá	'accompany'	aíbhan
unó	'do'	aúnhon
yútò	'cook'	ayutúon
tahî	'sew'	atahión

2.2 Glottal (-)

There are a few words ending in the vowel -a which when suffixed have a glottal inserted between the two vowels rather than an -h. This is always accompanied by syncope of the root final vowel, resulting in the sequence #CVC-on or #CVC-an.

verb root	definition	future tense	with -on, -an
rayá	'carry'	aráy-an	aráy-on
pangutána	'question'	apangután-on	apangután-an
tigána	'save'	atigán-an	

2.3 N (ng + C)

Some prefixes end in the phoneme -ng (pang-, magpang-, apang-, ipang-, kasing-, mang-). When these prefixes are attached to a root assimilation of the nasal occurs at the same point of articulation as the word initial consonant of the root. With some of these affixes full assimilation may occur in which the initial consonant of the root is lost after the nasal is assimilated; the nasal assumes the place of both itself and the lost consonant (N). See below.

-ng	+	С	->	N	
-ng		p b m		m	
		t d n s		n	
		k q ng		ng	
		1		ngl	nl
		r		ngr	nr
		g		ngg	
		h		ngh	
		W		ngw	
		Y		ngy	

2.3.1 Pang-

The prefix pang- occurs on derived nouns and adjectives as an instrument affix and on gerunds as plural actor affix. With nouns and adjectives there is either no assimilation of the -ng or there is assimilation without loss of the first C. With gerunds there is full assimilation with loss

of ;the first consonant. The bases of these forms can be nouns or verbs. Compare the following.

base	definition	instrument	gerund
bunit	'fishing tackle'	pangbunit/pambunit	pamunit
puksi	'pick floweres'	pangpuksi/pampuksi	pamuksi
prito	'fry'	pangprito/pamprito	pamrito
sursi	'mend'	pangsursi/pansursi	panursi
kutkot	'dig'	pangkutkot	pangutkot
limpyo	'clean'	panglimpyo/panlimpyo	, ,
isra	'fish'	pangisra	pangisra

Some verbs whose bases are nouns occur only with the plural action affix -pang- (see 2.3.2 below). The derived instrument forms of these bases are of two types. Those affixed with pang- (instrument) + base denote instruments used for the noun denoted in the base; those affixed with pang- (instrument) + pang- (plural action) + base denote instruments used for the activity denoted by the derived plural action gerund/verb form. Compare the following.

base	definition	derived form r	definition
isra	'fish'	pangisra (instr.)	'sth used for fish (eg. a fish trap) as opposed to sth used for crabs, shrimp, etc.'
		<pre>pangisra (verb/ger.)</pre>	'fishing'
		pangpangisra (instr.)	<pre>'sth used for fishing such as a boat or net'</pre>
kahoy	'wood'	pangkahoy (instr.)	'sth used for wood (eg. nails) rather than for sth else, such as cement'
		<pre>pangahoy (verb/ger.)</pre>	'to gather wood'
		pangpangahoy (instr.)	'sth used to gather wood, such as a bolo'

2.3.2 Magpang-, Apang-, and Ipang-

The prefixes magpang- and apang- of plural action verbs when attached to the root fully assimilate just as the pangaffix of gerunds. However the partially assimilated forms have also been noted. Verbs like those mentioned above

which always occur as plural action are always fully assimilated.

base	definition	verb in progressive tense
bakay	'buy'	nagpapamakay
bunit	'fish tackle'	nagpapamunit
tahi	'sew'	nagpapanahi
tao	'give'	nagpapanao
kahoy	'wood'	nagpapangahoy
rayagan	'run'	nagpapangrayagan/nagpapanrayagan
gisi	'tear'	nagpapanggisi
arado	'plow'	nagpapangarado
isra	'fish'	nagpapangisra

The instrument focus prefix of verbs, <code>ipang-</code>, like the noun form with <code>pang-</code> does not fully assimilate. ???

base	definition	instrument focus form
badar	'pay'	ipangbadar
prito	'fry'	ipangprito
kutkot	'dig'	ipangkutkot
tahi	'sew'	ipangtahi
limpyo	'clean'	ipanglimpyo

2.3.3 *Kasing-*

The prefix kasing— is a social affix attached to noun bases which can be translated 'fellow'. The only assimilation noted so far is with banwa.

base	definition	derived form	<u>definition</u>
banwa	'town'	kasimanwa	'fellow town mates'
maestra	'teacher'	kasingmaestra	'fellow teachers'
kaklase	'classmate'	kasingkaklase	'fellow classmates'

2.3.4 Mang-

This prefix is an actor topic nominalizer which perhaps has been borrowed from Tagalog. Assimilation with this prefix varies; with some bases there is full assimilation and with others partial assimilation. There is reduplication of the first CV in which the C of the reduplicated form is the same as the N (or C of the partially assimilated form). Except for one noted exception (takaw) all other forms exhibit penultimate stress shift.

base	definition	actor topic noun	<u>definition</u>
dúkot	'hold-up'	mandurúkot	'hold-upper'
ísra	'fish'	mangingísra	'fisherman'
úma	'farm'	mangungúma	'farmer'
kíkil	'swindle'	mangingíkil	'swindler'
tákaw	'steal'	mananakáw	'thief'
tahî	'sew'	mananálì	'seamstress'
tubâ	'coconut wine'	manunúbà	'tuba drinker'
bakáy	'buy'	mambabákay	'buyer'

3. Morphophonemic Alternations

Besides the assimilation which occurs with the N morphophoneme, there are other changes which occur when consonants come together in suffixation. In these instances certain consonants are replaced by others depending on the contingent consonant. All of these changes occur following syncope (loss) of the vowel in the final syllable of the base.

3.1 d -> y

<u>base</u>	aff	ix	affixed	form	<u>definition</u>
hudót +	-an	->	húytan		'to hold'

$3.2 y \rightarrow 1$ (only next to s and r)

3.3 y -> r

wayâ	+	-an	->	wár-an	'consume'
gúya	+	-an	->	gúr-an	'laugh'

3.4 r -> d

$$suy\'or + -an -> s\'ulran ->$$
 'put inside' $s\'uldan -> s\'uldan$

3.5 g -> d

This is speaker variant. Here the g assimilates to the same point of articulation as the t but retains the voicing.

```
kag\acute{a}t + -on -> k\acute{a}gton \sim k\acute{a}dton 'to bite' 
hig\'ot + -an -> hígtan \sim hídtan 'to tie' 
sug\'ot + -an -> súgtan \sim súdtan 'to agree'
```

$3.6 \circ -> w \text{ (next to h only)}$

$$tao + -an -> taw-an$$
 'to give'

There has been one instance noted where the glottal in a [a-i] sequence is lost and the ai forms the glide [ay]. (There are other Vy sequences in Bantoanon which have been interpreted as VC such as taybo, kuyba.)

4. Morphophonemic Mechanisms

There are several morphophonemic mechanisms of change in Bantoanon, most of which are very predictable.

4.1 Syncope

The loss of a vowel, or syncope, from bases in derivations is a very common phenomenon. The vowel loss often results in consonant clusters which can trigger other morphophonemic changes such as consonant changes, metathesis, etc. Syncope most frequently occurs in bases with stressed closed final syllables although it can occur in unstressed and open final syllables also. Syncope always results in penultimate stress shift.

4.1.1 Open Final Syllable

<u>base</u>	+	affix		derived form	<u>definition</u>
ibá	+	-an	->	íbhan	'to accompany'
ití	+	-an	->	íthan	'to lose water
					(in cooking)'
yukó	+	-an	->	yúkhan	'to nest, sleep'
taó	+	-an	->	táw-an	'to give'

In some words ending in the vowel -a a glottal is inserted between the vowels instead of an h (see 2.2).

base	+	affix	->	derived form	definition
rayá	+	-an -on	->	ráy-an, -on	'to carry'
gúya	+	-an	->	gúr-an	'to laugh'
tigána	+	-an	->	tigán-an	'to save'
pangutána	+	-an	->	pangután-an	'to question'
kiláya	+	magkaan	->	magkakilay-an	'to meet'

4.1.2 Unstressed Final Syllable

These include the preceding examples (gúya, etc.) as well as the following.

base	+	affix	->	derived form	<u>definition</u>
gúdom	+	-an	->	gúdman	'covered with ants'
ráyom	+	-an	->	ráyman	'to be in the dark'
káon	+	-on	->	kán-on	'rice'
bílin	+	-an	->	bínlan	'to leave sth
					with smb'

4.1.3 Stressed Closed Final Syllable

base	+	affix	->	derivation	<u>definition</u>
higót	+	-an	->	hígtan	'to tie'
rukót	+	-an	->	rúktan	'to burn'
hudót	+	-an	->	húytan	'to hold'
bakáy	+	-on	->	bákyon	'to buy'
takáy	+	-an	->	tákyan	'to breed'
rakóp	+	-on	->	rákpon	'to catch'
tapón	+	-an	->	tápnan	'to infect'
tanóm	+	-an	->	támnan	'to plant'
ruyóm	+	-an	->	rúyman	'to be in dark'
hubás	+	-an	->	húbsan	'to recede'
sunór	+	-an	->	súnran	'to follow'
asór	+	-an	->	ásran	'to pound rice
					together'
suyór	+	-an	->	súdlan	'to put inside'
punô	+	-on	->	pún-on	'to fill up'
sugâ	+	-an	->	súg-an	'to ignite'
turâ	+	-an	->	túr-an	'to save'
salâ	+	-an	->	sál-an	'to be wrong'
babâ	+	-an	->	báb-an	'to get down'

Words in which the first consonant of the last syllable is a glottal [CV.qVC) undergo metathesis of the glottal after syncope of the vowel.

<u>base</u>	+	affix	->	derivation	<u>definition</u>
baóy	+	-on	->	báy-on	'to get'
muót	+	-an	->	mút-an	'to like'
tuón	+	-an	->	tún-an	'to learn'
káon	+	-on	->	kán-on	'rice' (base
					is 'to eat')

4.1.4 Addition of -an, -on

Syncope results in new forms which are infixed with an additional -an- or -on- in derived nouns, adjectives and verbs which unsyncopated forms do not have. ??? Or this is just a different suffix- -anan, -anon, -unon.

Note that in the derived nouns of these syncopated forms there is no stress shift. Compare the following.

base verb derived noun definition (of base)

búnak	abunákan	bunakán	'to wash clothes'
buyár	abuyarón	buyáron	'to dry in sun'
yukó	ayúkhan	yukhánan	'to nest, sleep'
hudót	ahúytan	huytánan	'to hold'
baóy	abáy-on	bay-ánon	
		bay-únon	'to get'
rayá	aráy-on	ray-ánon	'to carry'

base	derived adj.	<u>definition</u>
sína	masinaón	'jealous'
ugót	maugutón	'tempermental'
buót	mabut-ánon	'kind'
tiís	matinis-ánon	'enduring'

<u>base</u>	<u>reciprocal magan verb</u>	<u>definition</u>
súntok	magsuntúkan	'to box'
baríl	magbarilán	'to shoot'
taó	magtaw-ánan	'to give'
sugót	magsugtánan	'to agree'

4.2 Metathesis

Syncope often leads to consonant clusters which are metathesized. In metathesis the two consonants change position.

$4.2.1 g \sim ng$

$4.2.2 n \sim m$

```
tanóm + an -> tánman -> támnan 'to plant' inóm + on -> ínmon -> ímnon 'to drink'
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Metathesis of non-contingent n and m has been observed in words affixed with magpang- (plural action) and -in- (repetitive action); in which the m is the N morphophoneme for -ng + b. In these words the sequence nim metathesizes to min.

bahô + magpang-, -in- -> magpangbináhò -> magpaminaho
'to smell, sniff' ~ magpanimahô

Note that the infix -in- (<-) causes penultimate shift in the derived verb but after metathesis the stress returns to its original ultimate syllable position. ??? Optionally, this just may be another affix -paning- where -ng + -b -> m. However we have yet to see this affix anywhere else.

$4.2.3 h \sim p$

tahóp + -an -> táhpan -> táphan 'to winnow rice'

$4.2.4 1 \sim n$

bílin + -an -> bílnan -> bínlan 'to leave sth'

4.2.5 $h \sim n$ and glottal $\sim n$

```
b\acute{a}t\grave{a}+ka--n-+-on -> kabata-non -> kabat\acute{a}n-on 'youth' bab\^{a}+ka--n-+-on -> kababa-non -> kabab\acute{a}n-on 'down' \acute{a}ga+ka--n-+-on -> kaagahnon -> kaagahnon 'morning' S\acute{i}mara + -non -> Simarahnon -> Simar\acute{a}nhon Calatráva + -non -> Calatrab\acute{a}nhon -> Calatrab\acute{a}nhon
```

4.2.6 glottal \sim C

In the following the infix -in- (`-) results in the loss of the vowel, -i- of the base and movement of the glottal to between the derived base, tinis, and the suffix -anon.

tiis [ti-is] -> + ma- -anon, -in- -> [mati-inisánon] ->
 'to endure; patient' [mat-inisánon] -> matinis-ánon

4.3 Epenthesis

4.3.1 Spanish Loan Words

Epenthesis is the insertion of an extra phoneme in a derived

word. In Spanish loan words an epenthetic -a- is often inserted to break consonant sequences such as tr.

base	+	affix	->	derived form	<u>definition</u>
trabaho	+	-in-	->	tinarabahuhan	'place of work'
trangka	+	pang-	->	panarangka	'to lock securely'

4.3.2 Epenthetic -n-.

An epenthetic n has been observed in the following derived nouns.

base	definition	derived noun	<u>definition</u>
uyo	'head'	uyunan	'pillow'
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An epenthetic n is optionally inserted in the following derived nouns. Note that it is accompanied by metathesis of the glottal or the h and by penultimate stress. Compare the following.

<u>base</u>	<u>derived noun</u>	with - <u>n</u> -	<u>definition</u>
babâ	kababáon	kababán-on	'low place'
ága	kaagahón	kaagánhon	'morning'
bátà	kabataón	kabatán-on	'youth'
kúyang	kakuyangón	kakuyángnon	'lack'
gúyang	kaguyangón	kaguyángnon	'age'

4.5 Contractions and Attachment Across Word Boundaries

4.5.1 The Completive Particle ey.

The completive particle ey attaches to preceding words ending in a consonant where it takes primary stress. This places secondary stress (\sim v) on the penultimate syllable of the verb base (i.e., penultimate shift in the base, see 1.3.6).

past tense	+	ey	->	with attached ey	<u>definition</u>
nag-uyán	+	ey	->	nag-~uyanéy	'rained already'
nahumán	+	ey	->	nah~umanéy	'made already'
nakakáon	+	ey	->	nakak~aonéy	'ate already'
hinóg	+	ey	->	h~inogéy	'ripe already'

In vowel final words the particle can optionally attach to the vowel with loss of the |ie|r, forming a Cy glide.

This is written as a contraction. Stress shift on the verb base does not occur with this contraction.

word	+	ey	->	contraction	<u>definition</u>
ingtaó	+	ey	->	ingtaó'y	'given already'
ugá	+	ey	->	ugá ' y	'dry already'
ígwa	+	ey	->	igwá ' y	'have already'
nabíka	+	ey	->	nabíka ' y	'split already'

4.5.2 Genitive case marker it.

The genitive case marker it can also attach to preceding word final vowels and consonants $\ref{eq:consonants}$ with loss of the i and word final glottal.

phrase	->	contraction	<u>definition</u>
igwa pa it kan-on	->	igwa't	'There's still rice'
wayâ it tubi	->	waya ' t	'These's no water'
igwa ako it asawa	->	ako't	'I have a spouse'
bárò it nanay	->	baro't	'mother's dress'
sunrang it tatay	->	sunrang't	'father's bolo'
ingtaw-an kag anak	->	anak ' t	'the child has been
it dulce			given candy'

4.5.3 Nak

The linker and subordinate clause marder nak can attach to preceding word final vowels as a -ng suffix.

<u>phrase + nak</u>	contraction	<u>definition</u>
kaganda nak baro	kagandang baro	'beautiful dress'
gusto nak magnunot	gustong magnunot	'want to go with'
kayaki nak namatay	kayaking namatay	'dead man'
silingga sida nak	singga sidang	'tell her that'

In two instances the nak morpheme has also been found attached to word final consonants in the form of -ing.

<u>phrase + nak</u>	<u>contraction</u>	<u>definition</u>
maisot nak anak	maisoting anak	'small child'
kato aboy nak basket	kato aboying basket	'that basket
		in your opinion'

4.5.4 The subjunctive prefix gi-.

With some speakers the subjunctive prefix gi- can disattach from the verb and become attached to the preceding word final vowel or glottal. This has been noted in both spoken and written speech. The i of the prefix and the

word final glottal are lost in this attachment.

phrase	->	contraction	<u>definition</u>
aya ako gigur-i	->	aya akog gur-i	'don't laugh at me'
waya pa gitamni	->	waya pag tamni	'it's not planted yet'
waya ako nida	->	waya ako nidag	'she doesn't
gisuyati		suyati	write to me'
indî giyutuon	->	indig yutuon	'it won't be cooked'

4.5.5 The ging- prefix on verbs

This same phenomenon has been observed with the (g)ing-prefix on verbs. The prefix disattaches from the verb and become attached to the preceding vowel or glottal ??? as -ng with loss of the glottal. It attaches to other preceding consonants as -ing.

phrase	-> contraction	<u>definition</u>
ida ingtao kag regalo	-> idang tao kag regalo	'she gave a
imo aboy ingbutang	-> imo aboying butang	gift' 'do you think you put (it)'

4.5.6 Other contractions and shortened forms

There are other contractions in Bantoanon particularly in rapid speech. A few are given below. However this area has not been researched adequately.

word	shortened form	definition
silingga	singga	'tell'
butangan	tangan	'put'
ako	ak	'I'
imo	im	'you'
ato	at	'we'
kali	li	'this'
kalio	lio	'this'
kina	na	'that'
rahali	hali	'here'
rahina	hina	'there'
rahagto	hagto	'there'
hariin	riin	'where'

end of the paper