

HIERARCHICAL PHONOLOGICAL FEATURES OF COTABATO MANOBO

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3. Contour group
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0. Introduction. This presentation of the phonological features of Cotabato Manobo¹ is based on Kenneth L. Pike's approach as presented in Part II of Language in Relation to a Unified Theory of the Structure of Human Behavior², in which Pike makes explicit the fact that phonological structures of language are hierarchically ordered. Phonological, lexical and grammatical structures comprise respectively the phonological, lexical and grammatical hierarchies of language.

In this presentation, only those structures which form the levels of the phonological hierarchy will be dealt with. Description

will begin at the top level of the hierarchy--utterance--to the most minimal contrastive unit, the phoneme.

Chart I presents a summary of the phonological levels. Vertical arrows indicate that the structures from lower levels are the units which comprise the structures of higher levels. Thus the utterance, defined as a stretch of speech by one individual, is composed of one or more breath groups, each of which in turn is composed of units from the next lower level. Horizontal arrows indicate the potential for structures at one level to be coterminous with those of another level. Thus an utterance may at the same time be a stress group, a contour group, a pause group and a breath group. An utterance, however, is never coterminous with a syllable or a phoneme.

1. Breath group. A breath group is defined as a stretch of speech within an utterance, bounded by intake of breath and pause. Optional release of breath may also occur as a feature of closure of a breath group.

Breath groups are composed of from one to three pause groups, as illustrated in the following examples. A breath group which is comprised of a single pause group is coterminous with that pause group.

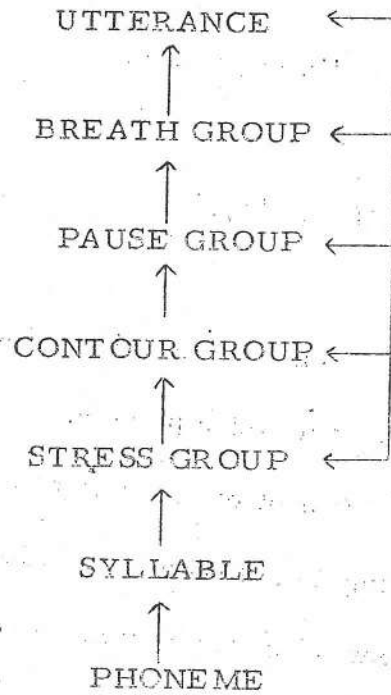
Example:

1. mΔoqo de sini nΔlΔgaq de sini quton //³

'There were many cooked fish.'

Chart I

Levels of the Phonological Hierarchy



2. mangay da kumuwa / dumapag de sa bΔlad di //

'They came to get it, they came near her.'

3. na / tumuqΔg de tugΔn di sini quton / si mΔlalag toboy

mΔgasaq tigtu //

'Now, she roasted the fish on the fire, did Melalag Toboy who is very thin.'

A breath group may end with a nonfinal contour group (example 4 below), or a final contour group (example 5 below).

4. diyaq sa wa yΔq // 'in the water.'

5. mΔgasaq a // 'I am thin.'

2. Pause group. A pause group is defined as a stretch of speech occurring between definite pauses. A pause group is bounded by either an intake of breath and pause or just by pause. Definite pause is distinguished from hesitation pause by three factors. Hesitation pause can only carry a level contour (example 6.); hesitation pause may have repeats or corrections (example 7.); the overt hesitation marker may occur in conjunction with hesitation pause (example 8.). Hesitation pause is indicated in the examples by a series of three periods (...).

6. kakuwa di... langun taman di// 'He got... everything of his.'

7. diyaq pa... diyaq pa... kuwa... sɔlapin tanaq pa...

'There...there...kuwa, on the otherside of the earth...'

8. qilingan di kuwa... sinɔlatsaq kuwayan wayag di tukeqey//

'It is like... split bamboo water, there is very little of it.'

2.1. Pause groups are composed of from one to seven contour groups (examples 9-15).

9. qanan pɔkɔdiyaq qiyug di// 'It is all over her back.'

10. sinɔlatsaq kuwayan wayag di tukeqey//

'... split bamboo water, there is very little of it.'

11. langun paliq langun lawa qanan paliq// 'All sores, all her body is covered with sores.'

12. qangatangat ka guwaqan di qakan guwaqan di tumi bah//

'"You wait", he said, "I", he said, "will have to make a clearing. "'

13. qantap diyag p Δ du ke qiyawe b Δ kan duqu busaw duq Δ n qitaguq

di daya //

'We guess that it was not an evil spirit,

there is something he put there.'

14. guwaq Δ n qi kuwa... guwaq Δ n qi dulangan mipanaw pangagbatan

qaput ka guwaq Δ n di sa lagkiyumang guwaq Δ n di tapay da

kakuwa //

'Who-is-it said... Dulangan said, "I will go

look for you", he said, "even if hermit crab", he said,

"hides you."

15. q Δ ndaq m Δ teqel taqa ko guwaq Δ n di lawa ku guwaq Δ n di

n Δ s Δ lup qanan paliq //

'"I'm not getting around

well, look", she said, "my body", she said, "all covered

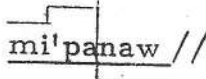
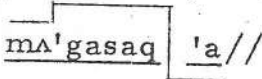
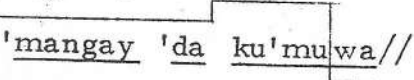
with sores."

3. Contour group. A contour group is defined as a stretch of speech coterminous with an intonation contour. Only three significant intonation contour levels have so far been identified.⁴ Some of the ways in which these three levels form various intonation contours are illustrated in examples 16-23.

16. mah agtaw de polo// 'It is high?' (question)
17. mah agtaw de 'It is high.' (answer)
18. getaw laplap// 'Or laplap (name of song)?
(question)
19. laplap// 'Laplap.' (answer)
20. likug yu de// 'You go home.' (in anger)
21. lumikug yu de// 'You go home now.' (polite order)
22. lumikug yu de// 'Are you going home now?'
(question)
23. lumikug ke de// 'We (exclusive) are going home
now.' (answer)

Contour groups constitute pause groups. Contour groups which are simultaneously initial in a breath group and a pause group are characterized by intake of breath. Contour groups which are final in a pause group are closed by pause. Contour

groups within a pause group are closed by either changes of contour, or by rhythm breaks which tend to correspond to grammatically related units, such as phrases and clauses, but not by pause. Contour groups are composed of from one to three stress groups as illustrated in examples 24-26. Stress is marked by an apostrophe before the stressed syllable.

24.  'mi'panaw // 'He goes walking.'
25.  'mΔ'gasaq 'a // 'I am thin.'
26.  'mangay 'da ku'muwa // 'They came to get it.'

4. Stress group. A stress group is defined as a stretch of speech characterized by a single abdominal pulse⁵, distributed in a contour group. The stressed syllable is either the ultima or penultima of the stress group.

Stress may not fall on the nucleus of the penultimate syllable of a stress group when that nucleus is the vowel Δ unless the nucleus of the ultima is also Δ .

Stress groups are composed of from one to five syllables.

The following examples illustrate various combinations of stressed and unstressed syllables forming stress groups (periods separate syllables).

27. 'tig. tu 'real'

28. q'ag. t'Am. t'Λ. 'man' 'to light a fire'

29. k'Λ. sin. si. 'li. yu 'men's undershorts

30. 'k'Λ. m'Λl 'finger'

31. si. n'Λ. 'lat. saq 'to be divided, split up'

(Further examples of syllable combinations in stress groups are given in section 5).

5. Syllable. Syllables are of two types, S_1 being defined as consonant released, with a syllabic nucleus, S_2 being defined as consonant released, with a syllabic nucleus, and consonant arrested. Various combinations of these two syllable types occur to form stress groups.

Examples: S_1 'ku 'first person singular possessive case'
 $S_1. S_1$ 'ka. yu 'wood' $S_1. S_1. S_1$ ku. 'mu. wa 'to get' $S_1. S_1. S_1. S_1$

bΛ. lΛ. 'ka. yu 'small bamboo species' S₁. S₁. S₁. S₁. S₁
kΛ. bi. li. 'bi. li 'sheep' S₁. S₂ 'ti. sing 'ring' S₁. S₁. S₂ gΛ. 'gi. lak
 'to tickle', S₁. S₁. S₁. S₂ kΛ. lu. pΛ. 'nit 'small bat', S₂. S₂
'tig. dΛg 'to stand', S₁. S₂. S₂ pΛ. 'ngag. bat 'to hunt for', S₁. S₁. S₂. S₂
bΛ. li. 'kuq. kuq 'to bend under heavy load', S₂. S₁ 'tig. tu 'real
 thing', S₂. S₁. S₁ bΛ. 'lug. tu 'rainbow', S₁. S₂. S₁. S₁ kΛ. sin. si. 'li. yu
 'men's undershorts', S₂. S₁. S₂ tam. tΛ. 'man 'to start a fire',
 S₁. S₂. S₁. S₂ ba. ling. 'gu. san 'lemon grass', S₁. S₁. S₂. S₁. S₂
kΛ. pi. sΛk. 'pi. sΛk 'type of seashell', S₂. S₁. S₂. S₁. S₂ qΛg. k. lΛg.
'da. wan 'to be illuminated'.

6. Phonemes. There are twenty-one segmental phonemes consisting of fifteen consonants and six vowels. Chart II indicates the points and manner of their articulation.

6.1. Consonants. ə and b, are respectively bilabial fricative, and voiced bilabial stop. No voiceless bilabial stop occurs. Examples: pilaq 'type of ant', bilag 'things given in trade', lapΛg 'to grab all at once', habang 'door, swinging shutter'.

t and d are voiceless and voiced alveolar stops; tanaq 'earth', danaq 'done by', katal 'noose', kadal 'a slope', dalit

'hawk', dalid 'root'.

k and g, are voiceless and voiced velar stops: kɔlang 'corn', gɔlang 'stalk of fungus', lukot 'waste tissue', lugot 'to be pursued', tukuk 'ridge of hill', tudug 'to sleep'. k has three variants: front velar [k], mid velar [k], and the back velar [k]. [k] occurs syllable initial or final, contiguous to a front vowel: [ki] ki 'we inclusive', [tɔ.kɛk] tɔkɛk 'to laugh shrilly'. [k] occurs syllable initial or final contiguous to a back vowel: [ku] ku 'first person singular', [so.lɔk] solok 'woven basket'; [k] occurs elsewhere: [ka] ka 'second person singular', [ta.lak] talak 'to keep separate'.

Glottal stop (q) contrasts with k and g in the following examples: ɸaku 'edible fern', bagu 'a small tree', baqu 'sea turtle', talak 'to keep separate', talaq 'to pass by', simag 'tomorrow', simaq 'small projection on a bolo etc.'.

Glottal fricative (h), and glottal stop, contrast in the following examples: luhub 'to pull on clothing', luqɔb 'cylinder for arrows', begah 'glowing coals', bagaq 'lungs'.

h and ɸ contrast in the following examples: halig 'to transfer', ɸalig 'wound', bahaq 'lower jaw', lapaq 'to moisten'.

s is an alveolar grooved fricative; saping 'twins', lapis 'cheap'.

Nasals m, n, ng are bilabial, alveolar, and velar: nigu 'winnowing basket', ngibu 'thousand', tuntun 'to hand something down', tungtung 'firefly', quna 'to reach; arrive', muna 'first'.

l is a voiced alveolar lateral and contrasts with d in the following examples: lukot 'waste tissue', duka 'variety of banana', solak 'basket', sodoq 'to ride double'.

w and y are bilabial and palatal nonsyllabic vocoids interpreted as consonants on the basis of syllable pressure: [ua. iag] wayag 'water', [ka. iu] kayu 'wood', [qi. ia. ue] qiyawe 'that'.

6.2. Vowels. Vowel i has two variants, high close unrounded [i], and high open unrounded [I]. [I] is restricted in distribution to syllable type S₂: [pIn. tIt] pintit 'duck', [li. pIt] lipit 'peg or clip'; i occurs elsewhere, [li. hi] lihi 'bad luck', [si. lIng] siling 'spirit being of the water'.

Vowel e has two variants, mid open unrounded [e], and mid close unrounded [E]. The latter only occurs following k in syllable type S₁, the former occurs elsewhere: [kE. get] keget 'to squeak', [kE. beng] kebeng 'to lie part way in water', [kE. met]

kemet: 'to hold with thumb and finger', [be.beq] bebeq 'grandparent'.

The following examples show the contrast between i and e;

ki 'we inclusive', ke 'we exclusive', b_Δtiq 'loop', b_Δteq 'to crackle', kilkil 'to master', kelkel 'a wood rasp', l_Δgpeq 'to follow contour of hill', logpiq 'to fold end to end'.

Vowel Δ has two variants, short mid close central unrounded [Δ], and mid close central unrounded [$\underline{\Delta}$]. [$\underline{\Delta}$] occurs before n, or l in an unstressed syllable, [Δ] occurs elsewhere. [q $\underline{\Delta}$ n.daq] q $\underline{\Delta}$ ndaq 'negative', [k $\underline{\Delta}$.lang] k $\underline{\Delta}$ lang 'corn'.

Vowel a has two variants, low open central unrounded [a], and mid open central unrounded [ə]. [ə] occurs preceding glottal stop or h, while a occurs elsewhere. [ba.təq] bataq 'child', [na.nəq] nanaq 'pus', [su.wəh] suwah 'to vomit', [la.ləh] lalah 'hot water'.

The following examples show the contrast between phonemes a and Δ : pala 'shovel', p Δ laq 'armpit', katal 'loop', k Δ tal 'yaws', liwas 'male monkey', liw Δ s 'to skirt the mountain'.

Vowel u has two variants, high close back rounded [u], and the high open back rounded [U]. The latter occurs in syllable type S₂, the former elsewhere. [ki.tUt] kitut 'blackened tip of arrow', [si.lUng] silung 'fish to swim towards a light', [so.bUy] sobuy

'gourd', [su.kat] sukat 'lines of hand'.

Chart II

Segmental Phonemes of Cotabato Manobo

Consonants

	t	k	q
b	d	g	
p			h
	s		
m	n	ng	
	l		
w		y	

Vowels

i		u
e	ʌ	o
	a	

o is a low close back rounded vowel. lukotok 'to boil',

kʌloh 'young boy's name', gokon 'young girl', mʌdoqo 'many'.

The following examples show contrast between u and o: lɔbuk 'bamboo species', lɔbok 'to curve down', bulug 'to do to no purpose', bulog 'white speck in the eye', ku 'first person singular', ko 'second person singular', luhul 'to purr', lohol 'to cut off close to end'.

6.4 There are no restrictions on the occurrence of consonants or vowels within the syllable. There are, however, restrictions on the occurrence of consonants and vowels within stress groups. Stress group medial consonant clusters identified to date are shown in Chart III.

The only restrictions found to date of vowel sequence in consecutive syllables within a stress group involve the mid vowels e and o. The following sequences have not been identified, e followed by e or a; a followed by e, or o followed by a.

Chart III

Allowable Consonant Clusters

FINAL CONSONANT IN THE CLUSTER

INITIAL
CONSONANT
IN THE
CLUSTER

	t	k	q	b	d	g	p	h	s	m	n	ng	l	w	y
t		X		X	X				X	X			X		
k	X			X	X		X	X	X		X	X	X		
q		X				X	X		X				X		
b	X	X				X			X				X		
d	X	X		X					X						
g	X	X		X	X	X	X	X	X		X	X	X	X	
p									X		X		X		
h				X											
s	X					X						X	X		
m	X	X		X			X								
n	X	X		X	X				X						
ng	X	X		X		X		X	X				X		
l	X	X		X	X	X		X	X						X
w				X									X		
y	X	X							X				X		

NOTES

1. The author and his wife spent the years of 1957-58 working with the Manobos on the southeast coast of Mindanao in the Philippines under the auspices of the Summer Institute of Linguistics. Material was gathered by monolingual approach from various speakers of the dialect but primarily from two brothers: Umpit, who speaks Manobo, has a very limited understanding of both Magindanao, a Moslem dialect in that area, and Tagalog. He was about 20 years of age. His brother, Mundi was about 18 years of age and also has a limited understanding of Magindanao.

It is estimated that about 8,000 people speak this dialect.

Previous to our studies Dr. and Mrs. Harland Kerr of Australia, also members of the Summer Institute of Linguistics carried on linguistic investigation in this same dialect. Dr. Kerr's paper, A Statement of the Phonemes of Cotabato Manobo written in 1957 for the University of Sydney, was used for reference purposes in the preparation of this paper.

Other published materials on this dialect include Myra Lou Barnard, Alice Lindquist-Maryott, and Vivian Forsberg, "A Cotabato Manobo Survey," Philippine Social Sciences and Humanities

Review, 20:121-36 (April-June 1955), and Harland B. Kerr, "The Case-Marking and Classifying Functions of Cotabato Manobo Voice Affixes", Oceanic Linguistics, 4:15-47 (1965).

First drafts of this paper were written under the direction of Kenneth L. Pike and Viola Waterhouse during a seminar at the University of Oklahoma, Norman 1959. Final drafts have been under the assistance of Lawrence Reid.

2. Pike, Kenneth L. Language in Relation to a Unified Theory of the Structure of Human Behavior (2nd rev. ed.)

The Hague, Mouton and Co., 1967.

3. Slash (/) marks the boundary of a pause group and double slash (//) marks the boundary of a breath group.

4. Further research may reveal other types of contours.

5. Pike, *op. cit.*, page 392.