

Phonology of Central Bontok*¹

1. Introduction

This phonology is based upon the dialect of about 1,500 people living in Guinaang, in the sub-province of Bontoc, Mountain Province, Philippines. This dialect is part of the Central Bontok language which is spoken in the majority of the barrios of the Bontoc municipality. Each barrio has a vocabulary containing words peculiar to its own area, and distinctive intonational and subphonemic changes. Yet despite this, mutual intelligibility is high, and the phonemes set forth in this paper are valid for the whole area.

Although Guinaang shows less cultural change than the surrounding barrios, its central position and the high degree of monolingualism present have provided a good basis for the study of the dialect. Materials upon which this statement is based were gathered in Guinaang between August 1959 and June 1961, under the auspices of the Summer Institute of Linguistics.

2. Syllable and Word Structure

In order to provide a satisfactory basis for the description of both the segmental and the suprasegmental phonemes it is necessary to first define the structure of the syllable and the word as they occur in Central Bontok.²

The syllable consists of a compulsory onset and peak with an optional coda.³ The onset and coda may be any one of the consonants described below, and the peak may be any one of the vowels. These consonants (C) and vowels

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¹ Editors' note: The title of the originally-published paper called the name of the language "Central Bontoc". BONTOC is the usual spelling of the name of the municipality of Mountain Province where the language is spoken. In more recent papers I have attempted to distinguish between the geographic name and the language by spelling the latter as BONTOK. This version of the paper differs also from the first published version by utilizing phonetic symbols, which were not readily available for printing in the early 1960s.

² Anticipating the argument in the following pages it is probably convenient to list the segmental phonemes here /p, t, k, b, d, g, m, n, ŋ (ng), r, s, ʔ, w, y; i, u (o), a, i (e) /

³ The terms "onset", "peak", and "coda" are borrowed from Hockett, Charles F., *A Manual of Phonology*, Indiana University Publications in Anthropology & Linguistics, Memoir 11 of the International Journal of American Linguistics, Waverly Press Inc., Baltimore, 1955. pp. 126-127.

(V) occur in two basic syllable patterns, CV and CVC. Examples of CV syllables are *si* ‘particle’; *ya* ‘conjunction’; *ta* ‘particle’; *mo* ‘if, when’. Examples of CVC syllables are *tay* ‘because’; *ken* ‘particle’; *nan* ‘particle’.

When these syllable patterns occur as free forms, and when groups of the two syllable patterns occur in potential isolable combinations within a stream of speech, they form a word. There are no restrictions in the order or combination of the two syllable types. Each phonemic word of more than one syllable carries a single primary stress.

2.1 Stress

There is a suprasegmental item of stress which is considered to be phonemic. Its occurrence in any word is unpredictable but it identifies a syllable on which it falls as being one of the last three syllables of a word. On many occasions the position of primary stress / ˈ / is the minimal difference between a pair of words, e.g. *gayájŋ* ‘a type of spear’; *gáyajŋ* ‘crow’; *ʔírít* ‘outskirts, edge’; *ʔírít* ‘eggs of head-lice’; *bawí* ‘repent’; *báwi* ‘field shelter’; *bokár* ‘wild pig’; *bókar* ‘disperse’; *keréjŋ* ‘chicken sacrifice’; *kéreŋ* ‘a type of bird’; *rimá* ‘five’; *ríma* ‘arm and hand’; *kíríjŋ* ‘foundation boards of a granary’; *kíríjŋ* ‘a small bird’.

The prosodeme of stress has two allophonic variations. These are termed primary stress. Furthermore, there is a feature of stress which is considered to be non-phonemic since its occurrence can always be predicted in terms of primary stress. This feature is termed secondary stress.

Both allophones of primary stress and secondary stress may be aurally distinguished since their ultimate phonologic constituents differ.⁴

PRIMARY STRESS ALLOPHONE 1. The ultimate phonologic constituents are increased volume and rise in pitch on segmental phonemes. These constituents, however, are susceptible to change through intonational pressure. Thus an intonational contour requiring a relatively low pitch on a final syllable will overrule the rise in pitch required by a stress phoneme occurring on that syllable. Likewise increased volume may also be overruled under certain intonational conditions. This allophone occurs when stress falls on (i) any

⁴ The term “ultimate phonologic constituent” is used here as presented by Hockett to describe the features or components which emerge in the ultimate analysis of any phoneme, or phonologic item. Cf. Hockett, *ibid.*

closed syllable upon which stress may legitimately fall; (ii) an open ultimate syllable, e.g., *sépyat* ‘spill’; *pátta* ‘waistband’; *makán* ‘cooked rice’; *?omammá* ‘to make, build’.

PRIMARY STRESS ALLOPHONE 2. The ultimate phonological constituents of this allophone of the stress phoneme are increased volume, rise in pitch and prolongation of the syllable peak. As with the above allophone, this one is also susceptible to intonational pressure, although the feature of prolongation is always evident to some degree. This allophone occurs when stress falls on an open penultimate or antepenultimate syllable, e.g., *gáter* ‘scabies’; *?in?atépak* ‘I am thatching a roof’; *?inánapko* ‘I looked for it’.

SECONDARY (NON-PHONEMIC) STRESS [˘]. This has ultimate phonologic constituents of increased volume and rise in pitch, but of lesser degree than in primary stress occurring in the same word. In open syllables prolongation may occur. However, it is manifested to a lesser degree than the prolongation in open syllables carrying primary stress. Secondary stress falls on (i) the first of two syllables preceding primary stress in the same word; (ii) the second of two syllables following primary stress within the same word.

In the following examples the use of the grave accent is purely for illustrative purposes. Its writing is not required since secondary stress is predictable, e.g. *ninbàb?aríka* ‘you deceived me’; *?am?àmma?éna* ‘he is making it’; *domákarkà* ‘you go outside’.

2.2 Interpretation and distribution of suspect single items and sequences

2.2.1 Single items

- (a) The high vocoids *i* and *o* are vowels when they occur as syllable peaks, otherwise they pattern as consonants, *y* and *w* respectively, e.g., *kapí* ‘coffee’; *pitó* ‘seven’; *dáya* ‘sky’; *waró* ‘eight’.
- (b) [ü] The high close front rounded vocoid occurs only in consonant position and is therefore interpreted as a consonant. Since it is in complementary distribution with [y], ([ü] after *o*, [y] elsewhere), it is interpreted as an allophone of *y*. In the following examples read *y* with lip rounding after *o*. *y* elsewhere is unrounded: *?ápyoy* ‘fire’; *bóyoy* ‘a boil’; *ráya* ‘ginger’; *?inbáyo* ‘to pound’.

- (c) *r* occurs only in consonant position in non-suspect data, and is therefore interpreted as a consonant. This phoneme has the following allophonic variations:

[l] a voiced alveolar lateral constituent occurs (i) word initially as in the following examples: *ráta* [láta] ‘kerosene can’; *réŋʔag* [léŋʔag] ‘life, spirit’; (ii) when adjacent to *i* but not *y* as in *ʔíra* ‘see’, *dárig* ‘iron plough share’, *pápir* ‘paper’; (iii) as second member of any consonant cluster which has for its first member any consonant occurring at the alveolar or interdental points of articulation, or any other consonant preceded by *i*, e.g., *napótrak* ‘broken’; *nakásraŋ* ‘mixed’; *tinrék* ‘hole in wood’; *bigráʔen* ‘to force’; *ʔomibráy* ‘to tire’; (iv) when preceding another alveolar lateral continuant, e.g. *barrítá* [fallítá] ‘crowbar’; *darrík* ‘Dalican (village name).’⁵

[ɹ] a retroflexed low central vocoid occurs in complementary distribution with the lateral continuant except word initially where the two variants occur in free alternation. The following examples should be read with [ɹ] wherever *r* occurs: *ʔíkar* ‘snake spine head circlet’; *babréy* ‘village’; *ráreg* ‘fly’.

- (d) The long consonants [k:], [m:], [n:], [p:], [r:], [l:] are interpreted as sequences of two phonemes rather than as long segments, because (i) in all cases the vowel allophones which precede the long consonants are the variants which occur as peaks of closed syllables, and (ii) there are clear non-suspect CC patterns by which to interpret them.

2.2.2 Sequences

- (a) A fronted voiceless aspirated velar stop [k^h] and a backed voiceless alveolar affricate [tʃ] are both interpreted as single complex phonemes, because both may occur word initially where there are no examples of non-suspect sequences of consonants. Since this voiceless velar stop [k^h] occurs in complementary distribution with [g] ([g] syllable coda, [k^h] syllable onset) these are interpreted as allophones of a single phoneme /g/, and since [tʃ] occurs in complementary distribution with

⁵ Editors’ note: A slightly different restatement of the environmental conditions for the occurrence of [l] and [ɹ] is found in Reid (2005a:388).

[d], ([d] syllable coda, [tʃ̥] syllable onset) these are also interpreted as allophones of a single phoneme /d/.

In the following examples *g* is to be read as a fronted voiceless aspirated velar stop [kʰ] in syllable onset position and as a backed voiced velar stop [g] in syllable coda position: *gagʔawís* ‘very good’; *gégʔar* ‘chew’; *ʔinʔágar* ‘to cry’; *ʔágob* ‘bad odor’.

In the following examples *d* is to be read as a backed voiceless alveolar affricate in syllable onset position, and as a voiced alveolar stop syllable coda position: *di* ‘there’; *ʔindadʔayáw* ‘to give honor’; *ʔadʔó* ‘sufficient’; *ʔidérder* ‘to push gently’; *kedém* ‘eyelash’.

- (b) The contoid-vocoid clusters of [gw], [ŋw], [pw], [ɣy], [ny], and [ry] or any other contoid followed by a high non-syllabic vocoid are interpreted as sequences of two consonants, rather than as single complex phones manifesting respectively labialization and palatalization, for the following reasons: (i) such clusters do not occur initial or finally in words, and (ii) they only occur at syllable boundaries, in which the preceding vowel is always a closed syllable submember, indicating the presence of a coda, the initial consonant of the cluster. The high non-syllabic vocoid is the onset of the following syllable.

2.2.3 Vowel clusters

There are no non-suspect vowel clusters found in Central Bontok. All occurrences of the non-suspect vowels *a* and *e* (/i/) within any given word are separated from each other by one or two of the consonants. If that consonant is a glottal stop, which is frequently unarticulated in rapid speech, a pseudo vowel cluster may appear, but in deliberate speech the glottal is clearly heard, e.g. *paʔéy* ‘put (deliberate speech)’; *paéy* ‘put (rapid speech)’.

Suspect vowel clusters fall into three groups:

- (a) There are sequences of two vocoids in which the second is a high non-syllabic vocoid, e.g., [a^u, i^u, aⁱ, iⁱ] are interpreted as /aw, iw, ay, iy/.
- (b) There are sequences of three vocoids in which the second is always a high non-syllabic vocoid, e.g., [aua, aia, uia, aui, iia, iui, aui, iua] phonemically /awa, aya, uya, awi, iya, iwi, awi, iwa/.
- (c) There are sequences of two vocoids in which the first is a high vocoid:

- (i) clusters in which both vocoids occur as syllable peaks: [ua, ui, ia] are interpreted as /uwa, uwi, iya/. The validity of this interpretation is clearly apparent when the syllable having the high vowel as its nucleus also carries stress. Stress lengthens the vowel, and the semi-vowel off-glide becomes phonetically more distinct. Furthermore, there is morphophonemic evidence indicating the presence of a semi-vowel. With the addition of certain affixes unstressed vowels are lost. When the root contains an unstressed high vowel in one syllable, followed by a stressed vowel in the following syllable, a linking semi-vowel is retained, even though the unstressed vowel is lost. *ka* plus *dowá* becomes *kadwá*. Non-suspect vowels may also be dropped when they are unstressed or when they undergo regular morphophonemic stress changes: *?i* plus *donó* becomes *?idnó*; *?abét* plus *en* becomes *?abtén*.
- (ii) There are clusters in which only the second vocoid takes a peak of syllabicity: [ʷa, ʷi, ʷa, ʷi] interpreted as /wa, wi, ya, yi/. The contrasts between these two types can be seen in the following examples: [ʷékʷék] *yékkyek* ‘armpit’; [ʷiék] *?iyék* ‘laugh’; [ʷigʷig] *wéggweg* ‘shake’; [ʷuiy] *?owéy* ‘rattan’.

2.3 Description and distribution of other segmental phonemes

2.3.1 Vowels

The vowel phonemes of Central Bontok are /a, u, i, i/. These phonetic norms are the variants occurring as peaks of open syllables. /i/ (*e*) is phonetically a high open central unrounded vocoid and should be read as such in all examples except where it occurs in syllables with a *k* coda. In this position it becomes a mid open front unrounded vocoid [ɛ] tending to become centralized. /a, u (*o*), i/ have standard phonetic values, except when they occur as peaks of closed syllables, in which case /a/ and /u/ are slightly raised and /i/ is lowered.

Vowel phoneme contrasts are illustrated in the following examples: *?abér* ‘weave’, *?ebér* ‘wet’; *?óber* ‘mud fish trap’, *?ebér* ‘wet’; *?aréŋ?eŋ* ‘courting song’,

ʔáronʝ ‘shade’; *ʔíranʝ* ‘fresh pig meat’, *ʔeréʝ* ‘rest’, *báwi* ‘field shelter’, *ʔáwe* ‘scream’, *báwer* ‘spread upwards (as trees, flames, etc.)’.

2.3.2 Consonants

The consonant phonemes at the bilabial point of articulation are /p, b, m/. /p/ when occurring as a syllable coda is normally unreleased. /b/ is a voiced stop when it occurs as a syllable coda, except when it is the first member of a geminate cluster, when it alternates freely between [v] and [β] a voiced labiodental stop. As a syllable onset /b/ is a voiceless labiodental fricative [f]. /m/ is unrestricted. *tapá* ‘rice husks’, *tabá* ‘fat’; *tórbek* ‘key’, *topék* ‘mouth’, *ʔórpo* ‘thigh’.

Other consonants at the alveolar point of articulation are /t, n, s/. /t/ occurs in free variation with a voiceless interdental stop syllable onset, and is normally unreleased when occurring as a syllable coda. /s/ is unrestricted and usually backed. /n/ is unrestricted. *tapá* ‘rice husks’, *dapán* ‘foot’, *wédwed* ‘wobble’, *met* ‘expression of slight emphasis’.

Other consonants at the back velar point of articulation are /k, ŋ/. /k/ is normally unreleased when occurring as a syllable coda. /ŋ/ is unrestricted.

Glottal stop /ʔ/ may occur as a syllable onset and also as a syllable coda when it is the first member of a geminate cluster.

kawá ‘spider’, *gáwa* ‘middle’; *pakpák* ‘noise of beating or bouncing’, *pagpág* ‘lengths of firewood’; *ʔámmo* ‘know’, *kámo* ‘hurry’, *ʔawís* ‘convince’, *gawís* ‘good’; *sabén* ‘blanket’, *sabéʝ* ‘a fermented beverage’.

3. Illustrative Text

Wadʔáy san sinʔárgew nan babʔarásaʝ, ʔi ʔominóm
There.was one.day young.woman went to.drink

ʔasnán pokkayán, ʔinírana nan ʔonjá ya ʔapéd ʔinʔágar.
at a.spring she.saw a baby and just it.cries

Somáʔar ya ʔibaʔágna nan ʔamána, ya kanán ʔamána
goes.home and tells her.father and says her.father

ʔentakó ʔayágan tay san ʔanákmó. Ya ʔinméyda
let’s.go carry because your.child and they.went

ʔay maʔayáget, ʔiníradaʔet maʔíd. Ya kanán nan babʔarásaŋ,
 to.call they.saw none and says the young.woman

ʔentaʔét tay naʔiyánod sinán wáʔir.
 let's.go because swept.away in.the stream

‘Once upon a time, there was a young woman who went to drink at a spring. There she saw a baby, which just began to cry. She went home and told her father who said: “Let’s go and carry it home, because it is your child.” So they went to get it, but found that it was not there. The young woman said, “Let’s go, because it has been swept away by the stream.”’