

THE PHONEMICS AND MORPHOPHONEMICS OF MATIG-SALUG MANOBO

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0. INTRODUCTION

The Matig-Salug language is a member of the Manobo subfamily of Philippine languages.¹ Within the Manobo subfamily of languages, Matig-Salug is closely related to Tigwa, Tala-ingod, and Ata (Langilan). It is more distantly related to Western Bukidnon, Ilianen, and Obo (Elkins 1978:635). It is spoken by an undetermined number of people (population estimates range from a low of 15,000 to a high of 157,000²) who live along the Salug River and its tributaries on the island of Mindanao. Their territory is centered at the convergence of Davao City and the provinces of Davao del Norte, North Cotabato, and Bukidnon.³

¹Matig-Salug includes the Kulamanen dialect. Conversation with speakers from Kulaman reveal no apparent differences. The native speakers say that the Kulamanen dialect is identical to that spoken in Panganan.

²Reliable and consistent demographic data on minority groups such as the Matig-Salug Manobo people are very difficult to obtain due to sociolinguistic and geographical barriers (Grimes 1988:586-7; Roces 1986:160). The General Baptist denomination works in the area and their estimate of 15,000 is probably the most accurate.

³This study was made under the auspices of the Summer Institute of Linguistics during residence in the barrio of Panganan, Kitaotao, Bukidnon from January 1988 until early 1990. Panganan is a pure Matig-Salug barrio located on the Salug River at the northern edge of the territory administered by the City of Davao. I am grateful to Datu Lorenzo Gawilan, Matig-Salug Supreme Tribal Chieftain, for giving my family permission to reside in Panganan while pursuing our linguistic studies. I am also grateful to Miss Linda Hinchliffe of the Overseas Missionary Fellowship for making available copies of Matig-Salug lexical material which she has collected. I must also thank Mr. & Mrs. Mario Aranio for their help and advice based on their many years of experience with Tigwa Manobo.

This analysis of the phonemics and morphophonemics of Matig-Salug Manobo is presented along with an orthography proposal.⁴ The organization is similar to Strong's analysis of Tigwa Manobo (1976) to facilitate comparison between these two closely related languages. Of special interest in Matig-Salug Manobo is the occurrence of geminate consonants and vowel clusters and the relationship between the central vowels /a/ and /o/.

1. SYLLABLE PATTERNS

1.1. Nonsuspect syllable patterns

The following nonsuspect syllable patterns have been found in Matig-Salug: CV and CVC. Either CV or CVC may occur alone or in combination with each other with no restriction on ordering:

CV:	/mo/ 'plural marker'; /to/ 'nonfocus marker'; /ka/ 'focus marker'; /ku/ 'nonfocus first person singular pronoun'; /qo/ 'completive particle'
CVC:	/bos/ 'discovery particle'; /kun/ 'quotative particle'; /kay/ 'focus first person plural exclusive pronoun'
CV plus CV:	/suli/ 'taro'; /duqo/ 'existential particle'; /batu/ 'stone'; /qusa/ 'deer'
CV plus CVC:	/qanak/ 'offspring'; /kaqon/ 'eat'; /konaq/ 'negative'; /pitaw/ 'look'; /balay/ 'house'
CVC plus CVC:	/doldog/ 'spear'; /bantug/ 'fame'; /noŋnoŋ/ 'learn'; /qoŋkod/ 'stop'; /bagtok/ (species of bamboo)
CVC plus CV:	/kanta/ 'nonfocus first person inclusive pronoun'; /dogma/ 'also'

1.2. Suspect syllable patterns

The suspect syllable patterns in Matig-Salug are V and VC. Both occur following a CV syllable.

1.2.1. Two vowel sequences

A sequence of two vowels (VV) is a suspect syllable pattern. Unfortunately, no vowel clusters have been observed that are not suspect, e.g. [ao] or [oa]. Either one of the vowels is high and may be interpreted as a semi-vowel or the two vowels are identical and may be considered a single unit. These suspect elements are here interpreted as a sequence of two vowels occurring in separate syllables for the following reasons.

Firstly, the length of the cluster is equal to that of two syllables. This can be demonstrated by comparing in a frame the intonation patterns of sequences containing vocoid clusters with sequences in which no vocoid clusters occur.

The intonation peak of any intonation group occurs on the penultimate syllable of the group. This syllable has the greatest stress. For example in:

/wadaq nay igkat**á**bak/ 'we have no answer',
the stressed syllables is the *tá* of /igkatabak/.

⁴It is based on two unpublished manuscripts by Richard E. Elkins (1984). He has contributed much to the analysis presented here but any errors are my responsibility. I am greatly indebted to him for his advice and guidance.

* ŋ is the velar nasal.

Putting a VV sequence in this frame and altering only the vowel in question in the penultimate syllable position, we notice that in the sequence:

/wadaq wáig/ 'there is no water',

the stressed syllable is the wá of /waig/ whereas in:

/wadaq waíḡ nay/ 'we have no water',

the stressed syllable is the íḡ of /waig/.

Secondly, in Matig-Salug all content roots such as /balay/ 'house', and /tabak/ 'answer' are sequences of at least two syllables. Since there are no consonant clusters at the beginning or ending of roots such as waig 'water' and /bai/ 'woman' and an intonation peak is always co-occurrent with a single syllable, we conclude that such sequences fit into the syllable patterns of CV.VC and CV.V.

Thirdly, [ɔ:] is analyzed as /ao/ in keeping with a phonological process that pervades the language, namely the raising of /a/ when it precedes a vowel that is higher.⁵ Thus analyzed, it is the least suspect VV sequence and is the most compelling reason for concluding that vowel sequences do occur in Matig-Salug.

CV plus VC: /waig/ 'water'; /daun/ 'leaf'; /maiq/ 'if'; /ŋuod/ 'young'

CV plus V: /bai/ 'unmarried woman'

According to Elkins (1978), historically, there appears to be two sources for vowel clusters in Matig-Salug. The first involves the loss of Proto-Manobo *h in an intervocalic position in Matig-Salug reflexes. Notice, for example⁶, the following:

<u>Matig-Salug</u>		<u>Proto-Manobo</u>	
/waig/	'water'	*wahig	'water'
/daun/	'leaf'	*dahun	'leaf'
/bai/	'unmarried woman'	*bahi	'female'
/buaq/	'cough'	*buhaq	'cough'
/pamanaik/	'climb'	*(pamaN+)nahik	'climb'
/maqamaon/	'woman's brother or male cousin'	*maqamahen	'woman's brother or male cousin'

The second source involves Matig-Salug vowel clusters which may be reflexes of Proto-Manobo vowel clusters. Further study is necessary to determine this, but note the following comparisons between Matig-Salug and Western Bukidnon Manobo⁷:

<u>Matig-Salug</u>		<u>W.B. Manobo</u>	
/piak/	'chick'	/piyak/	
/pius/	'buttock'	/piyus/	
/uak/	'crow'	/uwak/	
/kiab/	'fan'	/kiyab/	
/luit/	'peel'	/luwit/	
/poliaq/	'bitter melon'	/periyaq/	

1.2.2. Two consonant sequences

A sequence of two consonants (CC) is also a suspect syllable pattern because it may be interpreted as a single long consonant. For Matig-Salug it is interpreted as two consonants

⁵See section 3.2.2.

⁶The Proto-Manobo reconstructions are from Elkins 1978 and Elkins 1982.

⁷The Western Bukidnon Manobo data is from Elkins 1968.

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occurring in two syllables for two reasons. Firstly, although CC syllables are rare, contrastive or near contrastive pairs of C and CC do occur. Secondly, dividing over two syllables avoids postulating new CV patterns such as CVCC or CCVC. Words with geminate consonants fit into the nonsuspect syllable patterns of CVC.CV and CVC.CVC.

Tigwa Manobo has voiced stops, nasals and the lateral occurring in geminate consonant clusters. In Matig-Salug, in addition to these consonants some voiceless consonants can be geminated too. All these contrast phonemically with short consonants.

/pp/	[kɔp:i] [ʒɔ/ɔp:iʔ]	/koppi/ /soloppiq/	'coffee' 'money'
/p/	[kulɔpiŋ]	/kulopiŋ/	'doe'
/tt/	[gɔt.ɔkʔ]	/gottok/	'stomach'
/t/	[lɔtɔb]	/lotob/	'grow'
/bb/	[ʔib:aʔ] [ʔab:as]	/qibbaq/ /qabbas/	'Eva' 'pierce'
/b/	[gibaŋ]	/gibaŋ/	'left'
/dd/	[kɔd:iʔ] [kud:ɔʔ] [nagud:ɔʔ]	/koddiq/ /kuddaq/ /naguddaq/	'I' 'horse' 'lest'
	[ʔad:an]	/qaddan/	'Adam'
/d/	[ʔɔgpɔʔi]	/qogpodi/	'to axe'
/gg/	[ʔag:alɔn] [bag:iu] [ʔɔg:ustu]	/qaggalon/ /baggiu/ /qoggustu/	'boss' 'flood' 'August'
/g/	[ʔagad]	/qagad/	'although'
/mm/	[ʔum:ɔʔ]	/qummaw/	'deaf mute'
/m/	[ʔumɔʔ]	/qumaw/	'call'
/nn/	[gan:a]	/ganna/	'earlier on'
/n/	[ganad]	/ganad/	'go slowly'
/ŋŋ/	[lon:ag]	/lonŋag/	'look up'
/ŋ/	[lɔŋɔʔ]	/lonŋay/	'snake head sideways'
/ll/	[ba:l:as] [ka:l:aʔag] [bu:l:as] [du:l:ug]	/ballas/ /kallayag/ /bullas/ /dullug/	'unhusked rice' (name of the rice god) 'replace' 'floor joist'
	[ʔɔgpalpal:aguʔ]	/qogpalpallaguy/	'run'
/l/	[ka:l:aʔag] [palad]	/kalayag/ /palad/	'light' 'palm of hand'

Many of the above examples are loan words. It seems that in borrowings from other languages such as Cebuano, other Manobo languages, Spanish and English, the voiced stops are often interpreted as geminate stops (or single voiced stops for some speakers) when intervocalic. This probably reflects a desire by Manobo speakers to conform to the stop quality of the intervocalic allophones in the source language because of its inherent higher prestige. E.g.:

<u>Matig-Salug</u>		<u>Source Word and Language Name</u>	
/qaggalon/	'boss'	/agalon/	Cebuano
/qaggustu/	'August'	/agosto/	Spanish

/qaddan/	Adam'	/adan/	Cebuano
/kuddɔq/	'horse'	/kudeq/	Arabic

1.2.3. Syllable counts in words

Words consisting of one to eight syllables have been encountered.

- (1) /qa/ 'I, focus'
- (2) /qa.gad/ 'although'
- (3) /qa.na.kon/ 'nephew'
- (4) /qa.bo.lo.ŋan/ 'throat'
- (5) /ka.la.bi.la.bi/ 'dragonfly'
- (6) /qig.ka.ma.qu.pi.a/ 'good'
- (7) /qog.pa.ka.pa.ma.na.ik/ 'able to climb'
- (8) /qog.pa.ka.pa.si.lak.si.lak/ 'to rain while the sun is shining'

2. STRESS

Word stress⁸ is predictable and therefore nonphonemic. It consists of a combination of a slight increase in vowel length and volume and an elevated pitch. Primary stress (ˈ) occurs on the penultimate syllable of a word. Secondary stress (ˑ) occurs on the first syllable of words with six or more syllables. It also occurs on the first syllable of the reduplicated portion of words with reduplicated bisyllabic roots.

- | | | | |
|------|--|----------------------------------|------------------------------------|
| (1) | | ˈqa/ | 'I' |
| (2) | | ˈqa .gad/ | 'although' |
| (3) | | /qa .ˑna .kon/ | 'nephew' |
| (4) | | ˈqa .bo .ˑlo .ŋan/ | 'throat' |
| (5) | | /ka .ˑla .bi .ˑla .bi/ | 'dragonfly' |
| (6a) | | ˈqog.pa.ˑqi .ma.ˑqi .ma/ | 'cause to be jealous' |
| (6b) | | ˈqog.pa.ˑqim.qi .ˑma.han/ | 'cause someone to be jealous' |
| (7a) | | ˈqog.pa.ka.ˑpa .ma.ˑna .ik/ | 'able to climb' |
| (7b) | | ˈqog.pa.ka.ˑpal .pal.ˑla .guy/ | 'able to run' |
| (8) | | ˈqog.pa.ka.pa.ˑsi .lak.ˑsi .lak/ | 'to rain while the sun is shining' |

3. SEGMENTAL PHONEMES

There are nineteen segmental phonemes in the Matig-Salug Manobo language. These phonemes include fifteen consonants: /p, t, k, q (glottal stop), b, d, g, h, s, m, n, ŋ, l, w, and y/ and four vowels: /i, a, o and u/. This list is identical to that for Tigwa Manobo even though the allophones for some of the phonemes do differ (Strong 1976).

3.1. Interpretation of suspect elements⁹

The high vocoids [i] and [u] are interpreted to fit the nonsuspect syllable patterns CV and CVC. When they function as syllabics, they are interpreted as the vowels /i/ and /u/. E.g. CV.V [ˑia] /qi.a/ 'really' and CV.CVC [gugud] /gu.gud/ 'story'. When they function as

⁸Analysis of how word stress is affected by intonation patterns requires further study.

⁹For some speakers, the nonpast time prefix /mig-/ is realized as a voiced syllabic nasal with a point of assimilation identical to that of the following consonant. Although this usage is widespread, it is not accepted as a standard feature of the language. Native speakers do not consider it correct Matig-Salug and some even deny its existence. In any case, it would constitute a suspect syllable pattern.

The phoneme /k/ is a voiceless unaspirated velar stop with an unreleased allophone.

Syllable Initial [k]

[kuntɔʔɔ]	/kuntaqo/	'now'
[kaʷanan]	/kawanan/	'right hand'
[dakɔl]	/dakol/	'large'

Syllable Final [kʰ]

[bakʰbakʰ]	/bakkak/	'frog'
[ʔumpakʰ]	/qumpak/	'shirt'
[tɔkʰtɔkʰ]	/toktok/	'lizard'

The phoneme /q/ is a voiceless glottal stop.

Syllable Initial [ʔ]

[ʔasu]	/qasu/	'dog'
[ʔɔmun]	/qomun/	'if'
[tulʔid]	/tulqid/	'straighten'

Syllable Final [ʔ]

[batɔʔ]	/bataq/	'child'
[datuʔ]	/datuq/	'chieftain'
[kalaʷɔʔlaʷɔʔ]	/kalawaqlawaq/	'spider'

The voiced stops are /b, d/ and g/.

The phoneme /b/ is a voiced bilabial stop. It has the allophone [b̥], a voiced bilabial fricative. This occurs word medially when it is both preceded by a vowel (V) or the lateral [l] and followed by a vowel. The CD formula is as follows:

$$/b/ \quad \begin{array}{l} \rightarrow [b] \\ \rightarrow [b̥] \end{array} \quad / \quad \left. \begin{array}{c} V \\ [l] \end{array} \right\} \quad _ V$$

Syllable Initial [b]

[bɔli]	/boli/	'buy'
[bibig]	/bibig/	'lip'
[kambin]	/kambin/	'goat'

Syllable Final [b]

[lobʔɔŋ]	/lobqon/	'depression'
[lablab]	/lablab/	'male pig'
[lokɔb]	/lokob/	'door'

CD Position [b]

[sabutʔ]	/sabu/	'understand'
[sabɔka]	/saboka/	'one'
[balbal]	/balbal/	'spirit'
[bulbul]	/bulbul/	'hair'

The phoneme /d/ is a voiced alveolar stop. It has one of two allophones in an intervocalic environment. When the preceding vowel is high (i.e. [i] or [u]), or when it is preceded by the lateral [l], it is realized as the voiced alveopalatal fricative [ʒ].¹¹ When the preceding vowel is not high (i.e. [ɔ] or [a]), it is realized as the voiced alveolar trill [ʀ]. The CD formula is as follows:

/d/	-> [ʒ]	/	$\left\{ \begin{array}{l} \text{VHI} \\ [l] \end{array} \right\} _ \text{V}$ VNON-HI_V
	-> [ʀ]	/	
	-> [d]	/	

Syllable Initial [d]

[datuʔ]	/datu/	'chief'
[duma]	/duma/	'companion'
[ʔandu]	/qandu/	'pestle'
[ʔaldɔʔ]	/aldaw/	'day'

Syllable Final [d]

[libɔd]	/libod/	'return'
[suɔd]	/sulod/	'cousin'
[gugud]	/gugud/	'relate events'

CD Position [ʒ]

[ʔiʒuŋ]	/qiduŋ/	'nose'
[saluʒɔʔ]	/saluday/	'zither'
[ʔalʒɔʔ]	/aldaw/	'day'

CD Position [ʀ]

[haʀi]	/hadi/	'younger sib'
[pɔʀɔm]	/podom/	'hopefully'

The phoneme /g/ is a voiced velar stop. It has one of two allophones, depending on the dialect. In one dialect it is [g], a voiced velar fricative. In the other, it is [h], a voiceless glottal fricative. This occurs word medially when it is both preceded by a vowel (V) or the lateral

¹¹For some speakers /d/ is realized as [d] rather than [ʒ] following [l].

[l] and followed by a vowel. The CD formula is as follows:

/g/ → [g or h] / { V }
 → [g] / ___ { [l] } _ V

Syllable Initial [g]

 [gakit'] /gakit/ 'raft'
 [gapun] /gapun/ 'cloud'
 [ʔaŋgam] /qaŋgam/ 'uncle'

Syllable Final [g]

 [liʔɔg] /liqog/ 'neck'
 [buʔag] /buyag/ 'mature person'
 [sandig] /sandig/ 'lean'

CD Position [g or h]

 [gugud] or [guhud] /gugud/ 'relate events'
 [bɔgɔʔ] or [bɔhoʔ] /bogay/ 'give'
 [ʔigiʔ] or [ʔihiʔ] /qigiq/ 'urine'
 [gɔlgɔʔ] or [gɔlhɔʔ] /golgaw/ 'to corral fish'

The two fricatives are /s/ and /h/.

The phoneme /s/ is a voiceless alveolar grooved fricative which occurs without apparent restriction in syllable initial and final positions. For some speakers, it has the allophone [š], a voiceless fronted alveopalatal fricative. This occurs preceding [i] and [ɔ]. The CD formula is as follows:

/s/ → [š] /_[i] or [ɔ]
 → [s] /___

Syllable Initial [s]

 [salug] /salug/ (name of river)
 [sulɔd] /sulod/ 'cousin'

Syllable Final [s]

 [gɔsʔɔʔ] /gosqaw/ 'rafter'
 [baŋus] /baŋus/ 'milkfish'
 [kaliskis] /kaliskis/ 'skin,rash'

CD Position [š]

 [kaʔašɔlɔm] /kaqasolom/ 'tomorrow'
 [šinɔgɔʔ] /sinogaw/ 'cry'

The phoneme /h/ is a lenis voiceless glottal fricative occurring in syllable initial

positions only. It is only noticeable in slow, deliberate speech. (See section 4.1.1.2. on the morphophonemics of /h/.)

Syllable Initial

[hɔlɔs]	/holos/	'hide'
[hiup']	/hiup/	'blow'
[halɔk']	/haldok/	'fear'
[hɔndɔ'i]	/hondaqi/	'where'

There are three nasal phonemes: /m, n, and ŋ/. They occur without apparent restriction in syllable initial and final positions.

The phoneme /m/ is a voiced bilabial nasal.

Syllable Initial

[manʔɔ]	/manqo/	'again'
[mɔiʔ]	/maiq/	'if'
[mamɔʔɔn]	/mamaqon/	'betel nut'

Syllable Final

[ʔumpak']	/qumpak/	'blouse'
[ʔaŋgam]	/qaŋgam/	'uncle'
[nanam]	/nanam/	'taste'

The phoneme /n/ is a voiced alveolar nasal.

Syllable Initial

[nati]	/nati/	'calf'
[sɔʔini]	/saqini/	'this'
[maniʔa]	/maniqa/	'why'

Syllable Final

[minsan]	/minsan/	'even'
[ʔquntud]	/quntud/	'ride on'
[ʔuʔan]	/quran/	'rain'

The phoneme /ŋ/ is a voiced velar nasal.

Syllable Initial

[ŋaʔan]	/ŋadan/	'name'
[ŋaʔɔg]	/ŋadog/	'stink'
[luŋag]	/luŋag/	'hole'

Syllable Final

[ʔaŋʔaŋ]	/qaŋqaŋ/	'notched'
[maŋga]	/maŋga/	'mango'

[lipɔʔɔŋ] /lipodon/ 'sleep'

In the speech of some speakers the lateral phoneme /l/ has two allophones: [l] and [ʎ]. [ʎ] is a voiced alveopalatal lateral which occurs between vowels, none of which is [i]. It also occurs preceding [d]. The allophone [l], a voiced alveolar lateral, occurs syllable initially and finally elsewhere. The CD formula is as follows:

/l/ -> [ʎ] /VNOT[i] __ VNOT[i] and _[d]
 -> [l] /____

where VNOT[i] = a vowel which is not [i].

CD Position [ʎ]

[baʎɔ]	/balay/	'house'
[laʎag]	/lalag/	'word'
[maʎɔŋɔ]	/malogot/	'true'
[saʎdab]	/saldab/	'burnt area'

Elsewhere [l]

[ʔilis]	/qilis/	'side'
[laʎag]	/lalag/	'word'
[matulid]	/matulid/	'straight'
[bulbul]	/bulbul/	'hair'

All other speakers have a single allophone, the alveolar lateral [l] for /l/ in all environments.

The semivowels are /w/, a labiovelar high back nonsyllabic vocoid, and /y/, a palatal high front nonsyllabic vocoid. Their points of articulation are bilabial and palatal respectively. They occur syllable initial and final with the following restriction: /y/ never occurs contiguous to [i], and /w/ never occurs contiguous to [u].

Syllable Initial

[ʔugu]	/yugu/	'yoke'
[baʔad]	/bayad/	'pay'
[*ɔig]	/waig/	'water'
[haʔakʔ]	/hawak/	'waist'

Syllable Final

[baʎɔ]	/balay/	'house'
[baʎɔ]	/baluy/	'turn into'
[ʔambɔʔ]	/qambaw/	'rat'
[ʔambɔʎ]	/qambay/	'daughter-in-law'

3.2.2. Vowel phonemes

The four vowels are /a, o, i and u/.

The phoneme /a/ is a mid central open unrounded syllabic vowel. It is similar in its production to that of its counterparts in other Philippine languages. When /a/ precedes a syllable final [ʔ],¹² a semivowel¹³ or a vowel which is not [a],¹⁴ it is realized as [ɔ]. It is also realized as [o] when it precedes a syllable initial [ʔ] followed by a vowel which is not [a].¹⁵ As a result contrast between it and the phoneme /o/ is lost. The CD formula is as follows:

$$\begin{array}{l}
 /a/ \quad \rightarrow \quad [ɔ] \\
 \quad \quad \rightarrow \quad [a]
 \end{array}
 \quad
 \begin{array}{l}
 / _ \left\{ \begin{array}{l} [ʔ]. \\ S. \\ \text{VNOT [a]} \end{array} \right\} \\
 / _ \quad \quad \quad [ʔ]\text{VNOT [a]}
 \end{array}$$

where “.” = syllable boundary
and VNOT [a] = a vowel which is not [a].

Examples of /a/ include:

Single [a]

[pak'pakʔ]	/pakpak/	'wing'
[taman]	/taman/	'until'
[manika]	/manika/	'betel pepper'

Cluster: including CD Position [ɔ]

[balsa:n]	/balsaan/	'sledge'
[panɔiʔ]	/panaiq/	'sew'
[lisɔ:ʔ]	/lisaag/	'louse egg'
[bɔu]	/bau/	'provision'
[mɔuri]	/maudi/	'later'
[lian]	/lian/	'large basket'
[daʔua]	/dadua/	'two'

Non-cluster CD Position [o]

[batɔʔ]	/bataq/	'child'
[bɔʔbɔʔ]	/baqbaq/	'mouth'
[balɔʔ]	/balay/	'house'
[ʔambɔʔ]	/qambaw/	'rat'
[pɔʔitʔ]	/paqit/	'kind of fish'
[kuntɔʔɔ]	/kuntaqo/	'today'
[bɔʔugan]	/baqugan/	'creek'

¹²Comparison with Proto-Manobo forms (Elkins, 1983) indicates that historically, the vowel *a. *bataq / bataq/ 'child'; *dilaq /dilaq/ 'tongue'; *qayaq /qayaq/ 'aunt'; *bagaq /bagaq/ 'lungs'; *mamaq /mamaq/ 'chew betel'; and *luhaq /luhaq/ 'tears'. In a limited number of words, /a/ is realized as [a] preceding a syllable final /q/. Most of these are loan words and the remainder are most likely loans. E.g.: [kɔmaʔ] /komaq/ 'foam mattress'; [kɔp:itiʔaʔ] /koppitidaq/ 'coffee pot; and [gansaʔ] /gansaq/ 'goose'.

¹³The only known exceptions are [ka'ka'asi] /kaykayasi/ 'lark', and [pasa'lu] /pasaylu/ 'forgive'. These may be loan words.

¹⁴As in Western Bukidnon Manobo, the only exception to this rule is [kai] /kai/ 'here'.

¹⁵Proto-Manobo forms and Matig-Salug comparisons: *kaqen /kaqon/ 'eat'; *saqeg /saqog/ 'floor'; *daqeg /daqog/ 'defeat'; and *daqet /daqot/ 'bad'.

[lʔʌs]	/layqas/	'lie in state'
[dɔʔʌs]	/dawqay/	'scold'

The phoneme /o/ is a mid open backed-central vowel. The distribution of /o/ is limited because of the loss of contrast between /a/ and /o/ in the aforementioned environments. The contrast between /a/ and /o/ is shown in the following examples:

[ʔalad]	/qalad/	'fence'
[ʔɔʌd]	/qolod/	'dip in water'
[baŋɔ]	/baŋol/	'floor joist'
[bɔŋɔ]	/boŋol/	'deaf'
[kanakan]	/kanakan/	'unmarried man'
[ʔanakɔn]	/qanakon/	'nephew'
[ʔɔgkɔqɔnan]	/qogkoqonan/	'eating place'
[ʔɔgkɔqɔnɔn]	/qogkoqonon/	'food'
[tabakʔ]	/tabak/	'answer'
[tɔbɔkʔ]	/tobok/	'fight'

Further examples of /o/ are the following:

Single

[no]	/no/	'and'
[ʔagɔʌ]	/qagolay/	'corn'

Cluster

[naliɔm]	/naliom/	'toothless'
[maŋŋɔd]	/maŋŋuod/	'unripe'

The high vowels /i/ and /u/ are very similar in their production to that of their counterparts in other Philippine languages. They occur at syllable peaks and are apparently free in their distribution.

The phoneme /i/ is a high front unrounded syllabic vowel.

Single

[kiʔan]	/kiwan/	'pterocarp tree'
[tikɔs]	/tikos/	'leg bracelet'
[kaʃili]	/kasili/	'eel'

Cluster

[bi:d]	/biid/	'stretch oneself'
[piakʔ]	/piak/	'chick'
[diɔʔ]	/diaq/	'there'
[ʃiɔʔ]	/siaw/	'nine'
[tiuk]	/tiuk/	'skewer'

WANG

[mɔiʔ]	/maiq/	'if'
[bansuitʔ]	/bansuit/	'whistle'

The phoneme /u/ is a high back rounded syllabic vowel.

Single

[pukɔʷ]	/pukaw/	'waken someone'
[luŋag]	/luŋag/	'hole'
[kaʷu]	/kayu/	'tree'

Cluster

[su:kʰ]	/suuk/	'chalk'
[kaŋkua]	/kaŋkua/	'later'
[luɔʔ]	/luaq/	'tear'
[luitʰ]	/luit/	'bark'
[ŋuɔŋ]	/ŋuog/	'mucous'
[kaniu]	/kaniu/	'you'

3.3. Phoneme contrasts

Examples of phonemic contrasts are listed below. These contrasts are between phonetically similar phonemes and between single and geminated vowels. The contrasting pairs are arranged vertically for easier comparison.

3.3.1. Consonant contrasts

Contrasts between single and geminated consonants were listed in section 3.1. on the interpretation of suspect elements. In each pair of consonant contrasts below, the first two sets are syllable or word initial contrasts and the second two are syllable or word final ones.

/p/ and /b/	/patuk/	'duck'	/pakpak/	'wing'
	/batu/	'stone'	/bakbak/	'frog'
	/qulop/	'asleep'	/laplap/	'skin'
	/qilob/	'vomit'	/lablab/	'boar'
/b/ and /w/	/balukan/	'loud speech'	/bogas/	'fruit'
	/walu/	'eight'	/woggak/	'boil'
	/saldab/	'burnt area'	/tuŋyab/	'pineapple'
	/qaldaw/	'sun'	/qoyaw/	'so that'
/t/ and /d/	/tagad/	'wait'	/tatuq/	'boy'
	/dagat/	'sea'	/datuq/	'chieftain'
	/dawat/	'receive'	/daqot/	'bad'
	/kawad/	'fish hook'	/gaqod/	'round timber'
/d/ and /l/	/duma/	'companion'	/diwata/	'a spirit'
	/lumalaw/	'mourn'	/liwati/	'earthworm'
	/quntud/	'ride'	/tagad/	'wait'
	/puntul/	'peak'	/bagal/	'corn cob'

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/k/ and /g/	/kolit/	'parrot'	/kusut/	'rub'
	/golit/	'serve'	/gusuk/	'rib'
	/manuk/	'chicken'	/garok/	'kiss'
	/banug/	'kite'	/ɲarog/	'smell'
/q/ and ∅	/waqil/	'move'	/baqad/	'divide'
	/wa_ig/	'water'	/ba_ag/	'loincloth'
	/suluq/	'light'	/liɲiq/	'turn head'
	/sulu_/	'nail'	/ɲiɲi_/	'saliva'
/q/ and /k/	/qamay/	'father'	/qulagin/	'sing'
	/kamay/	'wave'	/kulagu/	'eagle'
	/qawaq/	'remove'	/buyuq/	'ask for'
	/hawak/	'waist'	/tuyuk/	'lead'
/q/ and /h/	/qolog/	'true'	/qilis/	'side'
	/holos/	'hide'	/hilis/	'diarrhea'
/h/ does not occur syllable final in word medial or word final positions				
/h/ and /s/	/habol/	'weave'	/halin/	'transfer'
	/sabaw/	'soup'	/salin/	'subtract'
/n/ and /ɲ/	/nu/	'you'	/lanaw/	'lake'
	/ɲuog/	'mucous'	/lanaw/	'fly'
	/quyan/	'carry'	/layun/	'always'
	/quyan/	'brother-in-law'	/bayun/	'accuse'

3.3.2. Vowel contrasts

In the single vowel to vowel contrasts below, the first two sets are word medial contrasts and the second two sets are word final ones.

/a/, /o/, /u/	/paliq/	'wound'	/kalan/	'thatch'
	/poliaq/	'bitter melon'	/kolag/	'play'
	/pulipuli/	'take turns'	/kulagu/	'eagle'
	/ka/	'the'	/kalumona/	'fern'
	/ko/	'if'	/soɲo/	'a'
	/ku/	'I'	/puɲu/	'seed'
/i/, /o/, /u/	/qila/	'recognize'	/qiran/	'ridicule'
	/qulaqula/	'face'	/quran/	'rain'
	/qolat/	'middle'	/hagoran/	'stairway'
	/saqi/	'here'	/ki/	'we, incl.'
	/kuntaqo/	'today'	/ko/	'if'
	/kamomaqu/	'hand'	/ku/	'I'
/a/ and /aa/	/kagat/	'bite'	/lobag/	'swell'
	/gaat/	'care for'	/baag/	'loincloth'
/i/ and /ii/	/mosiq/	'as long as'	/qibid/	'lizard'
	/siiq/	(snail sp.)	/biid/	'stretch oneself'

/o/ and /oo/	/sopatus/ ‘	shoe’
	/soopin/	‘sprout double’
/u/ and /uu/	/gusuk/	‘rib’
	/suuk/	‘chalk’

3.4. Length

Length appears to be a common feature in most Philippine languages. Phonetically long consonants words and vowels are here interpreted as sequences of two phonemes. As noted above, syllable stress consists of a combination of slightly increased vowel length and volume with elevated pitch.

3.5. Distribution of phonemes

The distribution potential of consonant clusters across a syllable boundary (C.C) can be summarized in chart form. /h/ does not occur syllable final (marked by ‘X’ in the chart. The chart only includes examples identified to date.

	p	t	k	q	b	d	g	h	s	m	n	ŋ	l	w	y
p	pp	pt		pq					ps				pl		
t		tt	tk	tq	tb	td			ts						
k	kp	kt	kk		kb	kd		kh	ks	km			kl	kw	ky
q	qp	qt	qk		qb				qs				ql		
b	bp	bt	bk	bq	bb				bs				bl		
d		dt	dk	dq	db	dd			ds				dl		dy
g	gp	gt	gk	gq	gb	gd	gg	gh	gs	gm	gn	gŋ	gl	gw	gy
h	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
s	sp	st	sk	sq	sb					sm	sn		sy ¹⁶		
m	mp	mt	mk	mq	mb				ms	mm			ml		
n		nt		nq		nd	ng		ns		nn		nl		ny
ŋ		ŋt	ŋk	ŋq	ŋb	ŋd	ŋg		ŋs		ŋn	ŋŋ	ŋl	ŋw	ŋy
l	lp	lt	lk	lq	lb	ld	lg		ls		ln		ll	lw	ly
w				wq					ws						
y		yt	yk	yq									yl	yw	yy

Fig. 1. Distribution of Consonant Clusters

¹⁶The only known occurrence is in the loan word [ʔindik'sʔun] /qindiksyun/ ‘injection’. Note also the exceptional CV pattern: CVC.CVC.CCVC.

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The distribution of intervocalic glottal stops is restricted by neutralization ('N'). To date no example of /iqu/ has been found. The data can be summarized as follows:

	i	a	o	u
i	iqi	iqa	iqo	?
a	aqi	aqa	aqo	aqu
o	N	N	N	N
u	uqi	uqa	uqo	uqu

Fig. 2. Distribution of Intervocalic Glottal Stops

The distribution of the semivowels can be summarized in chart form. The above mentioned restriction of /i.yV/ and /u.wV/ (section 3.1.) is marked by 'X'. Occurrences that have yet to be documented are marked by '?'. Neutralization of contrast between /a/ and /o/ preceding word final semivowel is marked by 'N'.

	INTERVOCALIC Y				INTERVOCALIC W				
	i	a	o	u	i	a	o	u	
i	X	X	X	X	i	iwi	iwa	?	X
a	X	aya	ayo	ayu	a	awi	awa	awo	X
o	X	oya	oyo	oyu	o	?	?	?	X
u	X	uya	uyo	uyu	u	X	X	X	X

Figure 4. Distribution of Intervocalic Semivowels

	i	a	o	u	i	a	o	u
After pause	X	#ya	#yo	#yu	#wi	#wa	#wo	X
Before pause	X	ay#	N	uy#	? ¹⁷	aw#	N	X

Figure 5. Distribution of Semivowels Before and After Pause

¹⁷Similarly in Tigwa, /w/ has not been found syllable final following /i/ (Strong 1976).

The distribution potential of vowel clusters is restricted by neutralization ('N'). It can be summarized as follows:

	i	a	o	u
i	ii	ia	io	iu
a	ai	aa	ao	au
o	N	N	N	N
u	ui	ua	uo	uu

Fig. 6. Distribution of Vowel Clusters

3.6. Chart of phonemes

The nineteen phonemes of Matig-Salug Manobo may be summarized in the following positional chart:

CONSONANTS	Bilabial	Alveolar	Palatal	Velar	Glottal
Stops: voiceless	p	t		k	q
voiced	b	d		g	
Fricatives	s			h	
Lateral	l				
Nasals	m	n		ŋ	
Semivowels			y	w ¹⁸	
VOWELS	FRONT	CENTRAL	BACK		
High	i		u		
Mid		o			
Low		a			

Fig. 7. Matig-Salug Phonemes

4. MORPHOPHONEMICS

Morphophonemic processes take place as the result of affixation or syntax. In Matig-Salug, these processes are analogous in nature to the allophonic variations of the phonemes.

¹⁸The phoneme /w/ is labiovelar in its point of articulation. It is classified here as velar because it follows the other velar consonants in morphophonemic processes. This also simplifies the chart.

4.1. Change affecting consonants

Consonants affected by morphophonemic process are the voiced stops, /h/, the nasals /q/, and in some dialects, /l/.

4.1.1. Voiced stops

The voiced stops are affected in a pattern analogous to their respective allophonic processes. These same processes now occur across a morpheme boundary both within a word and between words.

/b/: [b] and [b̥]

1. a. lbalay sikal [baɫʷ šika] 'that is a house'
b. lmo balay sikal [mɔ b̥aɫʷ šika] 'those are houses'
2. a. lqogbabalay qadl [ʔɔgbɔb̥aɫʷ ʔad] 'I'm building a house'
b. lqogbabalay qadl [ʔɔgbɔb̥aɫʷ ʔad] 'I'm building a house'
3. a. lkaqosolom kay qogsilabl [kɔʔɔʃɔɫɔm kɔʔ ʔɔgšilab] 'tomorrow we will burn (it)'
b. lwaq nay pad nasilabl [wɔʔ nɔʔ pad našilabi] 'we were not able to burn it yet'
4. a. llokob sikal [lɔkɔb šika] 'that is a door'
b. lmiglokoban kay qol [miglɔkɔb̥an kɔʔ ʔɔ] 'we have been shut out'

/d/: [d] and [ʒ, ʔ]

5. a. lsi qarŋgam daql [ši ʔarŋgam dɔʔ] 'uncle only'
b. lsikaniu daql [šikaniu ʒɔʔ] 'you only'
6. a. lsoqoyaq dogmal [šɔʔɔʔɔʔ dɔɔgma] 'that-one-over-there also'
b. lsika dogmal [šikaʔɔɔgma] 'that-one also'
7. a. lqayadqayad kaw pitawl [ʔaʔadʔaʔad kɔʔ pitɔʔ] 'look carefully'
b. lmigqayqayadan nay to qopitawl [migʔɔʔaʔaʔan nɔʔ tɔ ʔɔɔpitiɔʔ] 'we looked carefully at it'
8. a. lkonaq qa ogpakabalibadl [kɔnaʔ ʔa ʔɔɔpakabalibad] 'I cannot deny'
b. lmigbalibadan dinl [migbalibaʔan din] 'he denied it'

/g/: [g] and [g̥ or h]

9. a. lso geinawal [šɔ gɔinawa] 'the opinion'
b. lgeinawa dan sikal [gɔinawa ʔan šika] 'that is their opinion'
10. a. lnaquyag dod sikandinl [nɔʔuʔag dɔd šikandin] 'he was revived'
b. lka kaquyaganl [ka kɔʔuʔagan] 'the food supply'
11. a. lqogpakasilag ka mo lalag kul [ʔɔɔpakašilag ka mɔ lalag ku] 'my words will hurt someone's feelings'
b. lqogsilagon nul [ʔɔɔgšilagɔn nu] 'you will hurt his feelings'

4.1.2. The fricative /h/

The morphophoneme /h/ is realized as [h] only in utterance initial positions following pause. If a pause is interpolated within an utterance for whatever reason, it is also realized at the beginning of a word, stem or root. In words with reduplicated roots, it is realized only if the root ends in a voiceless consonant. When it is preceded by a prefix ending in /g/ or /

[N] it is realized as [g] and [n] respectively.¹⁹ Elsewhere it is not realized phonetically.

/h/	-> [h]	/#_
	-> [h]	/Cv1+ _
	-> [g]	/g+ _
	-> [n]	/ [N]+ _
	-> Ø	/ _____

E.g.

/h/: [h] and Ø

12. a. /hapuy sika/ [hapuʔ sika] 'that is a fire'
- b. /ka hapuy/ [ka apuʔ] 'the fire'
13. a. /holos ka/ [hɔlɔs ka] '(You) hide!'
- b. /ogholos kid/ [ʔɔggɔlɔs kid] 'Let us hide now'
- c. /lalag din # holos ka/ [lalag din # hɔlɔs ka] 'He said, "Hide"!''
14. a. /qogkahaldokhaldok/ [ʔɔgka:lɔkhalɔk] 'to be terrified'
15. a. /hadi/ [hafi] 'younger sibling'
- b. /talahadi/ [tala:fi] 'siblings'

4.1.3. Nasals

When, as the result of affixation, a nasal immediately precedes another consonant, it assimilates to the point of articulation of that consonant. The most common occurrences of this process involves the prefixes lqiN- and paN-l.

Another morphophonemic process occurs after the nasal assimilation. Stem or root initial [b] and voiceless consonants are deleted following lCaN-l prefixes. This rule is not universally applied as certain roots like /taguq/ 'place in' do not allow for deletion following assimilation. This exception is conditioned by the morphemes.

[b, p, t, k, h, q, s]	-> Ø	/lCaN-l+ _
	-> /b, p, t, k, h, q, s/	/ _____

16. a. liN-+paN-+tuluq/ /impanuluq/ 'taught'
- b. liN-+gaatl/ /iŋgaat/ 'left behind'
- c. liN-+taguq/ /intaguq/ 'placed in'
17. a. lpaN-+rdpCV=ŋisil/ /paŋŋiŋisi/ 'laugh and laugh'
- b. lpaN-+lupugl/ /panlupug/ 'of several, to chase'
- c. lpaN-+nanon+-anl/ /pannanonan/ 'to let everyone know'
- d. lpaN-+woqill/ /panwoqil/ 'be in motion'
- e. lpaN-+yokyok+-onl/ /panyokyokon/ 'of several, to have with whooping cough'
18. a. lpaN-+bogoyl/ /pamogoy/ 'distribute'
- b. lpaN-+pilakl/ /pamilak/ 'repeatedly strike with a spear'
- c. lpaN-+kayul/ /paŋayu/ 'fetch wood'
- d. lpaN-+quyamul/ /paŋuyamu/ 'assist in childbirth'
- e. lpaN-+hibatl/ /paŋibat/ 'of several, to lie down'
- f. lpaN-+tugtull/ /panugtul/ 'relate an event'
- g. lpaN-+silabl/ /panilab/ 'burn a field'

Word final nasals also assimilate to the point of articulation of the initial consonant of the next word in the pause group.

¹⁹For some speakers, it is realized as [ʔ] instead of [g] or [n]. This does not appear to be a generally accepted free variant. Also it is not yet known whether this gemination rule applies to all voiced consonants.

In pause groups containing clitics²⁰, the following words have morphoallophonic forms ending in [-N] when they are followed by a clitic: /du-o/ 'existential particle', /sika/ 'that', /ma/ 'indeed', /na-a/ 'so', and /qo/ 'completive particle'. These become [du-oN], [sikaN], [maN], [na-aN or naN], and [qoN] respectively. The word final [-N] of the above words together with that of the clitic [kuN] 'quotative particle' assimilates to the point of articulation of the first consonant of the next word.

4.1.4. The Glottal stop [q]

When clitics or pronouns ending in l-al, l-il, or l-aq| precede the completive particle /qo/, the glottal stop if present is deleted and l-dl is added after the lal to avoid the harsh sounding sequences la ʔol, li ʔol, and laʔ ʔol.

- 19. a. lkua ki qol /kua kid qo/ 'let us go now'
- b. lqogkaqon qa qol /qogkaqon qad qo/ 'I am eating now'
- c. lwadaq qol /wadaq qo/ 'there is nothing left now'

With the clitic lpaq| 'yet' the word final glottal stop is lost when the suffix l-dl is added.²¹

- 20. a. lkoq kaw paq| /koq kaw paq/ 'don't do it yet'
- b. lwaq paq+-dl/waq pad/ 'not yet, as of now'

4.1.5. The Lateral ll

The lateral is affected in a pattern analogous to its allophonic variation. The voiced alveopalatal variant [l] now occurs across a morpheme boundary between vowels which are not /i/.

- ll -> [l] /VNOTi +_VNOTi
- > [l] /_____

where VNOTi = a vowel which is not /i/

- 2 . a. lma--logot| [mɔlɔgɔt] /malogot/ 'true'
- 22. a. lmo+lalung| [mɔ lalung] /mo lalung/ 'naughty people'

4.2. Change affecting vowels

The morphophoneme lal is affected in a pattern analogous to its allophonic variation in words that do not contain reduplicated roots.²² When [aq] precedes a morpheme with lqV| or |V| morpheme initial and the following vowel (V) is not [a], it is realized as lɔʔ|. When lal precedes a morpheme with lhV|, lqV| or |V| morpheme initial and the following vowel (V) is not lal, it is also realized as lɔ|. Elsewhere, it is realized as lal. This rule can also be stated in another way. lal is only realized as [a] when the following morpheme has [a] in its first syllable. The result of these morphophonemic processes is that contrast between lal and the other central vowel phoneme lol is lost. The CD formula is as follows:

²⁰In Matig-Salug there are a number of monosyllabic clitics which are either brief pronouns or clause level limitation or modal adjuncts.

²¹A variant of this rule involves the adjunct [daq] 'only'. The raising of the vowel preceding a word final glottal stop is retained even though the glottal stop is lost with affixation ldaq+-dl > /dod/.

²²In words reduplicated roots, the juxtaposition of a root final /a/ with a root initial /qV/ does not affect the /a/. E.g.: [ʔulaʔula] /qulaqula/ 'face' and [pɔʔilaʔila] /paqilaqila/ 'introduce'.

relevance to the Matig-Salug people include:

- a. Ease of acquisition (decoding)
 - i. Phonemic consistency (one phoneme-one symbol)
 - ii. Representation of underlying (morphophonemic) forms
 - iii. Transference to Filipino and Cebuano
 - iv. Various orthographies used in the past
- b. Ease of usage (encoding)
 - i. Representation of surface form (what you hear and say is what you write)
 - ii. Ease of reproduction (in writing and typing)
 - iii. Transference to Filipino and Cebuano
- c. Motivation
 - i. Similarity to languages with higher prestige (Cebuano and English)
 - ii. Uniqueness (dissimilarity) as a source of cultural pride

For Matig-Salug the phonemes which might be problematical in deciding on an orthography are the glottal stop, the voiced stops, /h/, /o/, and /a/. The morphophoneme |N|, word breaks for clitics, loan words, punctuation conventions and representation of fast contracted speech are also areas of importance.

5.1. The glottal stop

The glottal stop in some major Philippine languages (e.g. Filipino and Cebuano) is not written when it occurs at the beginning of a word and in between vowels (e.g. Cebuano *adlaw* 'sun', *bituon* 'star'). It is symbolized by a hyphen when it occurs as the second member of a consonant cluster (e.g. Tagalog *mag-ihaw* 'broil'). When it occurs in word final positions, it is not written in everyday use. However, in major dictionaries and in some books for beginning readers, it is symbolized by a grave accent over the word final vowel. (e.g. Tagalog *lupà* 'land').

This symbolization of the glottal stop is followed in Matig-Salug for the sake of maximum transference to Filipino. The grave accent over the final vowel will only be used in dictionaries. This avoids having two symbols for one phoneme. It also removes from everyday usage the grave accent, a non-sequential type of orthographic symbol which is difficult to learn. OMF experience indicates that Manobos do not have problems with not writing word-final glottal stops. Contextual cues are adequate. This also appears to be the case for Tagalog and Cebuano users.

Because of the occurrence of vowel clusters, it is necessary to distinguish between sequences with two vowels (as in /pai/ 'term of address for a young girl') and sequences where the glottal stop occurs between vowels (as in /paqit/ 'fish'). The present usage among the Matig-Salugs as introduced by S.I.L., General Baptist Mission and OMF is to symbolize the intervocalic glottal stop with a hyphen. Recent testing among literates and semi-literates in Panganan reveal that this practice has not been well accepted. The preference is to write 'y' or 'w' between two vowels and to write nothing for the intervocalic glottal stop. The above words would be written as 'poyi' and 'poit' respectively. This reflects influence from Cebuano. For the sake of maximum transference to Filipino and Cebuano, this preference is here adopted as the basis for further testing. Closely associated with this preference is the problem of representing geminate vowels (whether these are the result of affixation or not). Due to their rarity, we propose writing geminate vowels as single vowels (a case of underrepresentation) unless further testing reveals problems in literacy skill acquisition. In dictionaries, geminate vowels will be written with a colon following a vowel.

When a glottal stop is deleted in a morphophonemic process, it is not written orthographically.

5.2. Voiced stops

Besides being realized in their respective allophones in certain environments within a word (phonemic variation), the voiced stops are also realized in a similar manner in their respective morphoallophones across a morpheme boundary (morphophonemic variation).

In Filipino and Cebuano, the phoneme /d/ is written as 'd' and its allophone [ɾ] is written as 'r'. This practice is followed in Matig-Salug. However, Filipino and Cebuano do not have the Matig-Salug allophone [ʒ]. The corresponding allophones are [ɾ] intervocally and [d] following /l/. We propose that [ʒ] be written as 'r' intervocally and as 'd' following /l/ for ease of teaching literacy and maximum transference.²⁴ This also avoids the need for a third symbol.

The morphoallophones of /d/ are [d] and [ɾ]. [d] will always be written as 'd'. [ɾ] will be written as 'r' word medially. To facilitate identification of roots (content words), a word initial /d/ will be written as 'd'. Because possessive pronouns and clitics are perceived as part of the preceding word even though they are written separately, a word initial [ɾ] in these (functor) words will be written as 'r'. This practice is in keeping with Filipino and will facilitate transference.

Loan words beginning with /r/ such as /rilu/ 'watch' will be written with 'r'. They are never pronounced with a [d].

In Filipino and Cebuano both /b/ and /g/ do not have fricative allophones and are always written as 'b' and 'g'. When this practice was adopted among the Matig-Salugs, OMF personnel found that readers do not have problems with the Matig-Salug fricative allophones of /b/ and /g/ being confused with the intervocalic geminate (or single) stops of loan words. They automatically make the switch.²⁵ We propose then that /b/ and /g/ be written as 'b' and 'g' respectively in all environments. Geminate consonants in Matig-Salug words will be written as geminates. Intervocalic stops in loan words from Cebuano or Filipino, whether perceived as geminate or single stops, will be written as single stops to facilitate transference. Geminates in loan words that have been fully accepted as part of the Matig-Salug lexicon can be written as geminate.

5.3. The fricative /h/

The lenis quality of /h/ results in its loss in most utterance medial positions. Writing it wherever it occurs in the underlying phonemic or morphophonemic root form facilitates recognition of roots. However, in the encoding process, it is very difficult to write down a symbol for a sound that does not exist. Furthermore, there is a slight difficulty in transference to Filipino where /h/ is always pronounced. Unless further testing indicates significant need to write it, /h/ will only be written utterance initial, content word initial and following voiceless consonants in reduplicated roots. It will be written as 'g' and 'n' when it assimilates to the final consonant of a prefix.

5.4. The central vowel /o/

SIL linguists working in Manobo languages have often discussed the problem of how the peput vowel should be written in Manobo languages, whether as 'o' or 'e'. It is noted

²⁴The choice is made here in favor of the dialect that most resembles Filipino (See section 3.2.1.)

²⁵In contrast, readers who have been exposed to Cebuano or Filipino are confused with /d/ unless it is written intervocally as 'r'.

that 'e' is linguistically more elegant and symmetrical since it is in the middle of the vowel chart. Also in the majority of the languages with a peput vowel, the phonetic quality of the vowel is [ɛ]. The Matig-Salug peput is much lower and further back. To Matig-Salug speakers, especially those who know about Cebuano and Filipino orthography, 'e' is understood to be phonetically very similar to 'i' if not interchangeable with 'i'. In their minds, it certainly does not have a central or back central quality. They have a strong preference to represent the central vowel as 'o'. Evidence for this first came from Tigwa Manobos where 'o' was initially used but for various reasons 'e' was tried. This resulted in a lot of confusion in bridging to Cebuano. Now Manobo speakers want to go back to using 'o'. OMF literacy personnel say that reading skills will likely improve if present primers using 'e' can be changed to using 'o'. Except for initial resistance from one of Elkins' language assistants who has been using 'e', everyone questioned in Panganan preferred 'o'. Therefore, in the interest of maximum transference and native speaker perception, 'o' will be used in Matig-Salug.

5.5. The vowel /a/

The phoneme /a/ and the morphophoneme |a| are unique in that they are realized as [ɔ] in certain environments. This of course neutralizes the contrast between /a/ and /ɔ/ which is also realized as [ɔ]. Adding to this complexity is the fact that in almost all environments, /a/ and [a] are realized as [ɔ]. To facilitate teaching literacy, we propose that [a] and [ɔ] be written as 'a' and 'o' respectively. In this way beginning literates read and write the way words sound.

There are two potential areas of difficulty with this method of representation. Firstly, it will be more difficult to identify roots ending in semivowels because the more common unsuffixed form does not look like the underlying phonemic form. E.g. 'agoloy' /qagolay/ 'corn' and in contrast 'agolayan' 'cornfield'. Secondly, there is a potential confusion with clitics. When faced with 'ko', is that /ko/ 'if' or is that /ka/ 'you' which is written both as 'ko' and 'ka' depending on the environment? The same holds true for 'o' representing both /qo/ 'now' and /qa/ 'I'. It appears that contextual cues are sufficient for differentiation and subsequent comprehension.

5.6. Other phonemes and morphophonemes

The phoneme /ŋ/ would be symbolized as the diagraph 'ng' for the sake of transference and for lack of a better alternative. The only problem with this is the confusion with words with /n/ followed by /g/ as in [gɔŋgɔŋ] /gongon/ 'hold'. The consonant cluster /ng/ is rare and it will be written 'n-g' to avoid confusion. Thus the above example would be written 'gon-gon'.

The phonemes /p, t, k, and l/ and their respective allophones will all be written as 'p, t, k, and l' for the sake of phonemic consistency (one symbol-one phoneme).

The |paN-l| prefix with its attendant consonant deletion following assimilation is a common feature in Philippine language. In both Filipino and Cebuano, the respective morphoallophones are written and the deleted consonant is not. This creates problems with recognition of underlying roots, necessitating special cataloging in dictionaries. Because there are roots and stems where the initial consonant is not deleted following |paN-l| there appears to be no satisfactory solution. This problem occurs in Matig-Salug. For the sake of maximum transference and for lack of a better solution, |paN-l| will be written as 'pam-, 'pan-, and pang-' as the environment dictates and the deleted consonant will not be written. Dictionary entries will identify the underlying roots and stems where these are determinable.

The morphophoneme |-N| at the end of many clitics and other content words will be symbolized as 'n' in the interest of decoding. If further testing reveals great difficulty in using this for clitics, it could be written as 'm, n, or ng' as the environment requires to facilitate

reading and writing.

Although clitics and possessive pronouns are generally perceived as part of the preceding word, it is acceptable to the Matig-Salugs to write these separately. This will facilitate transference to Filipino and Cebuano. However, there is a very strong preference to write two particular clitics attached. These are /qo/ 'now' and /qa/ 'so'. Further testing is required to see if these can be written separately.

As more and more loan words are used as the Matig-Salug people come into greater contact with other Filipinos, the orthography will need to be expanded to include 'dy' as in 'dyip' 'jeepney'. Following Filipino, it will also assimilate letters such as the Spanish 'j' and the English 'c, e, f, q, v, and z'. However in general, loan words will be written in the same way they are written in the source language. Established loans that have been accepted into the Matig-Salug lexicon may be written according to Matig-Salug phonology.

Punctuation symbols will follow exactly Filipino practice as outlined in a directive of the Institute of National Language (1971) for the sake of maximum transference. Full word reduplications such as 'tuid-tuid' 'every year' will be separated by hyphens.

It is the preference of the native speakers to not represent fast contracted speech in literature so as to 'carefully record' their language. For more casual writing such as in personal letters and for informal speech in certain literary genres, this is acceptable.

5.7. Summary

In summary then, Matig-Salug would be written using the following symbols:

Consonants: 'p, t, k, -, b, d, r, g, s, h, m, n, ng, l, w, and y'.

Vowels: 'a, i, o, and u'.

The symbol '-' will be used (1) for the glottal stop word medially following consonants; (2) to separate the consonants 'n' and 'g'; and (3) in full word reduplications.

The symbol 'r' will be used word for [ʒ] and [ʀ] except following [l].

Phonetic	Underlying Form/Gloss	Orthography
q		
ʔogʔinsɔʔ	qogqinsaq 'ask'	og-inso
bɔʔbɔʔ	baqbaq 'mouth'	bo-bo
b,g		b,g
bɔgɔʔ	bogay 'give'	bogoy
d		d,r
ka ʀaʀu	ka dadu 'the plow'	ka daru
ʔa/dɔʔ	qaldaw 'day'	aldow
h		h
ka apuʔ	ka hapuy 'the fire'	ka hapuy
ʔoggoʔɔs	ogholos 'hide'	oggolos
ʔogka:ldɔkhalɔk	qogkahaldokhaldok 'to be terrified'	ogkaldokhaldok

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o,a		o,a	
pɔipanoʷ	pahipanaw 'cause to go'	poyipanow	
ʔɔgdumɔ ʔɔ	qogduma+qo 'he will now accompany'	ogdumo o	
geminate vowels (VV)		a singly symbol (V)	
bi:d	biid 'stretch oneself'	bid	
tala:fi	talahadi 'siblings'	talari	
N in prefixes + delete C		m, n, ng	
pamɔgɔʔ	pamogay 'distribute'	pamogoy	
N word final		n	
ʔɔggutasəŋ kid	qoggutasan kid 'we are hungry'	oggutasan kid	
N in clitics		n	
duʔɔm pad	duqon pad 'there is still'	duon pad	

Fig. 8. Examples of Major Orthographic Decisions

5.8. Sample Text

The following brief Matig-Salug text²⁶ will illustrate the above-suggested orthography:

¹"Sikoykow so asawa ku, susubba ka to iglom-ag su ogpanilow a to agipis." ²No nokouma a to agipis, nabokas o. ³Pitow a, no migsagaran o to sblarong. ⁴Ukasa ku soini so usa, no imbaba ku ro diyo to baloy. ⁵No sinalabi ku soini so usa, sapua, panggupala. ⁶No nataman to pogpanggupal, no migpaniyuk kud. ⁷Pinayuka ku, in-atul ku to mo uyang ku, mo anugang ku, mo ipag ku. ⁸Ingkuwa ku so sogang, impaabin ku to anugang ku.

¹"You, my wife, cook breakfast because I'm going to check my logfall trap." ²I arrived at the trap and it had been tripped. ³So I looked and a deer had tripped it. ⁴I took the deer out and carried it home. ⁵I singed the deer, cut it, and chopped it into pieces. ⁶When I finished skewering it, I gave some to all of my brothers-in-law, my parents-in-law, and my sisters-in-law. ⁸I took the pelvis and gave it, the largest share, to my father-in-law.

²⁶This text was originally given to Richard Elkins by a respected chieftain. The transcription was recently edited by the chieftain's secretary, a literate young man.

WANG

NOTES

List of abbreviations and conventions

C	consonant
V	vowel
CV	a syllable pattern representing a consonant by a vowel
S	semivowel
.	syllable boundary
ʔ	phonetic glottal stop
:	phonetic length
'___'	English gloss
CD	complementary distribution
[___]	phonetic representation; the allophone ___
-->	is realized as
/___/	phonemic representation; the phoneme ___
/	in the environment of
/___	elsewhere, i.e. in all other environments
∅	null
#	pause
{ }	a set of alternates
*	proto form
>	becomes
'___'	orthographic representation
[___]	morphoallophonic representation
+	morpheme boundary either within a word or between words
X	occurrence restriction
N	1. neutralization of contrast 2. the morphophoneme N
rdp	reduplication

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