

# The Phonetic Processes Involved in the Lexicon of *Tambal Binisaya*

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## Abstract

*Tambal binisaya* which literally means *binisaya* medicine or crude medicine is the term used to refer to the alternative medicine used in Iligan, which is a city found on the southern part of the Philippines. This form of treatment has been used for decades by *albularyos* or ‘quack doctors’ and residents from low-income groups who cannot seem to afford “modern” treatments. Generally, the vendors of this kind of treatment use Sebuano as their first language. However, when they converse with their clients or when they converse among themselves, it was found that they exhibit the use of many unfamiliar sounding words in communication. This feature is even supported by related researches and academic articles which suggest that a distinct communicative register is used by this kind of speech community. Some of these features include the use of phonetically modified loanwords, and the changing of sounds of some established local terms, among others. That is why this descriptive study ventured to investigate the phonetic processes involved in the *tambal binisaya* lexicon. This research employed various methods in gathering data such as interviews, focus group discussions, observations and field notes. Based on the results of the study, it was found that the phonetic processes used in *tambal binisaya* are: vowel appropriation, consonant appropriation, epenthesis, deletion, metathesis, assimilation, and simplification. Overall, it was found that these processes emerged because of the daily encounters of the vendors and their clients and the sounds of these words were shaped into what they are because of the need to satisfy the functional and contextual dimensions in the *tambal binisaya* trade.

## 1. Introduction

According to World Health Organization (2005), the practice of folk

medicine in the republic of the Philippines is thought to have existed for hundreds of years, even before colonization by the Spaniards. The roots of traditional medicine appear to have originated from the practices of ethnic and indigenous groups of Filipinos. The assumption is that the spectrum of traditional medicine in the Philippines has been brought about by the influences mainly of ethnic Chinese traditional medicine systems, local folklore and experiments with the use of medicinal resources. Thus the Philippines due to the long influence from Spanish colonization, has merged its ancestral beliefs with the formal Christian influence. The use of amulets to ward off sickness, to protect from natural disasters and even from man-made aggression, is combined with prayers adapted from churches. In Iligan, which is a predominantly catholic city situated in Northern Mindanao ([www.Iligan.gov.ph](http://www.Iligan.gov.ph)), this form of healing is called *tambal binisaya* which literally means ‘*binisaya* medicine’. These medicines, which range from roots, stones, tree barks, seeds, oils, and amulets are sold by small-scale vendors near St. Michael’s Cathedral Parish and are said to treat various ailments and afflictions such as flatulence, dysmenorrhea, fever, flu, and constipation, to name a few. Some even claim to have medallions and charms which ward off curses, protect wearers from harm, and bless bearers with good luck in wealth and love. Among their usual customers are *albularyos* or ‘quack doctors’ and those people which come from lower income groups who cannot seem to afford “modern” treatments.

And although there are medical professionals who continue to discourage the use of these traditional medicines because of possible health risks (Quintero & Rocky 2005), still, there are people who continue to patronize

these medicines. Interestingly though, when vendors transact with their customers or when they converse with fellow vendors, they use terminologies which render unfamiliar to the untrained ear. The use of these terminologies could be referred to as register. Wardaugh cites Ferguson (1994: 20) stating, ‘people participating in recurrent communication situations tend to develop similar vocabularies, similar features of intonation, and characteristic bits of syntax, and phonology that they use in these situations.’ this kind of variety is a register. He adds that its ‘special terms for recurrent objects and events, and formulaic sequence or “routines”, seem to facilitate speedy communication; other features apparently serve other purposes similar to the accommodation that influences dialect formation (Wardaugh, 2006).

Specifically, this research is anchored on the community of practice theory which was introduced to sociolinguistics by Penelope Eckert and Sally McConnell-Ginet in their research on language and gender. According to this theory, a community of practice is a smaller unit than a social network . Co-membership is defined on three criteria: mutual engagement, a jointly negotiated enterprise, and a shared repertoire.

‘Mutual engagement’ means coming together in direct personal contact. The requirement for mutual engagement is a stricter measure for membership than is required for either social networks or social classes. Meanwhile, a ‘shared repertoire’ may be speech styles, but it also includes other social practices. In the domain of language, it includes shared ways of pronouncing words, shared jargon or slang, and in-jokes. A shared repertoire also enables some conversations to be continued over a period of days or weeks without any fuss, or without a sense that participants need much reorienting to the topic. Lastly, a ‘jointly negotiated enterprise’ is perhaps the most crucial criterion for defining a community of practice. Without this, it is easy to subsume the community of practice under the notion of social networks. The criterion of a jointly negotiated enterprise tells us that the members of a

community of practice are not just in contact with each other, but they are working towards some shared goal, or are defining and satisfying some specific enterprise (Meyerhoff, 2006).

In the register used by the *tambal binisaya* vendors, these three criteria are present. And since the community of practice theory covers a very wide scope, this study will only focus on one of the three criteria which is the shared repertoire. Specifically, this study aims to: (1) analyze the phonetic processes involved in the lexicon of *tambal binisaya* and (2) provide the meanings of lexical items. This endeavor proves its usefulness since no linguistic studies have been done on the lexicon of the *tambal binisaya* trade. Other studies done so far were mostly focused on the field of medicine, folklore, and religious studies. By doing this study, the researcher aims to help in safeguarding local cultures and practices by preserving the knowledge of the people involved in this trade through efforts in the field of sociolinguistics.

## 2. Methodology

In undertaking this study, seven *tambal binisaya* vendors were involved. It employed a descriptive survey method which comprised of survey questionnaires, focus group discussions, field notes and observations. These methods were utilized to determine the lexical items used in *tambal binisaya*. After data collection, the terms were then glossed with the aid of a Cebuano Visayan Dictionary for Sebuano terms (1982), Oxford dictionary (2016) for proper names, English loanwords and Spanish loanwords, and The New Philippines Comprehensive Dictionary & Thesaurus (2009) for Filipino loanwords. After which, these lexical items were analyzed in terms of their phonetic features.

## 3. Phonetic Processes

Articulatory adjustments that occur during the production of connected speech are called processes. Their cumulative effect often results in making words easier to articulate, and in this

sense they are said to make speech more efficient (O’Grady et al., 2001). In this section, the phonetic processes involved in the lexicon of *tambal binisaya* are discussed.

### 3.1.Vowel Appropriation

In the only Sebuano dictionary recognized by the Linguistic Society of the Philippine, only three vowels: *i*, *u*, *a* are written down (Wolff, 1982). In support of such claim, and with a focus on vowels only, the vowel quadrangle can be considered as the phonological space that vowels must occupy. Although the vowel systems of languages can be arranged in various ways, there is a tendency for languages to maximize the use of space in the quadrangle. Accordingly, if a language has only three vowels, they will likely be [i], [a], and [o] or [u] (O’Grady 2001). This is the reason why the vowels of all the *tambal binisaya* loanwords are appropriated into the [i], [a], or [u] vowel system of Sebuano. The examples of such phenomenon are presented in Table 1.

Phonetic process	Loan Word	Meaning	<i>Tambal binisaya</i> Term	Meaning
[e] -> [i]	Span. <i>medallion</i> [medaljon]	‘medallion’	<i>midalyun</i> [midaljun]	‘medallion’
	Span. <i>brillante</i> [briljante]	‘diamond’	<i>brilyanti</i> [briljanti]	‘diamond’
	Span. <i>elefante</i> [elefante]	‘elephant’	<i>ilipanti</i> [ilipanti]	‘a plant which is used for the treatment of hair fall. It is shaped like an elephant trunk.’
[e] -> [i]	Eng. horsetail [horstel]	Tail of a horse	<i>hurstil</i> [hurstil]	‘herbs used to treat stomach ulcers and kidney stones. It is said that it could also boost appetite. It is called horsetail because it resembles a horse’s tail.’
[I] -> [i]	Eng. arthritis [arθralɪs]	painful inflammation and stiffness of the joints	<i>atratis</i> [atratis]	‘painful inflammation and stiffness of the joints’

	Eng. kidney [kɪdni]	Each pair of organs in the abdominal cavity of mammals, birds, and reptiles excreting urine.	<i>kidni</i> [kɪdni]	‘refers to kidney stones’
[ə] -> [i]	Eng. ulcer [ʊlsə]	An open sore on an external or internal surface of the body, caused by a break in the skin or mucous membrane that fails to heal.	<i>ulsir</i> [ʊlsɪr]	‘For native Cebuanos, this specifically refers to stomach ulcers.’
[o] -> [u]	Span. <i>medallion</i> [medaljon]	‘medallion’	<i>midalyun</i> [midaljun]	‘medallion’
	Span. <i>culantro</i> [kulantra]	‘coriander’	<i>kulantru</i> [kulantru]	‘coriander’
	Span. <i>tomar</i> [tɔmar]	‘to drink’	<i>tumar</i> [tumar]	‘to drink’
[ə] -> [u]	Eng. Million <sup>1</sup> Eng. Dollar <sup>2</sup> [mɪljəndələ]	<sup>1</sup> The number equivalent to the product of a thousand and a thousand <sup>2</sup> The basic monetary unit of the US, Canada, Australia, and certain countries in the Pacific, Caribbean, Southeast Asia, Africa, and South America.	<i>milyundalar</i> [mɪljundalar]	a kind of <i>lana</i> which is used to replenish the contents of a <i>habak</i> . It is said to attract love, money, or good health depending on the intention of the wearer.
[o] -> [u]	Eng. ovary [ɔvəri]	‘A female reproductive organ in which ova or eggs are produced, present in humans and other vertebrates.’	<i>Ubarina</i> [ubarina]	‘used as treatment for ovarian problems and pregnancy’
[o] -> [a]	Eng. million <sup>1</sup> Eng. dollar <sup>2</sup> [mɪljəndələ]	<sup>1</sup> The number equivalent to the product of a thousand and a thousand <sup>2</sup> The basic monetary unit of the US, Canada, Australia, and certain countries	<i>milyundalar</i> [mɪljundalar]	‘a kind of <i>lana</i> which is used to replenish the contents of a <i>habak</i> . It is said to attract love, money, or good health depending on the intention of the wearer.’

[ə]-> [a]	bird's nest [bədsnest]	Nest of a bird	<i>bardsnis</i> [bardsnis]	'it is used as an incense to treat children who cannot go to sleep'
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Table 1. *Tambal binisaya* Vowel Appropriated Loanwords

### 3.2. Consonant Appropriation

Similar to the case of the vowel appropriated loanwords, consonants are also appropriated to fit the Sebuano language. Figure 1 shows the inventory of Sebuano consonants.

Consonants					
	bilabial	apico-alveolar	palatal	dorsal	glottal
voiceless stops	p	t	c	k	ʔ
voiced stops	b	d	j	g	
nasals	m	n		ŋ	
spirants		s			h
liquids	w	l, r	y		

Fig. 1 Sebuano Consonants (Wolff, 1982)

Figure 1 shows that there are consonant sounds from foreign languages which cannot be found in Sebuano such as [ʃ] [f] [z] [v] [θ]. This is the reason why there are equivalent phonemes used to approximate such non-existent sounds. These approximations are shown in table 2.

Phonetic Process	Loanword	Meaning	<i>Tambal binisaya</i> Term	Meaning
[ʃ] -> [s]	Span. <i>incienso</i> [inʃenso]	'incense'	<i>insinsu</i> [insinsu]	'incense'
[f] -> [p]	Span. <i>elefante</i> [elefante]	'elephant'	<i>ilipanti</i> [ilipanti]	'a plant which is used for the treatment of hair fall. It is shaped like an elephant trunk'
	Span. <i>azufre</i> [azufre]	'sulfur'	<i>asupri</i> [asupri]	'sulfur'
[z] -> [s]	Span. <i>azufre</i> [azufre]	'sulfur'	<i>asupri</i> [asupri]	'sulfur'
[v] -> [b]	Eng. ovary [ovari]	A female reproductive organ in which ova or eggs are produced, present in humans and other vertebrates.	<i>Ubarina</i> [ubarina]	'used as treatment for ovarian problems and pregnancy'
[θ] -> [t]	Eng. arthritis [arθraitis]	painful inflammation and stiffness of the joints	<i>atrartitis</i> [atrartitis]	'painful inflammation and stiffness of the joints'

Table 2. Loanwords with Approximated Consonant Sounds

### 3.3. Epenthesis

The phonetic process referred to as insertion or epenthesis involves the addition of

phonological segments into a word (McGregor, 2009). In the inventory of *tambal binisaya* terms, there is one lexical item identified. This is the Spanish loanword *candela* [kandela] which is converted to the Sebuano word *kandila* [kandilaʔ] which both mean candle.

In this example, it is revealed that the Spanish loanword which is *candela* is somehow "indigenized" by adding the [ʔ] sound on the final position. This is most likely because it is very common to have glottal stops in Sebuano words ending with vowels. Some examples include [bataʔ] which means 'child', [buhiʔ] which means 'alive', and [sukuʔ] which means 'angry'.

### 3.4. Deletion

The phonetic process of deletion occurs when a speaker leaves out a sound, morpheme or word from what he or she is saying (Richards and Schmidt, 2002). Among all the *tambal binisaya* terms, there are four identified cases of deletion. These terms are shown in table 3.

Deleted Phoneme	Term	Meaning	<i>Tambal binisaya</i> Term	meaning
[j]	Span. <i>incienso</i> [inʃenso]	'incense'	<i>insinsu</i> [insinsu]	'incense'
[r]	Eng. arthritis [arθraitis]	'painful inflammation and stiffness of the joints'	<i>atrartitis</i> [atrartitis]	'Painful inflammation and stiffness of the joints'
[t]	Eng. bird's nest [bədsnest]	nest of a bird	<i>bardsnis</i> [bardsnis]	'It is used as an incense to treat children who cannot go to sleep'
[a] deletion due to affixation	Seb. <i>hılanat</i> , gi,-an [hılanat]	'fever'	<i>ghilantan</i> [hılanan]	'it describes the state of a person (he/she is having fever)'

Table 3. Deletion in the Lexicon of *Tambal Binisaya*

In general, the Sebuano language, just like most Philippine languages, follows an alternating CVCV pattern in forming words. This is why vowels or consonants which do not conform to this pattern are deleted. And as shown in table 3, three of the four terms which had deleted segments were loan words that either had two successive consonants, vowels or vowel and glide clusters.

In the case of the word *gihalantan*, the [a] vowel is dropped because in Sebuano, when a suffix is added to a root with a stressed final syllable, the tendency is to drop the vowel of the final syllable of the root (Wolff, 1982).

### 3.5. Metathesis

The sound change known as metathesis involves a reversal in position of two sounds in a word (Yule, 2010). In the inventory of the *tambal binisaya* terms, there is one case of metathesis identified. This is the word *inum* or ‘drink’ in English. When the suffix –un is added to the word, instead of becoming inumun, it becomes immun. The occurrence of this process in the Cebuano language happens because sequences of a liquid, nasal or /s/ plus a consonant tend to be metathesized when a suffix is added. Then the vowel of the final syllable of the root is dropped (Wolff, 1982). This is therefore the reason why *inumun* becomes *immun*.

### 3.6. Assimilation

Assimilation is a process by which one sound takes on some or all the characteristics of a neighboring sound (Radford, 2009). In the collected *tambal binisaya* terms, there are three identified cases of assimilation which are all because of prefixation. As shown in Table 4. The velar plosive consonant [k] is assimilated to the velar nasal sound [ŋ] which is why instead of producing *pangkamay*, it becomes *pangamay*. In the case of *bughat* to *talimughat*, the plosive bilabial [b] becomes a nasal bilabial [m] which was done for ease of articulation. Moreover, in the case of *pansuhut* to *panuhut*, the voiced fricative alveolar consonant [s] is assimilated to the voiced alveolar nasal [n].

Phonetic Process	Term	Meaning	Affix	<i>Tambal binisaya</i> Term	Meaning
Assimilation Due to prefixation	Seb. <i>kamay</i> [kamaɸ]	‘hand’	Pang-	<i>pangamay</i> [paŋamaɸ]	‘A charm which comes from the <i>balete</i> tree and is placed inside the cashbox

	Seb. <i>bughat</i> [bughat]	‘relapse’	Tali-	<i>talimughat</i> [talimughat]	or mixed inside a <i>habak</i> to attract good fortune.’  ‘An herb used as treatment for relapse or <i>bughat</i> .’
Assimilation due to affixation	Seb. <i>suhut</i> [suhut]	‘go into or pass through a place’	Pan-	<i>panuhut</i> [panuhut]	‘muscular ache resulting from exposure to damp or draft, esp. during sleep.’

Table 4. Assimilation in the Lexicon of *Tambal Binisaya*

### 3.7. Simplification

Simplification or ease of articulation has often been suggested as a reason for sound changes. Loss of segments results in shorter words, and less effort in production; assimilation reduces the difference between segments in sequence, and so also the effort in production. It is not far from this view that laziness, sloppiness and indolence are the major causes of sound change (McGregor, 2009). It could be hypothesized that this is the reason why certain phonetic segments are substituted to a glide to make articulation easier. An example of this is the word *nakuhaan* which is pronounced as [nakwaʔan] in Sebuano. The meaning of this word is miscarriage. This word originally comes from the root *kuha* [kuhaʔ] which means ‘to take’ in English.

### 3.8. Problematic Case

Although articulatory factors particularly relating to “ease of articulation” are of central importance in sound change, auditory factor also play a role. Substitution is a type of auditory based change involving the replacement of one segment with another similar-sounding segment (O’Grady, 2001). Among the terms identified, there is one probable case of substitution discovered and this is *aguhu* [aguhu] to *agusu* [agusu] which both refer to ‘Australian pine: *Casuarina equisetifolia* which

has roots and bark that have medicinal uses' (Wolff, 1982).

In Wolff's dictionary which was published in 1982, the entry was *aguhu*, but in the case of the *tambal binisaya*, the vendors used the term *agusu*. The researcher even tried confirming if they know *aguhu* but they responded saying they do not know *aguhu*, instead, what they know is *agusu*. It could be concluded that since [h] and [s] share the fricative manner of articulation, this is most likely the reason why *aguhu* was substituted with *agusu*.

Another reason which could account for such change could be because of the language process called spirantization. This language change share a loosely defined notion that, after the change, the resulting sound is somehow 'stronger' in articulation than the original sound was (Campbell, 1998). Because of the constant use of such word, this is most likely the reason why the non-sibilant consonant [h] was strengthened to the sibilant consonant [s] over time.

#### 4. Conclusion

To conclude, the rich pool of lexical items used in *tambal binisaya* emerged because of the daily experiences encountered by the vendors and their clients. This is because all speech occurs in an interactive context in which interactants - speakers and hearers - make choices from the linguistic system. These include lexical and grammatical choices that express appropriate experiential meaning, that is, meaning concerned with the construal of the world of experience (McGregor, 2009). Thus, these lexical items, which are formed because of particular use of phonetic processes, were shaped into what they are because of the need to satisfy the functional and contextual dimensions in this trade.

#### Acknowledgements

The author would like to thank his AB English advisees for helping in the data

collection of this study. To his mother Brenda D. Crisol and his sisters Sophia Marie D. Crisol and Bernadette D. Crisol for always believing in him and what he is capable of. To Prof. Helen R. Betonio and Prof. Onnah Pierre Talle for encouraging him to participate in the conference and for always giving him positivity. And to Mr. Efren Jone Oledan for being his partner and companion in doing research and other field works.

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