SEGMENTAL PHONEMES OF THE SURIGAWNUN LANGUAGE

MARIA CRISTINA S. DELA CERNA

Surigaodel Sur State University
E-mail: delacernamariacristina@gmail.com

Abstract - The paper examines the segmental phonemes of the Surigawnun language specifically the vowels, diphthongs and consonant. The method of recording of actual performance of natural speech was employed to get the actual quality of the voices of the participants.It was found out thatSurigawnunsegmental phonemes share with Cebuano Visayan. It has three vowels such as: [i], [a] and [i], four diphthongs such as: /aw/,/ay/./iw/ and /uy/. and sixteen consonants such as: p,b,t,d,r,k,g,s,j,h,m,n,ng,l,w and y. It is also found out to be a phonetic language just like Cebuano Visayan language, which means that Surigawnun word is spelled as it is pronounced. Lexical borrowing is also evident in the Surigawnunlanguage. Another salient feature of Surigawnun language is that its phonological innovations the so called Proto-Bisayan where l after a vowel often changes to y, and Proto-Bisayany becomes j except word-finally.

Keywords - phonemes, segmental, diphthongs, lexical, proto-bisayan, phonology

I. INTRODUCTION

The implementation of the Mother Tongue Based-Multilingual Education (MTB-MLE) under the K to 12 Basic Education Program has been instigated. Its guidelines are to have additional languages that shall be used as the languages of instruction for Grade 1 pupils who speak the same languages in order for them to improve their linguistic competence, and to develop the cognitive skill and to strengthen their socio-cultural awareness. Since the MTB-MLE program matures, there comes a need to refine the grammatical and orthographic rules of the language being used in the academic setting. These scenarios argue for the need of a system that can periodically monitor the state of a language's development, by observing how it is being used by a population of users. In this paper, it examines the segmental phonemes of the Surigawnun language specifically the vowels, diphthongs and consonant.

According to a census made by National Statistics Office (NSO) in 2000, at least 10 of the 171 living languages of the Philippines are considered major languages, where a major languages spoken by at least 1 million people. One of these languages is Surigawnun language. Surigawnun is a Philippine Language spoken by Surigawnun people in the province of Surigao del Norte, Dinagat Island, Surigao del Sur and some portions of Agusan del Norte especially the towns near the Mainit Lake, Agusan del Sur and Davao Oriental.This language has been influenced by foreign and even local languages because of a number of apparent reasons; it has thrived to create its own unique and creative lexical items prevalent during discourses of the locals. McFarland cited by (Dumanig 2), argued that Surigawnun is similar to Cebuano and therefore Surigawnun is not recognized as a distinct language. However, one cannot just say that, Surigawnun is a mere replica from its neighboring languages because even Cebuanos have difficulty in understanding the words spoken by Surigawnun.

At present, most minor languages are not widely explored even Surigawnun language. Although there is already a study conducted on the descriptive analysis of Surigawnun language however; the focus was on the vowels, consonants, consonants clusters, diphthong, stress, and the morphophonemic processes such as assimilation, deletion, alternation, and metathesis. Thus this study is undertaken to give details on the linearity of its phonology, morphology and syntax.

Consequently, this paper is very beneficial to the development of Surigawnun language, which is revealed to have no accurate census figure of the total number of speakers. However, a survey conducted in the Caraga Region (Census 2002) revealed an approximate number of speakers of the Surigaonon to 88,129, which is equivalent to 22.40% of the total population in the region. Suffice it to say that the data is misleading because of a high rate of bilingualism in Cebuano, a normal phenomenon in any multilingual community.

II. THEORETICAL BACKGROUND OF THE STUDY

This study theorizes that Surigawnun is linguistically describable through the linearity of its segmental phonemes.

This assumption is supported by the linear grammar theory and the descriptive grammar theory. A **linear grammar theory** emphasizes that all regular languages are linear. All linear languages are context-free. Hence, the regular languages are proper subset of the linear ones, which in turn are proper subset of the context-free languages. If L is a linear language and M is a regular language, then the intersection $L \cap M$ is again a linear language. In other words, the linear languages are closed under intersection with regular sets (Hopcroft 249).

This theory is a practical framework for linguistic analysis influenced by three traditions in linguistic:

(1) categorical grammar (CC), a kind of syntactic analysis founded by Joachim Lambek. In this tradition, he treats lexical entries and grammar rules, respectively, as axioms and inference rules of a proof theory. Proof theory, on the other hand, is the area of mathematics which studies the concepts of mathematical proof and mathematical provability. One of the proofs is in the language context that shows an evident consisting of a string of symbols whichsatisfy some precisely stated set of rules and which prove a theorem (Buss 2). (2) Another analysis that supports linear grammar theory in the montague semantics that analyzes sentences meaning found by Richard Montague. It is in the light of this analysis that it is possible to comprehend the syntax and semantics of both kinds of language with a single natural and mathematically precise theory. (3) Another linguist's analysis that influences linear grammar is the dynamic semantics by Kamp in 1981. This about the role of context in the interpretation of multi-sentence discourses, it focuses on the perspective of natural language semantics that emphasizes the growth formation.

In addition, linear grammar is synthesized base on recent developments in all three of these traditions: (1) Curryesque which analyses syntax using linear logic by Curry; (2) hyperintensionalsematics which is a kind of type-theoretic semantics that proposes a more fined-grained analysis of sentence meaning; and (3) type-theoretic dynamic semantics which extends LG with dynamic semantics. So when the term LG is used, the implication is that semantic is static. Curry proposed that a linguistic expression should be analyzed as consisting of a phenogrammatical component, tectogrammatical component and a semantic component. Phenogramatical component corresponds roughly to what computer scientist call concrete syntax**.** It also corresponds roughly to what linguists call phonology**,** which include word order and nonsegmental aspect and lastly relates to what the expression sounds like

Furthermore, a linear grammar recursively defines a set of triples called signs.Eachsign specified by the linear grammar is taken to represent one the expressions of the Natural Language in question. The three components of each sign correspond to the phenol, tetco, and meaning of the expression it represents. Some of these triples, called lexical entries, represent (syntactic) words. The set of lexical entries, called the lexicon is given "in advance" and forms the base of the recursive definition. The recursive part of the definition is in the form of a few rules, with whose help we can analyze more complex expressions. The lexical entries and rules can be thought of, respectively, as axioms and inference rules of a natural-deduction proof system. The signs specified by the grammar can be thought of as the theorems proved by the proof system.

III. RESEARCH METHODOLOGY

This ethno linguistic study uses the descriptive qualitative research design where it examines and analyzes thesegmental phonemes. This study utilizes the method of Recording of Actual performance of Natural Speech. This method is an approach necessary to document the authentic data and record actual performance of natural speech in word and discourse level. Standard digital recorders and video camera was used necessary to get the actual quality of the voices of the key informants. The study is conducted in the five municipalities of Surigaodel Sur. This is the whole of Cantilan which is now known, with the acronym of CARCANMADCARLAN derived from the first three-letter syllables of the towns of Carrascal, Cantilan, Madrid, Carmen and Lanuza. These five municipalities are known in the past for its vast timberlands and, for the present, with over six thousand hectares of government-irrigated lands, it has seawaters in the east, mountains in the west, north and south.

IV. RESULTS AND DISCUSSION

The Surigawnun Segmental Phonemes

Surigawnun segmental phonemes share the same phonemes with Cebuano Visayan. It has three vowels and sixteen consonants (Dumanig 5). The three vowel phonemes are made up of one front vowel [i], one center vowel [a], and one back vowel [u] (Pesirla 6).

Front Vowel	Center Vowel	Back Vowel	Sample Sentences (Surigawnun-English)	
[i]	[a]	[u]		
si-she/he	aku-me	umay-what	AkusiArcemercyMangunilita.	I am ArcemercyMangunilita.
			Umayimutrabahu?	What is your occupation?
pila-how much?	amu-ours	imu-yours	Pilanakamukatuignaghuyadinhi?	How many years have you lived here?
			Amu man inilupa.	This land is ours.
mina-	mahitungu	ayuda-	UmayimumahilaungmahitungudsaminadinhisaCar	What can you say

mining	d-about	dole-out	rascal?	about the existence of mining in Carrascal?
naihatag-given	marajaw-good	jaun-there is	Jaun bay naihatagnamarajaw nan mina saCarrascal?	Is mining beneficial to Carrascal?
kahimtang-situation	karajawan - benefit	baryu-barrio	Jaun bay karajawansakahimtang nan mgabaryu?	Does mining bring advantage to the situation in the barrio?
trabahanti-worker	sa - to	kun-if	Nakatabangsilasamgatrabahanti. Para saakujaun. Kunjaunmgaayuda,iayuda sab nilasabaryu-baryu.	They help the worker. That's for me. If there are dole-outs, they also share it to the barrio.
dinhi-here	lugar - place	iju - yours	Kun magtukud nan mina saijulugarmusugutkaw?	Are you in favor if mining will be established in your place?
didtu-there	bana - husband	Musugut-agree	Musugutakunamatukudan mina paramakatrabahuakubanadidtu.	I will in favor for mining so that my husband can work there.
bisan-even	waya - none	Mahimu-	Bisan kun dilikitamusugut, waya may atumahimu.	Even if we disagree, we can do nothing.
Sin-u	ngayan - name	imu - yours	Sin-u man imungayan?	What is your name?

Table 1
The Surigawnun Vowels

Table 1 presents the Surigawnun vowels. It can be gleaned in the above table that Surigawnun has three vowels [i], [a], and [u] which are similar to Cebuano language. [i] is produced at the front of the tongue: lips are spread assuming a smile, tense and sharp, a little longer such as si, pila(how much), mina(mining), naihatag(given)kahimtang(situation),trabahanti(worker)dinhi(here),didtu(there),bisan(though)and sin-u(what is).Vowel [a] is also produced at the center of the tongue; mouth opens wide almost round, lax yet loud, just short like aku(me),amu(really),mahitungud(about),marajaw(good),karajawan(benefit),sa(to),lugar(place),bana(husband)waya(none) andngayan(name).Vowel [u] is also produced at the back of the tongue; mouth is almost round, lips almost pouting, tense, a little longer, as inumay(what),imu(yours),ayuda(dole-out),jaun(there is),baryu(barrio), kun (if),iju(yours),musugut(agree),mahimu(way)andimu.(yours).

Results reveal that Surigawnun just like Cebuano Visayan is a phonetic language. A phonetic language means that a word is spelled as it is pronounced. Cebuano Visayan is spelled according to the so-called alphabetic spelling system, where each phoneme (vowel-consonant) corresponds to each grapheme (letter of the alphabet)the most appropriate linear description of its spelling system where its phonology and orthography corresponds to each other (Pesirla 57). Lexical borrowing is also evident in the language like baryuwhich means barrio in English.

Another salient feature of Surigawnun language is that its phonological innovations the so called Proto-Bisayan where l after a vowel often changes to y, and Proto-Bisayany becomes j except word-finally. The Cebuano Visayan forms given the intervocalic l is lost since it changes to y. e.g. walatowaya or none in English. The l to ychange is also present in the context of the high back upper vowel where modern Cebuano Visayan language has lost l and inserted the glide y. Another thing is the y to j change in all positions except word-finally is also widespread. This phonological change even applies to Spanish loan words, e.g./piny.a/ "pineapple" for Surigawnun it becomes /pinja/ (Rubino 307).

Diphthongs	Surigawnun Words	English Gloss
/aw/	kaw, karajawan, dajawa,ajaw,sajaw	you, benefit, good, no, dance
/ay/	pilayumay,ayuda,kay,nay,humay, waya, mayngayan,	how much, what , dole-out, why, rice, none, there is, name

/iw/	hiwi,sisiw	Crooked,small
/uy/	huya,uyu	live , head

Table 2
Surigawnun Diphthongs

Table 2 presents the Surigawnun diphthongs, Surigawnunwords and the English gloss. This table is patterned from the study of (Dumanig 9). Sample data are taken from the recorded conversation of Surigawnun language. When two vowels are combined in oral production, the resulting speech sound is called a diphthong. The result discloses that there are four diphthongs of Surigawnunlanguage namely [aw],[ay],[iw] and [uy]. [aw]is produced in two phases: start with [a], opening the mouth wide almost round, lax yet loud, shift and end in [u] as in kaw(you),karajawan(benefit),dajaw(good),ajaw(no)a nd sajaw(dance). [ay] is also produced in two phases: starting with [a], open the mouth wide almost round, lax yet loud, shift and end in [i], spreading the lips assuming a smile like pilay(how much), umay (what),ayuda(dole-out),kay(why),humay(rice),waya(none),may(there is)and ngayan(name).[iw] is produced in two phases: start with [i], spread the lips assuming a smile, tense, shift and end in [u], almost pouting the lips, tense as in hiwi(crooked)and sisiw(small).The study further shows that the Surigawnun language has diphthongs which share similarity with the Cebuano Visayan language. Moreover, the sounds of Surigawnun language

Manner of Articulation Consonants	Point of Articulation				
	Bilabial	Dental/Alveolar	palatal	Velar	Glottal
Fricatives		[s]sin-u (who is) sa (in,to) sugut (agree) siguru (maybe) sugud (begin)	[j] Jaon Jari	[h]haman (where) hain (where) huya (live) humay (rice) hatag (give) himu (build/way)	
Nasals	[m]mahilaung (say) mahitungud (about) mina (mining) marajaw (good) magtukud (to build) matabangan (to help) makatrabahu (to work) musugut (agree) mahimu (way) mulambu (to progress) madaut (ruin) maandu	[n] naunu (what) nanay (mother) napunu (full) (nabala) (poor)			[ng] ngayan
Lateral		[l]laung			

		(tell)			
Glides	[w]waya (none)	[y]ya (none) yaki (boy)			
voicing	VL VL	VL V	VL V	VL V	VL V

*VL voiceless V voiced

Table 3
The Surigawnun Consonant

Table 3 presents the Surigawnun consonants as to manner and point of articulation. The table above is outlined from (Pesirla 22) in his book AngLingwistikasaSugbu-anungBinisaya. The stops can be voiceless and voiced. The air stream is completely stopped at some point by closing the passage through which it flows. [p] is a voiceless bilabial stop produced by closing the lips tightly as in: pila (how much), pud(too) peru(but) and purus (almost).[b] is a voiced bilabial stop, as in: bata (child), baryu(barrio),bana (husband) and basakan (ricefield). [t] is a voiceless dental stop produced by holding to tongue tip against the dental-alveolar region, as in : trabahu (work), tungud (because), tuig (year), taga (from), tabang (help), trabahanti (worker), tukud (build), tapi(name of a barangay), tubig(water) and atu (ours). [d] is a voiced dental stop, as in: dinhi (here), daut (destroy), dili (no) and daan(before). [k] is a voiceless velar stop produced by pushing the back of the tongue firmly against the velum, as in: katuig (year), kamu (yours), kabuuk (number), karajawan(benefit), kahimtang (situation), kun (if), kay (in order), kaitan (clay), kahibayu(knowledge) and katagai (given). [g] is a voiceless velar stop, as in: gajud (really) and gana (like).

The glottal stops are symbolized in this manner: [-] between two vowels, between a consonant and a vowel, [‘] on the unstressed vowel, [ˆ] on the stressed vowel. Glottal stops are consonants that are tonal; hence, they are produced in tension, and sounding like the throat is choked, the glottis blocking the air. [-] a voiced glottal stop produced by closing the glottis tightly between two vowels, and between a consonant and vowel, as in: katu-ig (year), kabu-uk (number), la-ung (tell), ja-un(there is), da-ut (ruin), ma-andu (reward) and taga-i (give). [‘] voiced glottal stop produced by closing the glottis tightly after an unstressed vowel, as in: akù (I), imù(yours) dinhì (here), Ijù (yours-plural) batà (child), mina (mining), parà (for), banà(husband) ilà (hers/his) dilì (no).[ˆ] voiced glottal stop produced by closing the glottis tightly after a stressed vowel, as in. pilâ (how many), huyâ(live), tagâ(where), wayâ (none) limâ (five).

The fricatives are produced through a narrow opening through which the air passes. [s] is a voiceless dental-alveolar fricative produced by pushing the front of the tongue against the gum ridge, where the air passes through, as in: sin-u (who is),sa(in,to), sugut (agree), siguru (maybe), and sugud (begin). [h] is a voiced glottal fricative formed without obstructing the oral cavity and with a very slight friction in the glottis, as in: haman (where), hain (where), huya (live), humay (rice), hatag (give) and himu (build/way).The nasals are produced by lowering the velum to let the air out through the nose. [m] is a voiced bilabial nasal produced by closing the lips while lowering the velum, vibrating, as in: mahilaung (say), mahitungud (about), mina (mining), marajaw (good), magtukud (to build), matabangan (to help), makatrabahu (to work), musugut (agree), mahimu(way), mulambu (to progress), madaut (ruin) maandu. [ng] a voiced velar nasal; the back of the tongue is against the velum, lowered, allowing the air out of the nose through the pharynx, as in: ngayan (name).

A voiced alveolar lateral produced with the tongue relatively straight and flat from the tip to the back, with the tip in contact with the alveolar ridge. The [r] is a voiced alveolar flap produced by the rapid contact of the tongue tip against the alveolar region, as in: rakan (just).The glides like [w] and [y] are semi-vowels.[w] is a voiced labio-alveolar semi-vowel, sounded by rounding the lips while bringing the back of the tongue toward the velum, then moving it rapidly into the position of the vowel that follows, as in: as in: waya (none) [y] is a voiced alveolo-palatal semi-vowel, produced by raising the front of the tongue close to the hard palate and the back part of the alveolar region, with the tip pouting toward the upper teeth, as in: ya (none) and yaki (boy).

The findings of this linguistic investigation reveal the veracity of language universality proposed by Noam Chomsky (Pesetsky 1). The theory of Chomsky posits that the property found in one language may also be evident in another language as the case of Surigawnun language which is also comparable to Cebuano Visayan exemplified through their segmental phonemes discussed above, It can also be deduced from the data gathered that unlike the English language, Surigawnun language just like Cebuano Visayan has limited vowels. This can also be attributed to locality of language postulated by Chomsky (Pesetsky, 1). While there are streams of evidences that support comparable properties in cross-linguistic investigations, but revealed in this study is another phenomenon called language locality. The local phonemic processes include the treatment of vowels in the Surigawnun dialect.

Allophones are not evident unlike the English language. /a/ for example, has no other allophones and so with the two more vowels in the Surigawnun language.

Another prominent difference between the Cebuano Visayan language and Surigawnun language is the number of consonants found in each of the local languages. Pesirla (6) noted that there are 15 consonants found in the former; however, Surigawnun language has sixteen consonants. This became plausible because in the latter, there is the presence of/ j/ as exemplified in the words jaun (there is), jari (here is).

CONCLUSION AND RECOMMENDATION

It is concluded that Surigawnun is linguistically describable through the linearity of its segmental phonemes. It is also recommended that the comparison of phonological processes between Surigawnun and other languages should be explored in order to see the similarities and differences among Philippine languages.

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