



Phonology of Muna Language (Theoretical Review of Optimality)



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Article history:

Received: 12 May 2016

Revised: 10 June 2016

Approved: 23 June 2016

Published: 1 July 2016

Keywords:

Top;

Onset;

Nocoda;

Complex;

Optimality;

Abstract

This article discusses the language Muna from the corner Phonological with optimality theory. Optimality theory is a continuation of the theory of generative transformation. Optimality theory using the model of linguistic analysis by utilizing the candidate as an input and output that has a relation between the two. The relationship between input and output is mediated in a formal mechanism in the form of plant and assessors. Generating create a linguistic object and record the relationships of obedience in the input. Assessor in the hierarchy constraint is used to select the best candidates from the input as an optimal candidate produced by the plant. The analysis showed that the peak of the property syllables in the language Muna has one vowel, property onset syllable preceded single consonant, property complexes, only one consonant at the edge of the tribe, the property no coda syllable ends with a vowel.

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1. Introduction

Muna Language (ML) is defined as one of the cultural products in society because it is one of the seven cultural aspects. This language is located in Muna of SouthEast Sulawesi Province. The scope of this language embraces Muna Island, some parts of Buton Island that is under the territory of Muna government, Buton regency, and Kendari. The development of function and Muna Language (ML) position shows feature of the linguistic phenomenon, inherits from the reality of society and culture in society. Muna Language as a part of the culture in society develops and can change together with the dynamics of society and culture in society. By this, to run its function and position, ML remains with its characteristics and can develop dynamically to change. Study of Linguistic phenomenon related to the reality of society and culture in society is the focus of the study in Sociolinguistics. The study that is defined as the study of language variety is rarely conducted in ML. Attempts to

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conduct research in that direction was needed to study BM not only focused on the description of a language that is micro. In other words, there needs to be a balance between the micro and macro research studies. In particular, this study will discuss the theory of generative optimality which is a continuation of the study of the theory of generative transformative.

2. Research Method

The methods and techniques that are used by the author in a scientific writing, purposively to make the study produced to be accurate and the accuracy depends on the methods and techniques that are used. In general, the methods and techniques that are used in a scientific writing can be divided into two types of methods e.g. qualitative and quantitative methods. In this case, [Moleong \(1993: 15-20\)](#) see the difference the two types was based on differences of scientific paradigms and nature on the one hand and the characteristics of the methodology on the other hand. Hence, related with this study, the authors chose the qualitative method ([Miles and Huberman, 1992: 1](#)); [Moleong, 1993: 3](#)) as a foundation and approach in research, because this research is fundamentally depended on the observation of human speech in his/her own dialect territory as well as dealing with such persons in the language and the terminology.

2.1 Concepts

a) Generator

Generation is a function that connects the input to the representation circuit, which may be the optimal output in the form of a special input. The generator is limited, it can only produce something that is composed of a universal vocabulary. in the generator, a word can be removed, plus even rearranged unlimitedly. unlimited series of candidates created by generator comes from the inputs are not limited. The generator also served to indicate the correspondence between the input and output representation. This correspondence is very important in overcoming or evaluate compliance such as obedience V and obedience K.

b) Constraints

Constraints is a prerequisite or a set of constraints. Conditions or rules that contradict each other in order to obtain results contrary to the purpose to obtain optimal results. Constraints are part of the subordinate elements of a language. This means that each language uses the same constraint circuit. This assumption relates to the role of language in the universal aspects of human language. Constraints in each language commonly displayed in two possibilities, namely a positive way such as (COMPLEX) or by negative (COMPLEX). Placement constraints on the hierarchy of language are more than the property constrained itself. In another way, constraint violations that have a level of at least assumed to be optimum element while the high-level constraint is assumed as an element that is not optimal

c) Assessment (Evaluator)

Assessment is a tool that serves to select the optimal candidate of a series of a candidate made by the generator. Optimal output selected by the assessor are the best candidates who meet the requirements or satisfying constraints with low-level offenses.

d) Input (Input)

Input is a universal grammar that provides a vocabulary for representation of languages, all entries compiled from this vocabulary. The result, as a linguistic input are units form acceptable (well-formed)

e) Output

The output is a produced sound which comes from the input of derivation result in a complete shape. This forms line with the sound shape of language in phonetically.

f) Candidate

The candidate is linguistics form which are going to be selected by an assessor as an output by creating an instigator as linguistics forms accepted. These forms are the derivation possibilities in a system.

2.2 Theoretical Framework

The theory that used in this paper is *Optimality Theory* (next, will be abbreviated with “OT”) from two linguists, Prince and [Smolensky \(1991\)](#) which appeared for first time in the phonological conference as a wide form of the concept of generative transformation. Smolensky’s theory has been supported and completed by [Archangeli and Langendoen \(1997\)](#) in their concept of *Optimality Theory an Overview*. In this paper, the writer refers to the both of that explanation as principally is similar.

The basics of the principal theory are as follows:

- a) Arranging the setting of constrained (such as requirements, condition or rule) which one to another contrast with aims to get optimal results.
- b) Determining a resistance at least contrast with the constrained.
- c) Believing a principal simplicity, but abundant for constrained interaction with constrained acceptor which reach out the others constrained.
- d) Analyzing of canonical form is based on the onset (the consonants placed at the beginning of syllable), summit (the vocals become a core of syllable) and coda (the consonants placed at the end of a syllable)

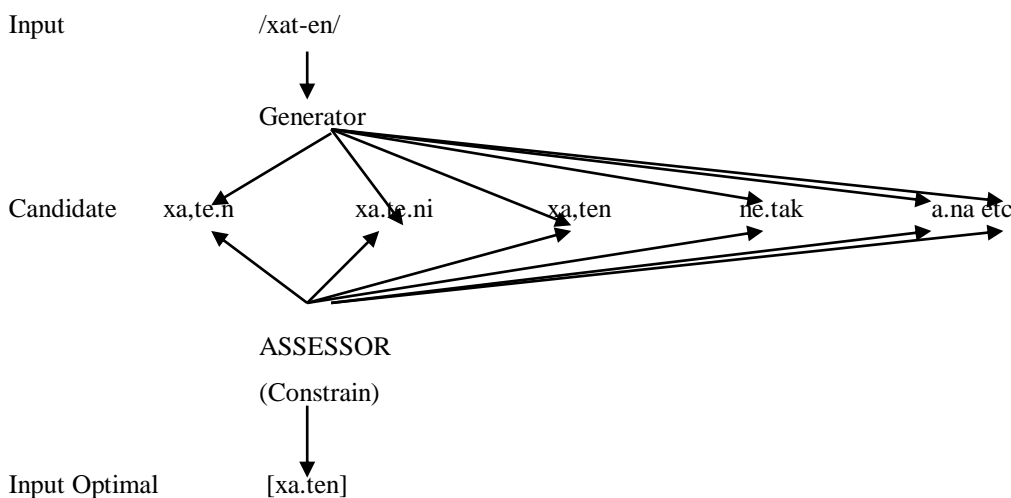
Simplistically, it can be said that the concept of OT is organizing the formulation of rules that can unite a phenomenon, reality or facts, and laws in logically and rationally for language data in universal. These principals are based on a basic concept which tells us that the objectives of the study in linguistic are as follows:

- a) To determine and look for the characteristics of language in a universal property.
- b) To believe that the providing property belongs to every single language.
- c) To think that the unique of universality on the language is not too similar with the other languages.
- d) Absolutely, the universality appears in the language.
- e) To know the distance of differences of variances in a language.

(Archangel and Langendoen, 1987:2)

In phonetic rules, this theory pointed that (1) there is a sum of consonants which can be permitted in an onset, summit, and coda, (2) there is a process of phonology such as dismissal, increment, assimilation, and so on. The processing of phonology is not only happened for the pattern of syllabic but also related to the aspects of the unique of that language sound system itself which are not always accepted in the other language. Syllable Typical properties form of the peak is the syllable began with a consonant, onset is the syllable that having one vowel, not coda is the syllable-word ends with a vowel. * Complex is a syllable where should only be one consonant at the edge of the syllable, and the onset and the peak (syllables composed of consonants and vowels).

These five properties above is not an absolute rule but only a general tendency. Therefore, there are language syllables as opposed to some property above. Syllable is a minimal constituent formed of a consonant followed by a vowel; when a syllable begins with a consonant, so the consonant eligible the onset, and if the syllable has one vowel, then the vowel it qualifies the peak. Optimality theory using the model of linguistic analysis by utilizing the candidate as an input and output that has a relation between both of. The relationship between input and output is mediated in a formal mechanism in the form of generator and assessors. Generator creates a linguistic object and record the relationships of obedience in the input. Assessor in the hierarchy constraint is used to select the best candidates from the input as an optimal candidate produced by the generator. Constraint Sequence serves as an additional ranking of the major constraints in the series of constraint that illustrated in the Tawalmeni language as shown schematically below:



The scheme above is a formal model that describes:

- 1) Generator for an input, then generator manages a set of constraint from the potential output.
- 2) Assessor of the candidate series, generator change and select the best candidate which is the least degree of the offense as the optimal result form of the output of the input.

Constrain assessor uses additional ratings of the major constraints in the series of universal constraints.

From the scheme above, it could be explained that the role of instigator, assessor, and constrain systematically show how TO determine the optimal stem for / xat-en / entry. In instigator, the entry changed to candidates that possible in language. Candidates are considered by the assessor, to obtain the optimal candidate from the set of candidates that are offered.

Selection of the optimal candidate is determined by whether or not a fatal violation of the constraints and the high or low levels of constraint that is violated. Optimal candidate is a candidate that does not violate any constraint or the lowest level of constraint. To get a clear picture, the following table is displaying [xat.en] as the optimal candidate.

/xat-en/	TOP	ONSET	*KOMPL	STRICT K	STRICT V	BK KODA
Xa.ten						*
Xa.te.n	*!					
Xa.te				*!		
Xa.te.ni					*!	

The table above shows that in the *yawelmeni language*, the constraint of BK KODA is violated. BK KODA constraints are being overcome by more important constraint and the more relevant constraint is obedience. It must fulfill the following requirements. First, it requires the observance of consonants between input and output (STRICT K). Second, requires vocal obedience (STRICT V) so that the violation of this two constraint is fatal in this language.

Phonology overview of Muna language includes an inventory of segmental phonemes, phoneme distribution, vocal series, consonants series and syllables patterns.

a) Inventory of Segmental Phonemes

Vowel Phonemes

Muna language has five vocal phonemes (Sidu, 1990: 47). The fifth kind of vowel phonemes can be seen in diagram 1 below.

Chart 1
Vowel Phonemes of Muna Language

	front	center	back
high	i		u
high tense	e		o
moderate loose	ɛ		ɔ
low		a	

Based on the seven segments phonetic above, there is five segments of vocal origin; ie /i, ɛ, u, ɔ, a/. The fifth vocal origin can occupy the position of the beginning, middle or end.

1. Input vocal /i/ <i>

Vocal /i/ includes the front vocal, high

i/e:	<i>isa</i>	'older brother/ sister'	<i>esa</i>	'lift'
	<i>wita</i>	'soft'	<i>weta</i>	'break'
	<i>suli</i>	'return'	<i>sule</i>	'substitute'

2. Vocal /ɛ/ <e>

Vocal /ɛ/ includes the front vocal, loose, middle

e/i: see 1.1

Vocal /ɛ/ has the allophone [ɛ] and [e]. Vocal /ɛ/ known as [e] before or after the round vocals while the vocal [ɛ] is elsewhere.

Example: /ku ɛa/ [kuea] 'name of hawk'

- /d εu / [deu] 'needle'
 /pa ε / [pa ε] 'collect'
 /En ε/ [en ε] 'collect'
3. Vocal /u/ <u>
 Vocal /u/ includes back vocal, high, round
 u/o: *ulo* 'spinning' *olo* 'name of birds'
 wule 'tired' *wole* 'split'
 tolu 'three' *tolo* 'swallow'
4. Vocal /ɔ/ <o>
 Vocal /ɔ/ includes back vocal, loose, rounded
 o / u: see 3.1
 Vocal /ɔ/ has allophone [ɔ] and [o]. Vocal /ɔ/ is known as [o] after or before rounded vocal, while [ɔ] is at the other place.
 Example:
 /sɔu/ [sou] 'mine'
 /buɔ/ [buo] 'the young coconut fruit'
 /ɔmba/ [ɔmba] 'appear'
5. Vocal /a/ <a>
 Vocal /a/ is included in back vocal, low, and hamper
 a/o : *alu* 'eight' *olu* 'cloud'
 wale 'cabin' *wole* 'slit'
 towa 'kind of fish' *towo* 'smoke'

Consonant Phoneme

There are twenty-five consonant phonemes in Muna Language (Sidu, 1990: 34). The twenty-five consonant phonemes can be seen in the following diagram.

Chart 2
Muna Language Consonant Phoneme

	Labial	Labiodentals	Dental	alveolar	palatal	velar	glottal
Closed explosive TB	p			t		k	
explosive B	b		Ḍ	d		g	
implosive	β						
Friction TB				s			h
B		f		ⁿ s		ɣ	
Nasal	m			n		ŋ	
Prenatal	^m p			ⁿ t		^ŋ k	
	^m b			ⁿ d		^ŋ g	
Trill				r			
Lateral				l			
Semi vocal	w						

Consonant phoneme distribution

All consonant phonemes in Mn Language are only able at the beginning and middle position, in other words, it can't be at the end position. Besides, Consonant phoneme in Mn language can't be placed at the end position of syllable too or as the coda of a syllable. It is because of Muna language is classified as vocalist language (Rene van Denberg, 1989:21, Sidu, 1990: 72). The twenty-five of Mn language consonant phoneme can be known clearly at the following distribution.

6. Tap /p/ <p>

Consonant /p/ is classified as closed consonant, unvoiced consonant, and bilabial.

p/b/mb/ B / : *pea* 'rotten', *bea* 'except', *mbea* 'appear', *Bea* 'areca nut'
 : *topa* 'fish', *toba* 'repent', *tomba* 'basket', *toBa* 'dig'.

7. Enter consonant /b/
Consonant /b/ included blocked consonant, voiced, bilabial
b/p/mb/ɓ/see 6.1
8. Enter consonant /mp/
Consonant /mp/ included prenasal consonant, not voiced, bilabial
mp/p/mb/ ɓ / *mpali* ‘like going’ *pali* ‘fish’s name’ *mbali* ‘make’
sempa ‘deviate’ *sepa* ‘kick’ *samba* ‘hit’ *seba* ‘notch’
9. Enter consonant /mb/<mb>
Consonant /mb/ included prenasal consonant, voiced, bilabial
mb/mp : lihat 8.1
10. Enter consonant /B/ <bh>
Consonant / ɓ / included implosive consonant, voiced, bilabial
/ ɓ / p/mp/mb: see 8.1
11. Enter consonant /m/ <m>
m/mp : *manu* ‘chicken’ *mpanu* ‘stench of urine’
kama ‘grip’ *kampa* ‘thick’
12. Enter consonant /w/ <w>
Consonant /w/ included aproksiman consonant, voiced, bilabial
w/m : *wanu* ‘wake up’ *manu* ‘chicken’
wawa ‘underneath’ *mama* ‘chew’
13. Enter consonant /f/<f>
Consonant /f/ included fricative consonant, not voiced, labiodentals
f/p : *fula* ‘hurry’ *pula* ‘fall down’
tofa ‘beat’ *topa* ‘dry fish’
14. Enter consonant / ð / <dh>
Consonant / ð / included blocked consonant, voiced, dental
ð /t/d/ : *ðangku* ‘beard’ *tangku* ‘near’ *dangku* ‘tight’
kaðu ‘woven’ *katu* ‘model’ *kadu* ‘sack’
15. Enter consonant /t/ <t >
Consonant /t/ included blocked consonant, not voiced, dental/ alveolar
t/ ð/d/ : see 14.1
16. Enter consonant /d/
Consonant /d/ included blocked consonant, dental/ alveolar, voiced
d/ ð/t : see 14.1
17. Enter consonant / nt /
Consonant /nt/ included prenasal consonant, not voiced, dental/ alveolar
nt/t/n : *ntai* ‘suspend’ *tai* ‘stick’ *nai* ‘pointed’
wanta ‘long’ *wata* ‘stem’ *wana* ‘poop’
18. Enter consonant /nd/ <nd>
Consonant /nd/ included prenasal consonant, voiced, alveolar
nd/ nt : *ndawu* ‘fall’ *ntawu* ‘heaps’
ɣondo ‘see’ *ɣonto* ‘close’
19. Enter consonant /n/ <n >
Consonant /n/ included nasal consonant, voiced, alveolar
n/t/nt : see 17.1
20. Enter consonant /s/ <s>
Consonant / s / <s> including fricatives, voiceless, alveolar.
s. ns : *siri* ‘Incision’ *nsiri* ‘shave’
Lesi ‘male’ *lensi* ‘open’
21. Enter consonant /ns/ <nd>
Consonant /ns/ including prenasal consonants, voiceless, silent alveolar,
ns/s : see 20.1
22. Enter consonant /r/ <r>
Consonant /r/ <r> including shakes consonants, silent alveolar,

- r/l : *rako* 'catch' *lako* 'cut'
 γaro 'lapar' *γalo* 'hornbills'
23. Enter consonant /l/ <l>
 Consonant /l/ <l> including lateral consonant, voiced, alveolar,
 l/r : see 22.1
- 24 Enter consonant /k/ <k>
 Consonant /k/ including resistor consonants, voiceless, velar,
 k/g/ŋk/ : *kuru* 'shaving' *guru* 'teacher' *ŋkuru* 'moody'
 Taka 'part' *taga* 'climb' *taŋka* 'impervious'
25. Enter consonant /g/ <g>
 Consonant /g/ including resistor consonants, voiced, velar,
 g/k/ŋk/ : see 24.1
26. Enter Consonant /ŋ/ <ng>
 Consonant /ŋ/ including prenasal consonant, voiceless, velar,
 ŋk/k/g/ : see 24.1
- 27 Enter consonant /ŋg/ <ngg>
 Consonant /ŋ/ including prenasal consonant, voiced, velar
 ŋg/k : *ŋau* 'moody/sad' *gau* 'cook'
 Leŋa 'shaky' *lega* 'return'
28. Enter consonant /ŋ/ <ng>
 Consonant /ŋ/ including nasal, voiced, velar
 ŋ/g : *ŋari* 'lazy' *gari* 'drying'
 Loŋa 'visit' *loga* 'terrace'
29. Enter Consonant /γ/ <gh>
 Consonant /γ/ including fricative consonant, voiced, velar,
 γ/hh : *γoro* 'throw away' *horo* 'fly'
 Dayo 'niggardly' *daho* 'stop'
30. Enter consonant /h/
 Consonant /h/ including fricative consonant, voiceless, glottal
 h/γ : see 30.1

Canonical Base of Morpheme Pattern

Optimality theory looked syllable analyzed based constraints. The constraint is determined by the typical properties of syllables as contained in the common grammar. Therefore, for analyzing the syllables, first must be determined typical syllables properties. In general, the typically syllable properties is

- 1) TOP: syllable has a vowel
- 2) Onset: syllable begun single consonant
- 3) *COMPLEX: only one consonant at the edge syllable
- 4) NOCODA: syllable ends with a vowel
- 5) Onset & PEAK: syllables formed of consonant and vocal

Patterns of Canon Morpheme Base

1. V	a	'waist'
2. V.V	a.i'	'brother'
3. KV	βe	'and'
4. KV.V	sa.i	'snapped'
5. V.KV	u.ta	'stringed'
6. KV.KV	bu.nta	'middle'
7. V.V.KV	a.i.ni	'this'
8. V.KV.V	u.lu.i	'swivel'
9. V.KV.KV	a.lo.ma	'dew'
10. KV.V.V	ta.e.o	'sea urchin'
11. KV.V.KV	sao.a.no	'not'
12. KV.KV.V	lo.yi.a	'ginger'

13. KV.KV.KV	<i>ŋka.li.la</i>	'dizzy'
14. KV.V.KV.V	<i>ka.e.nu.a</i>	'bee'
15. KV.V.KV.KV	<i>ka.o.mbe.la</i>	'cottage'
16. KV.V.V.KV	<i>pa.e.a.sa</i>	'mirror'
17. KV.KV.V.V	<i>ka.pa.e.a</i>	'papaya'
18. KV.KV.V.KV	<i>ma.nsu.a.na</i>	'brides'
19. KV.KV.KV.V	<i>ma.ra.sa.i</i>	'miserable'
20. KV.KV.KV.KV	<i>la.wu.la.nja</i>	'ant name'
21. KV.KV.KV.KV.KV	<i>ka.pa.da.nta.na</i>	'deserts'
22. KV.KV.KV.KV.V	<i>la.le.mba.nu.a</i>	'Cockroaches'
23. V.V.KV.V.KV	<i>a.i.ni.i.ni</i>	'last'
24. V.KV.KV.V.KV.V.KV	<i>a.wa.ya.i.ti.i.ni</i>	'yore'

Based on the canonical pattern can be concluded that

- A word in Muna language can begin with a consonant or vocal.
- In the early edge word in Muna language not allowed more than one consonant.
- Muna Language allows their vocal series. Based on the principles obtained, constrain rating can be determined according to the property general tendency of Muna language syllable.

No	Property	General Tendency
1	TOP: syllable has a vowel	Always
2	Onset: single consonant syllable preceded	Always
3	COMPLEX: only one consonant besides	Always
4	NOCODA : syllable ends with a vowel	Always

The fourth general property there is no violated in Muna language, that are LOYAL K, ONSET, *KOMPLEKS, and, NOKODA... ONSET is not violated because there is word begins a vowel but never begin with a cluster consonant in Muna language. Therefore, VK and KV pattern acceptable in Muna language. *KOMPLEKS is not violated because in many words allows for no more than one consonant at the edge of the tribe. NOKODA is not violated because it's not allowed at the end of a syllable in Muna language. thus, the pattern of KKV, KVK or KKVK are not received in Muna language

Based on the general trends above by issue has determined the ranking of constraints. the sonority having important roles in determining the margin of the nucleus and syllables. *simpai* nucleus must be filled by segments louder than the segments on the *simpai* margin. Because of the vocals louder than consonants, vowels occupy the nucleus and consonant on ONSET and CODA. Therefore, TOP the highest rank in the constraint. The Next rank is LOYALTY which suggests loyalty consonant between input and output (LOYAL K), and fidelity vocal (LOYAL V). The next is *KOM (prenatal), ONSET, *KOMPLEKS, and NOCODA, the third are the lowest constraint in the canonical pattern syllable Muna language.

to see each constraint violations can be proved by the analysis of words /*lambu*/ 'house' and /*marasai*/ 'misery'

Optimal Candidate *Lambu* 'house'

/lambu/	TOP	*KOMP (prenasal)	ONSET	NOKODA
la.mbu				
lam-bu		*!		
la.m.bu	*!	*!	*	*
lamb.u			*	*!
l.amb.u	*!		*	*!

The most optimal candidate is the first candidate, la.mbu. the candidate did not violate constraints that exist, the second candidate violate of constraint LOYAL K and *KOMP (pre) thus fatal consequences. Honesly the second candidate violate too *COMP but not fatal. The third candidate there is violations fatal on the TOP and LOYAL K and *KOMP Pre constrain. The fourth candidate violate NOKODA so fatal. The fifth candidate violates TOP and NOKODA, but the offense is also fatal.

Optimal Candidate: *marasai* 'misery'

/marasai/	TOP	LOYAL V	ONSET	*KOMP	NOKODA
/ma.ra.sa.i/			*	*	
/mar.a.sa.i/			*	*	*!
/ma.ra.sa/		*!	*	*	

The table above shows that the most optimal candidate is the first candidate, *ma.ra.sa.i*. This candidate has violated constraints of ONSET and *COMPLEX only, so it is not a fatal violation because the two constraints that are under constraint TOP, LOYAL V (TOP, LOYAL K, V >> ONSET LOYAL, * COMPLEX). The second candidate violates the constraint of NOKODA which made fatal consequences. On the third candidate, the disappearance phoneme occurs / i / so it makes fatal violations on LOYAL V.

Patterns of Canonical Affix of Muna Language

The table of Canonical Pattern Affix of Muna Language

Canonical Pattern	Prefix	Suffix	Infix	Total
VK			-um-	1
KV	<i>fe-, fo-, ka-, ko-, po-, me-, sa-, mo-, pa-, se-, ngko-</i>			
KVV		-Yoo		1
KVKV	<i>manso-</i>			

1) prefix fe-

/fe+lambu/ 'home'

felambu 'make home'

2) Prefix fo-

/fo+kala/ 'road'

fokala 'ride'

3) Prefix ka-

Prefix ka- when is affixed to the base that starts with obstruent segments / p, f, t, s, k, g, y / sometimes it occurred prenasalisation process.

/ka+pooli/ 'could'

/kampooli/ 'that is obtained'

/ka+feYawu/ 'grass'

/kampeYawu/ 'love grazing'

/ka+tere/ 'afraid'

/katere/ 'coward'

/ka+didiki/ 'small'

/kadidiki/ 'small'

/ka+seba/ 'notch'

/kaseba/ 'notch'

/ka+kona/ 'hit'

/kangkona/ 'often get'

/ka+gaga/ 'deny'

/kanggaga/ 'Like to deny'

/ka+ghuri/ 'life'

/kangkuri/ 'love to life'

4) prefix ko-/

ko+kiri/ 'thorn'

/kokiri/ 'stand up'

5) Prefix po-

/po+golu/ 'ball'

/pogolu/ 'playing football'

6) Prefix me-

/me+ala/ 'take'

/meala/ 'taking'

7) Prefix sa-

/sa+kala/ 'go'

/sakala/ 'often go'

8) Prefix mo-

/mo+lodo/ 'sleep'

/molodo/ 'sleep'

9) Prefix pa-

/pa+hulu/ 'labor'

/pahulu/ 'hunter'

10) Prefix se-

/se + yonu/ 'seed'

/seyonu/ 'one seed'

11) Prefix ŋko-

/ ŋko + amara/ 'angry'

/ŋkoamara/ 'easy angry'

12) Prefix manso-

/manso- + kala/ 'go'

/mansokala/ 'often go'

Suffix

Suffix-yoo

/ala+-yoo/ 'take'

/alayoo/ 'take it'

Infix

infix –um- /-um- + kala/ ‘go’ /kumala/ ‘will go’

The phonotactic system of syllable of muna language

In spoken language, words commonly consist of a row of sound that follow each other. The sound represents phoneme and allophone. Phoneme series follow a particular rule. A phoneme can follow another one that is determined according to the convention among the language users. Rule regulated the unit of the phoneme in morpheme is the phonotactic rule (Alwi, 2000: 28).

World of a language, optimality theory offers a problem solving with conflict resolution between two constraints, such as FAITHFULNESS CONSTRAINTS and IDENTICAL CLUSTER CONSTRAINTS (ICC). FAITHFULNESS CONSTRAINTS determined relationship identity between input and output. The faithfulness constraints will cause a direct conflict with another constraint.

MAX-IO: Each segment or characteristics of input has identical correspondence with an output. DEP-IO: Each segment or characteristics of output has identical correspondence with an input. Problems of MAX-IO explain that each segment should have parable segment in output (without omitting phonology) and DEP-IO explains that each output segment should have parable segment in input (without epenthesis). This constraint is based on the simple constraint such as FAITH.

IDENTICAL CLUSTER CONSTRAINT has problems in syntagmatic that permits same articulator characteristics in a group of a consonant, such as voicing, articulation place, occlusion, and nasal for a group of consonants.

A feature of IDENTICAL CLUSTER CONSTRAINT:

VOICING : A group of consonants should have the same voicing.
 PLACE : A group of consonants should have same articulation place.
 CONTINUITY : A group of consonants should have the same continuance.
 NASALITY : A group of consonants should have same nasality.
 (Pulleyblank in Archangel, 1997:64)

The function of ICC determined articulator devices to not shift – a shift of articulator position is not allowed. In this case, the sequences should be the same type, both in the voicing, position of articulation, continuant, or opposition nasal. There is no composition of a consonant in Muna language. On the contrary, there is the only composition of vocal. Nasalization process occurs in Muna language that based on the principle of homorganic. Model of nasalization that occurs in Muna language is a sequence of nasal consonants followed by an oral consonant (obstruent). The characteristic of these consonants can be distinguished as follows: characteristic of nasal is nasal, stop, voiced, where x (position of x is sonorant consonant variable above the articulation); whereas characteristic of obstruent is oral, stop or continuants, voiced or voiceless, where y (position of y is variable obstruents of values) (Pullyblank in Archangel, 1997:65).

Based on data, there are three forms of nasal in Muna language, that is, /m/, /n/, and /ŋ/. These forms of nasal can be sequential with obstruents that have the same articulation with each nasal to form the process of nasalization. In Muna language, the sequences of nasalization can be occurred not only at the beginning of the word but also in the middle of the word. Data of process nasalization above appears that prenasal segments are existed according to the position of articulation of consonants that followed. If the phoneme segment of base bilabial, so prenasal that will be exited is prenasal bilabial, such as [mp, mp]; if the phoneme segment of base alveolar, so prenasal that will be exited is prenasal alveolar, such as [nt, nd]; and if phoneme segment of base velar, prenasal that will be exited is prenasal velar, such as [ŋk, ŋg]. It proves that the process of nasalization in Muna language is homorganic.

As stated above that there is no composition of consonants, so the writers do not conduct an analysis of phonotactic consonants. Also, there are prenasal phonemes in Muna language, such as /mb, mp, nd, nt, ns, ngk, ngg/. The examples of prenasal have stated above.

Further discussion focuses on sequences of vocal.

1) Sequence of vocal /i/

Vocal /i/ can be sequenced with several vocals, such as vocal /i, e, a, o, u), for example:

Miina [mi? ina] ‘no’ tiene [tiene] ‘limit’ tiulu [tiulu] ‘disappear’
 Wiolo [wiolo] ‘name of plant’ falia [falia] ‘forbidden of taboo’

- 2) Sequence of vocal /e/
Vocal /e/ can be sequenced with several vocals /i, e, u, o, a/, for example:
Feena [fe? ena] ‘ask’ *bhei* [bhei] ‘spoiled’ *leu* [leu] ‘singe’
Yoleo [yoleo] ‘day’ *lea* [lea] ‘sick’
- 3) Sequence of vocal /u/
Vocal /u/ can be sequenced with several vocals, such as /i, e, u, o, a/, for example:
Luuno [lu? uno] ‘teardrop’ *lui* [lui] ‘tough’
Lawue [lawue] ‘legume’ *duo* [duo] ‘sheat of inflorescence of palm tree’
Kalua [kalua] ‘bat’
- 4) Sequence of vocal /o/
Vowel O can be connected with vowels /i,e,u,o,a/ as an example *tookaa* [to?oka] ‘so’ *koise* [koise] do not’
oe [oe] water *βou* [βou] ‘name of fish’ *katoa* [katoa] brass’
- 5) Diphthong /a/
Vowel /a/ can be connected with vowels /i,e,u,o,a/ as an example *taaka* [ta?aka] ‘but’ *βai* [βai] ‘friend’
pae [pae] rice plant’ *gau* [gau] ‘cook’

Based on the above data can be explained as follows:

If the vowel series is a series of the same sound so between them will occur glottalitation or addition glottal sound [ʔ] like on the data

Miina [mi?ina] ‘not’ *feena* [fe? ena] ‘ask’ *luuno* [lu?uno] tears’ *tookaa* [to?oka] ‘so’ *taa*
[ta?aka] ‘but’

On the other words, phonetically between the series will occur the strengthening of segment glottal sound become [ʔ] so between that series the consonants appear directly becomes the next syllable onset. Based on the above data it can be said that the highest rank is STRICT (TP) than KKS (TP). Besides the both of constraining also used ONSET, ALIGN RIGHT, and DEP-IO (K). ALIGN RIGHT stating that the right end of the syllable should be equal to the right end of the word. In summary can be describe STRICT (TP) >>ONSET>>ALIGN RIGHT>>KKS(TP)>>DEP-IO(K).

Here is an analysis of optimality by using tables.

The word *Taaka* [ta?aka] ‘but’ as an input.

/taaka/	STRICT (TP)	ONSET	ALIGN RIGHT	KKS (TP)	DEP-IO (K)
ta.a.ka		*!		*	
ta.i.ka	*!	*!			
ta.u.ka	*!	*!			
ta.ʔa.ka			*		*

The above data can be explained as follows:

The most optimal candidates on the above data Muna Language is *ta?aka* (fourth candidates) although breach happening on ALIGN RIGHT and DEP-IO (K). The breach of the both constrain is not fatal because the rank of this constraint is lower than STRICT and ONSET. The first candidate *taaka* unacceptable because it breaches of ONSET constrain. The breach of ONSET constitutes fatal thing. Actually, this candidate is acceptable phonemically, but phonetically it should be added glottal between the both of that series. The second and third candidate *taika* and *tauka* unacceptable because they breach of STRICT (TP) and ONSET constrain. The breach of this constraint is fatal even though there is no breach on KKS. In Muna language, there is a row of vowel /a-u/ and /a-i/ but for this data is unacceptable.

Furthermore, based on the above data as well, if the vowel series is the different vowel series so there is not adding to the consonant phonetically. Besides that, it can be said if the vowel series on Muna language. Muna does not emphasize identical, but more likely to emphasize **strict** with another vocal in the form of words. Thus, it can be said that the ranking STRICT (place) higher than the KKS (place). Besides the two constraints, DEP-IO (K) (no additional consonants) are also used in this analysis. Briefly, it can described STRICT (TP) >> DEP-IO >> KKS (TP)

This is an analysis of optimality by using tables.

Word tiulu [tiulu] 'missing' as input

/tilulu/	STRICT (TP)	DEP – IO (K)	KKS (TP)
[ti.u.lu]			*
[tuulu]	*!		
[tikulu]		*!	*

The data can be explained as follows.

The most optimal candidates on the data are Muna Language [tiulu] (the first candidate) despite an offense at KKS (TP). Violation of the KKS (TP) is not fatal things because these constraints rank lower than STRICT. The second candidate, [tuulu] is unacceptable for this data because it violates STRICT constraints (TP). In the Muna language indeed there is a row vowel / u-u / but for this data is not acceptable. Violation of this constraint is fatal even though there were no violations of KKS constraints. The third candidate [tikulu] is also not acceptable in the Muna language for violating constraint DEP-IO (K). Violation of these constraints is fatal.

4. Conclusion

Based on the description above it can be concluded that the Muna language has seven segments phonetic on above, there is five segments vocal source; /i, ε, u, ə, a/. The fifth vocal source can be placed on the beginning, middle, or the ending, and has twenty-five consonant phonemes that occupy only the beginning and the middle. Muna language has the general properties. Based on the principles that constrain ratings obtained may be determined according to the general tendency syllable Muna language property.

No	Property	General Tendency
1	TOP: syllable has one vocal	Always
2	ONSET: syllable was preceded the single consonant	Always
3	* COMPLEX: only one consonant at the edge of the syllable	Always
4	NOCODA: syllable ends with a vocal	Always


Acknowledgments

The success of writers in completing the writing is inseparable from the support of various parties. Therefore, through this paper the authors expressed thanks and high appreciation to Prof. Dr. Aron Meko Mbete, Prof. Dr. I Wayan Pastika, M.S., Prof. Dr. La Ode Sidu Marafad, M.S. because through this touch of the great teachers of this article can be resolved. Further to friends Hugo Warami, I Made Rajeg, Lien Darlina, thank you for the cooperation so far. Finally, the author would like to thank the author's family, especially his wife and children's author Herlina Pambau Rahma writer Wa La Ino who always provides encouragement to the authors, although they are left in the village writers. Unto them, authors dedicate this paper.

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