ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

SYLLABLE STRUCTURE AND RELATED PHONOLOGICAL PROCESSES IN HARAR OROMO: MORAIC APPROACH

BY:

JAMAICA KEBEDE

March, 2011

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IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN LINGUISTICS

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Approved by the Board of Examiners

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Examiner	**Signature**

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Abstract

This thesis is focused on the syllable structure and syllable related phonological processes of Oromo (Harar dialect) based on moraic approach. Accordingly, it attempts to describe the syllable types which are: CV, CVC, CVV, and CVVC. In view of the moraic theory, the CV and CVC syllables on one hand and the CVV and CVVC syllables on the other are considered light and heavy respectively. In connection with the notion of light and heavy syllables, a mono-moraic syllable is considered light, while bi-moraic and tri-moraic heavy in Oromo (Harar dialect). In these types of syllable, in addition to a vowel (short and long), a consonant after a sonority peak immediately followed by another consonant (in a cluster or gemination) bears a mora.

In Harar Oromo, word-initial and final consonant gemination and cluster are not allowed. In the language, each word has initial consonant in underlying representation. However, in surface representation onset-less words occur due to the deletion of the voiceless glottal plosive sound /ʔ /. Hence, some words begin with a vowel. Although the initial segment of a surface structure may be a vowel, underlyingly onset (consonant) is obligatory.

In addition to describing syllable structures from the perspective of the moraic theory, the thesis examines syllable related phonological processes in Harar Oromo. Such phonological processes as assimilation, deletion and epenthesis.

Acknowledgements

I would like to express my gratitude to all those who helped me in producing this thesis. First of all, I would like to thank my advisor Dr.Mulugeta Seyoum for his comments and guidance. I am very grateful to my friends in Addis Ababa University; particularly Abdulfetah Nesha, Abdo Sisay and others for their support in various ways.

My special thanks go to my wife Lamrot Agonafir and my mother Tadelech Wakjira whose cooperation and encouragement made it possible for me to complete this thesis successfully. Finally, I must thank to my God and Saint Mary for giving me the strength and enabling me to fulfill the requirement of writing this thesis to earn an MA degree.

Contents

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List of Abbreviation and Symbols

V	Vowel	Pl.	Plural
V:	Long Vowel	Sg.	Singular
μ	Mora	C.	Coda
vd	Voiced	R.	Rhyme
vl	Voiceless	PRF	Perfective
σ	Syllable node	IPRF	Imperfect
> or ⟶	Becomes	m.	masculine
[ ]	Phonetic Representation	f.	feminine
/ /	Phonemic Representation		
( )	Or		
•	Syllable boundary		
‘ ‘	Gloss		
Ø	Deleted		
CL	Compensatory Lengthening		
SSP	Sonority Sequence Principle		
Neg	Negative		
C	Consonant		
Adj	Adjective		
N	Noun		
V	Verb		
O.	Onset		
N.	Nucleus		

Chapter One

1. Introduction

1.1. Background of The Study

1.1.1. The People and the Language

The people call themselves Oromo and are the major linguistic group in Ethiopia. They live over a large area "stretching from close to the Sudan border in the West, through Addis Ababa, and beyond Harar in the East, from Northern Kenya in the south, up East of the rift valley, and to Wallo in the north" (Gragg 1982: xiii). According to the 2007 population and housing census of Ethiopia, the population size of Oromo is 27,158,471 (37.7%) out of the 73,918,505 total population of Ethiopia.

The primary economic activities of the people are agriculture and animal husbandry. Agriculture includes the production of coffee, grain, spice, vegetable and so forth. Mining, tourism, medium and small-scale industries etc are also par of the economy (*http://en.Oromia.org/)*. The Ethiopian Oromo practice three different religions. These are *Waaqqefata* (the traditional belief in *Waaqa* or God), Islam, and Christianity.

Gragg (1976:173) identifies three dialects of the Oromo language. They are those of western group (including Wellegga), eastern group (especially Harar) and southern group (e.g. Borana). The present study is focuses on Harar Oromo which is spoken in eastern Ethiopia.

Oromo, a widely spoken language in Ethiopia, is also the major language in the horn of Africa. The language is spoken predominantly in Ethiopia, but also in Kenya and Somalia. Oromo has different official functions in the Oromiya regional state and in Oromiya zone of the Amhara region. It is a regional official language, a medium of instruction in primary schools and in teacher training institutions (colleges). It is also a field of study in different higher educational institutions such as Addis Ababa University, Jimma University, and Haramaya

University etc. Furthermore, it serves as a language of the court, religion, and mass media.

1.2. Statement of the Problem

Oromo is one of the fairly well-studied languages in Ethiopia. There are various works on the phonology of the different Oromo dialects. Among them Benyam (1988) on Raya Oromo, Habte (2003) on the tone system of Oromo, Wako (1981) on Mecha Oromo. Various other scholars have also touched upon the phonology of Oromo in their attempts to study the grammar of the language among them are Bender and Mulugeta (1976), Gragg (1976) and Owens (1985). However, the syllable structure of Oromo, especially based on the moraic approach, has not been studied. Therefore, this thesis will address the syllable structure, and syllable related phonological processes of Harar Oromo in the framework of the moraic theory.

1.3 Objective of the Study

The main objective of this study is to describe the syllable structure and syllable related phonological processes in Harar Oromo.

The specific objectives of the study are:

- To identity, the basic syllable structures of Oromo (Harar dialect).
- To determine the syllabifications of Harar Oromo.
- Analyze Harar Oromo syllable structure based on moraic approach.
- Analyze and explain syllable related phonological processes in the Harar Oromo.

1.4. Significance of the Study

The researcher believes that this study has the following contributions:

1) Even though Oromo has relatively been generally described well, the various aspects of its dialects require further examination. One such topic is the syllable structure and related processes of Harar Oromo. In this regard, this study will make available relevant information.
2) It will serve as a source material and motivation for further researches on the language.

1.5. Delimitation of the Study

This thesis is limited in two ways:

1) It is limited to phonology, particularly to the syllable structure and syllable related phonological process of Harar Oromo dialect.
2) The database is limited to the Harar dialect, which is spoken in Eastern Ethiopia.

Even through the database is from the Harar dialect, it is believed that it could, in most cases, represent the Oromo language in general. The findings could also be applicable generally to the other dialects of the language.

1.6. Methodology of the Study

The major tool for data gathering is field work. The data were collected, transcribed and analyzed. They were obtained from three sources:

- The researcher, as a native speaker of the language, used his competence in the study;
- Native speakers of the language were also interviewed.
- Works of various scholars on Oromo have been consulted.

1.7. Review of Related Literature

Works on the Oromo language include, dictionaries, grammar books, studies on the various linguistic levels of the language, that is, phonology, morphology and syntax. This section attempts to review those related to the concern of the thesis.

One of the earliest studies regarding the Oromo grammar, Moreno (1939), apart from identifying the consonants and vowels of the language, discusses such phonological processes as assimilation, dissimilation, epenthesis and metathesis.

Gragg (1976) in the phonology section of his brief grammar of the Wellega Oromo, provides the descriptions of consonants and vowels, the allophones and the distribution of phonemes in the language. With respect to consonants, the work points that /p, v, z, / occur only in loanwords. Besides, it indicates that / p'/ and / č/ do not occur word-initially. Moreover, /h/ is identified as occurring only morpheme initially. The study also deals with suprasegmentals and morphophonological processes.

Owens (1985:15) in the grammar of Harar Oromo, discusses consonant clusters and basic root shape. Consonant clusters within a morpheme involve a sonorant with negligible exception. As for the basic root shape, he identifies (C)VC, (C)VCVCV. The V may be either long or short while non-initial consonants could be non-geminate, geminate or cluster.

Wako (1981) describes the phonology of Oromo especially that of the Mecha dialect. The researcher discusses segmental phonology, phonotactics, syllabification, suprasegmental phonology and phonological alternation. The research describes the syllable types of Oromo. It also explains the characteristics of syllables with semi-vowels /w/ and /y/. It also deals with syllabification.

Beniyam (1988) is another research on Oromo phonology particularly on that of Raya. In his MA thesis Beniyam describes segmental phonemes of Raya Oromo, the syllable structure, distribution of phonemes, suprasegmental features and phonological processes.

Research on the palatalization of alveo-dental consonants in the Wello Oromo has been done by Kebede (1994). However, the study does not deal with syllable and syllable related processes.

Habte's (2003) MA thesis is concerned with tone in the Oromo language. The research includes segmental phonology, morphophonological processes, suprasegmental phonology, phonotactics and syllable structure in the language. With respect to syllable structure, the study identifies CV, CVV, CVC and CVVC. The researcher suggests that these syllables may appear at word initial, medial and final positions. According to Habte (2003:24), an onset of a syllable is an obligatory constituent but coda is optional.

Segmental lengthening is among the phonological features of Oromo. Lloret (1988) provides a systematic description of long vowels and gemination in the language.

The MA thesis of Muhammad (1983) examines the morphophonemic processes of nouns, verbs and adjectives of Oromo. The paper describes and analyzes such phonological processes as assimilation, insertion, deletion.

The works reviewed in the preceding paragraphs have touched upon the topic of the syllable in Oromo and in its various dialects though they differ in the degree of their descriptions. But none has approached syllable structure in Harar Oromo from the perspective of the Moraic theory.

1.8. Theoretical Background

1.8.1. The Syllable in Generative Phonology

In the early development of generative phonology phonological representation used to consider as consisting only linear strings of segments with no hierarchical structure unlike, the syntactic phrasal structure. In the *Sound Pattern of English* of Chomsky and Halle (1968) syllable structure had no role in the phonological organization. Regarding this, Anderson (1985:347) comments that, the syllable structure in the early generative phonology consisted of linear strings of segments with no hierarchical organization.

Developments in phonological theories motivated renewed interest in the syllable. Clements and Keyser (1983) generalize the factors that cause innovation in the following terms.

> In our view, innovations in scientific theories involve two factors. The first is the identification of serious empirical inadequacies in the current research paradigm. The second is the perhaps independent development of new models which offer the possibility of treating well-known problems from a new perspective. (1983:1)

1.8.1.1. The Syllable and Syllable Structure

1.8.1.1.1. Definition of Syllable

Katamba (1989:153) defines the syllable as: "It is the unit in terms of which phonological systems are organized. It is a purely phonological entity."

According to Hyman (1989:188), there are three basic questions that should be addressed with respect to the syllable.

1) How does one define the syllable?
2) How does one determine the syllable boundaries?
3) Is the syllable a necessary concept?

According to Blevins (1996:207) "The syllable…is the phonological unit which organizes segmental melodies in terms of sonority."

This means, the syllable is a phonological structure consisting of such parts as nucleus and, if any, onset and coda as well as suprasegmental features.

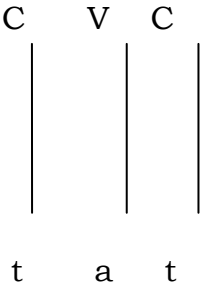
1.8.1.1.2. Internal Structure of the Syllable

The internal structure of the syllable has been the most debatable notion in the phonological theory. For instance, one may look at: Hyman (1985), Hayes (1989), Clements and Keyser (1983), and Blevins (1996).

Regarding the syllable internal structure, phonologists proposed several models. For instance, Blevins (1996:212) has listed the following five models of representing syllable structure.

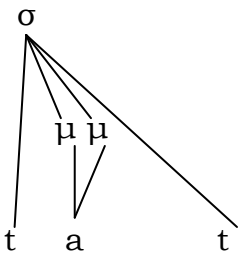
I. Flat Structure: Does not have sub constitution but the segments themselves.

(1)



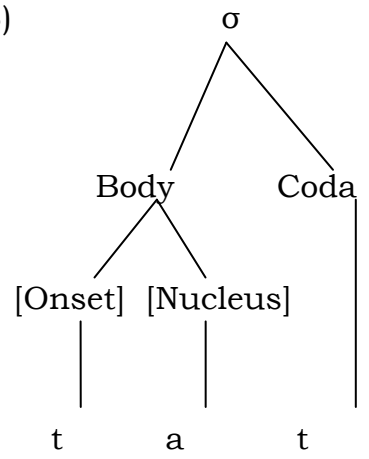
II. Moraic Approach: σ ⟶ Cμ(μ)C

(2)



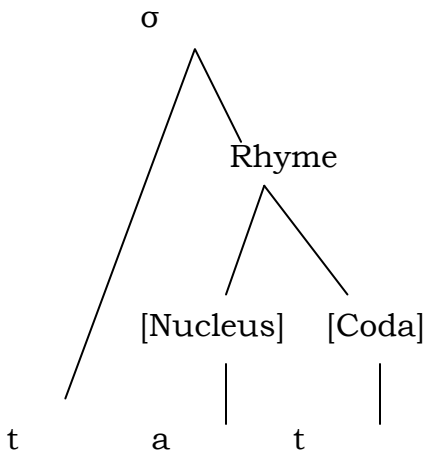
III. Binary Branching with Body: σ ⟶ Body Coda; Body ⟶ Onset Nucleus

(3)



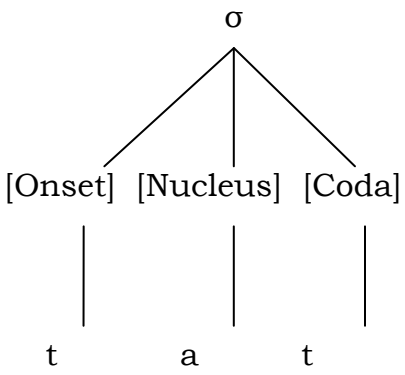
IV. Binary Branching with Rime: σ ⟶ Onset Rime; Rime ⟶ Nucleus Coda

(4)



V. Ternary Branching : σ ⟶ Onset Nucleus Coda

(5)



Of the above five syllable-internal structure models, the present research is based on the moraic model to determine the basic syllable structures of Harar Oromo.

1.8.1.1.3. Function of Syllable Structure

Kenstowicz (1994:250) forwards some justifications concerning the roles of syllable structure:

> Phonological rules are often more simply and insightfully expressed if they explicitly refer to the syllable, several phonological processes are best interpreted as methods to ensure that the strings of phonological elements are parsable into syllable and the syllable is a natural domain for the statement of many phonotactic constraints.

In addition to Kenstowicz's (1994) justifications, Fudge (2001:25) pointes out the function of syllable by saying that the syllable is very important to provide a basis for prosodic distinctive features and to account for constraints on possible phoneme sequences.

1.8.1.1.4. Types of Syllable

Any language of the world may have its own syllable types. Clements and Keyser (1983:28) propose the following syllable types as basic.

a) CV
b) V
c) CVC
d) VC

From the above syllable types CV belongs to all languages. This syllable type may be operated on to yield one or more of the other core syllable types by the following two operations:

1) Delete syllable initial C.
2) Insert syllable final C.

A language may choose either one of these, both of them, or neither of these rules to identify its core syllable types. Based on the above two operations, Clements and Keyser (1983:29) listed four types of languages.

Type I: CV

Type II: CV, V

Type III: CV, CVC

Type IV: CV, V, CVC, VC

1.8.1.2. The Moraic Theory of Syllable Structure

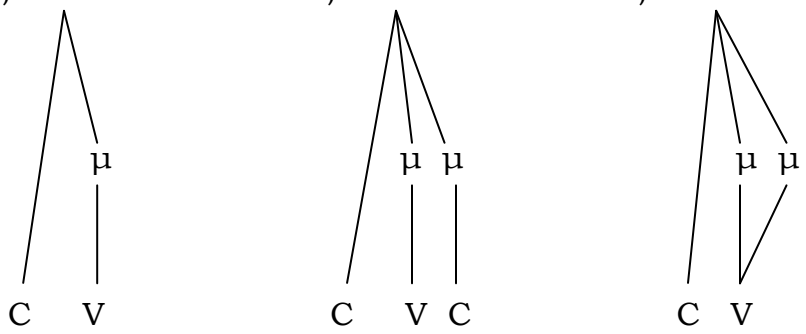
Mora is a term traditionally used refer to a minimal unit of metrical time or weight. It is now used as a separate level of phonological representation in some non-linear models of phonology (Crystal 1997:248).

In the moraic theory the only element principal between the syllable node and segmental node is called Mora. The Moraic approach of the syllable was first formalized in Hyman (1985) and further developed in Hayes (1989). In the Moraic approach, the syllable may contain one or more moras (μ).

Hayes (1989:254) states that generally languages treat syllables with long vowels or that are closed as heavy; whereas they consider syllables with short vowels and those that are open as light. This means, a heavy syllable contains two or more moras (μμ) while a light syllable consists of one mora (μ).

In addition to the above representation, Hayes (1989:254) proposes in his article, depending on the notion of heavy and light syllable, the moraic model in the following ways:

(6) a) σ b) σ c) σ



(CV) (CVC(C) (CVV)

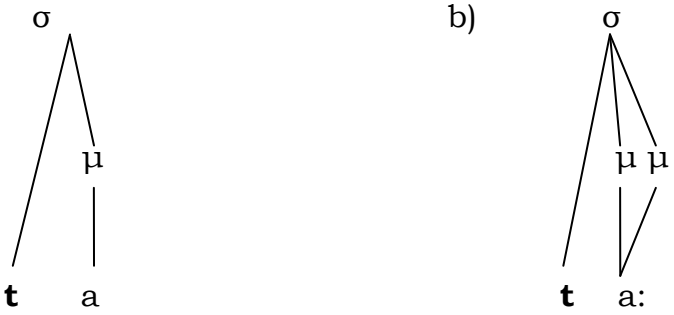
According to (a) above, a short vowel follows a consonant constituting an open syllable which is in terms of weight a light syllable. In (b), the syllable has a coda and is thus a closed syllable. However, the coda if followed by another consonant which makes the syllable heavy. In the case of (c), which contains a long vowel, the syllable is heavy.

1.8.1.2.1. Onset

A consonant preceding a vowel which acts as nucleus is the onset of the syllable. Onset consonants are attached directly to the syllable node. An onset consonant does not play a role in mora- bearing. This means, onset consonants can not be a factor in determining whether a syllable is heavy or light (Hayes (1989:254).

(7)

a) σ b) σ



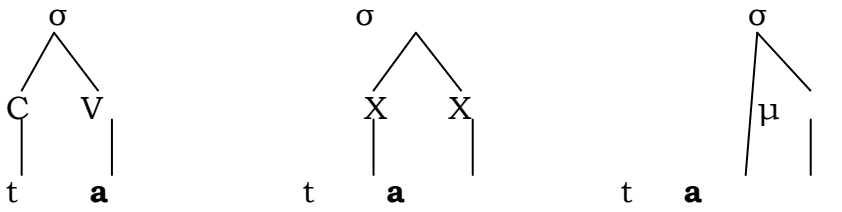
In bold (a) and (b), the first consonant /t/ is the onset.

1.8.1.2.2. Nucleus

The nucleus, in terms of sonority, is the peak of the syllable which is usually a vowel. In the moraic theory the nucleus is replaced by mora. In general, there are three models representing the syllable. These are the CV-tier model, the X-tier model and the Moraic model. The moraic representation is a better way of representing the syllable weight (Mulugeta 2001:7).

(8)

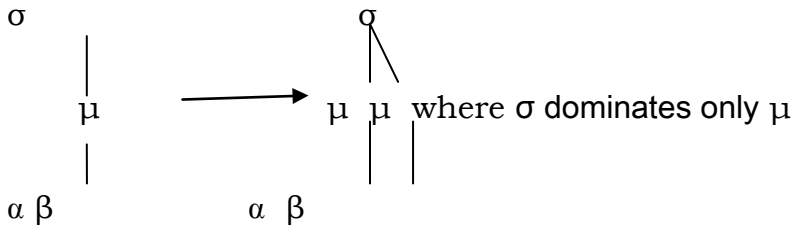
a) CV-tier model b) X-tier model c) Moraic model



1.8.1.2.3. Coda

A consonant after the nucleus (vowel) in a syllable is called coda. A coda consonant can be a mora- bearing unit according to the rule of Weight–by–Position. Hayes (1989:258) indicates that in some languages coda consonants may not be mora- bearing. Because those languages may not apply the rule of Weight–by–Position. The following an example of a language which applies the Weight–by–Position rule.

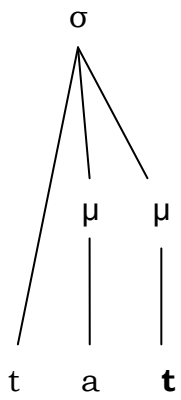
Hayes (1989:258)



The following example illustrates that the onset consonant does not bear mora whereas the coda consonant does since with the assumption that it is followed by another consonant. This exemplifies the Weight–by–Position rule.

Example: Hayes (1989:254)

(9)



1.8.1.2.4. The Rhyme

The rhyme is what the nucleus and the coda together constitute in a syllable. The rhyme has no place in the moraic approach since the coda under the rhyme could or could not carry mora.

1.8.1.2.5. Mora

As defined in 1.8.1.2, mora is a unit of sound used in phonology that determines syllable weight. Two moras define a heavy syllable while one mora is termed as light syllable.

The following are general assumptions about mora:

- An onset consonant does not bear a mora.
- The syllable nucleus is assigned one mora in the case of short vowel and long vowels assigned two morae
- Coda consonants are assigned a mora if the coda consonant is followed by another consonant in terms of a geminate or a cluster according to the Weight – by – Position rule.

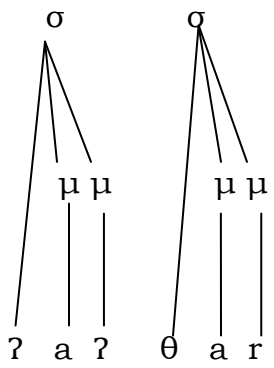
To sum up, depending on a number of moras in the syllable structure, a mono-moraic syllable is light syllable while bi-moraic syllable is heavy syllable.

1.8.1.3. Compensatory Lengthening (CL)

According to Clements and Keyser (1983:77), compensatory lengthening is a process of spreading or lengthening vowels after deleting segments. This means, segments spread to compensate for the deleted segments.

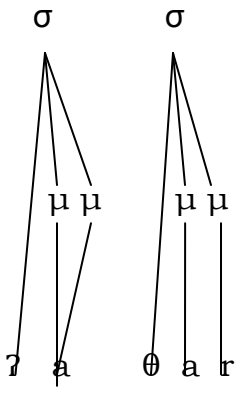
McCarthy and Prince (1990:10) also similarly define compensatory lengthening and provide examples of which the following is one.

(10)



Underlying form

/ʔaʔθar/ 'prefer'



Derived form [Surface Representation]

/ʔa:θar/ 'prefer'

1.8.1.4. Sonority Sequence Principle (SSP)

In the formation of a syllable, segments will be arranged depending on their degree of sonority. In this regard Ladefoged (1975:219) “The sonority of a sound is its loudness relative to that of other sounds with the same length, stress, and pitch.”

Regarding the degree of sonority process, Gussenhoven and Jacops (1998:152) suggest that, the sonority of a syllable increases from the beginning of the syllable to the peak, and decreases from the peak to the end of the syllable.

Giegerich (1992:132) proposes the following representation of the sonority of sounds. The arrowed line below the table shows that sonority increases left to right.

Stops		Fricatives		Nasals	Liquids	Semi-Vowels	Vowels	
vl	vd	vl	vd				High	Low
p	b	f	v	m				
t	d	θ	ð	n		j	i	a
k	g	s	z	ŋ	l r	w	u	ɑ

Sonority

According to the above hierarchical representation of sounds, each segment has its own degree of sonority. This illustrated by the following representation where sonority increases from the voiceless plosive all the way to vowels.

p, t, k > b, d, g > f, θ, s > v, ð, z > m, n, ŋ > r, l > j, w > i, u > e, o > a, ae

In this chapter, in addition to preliminaries, we have reviewed previous works on the phonology and syllable structures of Oromo and, some respects of the Harar Oromo dialect. Besides, we set the theoretical framework for the present study as the moraic one. The following chapter will handle segmental phonemes. In fact, Oromo phonemes have been attested by various studies. Nevertheless, for practical reasons and clarity of discussions based on the

moraic approach the phonemes of Harar Oromo are revisited in the next chapter.

Chapter Two

2. The Segmental Phonemes of Harar Oromo

This chapter focuses on the description of consonants and vowels. The consonants and vowels of the Oromo language has been dealt with by different researchers; among them Gragg (1976), Habte (2003), Beniyam (1988), Wako (1981) and Owens (1985). The following table is consonant phonemes of Oromo adopted from Wako (1981:12) also suits the Harar Oromo dialect.

2.1. Consonant phonemes of Oromo

		Bilabial	Labio-dental	Alveolar	Palato-alveolar	velar	glottal
Ejectives		p'		t'	č'	k'	
Plosives	vl	(p)		t		k	ʔ
	vd	b		d		g	
Implosive				ɗ			
Fricatives	vl		f	s	ʃ		h
	vd		(v)	(z)			
Affricatives	vl				č		
	vd				ʤ		
Nasal		m		n	ɲ		
Lateral				l			
Trill				r			
Semi-Vowel		w			j		

Of the above consonants of Oromo, /p, v, z/ occur only in loanwords. Accordingly, /z/ is borrowed from Arabic while /p/and /v/ from the European languages (Gragg 1976:174).

2.1.1. Description of consonant phonemes

1. /b/ voiced, bilabial, plosive

/ba:ti: / ‘month’

/sibi:la/ ‘metal’

/bubbe: / ‘gust’

2. (/p/) voiceless, bilabial, plosive

/po:lisi: / ‘police’
/ʔispo:rti: / ‘sport’

3. /p'/ voiceless, bilabial, ejective

/qop'a:ʔu:/ ‘to be prepared’
/kop'e:/ ‘shoe’

4. /m/ voiced, bilabial, nasal

/me:ʃa: / ‘things’
/lama/ ‘two’
/morma/ ‘neck’

5. /w/ voiced, bilabial, glide
/waʤʤi/ ‘together’
/miʔawa:/ ‘sweet’

6. /f/ voiceless, labio-dental, fricative

/fa:na/ ‘print, foot’

/lafa/ ‘earth/ land’

/la:fa: / ‘soft’

7. /t/ voiceless, alveolar, plosive
/ takka/ ‘one’ (f.) /tokko/ ‘one’ (m.)
/bita: / ‘left’
/tumtu: / ‘blacksmith’

8. /d/ voiced, alveolar, plosive

/dačči: / ‘earth/ land’

/farda/ ‘horse’

/diddama/ ‘twenty’

9. /ťˀ/ voiceless, alveolar, ejective
/ťˀuri: / ‘dirty’
/ťˀu:ťˀu:/ ‘suck’

10. /ɗ/ voiceless, alveolar, implosive
/ɗala:/ ‘female’
/ɗunɗuma/ ‘forearm’
/ɗi:ra/ ‘male’

11. /s/ voiceless, alveolar, fricative

/sa:hiba/ ‘friend’

/hijjesa/ ‘poor’

12. (/z/) voiced, alveolar, fricative

/zaji:ti/ ‘ food oil’

/ga:zi: / ‘fuel ’

13. /n/ voiced, alveolar, nasal

/nagaja/ ‘peace’

/hunda/ ‘all’

/na:nnawa/ ‘around’

/ʃan/ ‘five’

14. /l/ voiced, alveolar, lateral approximant

/la:fa: / ‘soft’

/loltu:/ ‘fighters’

/hula: / ‘door’

15. /r/ voiced, alveolar, trill

/rabbi / ‘God’

/harre: / ‘donkey’

/ʔafur/ ‘four’

16. /ʃ/ voiceless, alveo-palatal, fricative

/ʃe:ko: / ‘story’

/me:ʃa:/ ‘things’

17. /č/ voiceless, alveo-palatal, affricative

/ča:pa: / ‘titer’
/ʔači/ ‘there’
/ʤeča/ ‘word’

18. / č'/ voiceless, alveo-palatal, ejective

/ č'aba: / ‘cracked’

/huč'u: / ‘clothes’

/le:nč'a/ ‘lion’

19. /ʤ / voiced, alveo-palatal affricate

/ ʤaba: / ‘strong’
/hoʤi: / ‘work’
/hoʤʤa: / ‘tea’
/ ʤire:ɲa/ ‘existence’

18. /j/ voiced, alveo-palatal, glide

/ja:du: / ‘think’
/hirija: / ‘age-mate’

19. / ɲ/ voiced, palato-alveolar, nasal

/ ɲa:ta/ ‘food’
/la:fe:ɲɲa/ ‘softness’

20. /k/ voiceless, velar, plosive

/kara: / ‘road’

/sukkara/ ‘sugar’

/kursi: / ‘chair’

21. /g/ voiced, velar, plosive

/ga:fa/ ‘horn’

/goggoga: / ‘dry’

/fago: / ‘far’

22. / k'/ voiceless, velar, ejective

/ k'a:ma/ ‘body’

/ɖok'k'e: / ‘mud’

/ k'ulk'ullu: / ‘clean’

23. /ʔ/ voiceless, glottal, plosive

/ʔadu:/ ‘sun’

/saʔa:/ ‘hour’

/ʔarba/ ‘elephant’

/reʔee/ ‘goat’

24. /h/ voiceless, glottal, fricative

/habbo: / ‘mother’s sister’

/ʤaha/ ‘six’

/hula: / ‘door

2.1.2. Distribution of Consonant Phonemes

Consonants	Word Initial	Word Medial	Word Final
(p)	/po:lisi:/ ‘police’	/ča:pa:/ ‘titer’	----------
p'	----------	/sa:p'ana/ ‘net'	----------
b	/bara/ ‘year’	/saba/ ‘tribe’	----------
m	/mana/ ‘house’	/lama/ ‘two’	/ʔakkam/ ‘hi!’
w	/wara:bessa/ ‘hyena’	/lowwan/ ‘cattle’	----------
f	/fo:n/ ‘meat’	/rife:nsa/ ‘hair’	----------
t	/takka/ ‘one’ (one)	/u:tu: / ‘full’	----------
t’	/t’alaja:/‘letter/paper’	/t’u:t’u:/ ‘suck’	----------
d	/dubbi:/‘matter/issue’	/ʤiddu: / ‘central’	----------
ɖ	/ɖe:ra: / ‘long/tall’	/daɖabu:/ ‘to be tired’	----------
n	/nagaja/ ‘peace’	/ganama/ ‘morning’	/fo:n/ ‘meet’

l	/lafa/ 'earth'	/ ʤa:la/ 'friend'	/la:li/ 'watch'
r	/ra:ča/ 'frog'	/sare: / 'dog'	/ʔafur/ 'four'
s	/sami: / 'sky'	/ʔisa/ 'him'	----------
ʃ	/ʃan/ 'five'	/me:ʃa:/ 'material'	----------
č	/ča:pa:/ 'titer'	/ʔači/ 'there'	----------
č'	/č'aba: / 'cracked'	/qoč'a: 'tortoise'	----------
ʤ	/ ʤaba: / 'strong'	/waʤʤi/ 'together/with'	----------
ɲ	/ ɲa:ta/ 'food'	/ʃe:ɲi: / 'seed'	----------
j	/jo:m/ 'when'	/ʔijja/ 'bark'	/boj/ 'cry'
k	/kita:ba/ 'book'	/bakka/ 'place'	----------
k'	/ k'otto:/ 'axe'	/mak'a:/ 'name'	----------
g	/gurra/ 'ear'	/nagaja/ 'peace'	----------
ʔ	/ʔa:nan/ 'milk'	/reʔee/ / 'goat'	----------
h	/ha:rre:/ 'donkey'	/ʤaha/ 'six'	----------

In the above consonant distribution of Harar Oromo, phonemes like /b, m, w, f, t, t', d, ʧ, s, ʃ, č, č', ʤ, ɲ, k, k', g, ʔ, h/ occur in word-initial and medial position. Beside these consonants, /m, n, l, r, j/ are found in all positions within a word.

2.2. Vowel phonemes of Oromo

The vowel system of Oromo is basically a five- vowel system. These vowels may occur long or short: the long vowels are represented as i:, e:, a:, o:, and u:. The following is the vowel system of Harar Oromo which is in fact the Vowel system of Oromo in general (Owens 1985:10).

i **u**

e **o**

a

According to Gragg (1976:175) "short /i, e / tend to be laxer and somewhat lower than their long counterparts /ii, ee/. /a/ is more centralized than /aa/.The phonetic difference between the long and short back rounded vowels tends to be more purely quantitative".

2.2.1 The description of vowel phonemes

In this section, the description of Oromo vowel is illustrated examples.

1- /i/ close, front unrounded vowel

/ʔidʒa/ 'eye'

/ ɗʒiliba/ 'knee'

2- /e/ close-mid, front unrounded vowel

/ʔe:ge: / 'fail'

/rife:nsa/ 'hair'

/ʔerge/ 'he sent'

3- /a/ open, central unrounded vowel

/bakka/ 'place'

/bira/ 'near'

/fago/ 'far'

/galgala/ 'evening/night'

4- /u/ close, back rounded vowel

/ʔule: / 'stick'

/murti: / 'decision'

/ʔutuba: / 'pillar'

/ɗugu:/ 'drink'

5- /o/ close-mid rounded back vowel

/ʔobbole:sa/ 'brother'

/ʔonne: / 'heart'

/na:nno: / 'area'

2.2.2 Vowel Lengthening

As in Oromo, in general, all short vowels of Harar Oromo have long counterparts. Short and long vowels are minimally listed as follows:

1- /i/ /ii/

/bira/ 'near'

/bi:rra: / 'autumn'

2- /e/ /ee/

/ k'ore:/ 'thorn'

/ k'o:re/ 'dried'

3- /a/ /aa/

/lola/ 'fight'

/lolaa/ 'flood'

4- /u/ /uu/

/boru/ 'tomorrow'

/bo:ru: / 'unclear' (for water)

5- /o/ /oo/

Examples: /bo:jje/ 'hog'

/bo:je/ 'he cried'

2.2.3. The Distribution of Vowel Phonemes

Vowels	Word-Initial	Word-Medial	Word-Final
/i/	_____	/hirija: / 'age-mate'	/ k'ori:/ 'bowl'
/e/	_____	/ʤire:ɲa/ 'existence'	/ʔilke:/ 'teeth'
/a/	_____	/la:fa: / 'soft'	/hula: / 'door'
/u/	_____	/ k'urt'ummi: / 'fish'	/gu:tu: / 'full'
/o/	_____	/ k'ofa/ 'only'	/mo:fo: / 'oven'

The vowels /i, e, a, u, o/ do not occur in word-initial position except in orthographic representation like /ibidda/ 'fire', /e:ge: / 'tail', /angafa/ 'elder', /ulfa:ta: / 'heavy' and /onne: / 'heart'. That is due to the fact that the voiceless glottal plosive sound /ʔ/ is deleted in word initial position in the surface representation. In other words, the vowels occur word-initially in orthographic representation.

This chapter has been concerned with the segmental phonemes of Harar Oromo which are not, in fact, different from those of Oromo in general. The next chapter will deal with the syllable structures of Harar Oromo.

Chapter Three

3. Syllable Structure in Harar Oromo

In this chapter, first, the basic syllable types of Harar Oromo are presented. Then, the syllable template is discussed. Under this topic, the syllabification and the syllable internal structure of open and closed type syllables are presented. Then, the syllable structures are analyzed based on the moraic approach. Under the moraic analysis mono-moraic, bi-moraic and tri-moraic syllable types are presented. Finally, the syllable structures of nouns, adjectives and verbs are presented.

3.1. Basic Syllable Types in Harar Oromo

Regarding the syllable types of Oromo, my presentation is similar to Gragg (1976), Wako (1981), Habte (2003), Binyam (1988) and Owens (1985).

1- CV

a- /**ga**.**na**.**ma**/ 'mornig'
CV.CV.CV

b- /**la**.**fa**/ 'earth/ land'
CV.CV

c- /**na**.**ga**.**ja**/ 'peace'
CV.CV.CV

2- CVV

a- /**me:**.ʃ**a:**/ ‘material’

CVV.CVV

b- /**ho:**.**la:** / ‘sheep’

CVV.CVV

c- /**ba:**.**ti:** / ‘month’

CVV.CVV

3- CVC

a- /**tak**.ka/ ‘one’ (f.)

CVC.CV

b- /**san**.ga: / ‘bull/ox’

CVC.CV

c- /**gar**.ga:r.sa/ ‘help’

CVC.CVVC.CV

4- CVVC

a- /ʔob.bo:.**le:t**.ti:/ ‘sister’

CVC.CV.CVVC.CV

b- /sad.**de:t**/ ‘eight’

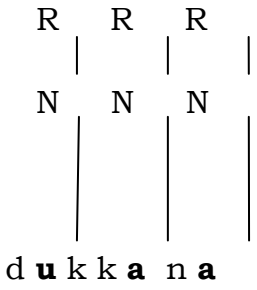
CVC.CVVC

3.1.2. Syllabification in Harar Oromo

Syllabification is a process of assigning segments in a word to units of syllable length. Each language has its own syllable structure. The following are three steps by which words are segmented into syllables.

Step 1- Assign vowel to syllable nucleus

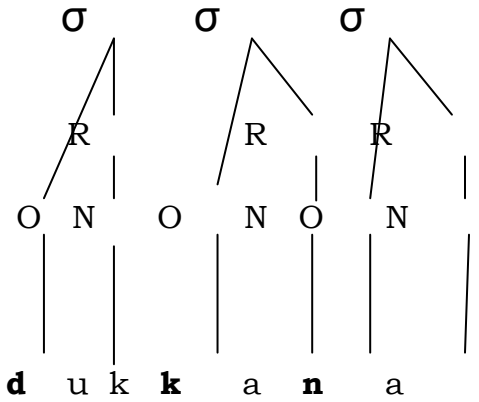
(1) σ σ σ



/dukkana/ ‘darkness’

Step 2- Maximize initial consonant as Onset (extend directly to onset)

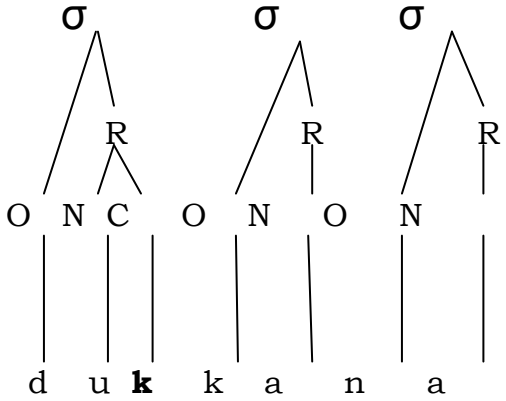
(2)



/dukkana/ ‘darkness’

Step 3- Associate the remaining consonants to codas

(3)



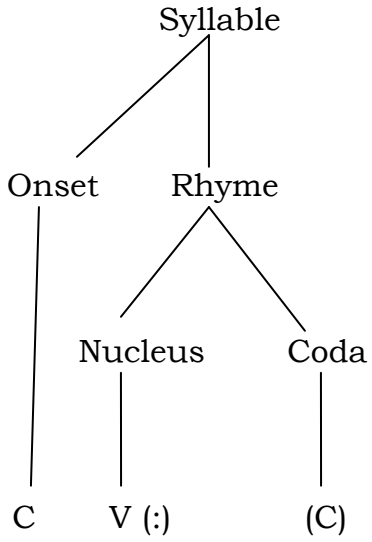
/dukkana/ ‘darkness’

3.1.3. The Syllable Template of Oromo

With regard the syllable-internal structure of Oromo, there seems to be a discrepancy in approach between some researchers. For instance, according to Wako (1981:37) onset is an obligatory constituent in the syllable structure while, Beniyam (1988:18) indicates that onset and coda are optional constituents except the nucleus. However, following Wako (1981), I support and argue that an onset is an obligatory constituent. As pointed out earlier, the reason why a syllable appears to be beginning with a vowel is due to the fact that an underlying onset glottal plosive gets deleted in the surface representation. This means, word initial cluster is impermissible in Oromo. Similarly, only one consonant element occurs as a coda. To generalize, both an onset and a nucleus are obligatory while a coda consonant is optional.

Based on the above description, the syllable template that suits Harar Oromo is the following one.

(4)



What has been summarized in the template may be interpreted as: CV, CVV, CVC, and CVVC. The preceding four syllable types embodied in the template are the syllable types found in Harar Oromo.

3.1.4. Internal Structures of 'Open' and 'Closed' Syllables

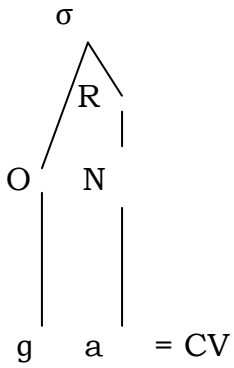
The syllable may be open or closed based on the structure of the rhyme. According to Hyman (1985: 189) the syllable that has no coda element is considered an open syllable whereas the syllable that has a coda element is termed as a closed syllable. That is, a syllable with no coda element is CV, while a syllable with a coda element is CVC. While the former without a final C (without a coda) is open, the latter with a final C (with a coda) is closed. The following examples from the language illustrate the structure.

Open Syllable

a. /**ga.na.ma**/ 'morning'
   CV.CV.CV
b. /**du.ra**/ 'first'
   CV.CV
c. /**du**.re:**.sa**/ 'rich' (m.) -
   CV.CV:.CV

All the preceding words consist of open syllables. Below is the structure of an open syllable.

(5)



= CV

The above syllable structure consists of only an onset and nucleus. In other words, it does not have a coda. Therefore, it is an open syllable. Below are examples of closed syllables.

Closed Syllable

a. /**bak**.ka/ 'place'

CVC.CV

b. /**ʤil**.ba/ ‘knee’

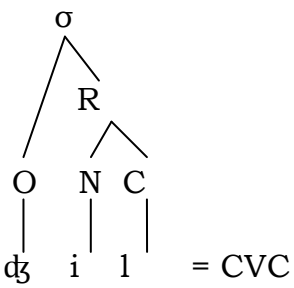
CVC.CV

c. / **k'ul**.**k'ul**.lu:/ ‘clean’

CVC.CVC.CV

In above examples, the syllables in bold are closed. Apart from an onset and a nucleus they consist of a coda. Therefore, they are closed syllables. Below is the structure of a closed syllable.

(6)

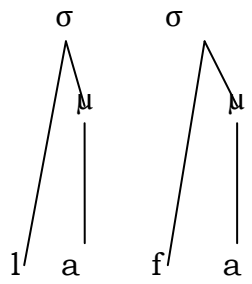


= CVC

3.2. Moraic Analysis

In this section, the moraic concept in connection to Harar Oromo syllable is discussed. In the moraic theory, the only principal element between the syllable node and the segmental node is the mora. In this respect, the syllable contains neither an onset nor a rhyme (Hayes 1989:254). However, the syllable contains one or more moras. It is the vowel in the syllable that is basically considered as a mora. That is, a short vowel has the value of one mora while a long vowel is worth two moras. Apart from a vowel a consonant can be given a mora value if it is followed by another consonant as in geminates and clusters. Similarly, a vowel that follows a sonority peak and is not parsed in the following an onset can constitute a second mora in a syllable. Below are given Harar Oromo words with mono-moraic, bi-moraic and tri-moraic syllables.

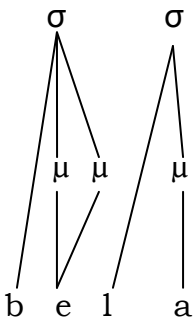
1. Mono-moraic Syllable (each short vowel has one mora (μ))

(7) 

/lafa/ 'earth/ land'

In the above diagrammatical representation, there are two syllables in the word /lafa/ 'earth/ land'. Each CV syllable has a short vowel which has the value of one mora. Such a syllable is referred to as a mono-moraic syllable.

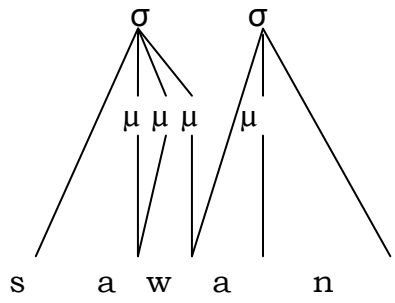
2. Bi-moraic Syllable (Long vowels have two moras (μμ)

(8) 

/be:la/ 'hunger'

In the above representation, the long vowel /e: / bears two moras. Thus, long vowels constitute a bi-moraic syllable.

3. Tri-moraic Syllables (μμμ)

(9) 

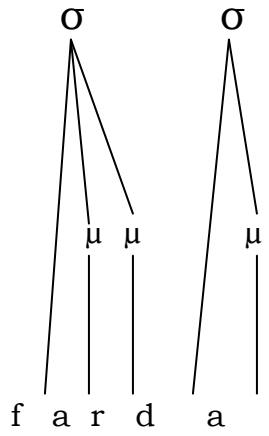
/sa:wwan/ 'cows'

In example above, in the first syllable vowel /a/ is long and has the value of

two moras. In addition, the coda /w/ of the syllable is followed by another /w/ which forms the onset of the second syllable. The coda of the first syllable, therefore, assumes a mora value. Taking the two moras of the vowel of the syllable and one mora of its coda into account, the first syllable is tri-moraic.

Apart from geminates, consonant clusters could also set the condition for a coda consonant to have a mora value. This is illustrated by the example below.

(10)



/farda/ 'horse'

The example above shows that as in geminates, the first consonant of the clustering segments bears one mora. That is, of the cluster –rd- the first /r/ is parsed as coda of the first syllable and since it is followed by another consonant/d/ it bears a mora value.

3.3. Syllable Structure of Nouns, Adjectives and Verbs

In this section, the syllable structure of nouns, verbs and adjectives of Harar Oromo are examined based on the moraic approach.

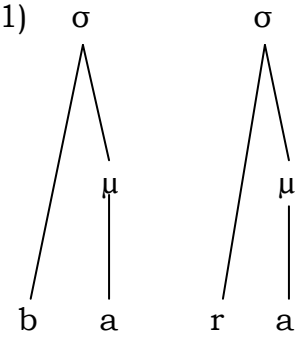
3.3.1. Syllable Structure of Nouns

The number of syllables in the nouns of Harar Oromo are varied. The moraic structure of nouns are also varied. Depending on segmental constituency a

syllable may be heavy or light. A syllable with just a short vowel or followed by a coda of a single consonant has a length of one mora. It is therefore a light syllable. On the other hand, a syllable with a long vowel, a short vowel and a consonant with a mora value, that is, a bi-moraic syllable, is considered heavy. Syllables with additional mora may also be considered heavy or superheavy. (Crystal 1997:417).

1. **Light-Light Syllable Sequence** (mono-moraic syllable (Cμ.Cμ)

(11)

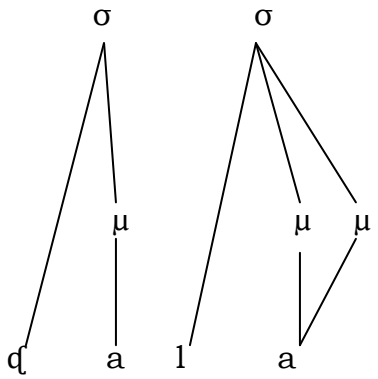


/bara/ 'year'

In the above representation of the noun /bara/ 'year', each syllable is light (mono-moraic). That is, each syllable has Cμ shape.

2. Light-Heavy syllable Sequence (Cμ.Cμμ)

(12)



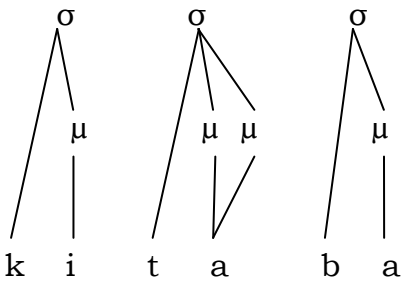
/ɖala:/ 'female'

In the above structure, the arrangement of the syllables is Cμ-Cμμ. The first syllable with a single mora is light whereas the second syllable with two moras

is heavy. Therefore, the pattern of the syllables in the noun is light-heavy.

3. *Light-Heavy-Light Syllable Sequence* (Cμ.Cμμ.Cμ)

(13)

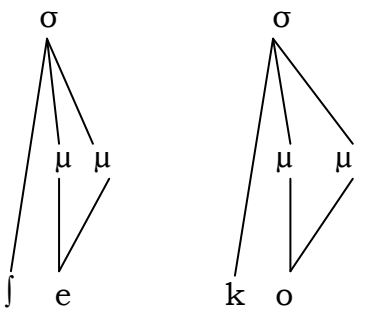


/kita:ba/ 'book'

In the noun /kita:ba/ 'book', the first and the last syllables are mono-moraic and light (Cμ). But the second syllable is bi-moraic (Cμμ), due to the long vowel /a/ and is therefore heavy.

4. *Heavy-Heavy Syllable Sequence* (Cμμ.Cμμ)

(14)

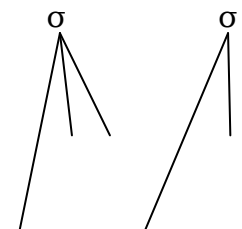


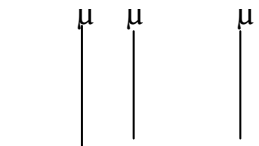
/ʃe:.ko:/ 'story'

In the above noun, each syllable is bi-moraic and heavy as the result of the long vowels, /e: / and /o: / respectively.

5- ***Heavy-Light Syllable Sequence*** (Cμμ.Cμ)

(15)



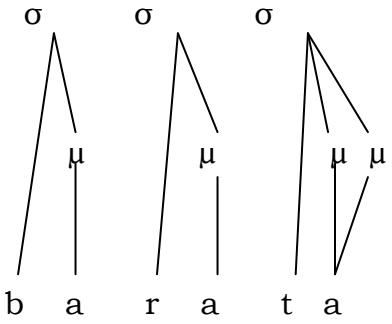


/gurra/ 'ear'

According the above moraic representation, the first syllable has two moras constituted from the short vowel /u/ and the coda /r/ which has a mora value since it is followed by another /r/ which caused gemination /-rr-/. In the syllable pattern of the word, the second /r/ is the onset of the second syllable /-ra/. In terms of the syllable weight, the first (Cμμ) is heavy while the second (Cμ) light. The noun if therefore heavy-light.

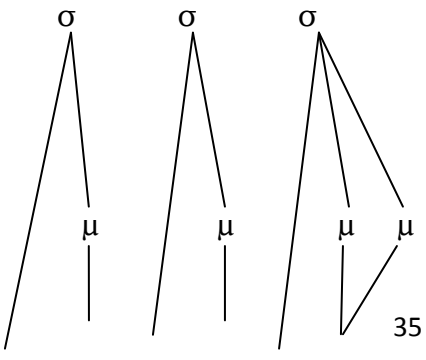
Oromo nouns, including those of the Harar dialect, use various plural suffixes: **-o:ta, -wwan**, **-le:**, **-e:n** and **–a:n**. In the following examples we examine the pluralizing process and the syllable structures in view of the moras they contain.

1- -o:ta

(16) a)


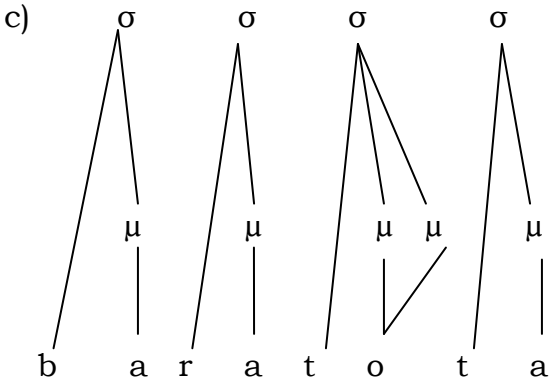
Singular Form

/barata: / 'student'

b)


Deletion of the long vowel /a: /

b a r a t Ø

c) 

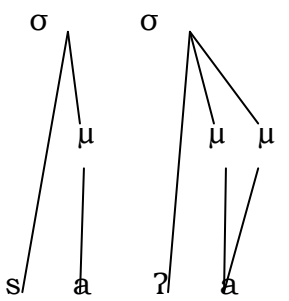
Plural form

Suffixing the plural morpheme -o:ta

/barat-o:ta/ 'students'

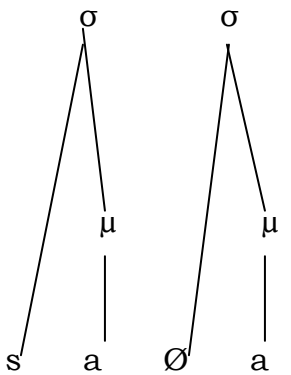
The singular form of the noun /barata: / 'student' consists of three syllables with Cμ.Cμ.Cμμ moraic structure while the plural form /barat-o:ta/ 'students' consists four syllables with Cμ.Cμ.Cμμ.Cμ moraic structure.

2- -wwan

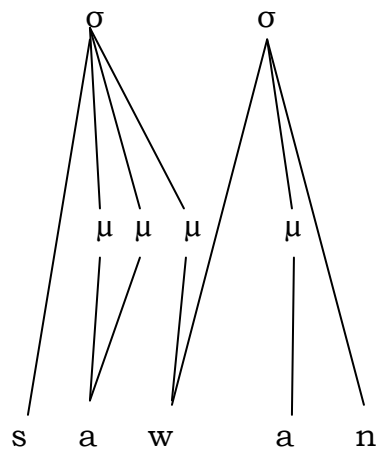
(17) a) 

Singular form

/saʔa / 'cow'

b) 

deletion of the segment /ʔ/

c) 

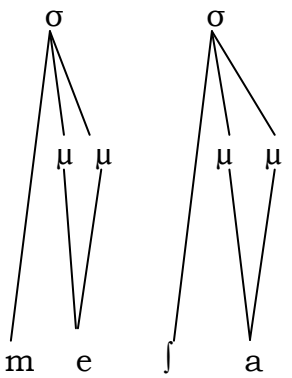
Plural form

Suffixing the plural morpheme -wwan

/sa:-wwan/ ‘cows

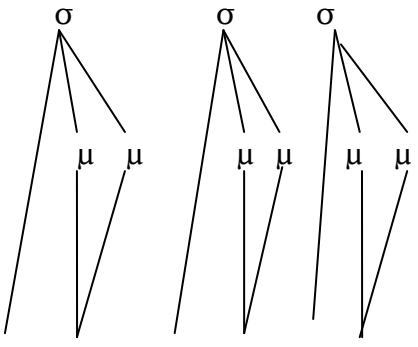
In the above example the singular noun /saʔa / ‘cow’ has a moraic structure of Cμ.Cμ while it’s plural /sa:-wwan/ ‘cows form has Cμμμ.Cμ.

3. -le:

(18) a) 

Singular form

/me:ʃa: / ‘tool’

b) 

Plural form

Suffixing the plural morpheme –le:

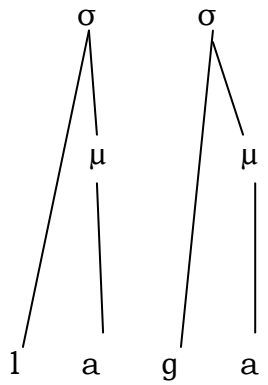
m e ʃ a l e

/me:ʃa:-le: / ‘tools’

In the above example the plural suffix is simply added without any process taking place in the singular form. The structure of the singular /me:ʃa:/ ‘tool’ is moraically Cμμ.Cμμ whereas the plural /me:ʃa:-le: /‘tools’ is Cμμ.Cμμ.Cμμ.

4. -e:n

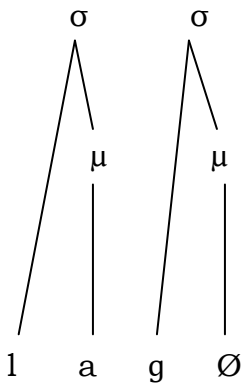
(19) a)



Singular form

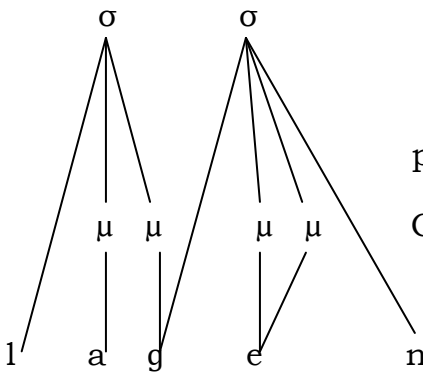
/laga / ‘river’

b)



deletion of the final vowel /a/

c)



plural form

Gemination of the medial consonant /- gg-/ and suffixing the plural morpheme –e:n

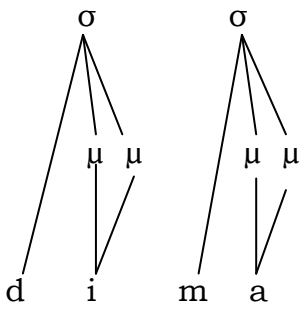
/lagg-e:n / ‘rivers’

In pluralizing /laga / ‘river’, first the final vowel /a/ is dropped and then the plural morpheme –e:n is suffixed /lagg-e:n / ‘rivers’. Thus, the moraic structure comes out as Cμμ.CμμC.

3.3.2. The Syllable Structure of Adjectives

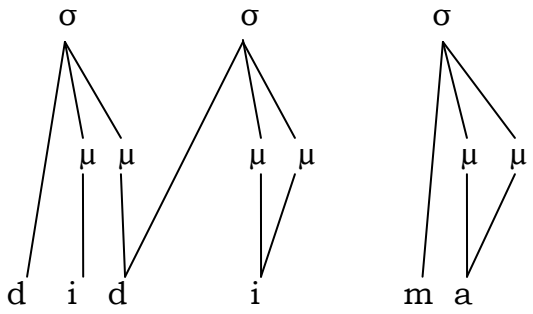
Adjectives, in the language, agree in number with the nouns they modify. The plural form of most adjectives is constituted by partial reduplicating that is, the reduplication of the first syllable. If the first syllable is heavy, it is mostly simplified or reduced to light. For instance, the plural form of /di:ma: / ‘red’ (m.) is /di-ddi:ma:/ ‘red’ (pl., m.) that is, the singular CV:CV: pattern changes to the plural CV- CCV:CV: pattern. Unlike the reduplicated from, the syllabification of the plural form appears as CVC.CV:CV: /did.di:.ma:/ ‘red’ (pl., m.). As for the moraic structure of the singular and plural form of the word, let us look at the example below.

(20) a)



/di:ma: / ‘red’

b)



/diddi:m-a:/ (m.) ‘red’ (pl.)

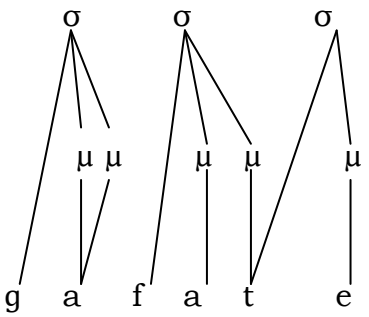
In the example above, the singular form /di:ma:/ ‘red’ has two heavy moras

(Cμμ.Cμμ) while the plural /diddi:ma:/ 'red' (pl.m.) has three heavy moras (Cμμ.Cμμ.Cμμ).

3.3.3. The Syllable Structure of Verbs

Harar Oromo verbs inflect for person, gender (in the third person singular), tense-aspect, mood, and voice as well as for negation. For instance, the verb /ga:fat-t-e/ 'she asked' is inflected for third person singular, feminine and perfective. It can be syllabified as /ga:.fat.te/. The verb consists of three syllables with the mora structure of Cμμ.Cμμ.Cμ. In terms of syllable weight the first two syllables are heavy while the last one is light.

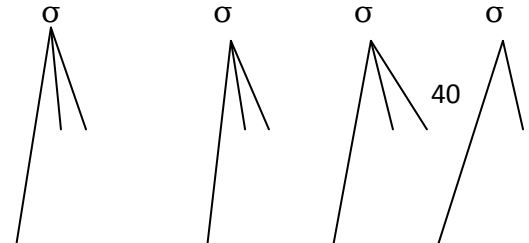
(21)

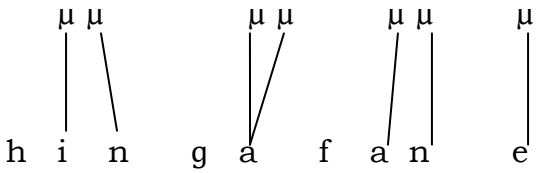


/ga:fat-t-e/ 'she asked'

The negative form of the above verb is structured as /hin-ga:fan-n-e/. But the structure is not inflected for person and could, therefore, be applied to any person provided it is preceded by the required personal pronoun. Thus, the verbal form which means 'she did not ask' is / isi:n hin- ga:fan-n-e/ (isi:n 'she' hin- ga:fan-n-e 'did not ask'). The first –n- in the verb stem is the result of the assimilation of –t- by the –n- that follows it (ga:fat-n-e > ga:fan-n-e). The syllable structure of the negative verb stem, hin-ga:fan-n-e is: hin. ga:. fan. ne. Moraically it consists four syllables; the first three heavy and the fourth one light (Cμμ.Cμμ.Cμμ.Cμ). Below is the diagrammatical representation.

(22)





/hin-ga:fan-n-e/ 'did not ask'

In this chapter, first, the syllable types of Oromo were identified: CV, CVV, CVC and CVVC. They are all based on the syllable template C V(:) (C). Distinction has also been made between open and closed syllable. While the former has no coda the latter does. Apart from the preceding important issues, most of the chapter has been devoted to moraic analysis. Accordingly, words were syllabified; syllables were assigned moraic value and were diagrammatically represented. These were thoroughly discussed based on examples from Harar Oromo. The next chapter deals with some syllable related phonological processes in Harar Oromo.

Chapter Four

4. Syllable Related Morphophonemic Processes in Harar Oromo

This chapter is concerned with phonological processes including consonant assimilation, deletion and epenthesis.

4.1. Consonant Assimilation

Assimilation is a common phonological process in which a sound becomes more like a neighboring sound (O'Grady and Dobrovolsky 1987:42). Assimilation may be partial or total.

Derib (2006:80-82) points out four criteria to classify assimilation:

a. *Shared feature*: This criterion concerns focusing on the place of articulation, manner of articulation or voice.
b. *Degree of assimilation*: Assimilation may be partial or total. In the case of partial assimilation a sound becomes partially similar to a neighboring sound whereas in total assimilation a sound become identical to the sound that influences it.
c. *Direction of assimilation*: This is a criterion of movement of the feature that influences a neighboring sound. The direction of assimilation could be progressive or regressive. If a sound influences or assimilates that follows it, the processes is progressive assimilation. But if a sound assimilates a sound that precedes it, that is regressive assimilation.
d. *Proximity of the sounds that are involved in assimilation*: This concerns whether the assimilating and assimilated sounds are immediately next to each other or not. If there is no intervening sound between the two, that is, if the two sounds are next to each other the process of assimilation is known as contiguous assimilation. But if the two sounds are separated by intervening sound(s), the resulting assimilation is called non-contiguous assimilation.

The following is an example of partial regressive assimilation in a word from Harar Oromo.

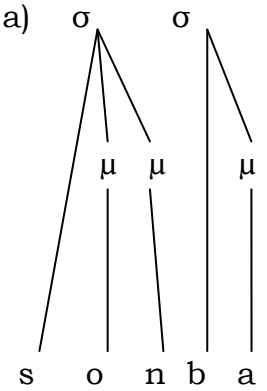
(1) **Underlying Representation** **Surface Representation**

a. /sonba/ 'lung' ⟶ [somba] 'lung'

b. /hangasu: / 'till then' ⟶ [haŋgasu:] 'till then'

In (a) of the above example, the alveolar nasal /n/ takes the labial feature of the following /b/ and changes to the bilabial nasal /m/. The case is that of /b/ partially assimilating /n/. Since the direction of assimilation is backwards, it is known as regressive assimilation. In (b), too, we observe regressive assimilation where the velar /g/ shares its velar feature with the preceding /n/ thus changing it from alveolar nasal to velar nasal /ŋ/. In both (a) and (b), since there is no intervening sound between the assimilating and assimilated sounds, the process of assimilation is contiguous. The above example (a) can be interpreted as follows.

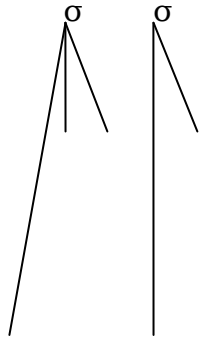
(2) a)

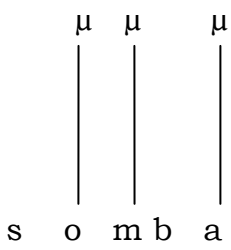


Underlying Structure

/sonba/ 'lung'

b)





Surface Structure

[somba] 'lung'

In the above moraic representation, there is no structural difference between the underlying and the surface structures. The only difference is a change in place of articulation. The voiced alveolar nasal sound /n/ is assimilated to the voiced bilabial nasal sound [m] due to the influence of the neighboring voiced bilabial plosive /b/. Furthermore, the syllable pattern and the moraic representation of the structures in both (a) and (b) is Cμμ.Cμ.

Apart from partial assimilation, total or complete assimilation also occurs in the language. The following are examples of such an assimilation.

(3) **Underlying Representation Surface Representation**

a. /bar-**n**-a/ 'we learn' ⟶/ bar-**r**-a/ 'we learn' = n > r r/_
b. /fi**d**-n-a/ 'we bring' ⟶/fi**n**-n-a/ 'we bring' = d > n _/n
c. /gal-**n**-e/ 'we are back home'⟶/gal-**l**-e/ 'we are back home' = n > l l/ _

In all the above three examples, we observe total or complete assimilation. In (a), the alveolar trill /r/ assimilates the alveolar nasal /n/ to the alveolar trill /r/; hence progressive-contiguous-total assimilation. In (b), the process is regressive-contiguous-total assimilation while in (c) progressive-contiguous-total assimilation. In terms of syllable and mora, no difference is observed between each pair, that is, between the underlying representation and the surface representation. For example, in (a), /barna/ 'we learn' and /barra/ 'we learn' are syllabified as /bar.na/ and /bar.ra/ respectively. Moraically also they are represented as Cμμ.Cμ and Cμμ.Cμ respectively.

4.2. Deletion

Deletion is a kind of phonological process where the existing sound in a word is deleted (missed). The segment that is deleted may be a vowel or a consonant. In Oromo, for instance, as we have seen earlier, the glottal plosive /ʔ/ is deleted word initial position as in the following examples.

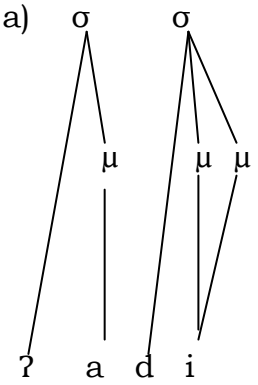
(4) **Underlying Representation** **Surface Representation**

a. /ʔadi:/ 'white' ⟶ [adi:] 'white'

b. /ʔa:ra/ 'smoke' ⟶ [a:ra] 'smoke'

Structurally, the transformation process from the underlying representation to the surface representation can be illustrated as follows.

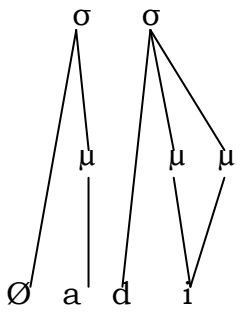
(5) a)



Underlying Representation

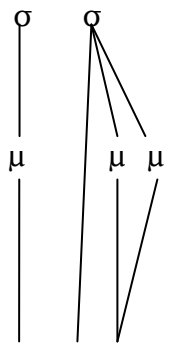
/ʔadi:/ 'white'

b)



Deletion of the glottal plosive/ʔ/

c)



Surface Representation

[adi:] 'white'

a d i

In the above example, before the deletion process syllabically the word is CV.CVV but after deletion the word becomes V.CVV. The first syllable is mono-moraic while the second bi-moraic.

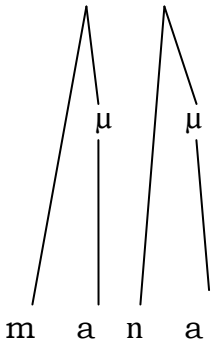
Like consonants, vowels may also be deleted. Let us look at the following example. In the plural form, the final vowel /a/ is deleted and compensated by geminating the /n/.

(6)

Singular	**Gloss**	**Plural**	**Gloss**
/mana/	'house'	/man-n-e:n/	'houses'

The pluralization along with the deletion process can be observed in the following moraic representation.

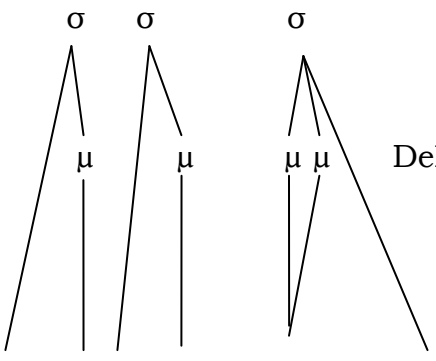
(7) a)



Singular Form

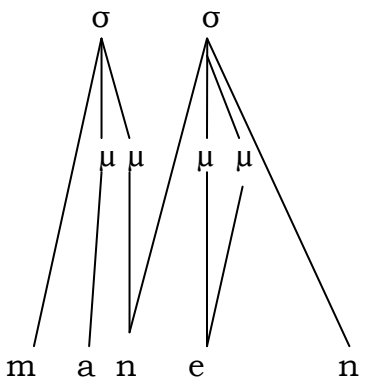
/ mana / 'house'

b)



Deletion of the vowel / a/

m a n Ø e n

c) 

Plural Form

/man-n-e:n/ 'houses'

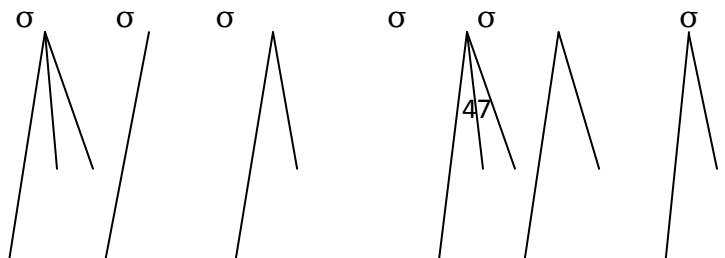
4.3. Epenthesis

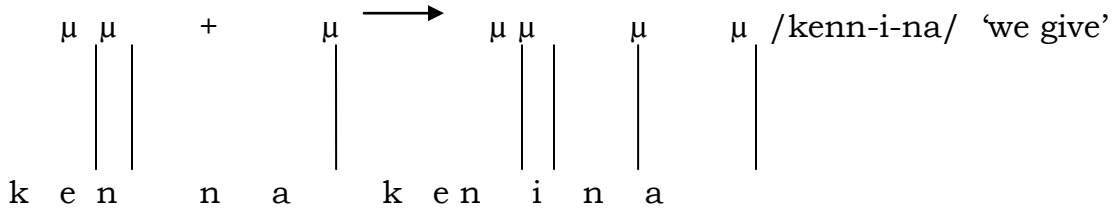
Epenthesis is a process in which successive sound are separated by an intervening segment (Matthews 2007:124).

According to O'Grady and Dobrovolsky (1987:44) it is a process of inserting a vowel or a consonant segment within an existing sequence of segments. The following are examples from Harar Oromo.

(8)	**Verbal Stem**	**Suffix**	**Epenthesis /i/**
a.	/kenn-/ 'give'	/-na/ 1Pl.IPRF	/kenn-**i**-na/ 'we give'
b.	/kofl-/ 'laugh'	/-te/ 2sg./3f.sg.	/kofl-**i**-te/ 'you/she laughed'
c.	/ʔarg-/ 'see'	/-ne/ 1Pl. PRF	/ʔarg-**i**-ne/ 'we saw'

The moraic structure of (a) appears as follows.

(9) 



The verbal stem /kenn-/ has two moras (Cμμ). The suffixation with /-na/ calls for epenthesis which is required to break the consonant cluster /kennna/ resulting in /kenn**i**na/. Now the moraic structure of the latter word appears as Cμμ.Cμ.Cμ

Chapter Five

5. Summary and Conclusion

The thesis discusses two major issues pertaining to Harar Oromo: syllable structure and syllable based phonological processes. The moraic approach is

employed to deal with the syllable structure. As opposed to other models like CV skeleton and X skeleton, I found this model to best represent syllable structure.

The thesis is organized around five chapters including this one. Chapter one, treats background issues, reviews of previous related studies and sets the structure of the thesis. It provides the objectives, the theoretical framework and the methodology of the study.

Chapter two revisits the segmental phoneme of Oromo (Harar Oromo) while chapter three presents the syllable structure of Harar Oromo. In the latter syllable-internal structures, syllabification, basic syllable types and moraic structures are analyzed and discussed. Furthermore, the syllable structures of nouns, adjectives, and verbs of Harar Oromo are dealt with.

In chapter four, I examine some syllable related phonological processes in Harar Oromo from the viewpoint of the moraic approach. Accordingly, such phonological processes as assimilation, deletion and epenthesis.

The syllable – internal structure of Harar Oromo can be handled by the C V(:) (C) template. This means, in the syllables of Oromo the onset and the nucleus are obligatory constituents whereas the coda is optional. The nucleus can also be optionally short or long. Beniyam (1988:18) suggests that both the onset and the coda are optional constituents in Oromo. For him, words like /adi: / 'white', /afur/ 'four' and /onne: / 'heart' do not have onset constituent. However, the present study underlines that underlyingly such words as the preceding ones begin with a glottal plosive /ʔ/ which disappears in the surface representation. Therefore, the words are underlyingly represented as /ʔadi: / 'white', /ʔafur/ 'four' and /ʔonne: / 'heart'. In addition, related to an onset and coda, the language does not permit gemination in the two positions. However, word medially, a cluster of two consonants is permissible.

The basic syllable types of Harar Oromo, as in Oromo in general, are CV, CVV, CVC, and CVVC. The language treats CV and CVC syllables as light or mono-

moraic. However, according to the Weight-by-Position rule, if the final C of the CVC is followed by another C it can have a mora value. This means, if a consonant is followed by an onset consonant of another syllable, it could bear weight. Fore example, /farda/ 'horse' can be syllabified as CVC.CV. In this word, the coda of the first syllable /fa**r**-/, that is /r/bears one mora because it is followed by the consonant onset of the following syllable /-**d**a/. Hence, the moraic representation of the syllable /far-/ (CVC) would be Cμμ. A word with a gemination behaves in the same manner. For instance, the word /gudda: / 'big' can be syllabified as CV.CV: and moraically structured as Cμμ.Cμμ. That is, the coda of the first syllable bears mora since it is followed by another consonant, the onset of the next syllable.

As indicated above, one of the major topics deals with in the thesis concerns phonological processes; among them assimilation, deletion and epenthesis. In the case of assimilation, both total and partial types have been treated. For instance, in the change from the underlying word /sonba/ 'lung' to its surface form [somba] 'lung' partial assimilation is involved. That is the bilabial plosive /b/ regressively lends its labial feature to /n/ and thus the latter changes to /m/. This is what is known as partial assimilation. On the other hand, in changing the underlying form of /barna/ 'we learn' to its surface form [barra] 'we learn', totally assimilation is observed; that is, /r/ progressively assimilates /n/ totally and the latter becomes /r/.

Concerning deletion, the disappearance of the glottal plosive /ʔ/ word initially in the surface representation of such a word as (ʔ)adi: 'white' is a good example. Like consonants vowel could also be deleted. For example, in the process of forming the plural of the word /nama/ 'man, person' as illustrated in the following representation: /nama/ 'man, person'→/namØ/→/nam-o:ta/ 'men', people'. In this process, /a/ is deleted before the plural morpheme /-o:ta/ is suffixed.

The third type of phonological process treated in the thesis is vowel epenthesis or insertion. In Oromo (Harar dialect) the occurrence of more than two consonant clusters in word medial position is not allowed. Thus, the epenthesis /i/ is inserted to break the cluster. Similarly, the language does

not permit a cluster of two consonants word initially and word finally. Therefore, to break the cluster epenthesis takes place.

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Appendix

A List of Oromo Words of the Harar Dialect

Below is a list of Nouns, Adjectives and Verbs in Harar Oromo. The word list is in the Oromo alphabetical orders.

No	***Harar Oromo***	***English***
1.	/(ʔ)abba:/N	father

2. /(ʔ)abdi:/N wish

3. /(ʔ)adi:/ Adj White

4. /(ʔ)adde:ɲa/N whiteness

5. /(ʔ)adu:/ N Sun

6. /(ʔ)afa:n/ N mouth

7. /(ʔ)adʒdʒe:se/N make smell

8. /(ʔ)alhada/N Sunday

9. /(ʔ)amata/N year

10. /(ʔ)angafa/N elder

11. /(ʔ)arba/N elephant

12. /(ʔ)arba:/N Wednesday

13. /ba:la/N leaf

14. /ba:ti/N month

15. /bakˀu:/V melt

16. /baru:/V learn

17. /bare:da: /Adj (m.) /bare:ddu: / (f.) beautiful

18. /bahu:/V go out

19. /bakka/N place

20. /balfa/N dirty

21. /bine:nsa/N beast (wild animal)

22. /biʃa:n/N water

23. /biʃinga:/N millet

24. /bijja/N country

25. /bofa/ N snake

26. /bona/N dry season

27. /boju:/V cry

28. /bulti:/N province (life)

29. / čˈirrača/N sand

30. /da:bbo/N bread

31. / da:ku:/N flour

32. / daɗaba:/Adj weak

33. /da:ʔima/N child

34. / da:lača/Adj gray

35. /dallaja/N fence

36. /dalagu:/V work

37. /darbu:/V throw

38. /de:mu:/ V go

39. / kʼanana or qorra:/N coldness

40. /di:ma:/Adj (m.) /di:m-tu(f.) red

41. /dongora:/N hoe

42. /dogoggora/Adj wrong

43. /du:ba/N behind

44. /duʔu:/ V die

45. /dure:sa/Adj (m.) /dure:tti:/ (f.) rich

46. /dukkana/Adj dark

47. / duwwa:/ Adj empty

48. /ɖala:/N female

49. /ɖe:ra:/Adj (m.) /ɖe:rtu:/ (f.) tall

50. /ɖi:ga/ N blood

51. /tʼikʼa:/Adj few

52. /ɖi:ra/ N male

53. /ɖi:tu:/V kick

54. /ɖukkuba/N pain /illness

55. /(ʔ)ergu:/V send

56. /falʔa:na/N spoon

57. /farda/ N horse

58. /farʃo:/N local beer

59. / fat'ara/N breakfast

60. /feɖu:/ V want

61. /fodda/N window

62. /fo:li:/ Adj small

63. /fo:n/ N meat

64. /fu:la/N face

65. /fuŋŋa:n/N nose

66. /furd-a:/Adj (m.) /furd-o:/ (f.) fat

67. / gaba:b-a:/Adj (m.) /gaba:b-du:/ (f.) short

68. / gadifago:/ Adj deep

69. /ga:fa/N horn

70. /ga:faču:/V ask

71. /ga:la/N camel

72. /ga:nge/N mule

73. /ga:ri/ Adj good

74. /galu:/ V get back home

75. /garu:/V see

76. /gara:/N stomach

77. /garga:ru:/ V help

78. /gobla/N wing

79. /goggoga:/Adj dry

80. /gola or kuta:/N room

81. / gudda:/Adj big

82. /gurra:ča/ Adj black

83. /gu:rra/ N ear

84. /gurgur/V sell

85. /gu:tu:/ Adj full

86. /harre:/N donkey

87. /ha:da/N rope

88. /ha:ɗa/N mother

89. /ha:ɗa:wa:/ Adj bitter

90. /hafu:ra/N breath

91. /hama:/ Adj bad

92. /hara/N lake

93. /haro:/N pond

94. /ha:raja/ Adj new

95. /ha:sawu:/ V converse

96. /ha:tu:/ V steal

97. /hawu:/ V wish

98. /heddu/Adj many

99. /himu:/ V tell someone

100. /hira:ta/ N diner

101. /hijje:sa/ Adj poor

102. /hoʤi:/N work

103. /huč'u:/N cloth (dress)

104. /humnaqabe:ssa/Adj powerful

105. /hula:/N door

106. /(ʔ)illilli:/N flower

107. /(ʔ)ilke:/N teeth

108. /(ʔ)isni:na/N Monday

109. /(ʔ)ijju:/V bark

110. /ʤaba:/Adj hard

111. /ʤibba/Adj hate

112. /ʤibbu:/ V hate

113. / ʤi:ʧa/Adj wet

114. /ʤira:ču:/ V present

115. /ʤiru:/V exist (live)

116. /ʤim'a:ta/N Friday

117. /kabaʤa/Adj honor

118. /kamisa/N Thursday

119. /karra/ N gate

120. /kiʤiba/N lie

121. /ke:llo/Adj yellow

122. /kubba:/N ball

123. /k'aba:ču:/V have

124. / k'alla:/Adj (m.) /k'allo: / (f.) thin

125. /k'e:nsa/N nail

126. /k'oŋe:/N or /gurmu:/ shoulder

127. /kʼora:n/N wood

128. /kʼotu:/V dig

129. /kʼulkʼullu:/ Adj clean

130. /kʼuťusu/N youngest

131. /la:fa:/ Adj soft

132. /la:lu:/V look

133. /la:kʼana/N lunch

134. /lafa or dači:/ N earth

135. /lakk:wu:/V count

136. /lap'e:/N chest

137. /le:li/N midnight

138. /le:nč'a/N lion

139. /lolu:/ V fight (to be angry)

140. /lu:ka/ N leg

141. /ma:llakʼa/N money

142. /madda or burkʼa:/ N spring

143. / magari:sa/Adj green

144. /mark'a:/N poridge

145. /mi:za/N table

146. / miʔa:wa:/Adj sweet

147. /muʤi:/N waist

148. /mo:fa:/Adj old(out dated)

149. /mo:jje:/N pounding pot

150. /muru:/ V cut

151. /na:nawu:/V circle

152. /nagada/N business

153. /nagaja/Adj peace

154. /nama/ N man or person

155. /ɲa:ta/N food

156. /ɲa:ču:/ V eat

157. /(ʔ)obbole:sa/ N brother

158. /(ʔ)ogesa/ N expert

159. /(ʔ)okkote:/N pot

160. /(ʔ)onne:/ N heart

161. /po:lisi:/N police

162. /ra:ča/N frog

163. /reʔe:/N goat

164. /rifensa/N or/dabbasa:/ N hair

165. /ro:ba/N rain

166. /safti:/N Saturday

167. /sa:ndu:k'a/N box

168. /sala:sa:/N Tuesday

169. / salp'a:/ Adj easy

170. /sagal/N nine

171. /se:nu:/V enter

172. /sirba/N music or dance

173. /sire:/N bed

174. /soddaču:/V fear

175. /so:gida/N salt

176. /sukkara/N sugar

177. /ʃan/N five

178. /ʃe:ko:/ story

179. /ʃimbirro:/N bird

180. /ta:ʔu:/V sit

181. /tahu:/V happen

182. /takka/ N (f.) /tokko/ N (m.) one

183. /te:p'a/ N strap

184. /teŋŋa/N (f.) /keŋŋa/N (m.) ours

185. /tijja/N (f.) /kijja/N (m.) my

186. /torba:n/N week

187. /tumtu:/ N blacksmith

188. /ťa:lo:/N barber

189. /ťuri:/ Adj dirt

190. /(ʔ)ulfa:ta:/Adj (m.) /ʔulfa:ttu:/ Adj (f.) heavy

191. /(ʔ)ummata/N people

192. /(ʔ)umri:/N age

193. /(ʔ)uta:lu:/V jump

194. /wa:du:/V bake

195. /waʤʤi/N together

196. /wara:bessa/N hyena

197. /ja:du:/N think

198. /ja:daču:/V remember

199. /ja:ʔu:/V flow

200. /zaji:ta/N oil