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Full length Research Paper

Tonality of Yemsa as a Cause for Linguistic Polysemy.

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Abstract
The study on Yemsa language tone variations and Polysemy relation has under gone using mixed method of data gathering and data analysis. The whole data analyses of Yemsa linguistic items reveal that Yemsa to be a tonal language. The tone range goes from one–three plus two additional features. In the main, it can be taken as a language of three- tone-range, but with a total of five features, i.e., Low, Mid, High and two glides.The objective of the study was to see how polysemous features apply in Yemsa. Therefore, the linguistic items with the same segmental form, but with different tone may not be examples of polysemy. However, the linguistic forms that show differences in meaning but having the same tone were found to be good examples of polysemy. Some vowels are very short and abrupt in production; as a result, they make difference in meaning. Others are long and extra-long- in which we do not find in other none tonal languages. In addition to the vowel length, some language items show tone variation that is high, medium and low plus rising and falling tone on the segments. This area requires further collaborative effort to make it part of meaningful linguistic knowledge. Though the investigators strongly believed that they did their level best, they also call for further team studies so that it could cast a new light in the study of such a less described and documented languages like that of Yemsa in particular, and in linguistic realm in general.

Key words: Yemsa, Tone, polysemy, tone levels, meaning.

Introduction
Linguists' emphasize the importance of categorization in terms of understanding, naming, spacing, and utilizing. John (2005) in his introduction states,   "Our ability to function in the complex physical world depends on elaborate categorizations of things, processes, persons, institutions, and social relations." Having shown the general importance, John has specified why linguists are interested in linguistic categorization or language description. He briefed two reasons as core area of interest in the field. The first one is categorizing a word very often involves naming it, which could enable us to categorize as a specific lexical item from other contrasting or competing lexes. For instance, to set apart a tree from a bush, a shrub, or an electric pylon can be cited.

The second, language itself is an object of categorization. Like every environmental phenomenon, every linguistic utterance is a unique event which is used as a means of communication to recognize the environment. Thus in a flux of language events, instances of linguistic categories such as phonemes, words, word classes, clause types, etc., are evident. Thus, acoustically different sounds get categorized as instance of the same Phoneme; sound-meaning relations get categorized as the same lexical or syntactic category like noun, verb, transitive, intransitive, phrase, clause, etc. All these helped us for handling the language carefully and properly.

(Tuggy, D. 1993, Tsohtzidis, S. 1990, Taylor, R. 2005) Studies on polysemy and meaning chains have shown very few English lexes like bird, school, climb, pig, pupil etc., as examples of polysemy. They are also shown as a means of ambiguity, vagueness and context. They haven't addressed in terms of tone variations as source of meaning difference. Moreover, they have shown some two – four meaning variations with the same linguistic form. However, Yemsa language seems to exhibit two-seven meaning variations with and without tone differences. Local studies done in this regard are very few. The degree of its tonality also seeks further study. Hence, systematic investigation on its tone and meaning differences is believed to be indispensable.

Language learning is a primary need for human being to mix with their environment efficiently. Mother tongue (L1) acquisition is also a core component that facilitates or impedes the active development of inquisitor. In L1 learning, specifically, for the kids whose impregnation age is subject to effective langue acquisition, the burden of acquiring tones of a language will be taxing. Moreover, for those who learn the language as a second local language will also be more demanding and tough. Since 2011 Yemsa (language) has being taught as L1 for the native speakers and as L2 for non- Yemsa speakers- like students from Oromo and Hadiya language-backgrounds in Yem Special Woreda in SNNPS. The lesson Began from grade one at 2011 and this year (2014) it reaches grade four. Though the beginning is admirable, lack of studies on the language is hoped to be challenges for educators as well as the learners. As beginners, the most crucial importance lies on lexical items for the very fact they constitute the sole base for the language learning.

Learning a word meaning can be a tempting task, but identifying and deriving a numbers of meanings from a single lexis is more challenging for both L1 and L2 learners.

The study conducted by Wedekind (1990)) on Bench and Yemsa phonemes, tone and words was a good beginning for both North Ometic languages (as the author's classification) Bench and Yemsa that they share certain features in words structure, tone correspondence , syllable and word patterns. The study has tremendous contributions in that it formulated phoneme, consonant and vowel tables. The article helped to clear doubts on Yemsa being a tonal nor not, and gave insights on Yemsa syllables. Plus tone and syllable relation i.e. Yemsa tone does not totally rely on syllable, but it has its own unique nature. Cerulli (1938) also had sensed this uniqueness ''…it differs at all markedly''.

However, for study was conducted by a foreigner, and informants' acoustic knowledge and nature of the study some minor flows were observed. Some of the flows, sorry to say, were committed due to the influence of possibly Wollayita language background non-existing phonemes are added. For example, /ʔapa/ instead of/ afa/ grandmother/ʔaapa/ eye instead of /afa/, and /ʔorpo/ after instead of /orfo/ do not represent Yemsa. The glottalization/ʔ/ also seems a bit exaggerated. (P: 85).

Besides, some contrasts made seem inappropriate. For instance, /buʔ ro12/ mule versus buuʔro forest instead of/buʔlo/ mule vs/ buuʔru/ forest. Another instance, /soma 22/ hair and /sooma32/ fasting which is a borrowed word original Amharic/ʦoma/, as to the current group's believe they cannot be contrastive pairs because *soma* hair can be contrasted with *sooma* a bamboo stick, not with /ʦooma/. Besides, the initial morpheme is not /s/ but /ø/ like that of think in its plosive form.

Here, the focus of the Wedekind (1990) study was comparative study on phonemes, tone, and words, the current study differences in that it limited itself to polysemy and tone relations.
Others studies conducted on Yemsa or Ometic languages also differ in scope and focus. Kase (1987) has tried to describe the structure of simple declarative sentence. Derib (2004), also, did a research on "The structure of Noun phrases in Yemsa, Azeb Amaha 1994 conducted a study "Verb Derivation in Ometo The case of Malee, Basketo, Kullo, and Koorete, but she did not include Yemsa in her studies. Hirut (1993) described the word formation of Yem. In all cases the tone was neglected. Recently, Zaugg - Coretti (2013) did a research on the verbal system of Yemsa, in the phonology section identified three basic tone patterns. All of the previous researchers overlooked the tonal study on Yemsa, though the language is tonal alike other Omotic languages. Thus, study on Yemsa related to tone, and associated to the meanings it conveyed, which was believed to be understudied, was found to be of a paramount importance and worthwhile.

This study was undertaken To explore the extent of the tone of Yemsa vis-à-vis the extraction of different meanings from a single linguistic form; To list down as much as possible the *tonal* Yemsa language items and explain the nature of the tones/the level of the tone ;Examine linguistic feature that effect meaning differences and Suggest the pedagogical approach to address in teaching the tonal items.

Tone and polysemy
Tone
Tone, according to Halliday (cited in Taylor 2005:188), is a rhythmically and intonationally coherent stretch of speech known as the tone unit. The tone unit contains one or more stressed salient syllables which occur at approximately regular intervals of time that is responsible for the rhythm of English speech. It is analyzed in terms of tonic syllable at or above clause level. This so because it will be helpful to identify the tone bearer: the center of the intonation contour with which the tone unit is spoken. Halliday and other British linguists recognize five tones in standard British English: rising, high rising, low rising, falling-rising, and rising-falling. In this line, the study also aimed to examine the compatibility with the grouping made with Yemsa; (Wierzbicka, A. (1985), Taylor (2005), MacCwley (1978).

Polysemy
Polysemy linguistically stands in contrast with monosemy in which a lexical item has a single sense. On the contrast, polysemy is the association of two or more related senses with a single linguistic form. For example, the term school has four different manifestations-place where children learn, as administrative division of a university (as in school of sociology), intellectual trend (school of thought), and group of whales. Linguistically the study on the distinction between monosemy and polysemy has a crucial role to play in the study of word meaning, (Cruse 1986, Taylor 2003, Lyons 1977)

Tone Notation
In any tone study there are three terms that require operational distinction: fundamental frequency (F0), pitch, and tone (Maddieson, 1978). F0 is an acoustic term referring to the signal itself: how many pulses per second does the signal contain where, in case of the speech signal, each pulse is produced by a vibration of the vocal folds. The frequency of these pulses is measured in hertz (Hz) where one hertz is one cycle per second. The next term, pitch, is a perceptual term. What the hearer's perception of this signal: is it heard as high in pitch or low in pitch, the same pitch as the previous portion of the signal, or different. The mere existence of F0 differences may not be enough to result in the perception of pitch differences. The F0 changes could be too small to be the result of segmental or

other factors for which the hearer unconsciously compensates. Pitch can be the property of speech or non- speech signals. For example, the music varies in pitch constantly, and we talk of high-pitched scream, bird-call, or squeal of tires.

Tone the third a linguistic feature that refers to a phonological category which distinguishes two words or utterances, and is thus only a term relevant for language, and only for languages in which pitch plays some important linguistic role. The perception of tone is dependent in whole or part on pitch perception, and hence on fundamental frequency. For tone to be perceived as distinct linguistic feature, it signal must signal contain F0 fluctuations, and these must in turn be large enough to be perceptible as pitch differences. Scholars stated that the F0 of a sound, which we perceive as pitch is primarily determined by the frequency of vibration of the vocal folds inside the larynx (Ohala1978& Hirose 1997).

Over time linguists working in different geographical areas have developed different traditions, each well suited for the languages in question, quite different from each other. One of the little communality reported is that nearly always transcribed on the syllable nucleus, which is usually a vowel.

Table 1. African linguists' tone notations:

High tone	acute accent	á		
Low tone	grave accent	à	or unmarked	a
Mid tone	level accent	ā	or unmarked	a

Thus a word with a sequence of HLM tone would be shown as ádàmā or ádàma. In a -two-tone language a word with a HL sequence would be shown as either ádà or áma. For extra high or low tone there is also tradition of using double acute accents for extra high ä and for extra low ä. Contour tone are shown by combination of levels:

Falling from high to low acute plus grave â
Rising from low to high grave plus acute ǎ

Down step tone is traditionally shown by an exclamation point before the down stepped syllable or its vowel. In á!dá the second high is down stepped; (YIP, 2002 :19)

Asian linguists have their own way of notations. They represent tone numerically in a system known as the "Chao tone letters' (1930). They are numbers that divide the natural range of normal speaking voice into five levels: 1 as the lowest and 5 as the highest. It is believed that anything beyond 4 being exceedingly rare and 5 level is taken to be the maximum in any language.   The tradition of labeling is that each syllable is given zero to three digits, usually written after the segmental transcription and often, but not always superscripted. Zero digits means the syllable has no phonological tone of its own. Most syllables are given two digits, one for the starting pitch and one for the ending pitch. If the syllable is very short only one digit is often used. Three digits are used for tones which change direction in the middle of the syllable, so that the pitch of the peak or trough must be indicated. Asian linguists labeled them as level tone, contour tone, and complex tone.

Table 2. Asian linguists' tone notations

Level tones	high	ta55	tak5	
	mid	ta 33	tak3	
Contour tones:	high rising	tak35		
	low falling	ta31		
Complex tones	low falling-rising	ta214		
	low rising- falling	ta 231		

As it was reported that the digits may be accompanied by small diagrams of the tonal shape, drown next to a vertical stave showing the range of the voice in Chinese, [-|], and in Pinyin, the alphabetic writing system used on mainland China, shows the tone of standard Putonghua with a set of accents quite different from the African ones are shown below.

Table 3. Chinese linguists tone notations

mā 55	m ǎ 21(4)	ma toneless
má 35	m à 41	

The American linguists use numbers but the digits are reversed, so 5 shows low tone and 1 shows high tone. For level tones only one digit is used, and contours are often shown with a hyphen between the two digits.

Table 4. Contour tone notations

Level tones:	high	si1
	Low	si4
Contour tones:	high rising	si3-2
	High falling	si2-3

However, the current study adapted the numeric tone notation system in its increasing order in which number (1) shows the lowest; and 3 the highest**.** Moreover, other features were also treated. This goes in line with Wedekind (1990:78) that states, Yemsa exhibits three phonemically distinct tones and two glides: Low (1), Mid (2), High (3), and Glides (Î2; Î 3 i.e., Midrise and High rise **).**

Contrastive Tone over View of Tonal Languages

 Yip (2002) estimates 60-70 per cent of the world's languages to be tonal. She classifies the world into three zones to show the tonal language, i.e., Africa, East and South East Asia, and America. This is because most of tonal languages are found in those regions. According to Yip Sub –Saharan Africa is taken as the home and the largest concentration of the tonal languages of the world.   As the writer, the languages of Africa display complex tone systems; surprisingly every language family, with exception of Semitic and Berber, are tonal. The Niger-Congo family languages which constitute most of the Sub- Saharan languages are also tonal. Because of this fact it is widely accepted that understanding African Language systems as a foundation for the study of other areas from a theoretical perspective (Odden 1995, Bendor-Samuel 1989; Yip, 2002). Linguists have asserted that pitch difference often prevails in all languages. But if the language is non-tonal they are not contrastive, and not perceived by the speaker/ listener. However, when a language becomes tonal, the pitch differences come to the fore, taking on a contrastive role.

Contour tones and their locations

It was asserted by linguists that when a language is reported to have a contour tone, like a falling one, one must first ask where this contour is found. In order to locate the position, three possibilities were proposed. First it may be found only on polysyllables, so that each syllable is essentially level, with the first high, and the second low, but the word as a whole has a fall. In such cases the language can be straightforwardly described with level tones only. Assigning merely tone to syllables need not be treated as contour, or tone language. Second possibility is that a contour may occur within a single syllable, but only if that syllable is heavy (a long vowel or closed syllable).Hausa was cited as an example to have falling tones only on heavy syllables. It is generally accepted that contour tones to be sequences of level tones that tones are properties of weight units (morass), and therefore, only if a syllable has two moras, that it can bear two tones giving rise to a surface contour. The need for two moras imposed by contour tones can cause vowel lengthening. In Rongxian Chinese, syllable may end in low vowels, diphthongs, nasal, or unreleased oral stops. Syllables ending in sonorant may bear level or contour tones, presumably because the nucleus and the following sonorant have their own mora. Stop-final syllables may only have level tones, suggesting that non-sonorant cannot be moraic. In order to realize the contour, syllables must be bi-moraic. Thus stop change, the final stop to the corresponding nasal, which can be moraic, and thus can bear a tone.

The third possibility suggested was that contours may occur on any syllable, light or heavy. In general two analytical options are open to the phonologist. First, these contours could be sequences of levels, and the language allows a syllable or mora to have more than one tone attached to it. The second, these contours are single phonological objects, and thus can show up on any vowel, mora, or syllable. Tone mobility is also another reported trait in African languages. It occurs when morphemes are concatenated into words or phrases; the tones of one morpheme may migrate some distance from their point of origin. African topologists use lexical tones in which they are indicated by typographical accents over the vowel.

Table 5. Tone Mobility in African Languages

á	high	H
à	low	L
â	falling	HL
ă	rising	LH
ã	falling-rising	HLH
aˋ	rising- falling	LHL
ā	mid	M

Asian-Chinese Linguists Tone Notations

a.	ma55	7	H	mother	tone one
b.	ma35	٦		LH	hemp	tone 2
c.	ma 21(4)	⅃	L(H)	horse	tone 3
d.	ma51	γˋ	HL	scold	tone 4

From the Asiatic, Africa and American transcription methods the study found that the Asiatic numeral system appeals relevant to the study at hand. This because some scholars used it and the current researchers also found it relatively easy to read and interpret. The tones contrast in Yem looks (Low, High, Mid) Thus the study uses numbers 1-3 in which 3 shows the high, and (1) indicates the low tone.

Materials and Methods

Study area

The study was conducted on Yem special district in Southern Nation Nationalities and peoples regional state. In Federal Democratic Republic of Ethiopia. Yem district is situated in the south western part of Ethiopia about 200 kilometers far from Addis Ababa, on the way to Jimma. The language in focus for the study is called Yemmisa. Yemmisa is an Omotic under the gimojian sup grouping, which

includes Bechnon, DIzi, and Sheko languages, all of them are highly tonal languages. Yemmisa is one of the list studied languages alike other Omotic and Ethiopian languages at large.

Research Design
The study employed both qualitative and quantitative approach to data collection and data analysis. The data were analyzed both qualitatively and quantitatively. Frequencies have been presented in percentage. Some elements of the data were given in figures. And other data were presented and described qualitatively.

Data Collection Methods
Initially the researchers went to Yem Liyu Woreda were the language is spoken with little or no major language contact. KeP'o kebele farmer's association was chosen for different reasons: it was believed to get better cooperation, and get quality data because the degree of language contact is very low due to the neighboring languages are very far as a result of wide desert in between them. This was because the influence of the other languages might cause unexpected variable that could bring undesired result. Care has been taken not to include items that are suspected to have borrowed or have different origin. Some items have been excluded because their origin was questioned. The data gathered from 60 female and 40 male subjects. The total number of houses in the kebele was 334. Each house was given numbers and the numbers were written on a piece of paper and we drew lottery. The first 100 houses drown were taken for the data collection. Because each house possibly contains 4-7 female and male subjects, so to get the desired ideal number it was believed to be adequate.

The core investigator is also native speaker of the language. This has helped to discriminate the origin of the linguistic items, and fix them as original documents.

Data Gathering Instruments
The study in the main used audio-recording as data gathering tools so as to capture the tonal items, to identify the stressed items, and their point of production. And Interviewed individuals for verifications; some 25 subjects: 15 female, and 10 male native speakers whose age was above 25 were selected purposively from Jimma and asked to articulate three times at different time intervals. The data were recorded three times to see the variations. Before assigning the tone level three instructors with Linguistic background made listen and the agreed upon tone variation was labeled which was later labeled 1, 11, 22, 33, etc.   Then the researchers examined the nature of the tone depending on the contrastive items shown in the tables. Since the core objective of the study was to examine how meanings differ as a result of tonal change, we focused on the polysemic features of the language. Some of the lists the researchers identified words with possibly the same root, but which differ in meaning were also made the subjects' to produce with little probing. The number of the female is higher because female's utterances are believed to be good source of tonal variations. Initially, crude lexicons that were believed to have contrastive natures have been collected without focusing on any grammatical category. We tried to exhaust the list as far as to the scope of the researchers' or the study subjects' knowledge goes. After obtaining lexicons above 100, we decided to categorize into noun and verb and adjective/adverb. This is because the main categories, according the literature, are nouns and verbs (Leiden 2009).

Sampling Techniques
Sampling techniques used were purposive and random sampling. Purposive sampling was chosen because in order to make a sound judgment, and obtain quality data purposive sampling was employed. Purposively? KeP'o sole kebele was selected, and the age range was limited to 25, because individuals in this age range can somehow discern the tonal variations. To limit the size of the population we used a lottery method to reach at 100 houses and use available female and male subjects. About 120 language items were collected for initial tone analysis, but some were found to be less relevant and a total 108 items were finally analyzed. The study employs Dornyei's (2000), principle of iteration and saturation of data collection and sample size which gives chance to the researcher to go until he feels that searching for additional data will bring no new information to the study.

Ethical Considerations
The research team has obtained legal attachment letter from the Special Woreda to the kebele. The people were also asked for their consent. There was no any resistance observed. Above all, the study employed pseudonyms in order to maintain confidentiality of the informants. And every recording or interview was conducted with full consent of the individuals.

Results
The data revealed that in Yemsa Language there are lexical items which range from two-to- seven meanings within a single linguistic form. The data was analyzed from lexical items those exhibit the highest number of meanings, i.e., seven to two. The writers of this paper are not on the state to claim that the items have been exhaustively gleaned. They believe that a thorough and wider coverage of search using the methods in modern experimental phonetics may bring additional data under this category.

(1) Binary lexical tonal contrasts in Yemsa Language

No.	Lexical Items	Remarks	
1.	aka	2.	kata

3.	basa	4.	kayno
5.	boga	6.	kera
7.	bor'a	8.	kitu
9.	buka	10.	koma
11.	ʧama	12.	mara
13.	ʧawo	14.	mega
15.	da	16.	muma
17.	dajo	18.	oʧo
19.	duma	20.	sawa
21.	fitʧo	22.	ʃo'a
23.	fuli	24.	ʃupa
25.	futo	26.	teya
27.	geʃa	28.	toʤo
29.	guma	30.	tu'a
31.	imata	32.	uki
33.	kama	34.	usha
35.	Kama'o	36.	wira
37.	kasu	38.	wona

In this Package of lexical items, the researchers have identified 38 lexical items which have binary tonal contrasts. In other words, those 38 words have two meanings within one string of lexical item. The meaning deference comes due to tonal variations, the segments or phonemes in both cases remain the same. Each lexical item is shown with its references to the original data source where each item meaning is illustrated. In the data (1) above each of the lexical item stands for two meanings. for example, /aka/ owns two different meanings i.e. with low tone 'water' and with high tone dread hair. Thus, one can easily refer back to each of the data and cheek the meaning. Hence, the researchers have confidence that any interested individual can easily refer to the meanings and their tone variations within the package.

(2) Yemsa Linguistic item with three contrasting meanings

No	Lexical items	Table reference	Remarks
39.	ama	40.	mano
41.	asu	42.	maro
43.	buru	44.	maya
45.	dada	46.	mito
		47.	mu
48.	gana	49.	oda
50.	geba	51.	odo
52.	geya	53.	ota
54.	godo	55.	siko
56.	kawna	57.	soma
58.	kemar	59.	tasa
60.	kewa	61.	wa'ya
62.	kuru	63.	wasa
64.	maga	65.	zagu

In this bunch of lexical items, the researchers have identified 28 lexical items which have three meanings within one branch of lexical item. Each lexical item is shown with its references to the original data where each of the item meaning is illustrated. In the data (2) above each of the lexical item stands for three various meanings, for example, /ama/ owns three different meanings that is, mountain, go and where is he going Thus, one can easily refer back to each of the data and cheek the meaning. Hence, the researchers have confidence that any interested person can easily refer to the meanings and their tone variations within the cluster.

(3): Yemsa lexical tonal contrasts with four contrasting meanings

N0.	Lexical items		Remarks
66.	ʧima	67.	nefo
68.	fitʧo	69.	sama
70.	futu	71.	shaki
72.	gala	73.	ʃe'a
74.	gama	75.	suna

76.	kala	77.	tato
78.	kamo	79.	tiʃu
80.	kasa	81.	tona
82.	kemo	83.	wasi
84.	kepa	85.	woto
86.	kito	87.	zazo
88.	kuma	89.	nefo
90.	kupa	91.	sama

The writers of this paper have identified 24 lexical items which have **four sets** of meanings with similar linguistic form. Each lexical item is shown with its references to the original data where each of the item meaning is illustrated. In the data (3) above each of the lexical item stands for four various meanings, for example, /gama/ owns four different meanings. Thus, one can easily refer back to each of the data and cheek the meaning. Hence, the researchers have confidence that any interested person can easily refer to the meanings and their tone variations within the cluster.

(4): Yemsa linguistic items with five contrasting meanings

	1	2	3
1.	bo'		
2.	kanu		
3.	Ki'a		
4.	Ko'i		

In the data (4) above each of the lexical item stands for five various meanings, for example, /bo/ owns five different meanings. Thus, one can easily refer back to each of the data and cheek the meaning. Hence, the researchers have confidence that any interested person can easily refer to the meanings and their tone variations within the cluster. See the following example

	1		2		3		Rm
Root in phonetics	Noun	Meaning	Verb	Meaning	Adj.	Meaning	
4.1 /bɔ:/	bɔ:(2)	line					3
4.2	bɔ(2)	fox (male)					
4.3			bɔ:(3)	Take a wife by force			
4.4			bɔ/ (1)	demean			
4.5					bɔ (1)	bald	

Data (4) portrays an item/bɔ:/ which has five meaning in different tone levels: [1-3]. Though the tone ranges are very small, they bring about meaning differences. The first (3.1) displays mid tone with long final vowel. It shows a row in farm field to plant seedlings. The second /bɔ²/ refers to a male fox with a mid-tone on both vowels. Whereas the 3rd /bɔ³/ has high tone level. It is meant to mean taking a wife/woman by force. The third one /bɔ1/has spreading low tone level. It is meant to demean or neglect something. The last /bɔ1/ is used to refer to a person with bald hair.

(5)

No.	Noun	Meaning	Verb		Adj./Adv.	Meaning
1 /kanu/	Kanu(11)	frontal				
2	Ka:nu(12)	the soul				
3			kænu(32)	ascend		
4			kænu(32)	support upright		
5			kanu(11)	bulls' sound		

In the (5) /kanu/ reveals five meanings in slightly different two tone levels. The first kanu[11]/ refers to frontal the center of person's head and the 3nd refers to one's soul with slight lengthening of /a: /. Items 3 & 4 have almost similar tone level, but differ in meaning-to ascend and to support respectively. When it refers to bull's sound, it becomes low tone kanu[11]/.

(6)

No.	Noun	Meaning	Verb	Meaning	Adj./Adv.	Meaning
1./ki'a/			Ki'a(21)	elbowing/blowing		
2.					ki'a33	burnt out
3.			Ki'a21	pounding		
4.			ki'a21	castrating bulls		
5.	ki'a/(11)	Undiluted borde/local drink				

Data (6) brings forth another lexical item with five branch meanings. We find one item in noun category, three items in verb category, and one item in adjective category. The tone range is almost three, 11 and 21, and 33. The meanings of items 1, 3, 4 are nearly similar which share the sense of pounding. In this case they seem share polysemous nature, elbowing, pounding, and castrating. The 4th one has low tone. It refers to undiluted /crude of local drink 'borde'. The 5th one refers to something burnt out like food staff or a farm field bunt purposefully or burnt with wild fire.

(7): Yemsa lexical tonal contrasts with six contrasting meanings

1.	**afa**
2.	a'i
3.	fusa
4.	Kor'a
5.	wora

Yemsa language data has also shown lexical items with six different meanings data (7) presents those four items as indicated above. The description and analysis of the items was one by one in each of the extracts given below.

(8)

Root in phonetics	1 Noun	Meaning	2 Verb	Meaning	3 Adj./adv.	Meaning	Rm
1/afa/	afa(11)	heap of hay					38
2	afa(21)	an aunt					
3	afa(11)	roof					
4.	afa(11)	an eye					
5			a:fa(11)	not available			

The first item in data (8) is /afa/ which has six different meanings out of a single string of lexical item. Those meanings are made between three ranges of tone: 11, 12, and 21. Here 11 can be taken as low tone. Items 38.2 begin with rising initial vowel and end with slightly falling tone. The item marked 38.5 begins with low tone rises to mid. As it was indicated in the extract T5n38 the meaning of each item can be redefined as follows. The 1st /afa[11]/ [low tone] means heap of hay used to make sleeping mat over, or for animal to sleep on the heap. The 2nd /afa[21]/ which begins with mid shows slight fall refers to an aunt. The 3rd /a fa[11]/, meaning a roof or the upper part of a house, have two partners with congruent tone levels, but with different meanings, an eye, and not available, but 38.5 shows vowel length.

(9)

Root phonetics	Noun	Meaning	Verb	Meaning	Adj.	Meaning	RM
9.1 /ai/	ai(21)	border					39
9.1.	ai(21)	the teeth					

9.3	ai(22)	shared
9.4	ai(22)	spent a night
9.5	ai(22)	aborted
9.6	a'i(22)	throw

The extract (9) brings forth one of the items with six meanings. The first /ai$^{21/}$marked 21 means at the edge or border. For example, *Ai asu sin buru ni goyno raaki si.* This can be roughly translated as, ''the *man at the border had been terrible affected by beasts''*. The second /ai^{21}/ is also marked 21, but the meaning differs in context. *Ai ba metefan op'a hospitalaa ham nar. To mean- 'Because of his toothache I am taking him to hospital.'* Except the 3rd one which has mid tone. It is a bit different in articulation that begins with mid tone and finishes with mid. The meaning refers to the act of sharing or distributing something. Other items 4- 6 have the same tone levels but contextually vary their meanings.

(10)

	1		2		3		Rm
Root in phonetics	Noun	Meaning	Verb	Meaning	Adj./adv.	Meaning	
1/fusa/	fusa(11)	Slices of threads in kocho					28
2	fusa(11)	water fall					
3			fusa(11)	pinch			
4			fusa(33)	be economical			
5			fusa(21)	hailing rain			
6			fusa(11)	collect kocho			

Data (10) posits a new lexical item**/fusa/** with six meanings in three tone variations. The first one /fusa^{11} / has almost level tone has a meaning of slices of threads in kocho. The 2nd / fusa^{11} / refers to a water fall. The 3rd has similar tone level with the first one, but the meaning refers to act of pinching somebody. The 4th /fusa^{33} / is high in tone to mean or eat economically. Usually used for meal sauce to consume economically. The 5th /fusa^{21}/ implies to hailing rain in thin and small droplets. It demonstrates rising on the first/u/ vowel and shows slight fall on the final vowel. The 6th one shares similar tone level with items 1 & 3, its meaning refers to collecting kocho from store.

(11)

	1		2		3	Rm	
Root in phonetics	Noun	Meaning	Verb	Meaning	Adj.	Meaning	
1 /kɔŕa/	kɔŕa(22)	source					14
2			kɔʔɾa(11)	swallow			
3			kɔra (21)	sort			
4			kɔra(11)	making cabbage			
5			kɔr'a (33)	knotted			
6			/kɔŕa22/	to make hole		like that of yoke	

Data in (11) presents another item with five meanings. The initial **[K ɔ ra^{22}]** marked 22 means **source;** with mid tone and sharp rising tone at the end with additional feature of a palatal / r/ gemination. The second **[Kɔ'ra^{11}]** pronounced with /round lips and curved tongue with wider mouth cavity. It is meant to mean **swallow.** The third one /kɔra^{21}/ that refers to sorting something and the fourth /kɔra^{11}/ expressing the act of preparing or making cabbage has similar tone. And the 6th /kɔŕa^{22}/ with the same tone level with item 1, indicates the act of making a hole in something like that of yoke.

(12)

	1		2		3	
No.	Noun	Meaning	Verb	Meaning	Adj./Adv.	Meaning
1 /wɔɾ̱a/			wɔɾ̱a(22)	to flow/run		
2			wɔ:ra(22)	open		
3			wɔɾ̱a(21)	carry		
4			wɔra(11)	Killed it		
5					Wora(12)	rinse
6						
			wɔr'a(22)	single		

As The data (12) shows the lexical item/ wɔɾa / manifests six meanings in three different tone range11, 12, 21, 22, As it was shown in above table, four items fall under verb, and one item rest under adjective, especially the items with similar tone, can be identified in the context of language use. The first 'Wor'a' means flowing of water or any similar movement. Here /r/ is marked because there is circling of the tongue when it is pronounced; the unmarked ones are pronounced a usual /r/. The second 'wora' means to open something, and the third 'wora' means carrying something. The fourth 'wora' means killing somebody or something, the fifth 'wor'?a' refers to single in birth, (not twins), single (a for piece of cloth) and sixth 'wora ' rinse something properly on washing.

(13): Yemsa lexical tonal contrasts with seven contrasting meanings

1.	**Ka'o**
2.	Kaʃa
3.	o'isi

In the data (13), Yemsa linguistic forms that have exhibited seven meanings are given as [Ka'o, kasha, o'isi.]. These lexical items have seven various meanings due to the difference of the tone the syllable carry on their structure.

(14)

		1		2		3	Rm
	Root in phonetics	**Noun**	**Meaning**	**Verb**	**Meaning**	**Adj.**	**Mea ning**
1	**/ka'ɔ/**	ka'ɔ(22)	coal				19
2		Ka:'ɔ (22)	bed-sheet rock				
3		ka'ɔ (21)	an ape				
4		ka'ɔ(22)	impetigo				
5				ka'ɔ(22)	seach local medicine		
6				ka'ɔ(22)	tease/nagging		
19.7				ka'ɔ(22)	itching		

As it has been shown in the original data, in (14), number 19, [Ka'o] has got seven meanings: *coal, bed-sheet rock, an ape, impetigo, search for local medicine, teasing someone, and itching*. There are four items as nominal lexical items, and three as verb lexical items. Though the string item yields seven semantic variations, the tone nearly falls into two levels: 21 and 22. Except we observe vowel length on 14.:2 and 14:.3 shows slight fall on the final vowel the rest of items have similar tone, but different related meanings, in which case they can be taken as example of polysemy.

(15)

No.		1 Noun	2 Meaning	3 Verb	4 Adj./Adv.	Meaning	Rm
1.	**/Kaʃa/**	Ka:ʃa(11)	enset root slices				
2.		Kaʃa (12)	stem of enset				
3.		Kaʃa(22)	udder/genital				
4.		Ka:ʃa(21)	an oak tree				len
5.		Kaʃa(21)	penis				
6.				Ka:ʃa: (22)	trim/enst leaves		
7.				Kaʃa(22)	pick beans		

The above data discloses that the term [kaʃa] to have seven meanings. *Slice of enset root, slice of enset stem, udder or genital area, an oak tree, penis belong to a noun group, and* the other two *trimming enset leaves, and picking fruit or cereals,* belong to verb groups. In this case, the tone range seems strange In that it exhibits four levels [11, 12, 21 and 22]. In this case the two tone levels [11 and 12] make contrasting tones which bring about meaning difference in body parts of the plant. Item (n15: [3, 6, 7] have almost the same tone. Items marked (n15: [4, 5] have the same tone but are different in meaning due to vowel length on item 4.

(16)

	1		2		3		Rm
Root phonetics	**Noun**	**Meaning**	**Verb**	**Meaning**	**Adj.**	**Meaning**	
1/ɔ:si/					ɔ:si(33)	whose	
							34
2			ɔ:si (22)	announced			

3	ɔ:si (11)	look after	
4	ɔ:si (22)	get ready	
5	ɔ:si(11)	measured	
6		ɔ:si(33)	in the pot
7		ɔ:si(21)	on the shore

Third linguistic item which discloses seven meanings in different tone levels is [o'si]. It displays three tone levels [11, 22 and 33]. The difference between 11 and 33 is on the beginning vowel in which the initial /ɔ/ sound slides gently, and in 33 the sound /ɔ/ quickly rises and ends with stressed/i/. The contrast with 33 is that there is lengthening of initial vowels. The meanings generated from this lexical item are *whose, announced, to look after, to make get ready, measured, in the pot, and on the shore/bank of a river*. In here, we find one adjective two adverbs, and four verb groups.

(17)

1.	ɔ:si (22)	**announced**
2.	ɔ:si(33)	in the pot
3.	ɔ:si(21)	on the shore
4.	ɔ:si(33)	whose

In the above extract data the surface form [o'si] is the same, but their meanings vary due to tonal factor. The first two have almost the same tone level but manifest difference meaning.

(18)

1.	Kaʃa(11)	**ensetroot slices**
2.	Kaʃa (22)	stem of enset
3.	Kaʃa(21)	udder/genital
4.	Ka:ʃa(22)	an oak tree
5.	Kaʃa(11)	penis
6.	Kaʃa (12)	trim/enset leaves
7.	Kaʃa(33)	$_{Kaʃa}(22)$ pick beans

In the same token the term *kasha* at level 21 refers to udder, an oak tree, to cut the leaves of enset most can satisfy the definition of polysemy the same form with the same tone range makes domain of meanings. Even the lexical item indicated at number 7 kasha shows the verb form when the final vowel is stressed, and kasha unstressed final vowel represents noun form. In case of $_{Ka:ʃa}(^{11})$ and $_{Kaʃa}(^{22})$ both refers to one plant body parts but due to tone variation and vowel lengthening the former one refers to root part , and the latter refers to the stem part.

(19)

1.	/ka'/ɔ (22)	**coal**	
2.	ka':ɔ / (22)	bed-sheet rock	
3.	/ka'ɔ / (21)	an ape	
4.	ka'ɔ/ (22)	impetigo	
5.			ka'ɔ(22)	search local medicine
6.			ka'ɔ(22)	tease/nagging
7.			ka'ɔ(22)	itching

The other instance that we can observe elements of polysemy could be the lexical item ***ka'o***. Item numbers 1, 2, 4, 5, 6, and 7 have the same form, almost similar pronunciation, and the same tone, but have different meanings. Thus it seems sound to categorize as a polysemous. Items 2 and 3 have different tone level and consequently, they have meaning differences: the former one with initial long vowel refers to bed-sheet rock while the second with slight falling tone names an ape**.**

Discussion
The whole analyses of Yemsa linguistic items show that Yemsa to be a tonal language. The tone range goes from one–three plus two additional features. In the main, it can be taken as a language of three- tone-range, but with a total of five features, i.e., Low, Mid, High and two glides. The language even rarely shows four tone variations, but in most cases, it heavily disclosed three tones. This finding is similar to that of, Zaugg – Coretti (2013: 53) which says Yemsa is characterized by a tonal system with three level tones: low, mid and high, in addition there are arising tone. The writers of this study believe that further computational linguistic analysis or electronic assisted measurement could help to fix the exact tone range of the language. It seems important to recapture the notion of polysemy to have fresh memory of the discussion to substantiate the findings. Polysemy is the association of two or more related senses with a single linguistic form (Taylor, 2003). It is when different uses of a word reference to two different domains or two different sets of domain that we say it has a strong indication polysemy. For instance, school can be understood against a number of alternative domains like the place where we educate children, administrative division of a university, (school of Pharmacy), to

intellectual trend (school of thought) or a group of whales. Polysemous words can create ambiguity while monosemic lexical items create vagueness (Taylor, 2003). His examples given below can make the ideas a bit clearer.

With regard to polysemic features in the language, the linguistic forms which exhibit the same tone levels, but show meaning difference in different contexts are taken as polysemous.

The objective of the study was to see how polysemous features apply in Yemsa. Therefore, the linguistic items with the same form, but with different tone may not be examples of polysemy. However, the linguistic forms that show differences in meaning but having the same tone level were found to be good examples of polysemy.

On top of the tone, there are other features that bring about meaning changes in Yemsa. Those are short vowels, vowel length, and gemination. Some vowels are very short and abrupt in production; as a result, they make difference in meaning. Others are long and extra-long- in which we do not find in other languages. In addition to the vowel length, some language items show tone variation like, /ka: ɔ/ and /ka:Îɔ/. This area requires collaborative effort to make it part of the linguistic knowledge. In some cases, as they were indicated in the remark part of the data, some consonants are made double to affect the meaning difference.

The data systematically presented was believed to help researchers to do further stringent investigations. Though the investigators strongly believed that they did their level best, they also call for further team studies so that it could cast a new light in the study of such a less documented languages like that of Yemsa in particular, and in linguistic realm in general.

Conclusions

1. In tone languages the tone difference brings about meaning change, but the notion of polysemy is in lexical items with the same tone level which refer to different meanings like that of :

ka'ɔ(22)	search local medicine
ka'ɔ(22)	tease/nagging
ka'ɔ(22)	itching

2. It is possible to assert that Yemsa language has lexical item with one form that can have two to seven meanings.
3. The tone level can be taken to have distinct three tones plus two glides.
4. Vowel length and germination are also additional features that effect meaning variations in Yemsa.

Recommendations

1. The notion of polysemy and tone differences has to be carefully handled by educators in the district (woreda) in the case of language standardization and/or orthography development.
2. The educators in the field of Yemsa language need be aware of these subtle differences in order to education L1 students as well as L2 students.
3. Educators must also be able to illicit data from their day- to -day classrooms so as to get reliable corpus data.
4. Culture and tourism bureau of Yem Special district (woreda) has to work hard in supporting studies carried in this area for development and '*sustainability'* of the language, and for better documentation of the language.
5. International linguists are also invited to use this initial data and do further investigations.
6. The researchers have strong belief that Yemsa language requires further in-depth computer based studies for exact tone analysis of the language.

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