A Comparative Analysis of Chinese and Shona Vowels

Herbert Mushangwe[1]

ARTICLE INFO

Available Online December 2013
Key words:
Chinese,
Shona,
Vowel system,
comparison,
Second language learning.

ABSTRACT

This paper is a comparative analysis between Chinese and Shona vowel system. The research is biased towards helping Chinese language learners whose mother tongue is Shona however it is expected to benefit other researchers interested in comparative researches. The main focus of this research is on the major differences that exist between these two languages. The main aim is to predict and combat the possible pronunciation errors that may result from native language transfer. The research findings show that Chinese language's vowel system is more complex than the Shona vowel system. It is therefore assumed that though native speakers of Shona language might find it challenging to acquire the Chinese vowel system, however if students are advised in advance the differences between the Chinese and Shona vowels which are represented by same letters in the writing systems of these two languages, they (students) are likely to have less pronunciation errors in Chinese since they will not borrow the Shona pronunciation strategies.

Introduction

Shona language is a Bantu language spoken by more than 10 million people; it is one of the national languages in Zimbabwe. In this paper Chinese a member of the Sino Tibetan family of languages will be compared with Shona language. Since there are so many Chinese varieties and dialects such as Mandarin, Wu, Cantonese, and Min which are not all mutually intelligible (Na, 2010), this paper we will compare Shona and standard Chinese also knows as Mandarin or Putonghua. In this paper the term Chinese shall be used to refer to this variety of Chinese language which is regarded as standard Chinese and is mainly spoken in China mainland.

Most of the students in the Confucius Institute at the University of Zimbabwe speak Shona language as their first language. Since there has been a steady growth of Africans and Zimbabweans to be more specific studying Chinese language both in Zimbabwe and China, hence it is important to explore the relationship between Chinese and African languages. Therefore, in this paper Chinese and Shona language's vowel system will be compared in order to help both Chinese learners and teachers in Zimbabwe to understand more about these two languages' vowel structure and use. This comparison is expected to help teachers to predict and combat possible pronunciation bias due to mother language transfer.

According to He (2006), for a foreign student to master Chinese language there is need for strong background knowledge for Chinese language's sound system. This implies that Chinese language's sound system is difficult to master. If there is anything else apart from tones, that make Chinese pronunciation difficult it's nothing else other than its vowel system, it is complex and has so many phonological variations. The Canada and the World (2011) article titled The World's Hardest Language, agrees with this notion, thus they argue that; vowel-rich languages, such as the Chinese language, use tones to create numerous vowel sounds. This justifies this research in the sense that comparing Chinese and Shona language will help Chinese language learners whose mother tongue is Shona to master the major differences that exist between these two languages, hence learners will know areas which they are supposed to practice more.

Deng (2007), defined a vowel as a phoneme with a high sonorous sound that is produced with vibration of vocal cords, and the airflow is not constricted; such as [a], [e], [o] etc. Vowels are an important element of any syllable both in Chinese and Shona. In both languages vowels are that part of a syllable that carries the tone, however due to the fact that Chinese language has four tones, thus vowel use in daily language is even

[1] Hebei University, China

more complex than we shall discuss in this paper. There are various similarities and differences that exist between Chinese and Shona vowel system. Due to native language transfer, the partial similarities and differences between Chinese and Shona vowel system can have a negative impact on the Chinese learners whose mother tongue is Shona as will be shown in the following analysis.

Objectives of this research

- To compare the Chinese language and Shona language's vowel system
- To predict any pronunciation errors for Chinese language learners whose mother tongue is Shona.
- To provide reference materials for Chinese language learners whose mother tongue is Shona.
- To challenge researchers to start exploring more on the relationship between Shona and Chinese language as well as Chinese and other African languages so as to promote the teaching of Chinese in Zimbabwe and in other African countries where Chinese is now being taught.

Justification

According to Lado (1957) we can predict and describe patterns that will cause difficult in learning and those that will not cause difficult through comparison of two cultures. Therefore, it is hoped that by comparing Shona and Chinese vowel system we will be able to predict and describe Chinese vowels that are difficult and those that are not difficult for Shona speakers learning Chinese language this will help to improve the teaching of Chinese in Zimbabwe.

The University of Zimbabwe through the Confucius Institute teaches Chinese language to Zimbabweans and foreigners living in Zimbabwe, the majority of the students learning Chinese language at the moment speak Shona language as their first language. For instance, all the students in the 2011's Chinese language class could speak and understand Shona language, and 36 students out of the total of 40 students were native speakers of Shona. This justifies the comparison of Chinese and Shona language rather than Chinese and any other Zimbabwean local languages, since it seems like Shona language is relatively popular within the University of Zimbabwe. However, this does not rule out the need to conduct similar researches for other Zimbabwean local languages such as Ndebele, Tonga, Chewa and so forth.

Apart from that, the current trend in Zimbabwe shows that Zimbabwe and China's relationship is growing day by day, with more and more Chinese people flooding Zimbabwe either to tour or do business, thus learning of Chinese language in Zimbabwe should be taken more serious. According to the Wikipedia free Encyclopedia, The foreign relations of Zimbabwe emphasize a close relationship with the People's Republic of China. Therefore, in order to support and encourage learning of Chinese language in Zimbabwe it is important to provide reference materials for learners so as to make the learning process easier. Crystal (1987) asserts that the learning of a foreign or second language requires that learning resources be available which allow for a firm grasp or appropriation of the foreign or second language and a mastery of the language that is relatively close to that of a native or mother-tongue speaker. At the moment the available reading materials for Chinese language learners in Zimbabwe are all foreign and sometimes a bit detached from the students' learning environment for this reason this research seeks to provide local reading materials for language learners in Zimbabwe.

Background

There have been so many researches in and outside Zimbabwe regarding Second Language Learning some of which were directly concerned with comparing two or more languages just like in this case for example; Kristin (2005) in the article titled: A Comparison of Spanish-Language and English-Language, Olga Mudraya and others' English-Russian-Finnish Cross-Language Comparison of Phrasal Verb Translation Equivalents 2005 project, Jessica M. Butterfield and Na Pan (2007) in the paper titled; A Comparison of English and Chinese Internet Language, and many others.

For researches that compare Shona and other languages, much has been done in the field of Shona and English than any other languages. For instance Kadenge's 2009 paper titled; African Englishes:The Indigenization of English Vowels by Zimbabwean Native Shona Speakers, Mheta and Zivenge (2009) in an article titled; Phonological Adaptation of Borrowed Terms in Duramazwi reMimhanzi, Kadenge and Mabugu (2009), in their paper Phonological Characteristics of Shona Loanwords from English and many others explored various phonological similarities between Shona and English.

All these researches are basically aimed at promoting second language learning. Now that many countries are teaching Chinese language. It is important to have researches that compare learners' languages and

Chinese language. Much comparative researches has been done for Chinese and English as well as Chinese and other European or Asian languages such as Japanese language or Korean language, the majority of which are in Chinese language. For instance Comparative research between Chinese finals and Korean vowels [韩语元音与汉语韵母的语音对比及韩语语音教学方法探讨] (Lin 2010), Comparative research of Chinese and French vowels and consonants as well as problems faced by students in class [汉法元辅音的对比分析和常见问题的课堂教学研究] (Wu 2012), and many others.

However, researches regarding Chinese and African languages are relatively few, for instance as far as the researcher knows the only available papers at the moment include Mushangwe (2012), which is a comparative analysis of Shona and Chinese tones and the comparison of Dagaare language and Chinese language (Bodomozai, 2001). In this paper Bodomozai mentioned in passing that a Ghanaian language called Dagaare language is similar to Chinese language in the sense that they both have tones, however the study did not go beyond the mere mention of this similarity. Apart from this, there is also another mention of such similarities by professor Hair. Hair (1966) mentioned that a number of African languages have in common the feature of semantic tone. Nurse and Philippson (2003) also mentioned in passing that African Bantu languages are tonal just like Chinese language, however they did not go on to examine other language aspects that Chinese language share with African languages.

A Japanese Linguist Kagaya, in his 2001 research mentioned that in some dialects of Shona language such as Zezuru dialect there are "interesting tones" which can be compared to those in Chinese language, however this researcher did not go further to explain in detail the exact similarities between these two languages. Though this researcher did not compare Zeruru and Chinese language, however it is evident that Shona and Chinese language have one thing in common, that is they are both tonal languages. This research, however is not going to explore the tonal similarities between these two languages, rather the focus will be on the differences and similarities between these two languages' vowel system.

Though there have been so many claims that Chinese language shares a lot with African languages there have been few researches regarding these claims. This paper seeks to go beyond mere claims that African languages share a lot with Chinese language and bring to light the specific similar or different aspects of Chinese language and those of one of the Bantu languages which is Shona language in this case.

Theoretical framework

As already noted by many researchers, the native language (source language) of L2 learners plays the role of a 'Phonological filter' which deeply influences the L2 learners' pronunciation so that the learner's pronunciation deviates from that of native speakers of the target language (Polivanov, 1931; Archibald, 2010). Therefore this, research is based on the hypothesis that though Shona language speakers learning Chinese language are likely to be influenced by sounds from their mother language such that their pronunciation may deviate from that of native speakers of the Chinese language, however it is possible to help these students overcome the problem by pinpointing the similar and different vowels found in Chinese and Shona language. Through this vowel comparative research it is hoped that teachers and researchers will be able to come up with strategies to counter the pronunciation errors caused by differences between Shona and Chinese vowels.

The research questions for this paper are proposed as follows:

1. Which Chinese vowels are likely to be more problematic for a Shona speaker learning Chinese language?
2. What can be done to reduce the possible vowel pronunciation errors by Shona speakers learning Chinese language?

Methodology

In order to investigate the various similarities and differences that exist between Chinese and Shona language, observation and library research methods were used as the basic sources of data. Since the researcher's mother tongue is Shona and has been staying in China as well as studying Chinese language in China for over four years, much of the data was obtained from daily language use experience. This comparative analysis is mainly based on researches already done in Shona and Chinese language. The data was collected from several linguistics textbooks such as Fortune (1955) and Mudzingwa (2010) for Shona

language's vowel inventory, while for Chinese language vowel inventories He (2006), Wang and Lin (1992) as well as Zhu Xiaonong (2010) were used as the main sources of data. Since there have long been controversies in the literature over the actual number of Mandarin vowel inventories (Chao 1980, Tseng, 1990, Tung 1994), basing our comparison on the above researchers will make this comparative analysis more balanced and consistent with the current teaching of Chinese as a second language. The above Chinese researchers are recognized as "influential linguists in Chinese academia"[2] thus they seem to agree on the basic number of Chinese vowels normally used in teaching Chinese as a second language. Researches on Shona vowel system has shown consistent results from the past up to the present, thus using Fortune's 1955 research results and Mudzingwa's 2010 research is basically meant to show that there has been a general agreement between past and present researchers' findings.

Vowel comparison of the two languages

Laver (1994) grouped vowels into monophthong, diphthong, thriphthong as well as semi-vowels. However, though this comparative analysis will be based on these various groups of vowels, in order to simplify the analysis these various groups will be synchronized into two major groups which are; simple vowels and complex vowels. In this case monophthong will be regarded as simple vowels whilst the rest will be classified as complex vowels. The following section will discuss similarities and differences between Chinese and Shona simple vowels.

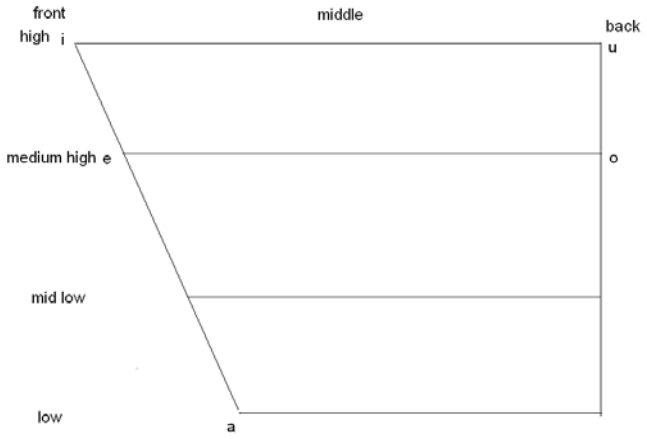
The two languages' Simple vowel system

Chinese language has seven simple vowels which are: [a], [o], [e], [i], [u], [ü], [ê]. However, Deng (2007) argues that Chinese language has more than ten vowels. This confusion is due to the fact that some scholars take vowel variation to be independent vowels. Such as the variation of [a] in such words as 盐yan (salt or to research), which can be read as [jan] or [jƟn], also Chinese vowel [o] varies depending on the tone attached to it, for instance it sounds like [ua] when a third tone used and when the preceding consonant is [w] as in the word 我[wǒ] (I, me). Wang and Lin (1992) divided Chinese simple vowels into the following groups depending on the tongue position;

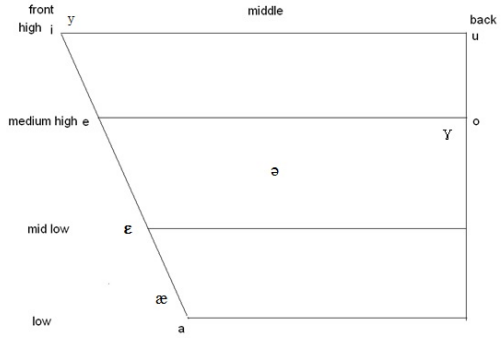
a) Dorsal vowels
   i. [a] as in 盘[pan] (plate) or 汗[xan] (sweat)
   ii. [æ] as in 研[jæn] (to research) or 烟[jæn] (smoke)
   iii. [o] as in 破[po] (broken) or 咯[lo] (a pheasant's cry)
   iv. [e] as in 更[keN] (further) or 陪[pei] (to accompany)
   v. [∂] as in 饿[∂] (to be hungry) or [k∂]歌 (song),
   vi. [E] as in the words诶 and 欸 read as [Ei] (interjections);
   vii. [i] as in 米[mi] (metre or rice) or 踢[ti] (to kick)
   viii. [u] as in the word 土[tu] (soil) or 胡[xu] (lake)
   ix. [y] represented orthographically in the Chinese pinyin writing system as /ü/ as in the words 绿[lǜ or lv] (green） or 女[nǚ or nv] (girl).
b) Tip of the tongue vowels (舌尖前)[□] as in the folllowing words; 资[ts□] (capital), 疵[tsℨ□] (defect) and 四[s□] (four).
c) Tip of the tongue vowels (舌尖后) [□] as in the following words; 知[τ♣□] (knowledge), 吃[τσℨ□](eat), 诗 [ʂ□] (poem) as well as 日 [z̧□] (sun/day).
d) Retroflex vowels (卷舌元音) [ə ˞] as in the words; 儿[ə ˞z̧] (son) or 而[ə ˞z̧] (as well as)

Gonzales (2005) notes that Shona language is composed of only five vowels which are; i[i], e[e], a[a], o[o] and u[u]. Mudzingwa (2010) also states that Shona vowels are simple. Below are two diagrams to show the tongue position for each of the vowels in both Shona and Chinese language.

[2] Jiang Lansheng in an interview about Academia ,with Zhao Changcai on http://www.cssn.cn/news/474025.htm



Picture 1.1 Shona vowels tongue position



Picture 1.2 Chinese vowels tongue position picture

The above Shona-tongue position pictures were adopted from Fabricius' article; A diachronic investigation of the Short Vowel System in 20th-Century RP (UK) quoting Jones (1932). The above diagram for Shona vowels' tongue position shows that the Shona vowel system is composed of "pure vowels"[3], while the above Chinese vowels' tongue position diagram was adopted from Wang Lijia and Linshou (1992:49).

There are about 12 Chinese simple vowels listed by Wang and Lin (1992). This therefore suggests that the major difference between Chinese and Shona simple vowel system is that Chinese simple vowels are twice more than Shona simple vowels. As is shown above Chinese simple vowels are more than ten yet Shona vowel system has only five simple vowels. This difference is a major cause of concern in second language learning because since it may cause serious challenges when it comes to learning Chinese language. For a learner who is used to few and simple vowels to acquire all these vowels means that there is need for an extra effort to practice new pronunciation. The following section is a simple comparision of similar vowels that exist in Shona and Chinese, basing our anaylsis on the above Chinese and Shona vowels tongue position diagrams.

Chinese and Shona language's similar vowels

It has been already established that in Shona there are five vowels only, which are [i], [e], [a], [o], [u] (Mudzingwa, 2010; Gonzales, 2009; Wikipedia, 2012; Fortune,1955). These Shona vowels are all dorsal vowels and they also exist in Chinese language. This suggests that learners of Chinese language whose mother tongue is Shona may find it easy to pronounce such vowels. For instance, in both languages the vowel [i] is pronounced as a high vowel that is; the tongue position is high and protruded to the front, as in the following words; the [i] in the Chinese words 你 [ni̤] (you),衣[ji̤] (clothes), 系[ɕi̤](department) is same

[3] Zhu Xiaonong. 2010. Phonetics. Beijing: The Commercial Press p232

as the one in Shona words [i̤ni̤] (me), [i̤mΩi̤] (you- plural), i̤we(you singualar) etc. The same also applies to the Chinese [e] in such words as 很[xe̤n] (very), 深[ʂe̤n] (profound), 晨 [τΣe̤n] (morning). The vowel [e] in these examples above is also same as in the Shona words [me̤no] (teeth) or [te̤se̤]. In most Chinese words which are not preceded by the glide [j] the Chinese vowel [a] sounds same as in Shona language, for instance in Chinese words such as 谈[ta̤n] (talk), 妈 ma̤ (mother), 晚 [wa̤n] (evening). The vowel [a] in these Chinese words is same as [a] in such Shona words as [na⊇ma] (stick), [ba⊇⊇ta⊇] (grab/touch) etc. The Chinese simple vowel [u] as in the words 普[pṳ] (unversal), 土 [tṳ] (dust), 牧[mṳ] (herd), 哭[kṳ] (cry) etc, sounds same as the [u] in Shona language as in the words [u⊇sΩa] (grass) or in the word [tu⊇ma] (to send).

Therefore, we can argue that a Shona language first speaker will be able to master these simple Chinese vowels without much effort. For the above mentioned vowels teachers should not waste time trying to train learners on pronounciation techniques, students can just follow the way they pronounce these vowels in their mother tongue. However, there are certain phonological changes that should be taken note of in order to avoid confusion and pronunciation bias, especially for the vowel [o], [u], in Chinese language when [u] and [i] combines to form a diphthong, though it is orthographically written as /ui/ this diphthong is pronounced as [ei] not [ui]. Such phonological changes should be explained and emphasised during the early acquistion stages in order to avoid confusion at a later language acquisition stage. The following section will discuss various differences between Chinese and Shona simple vowel systems.

Differences between Chinese and Shona simple vowels

Chinese vowels which are represented orthographically as /a/, /e/, /o/, /u/ in the "Chinese pinyin" are problematic.[4] Depending on the different phonological environments these vowels are pronounced as [æ] represented in pinyin with /a/, [ə] represented in pinyin with /e/, [ɣ] also represented in pinyin with /e/, [uo] represented in pinyin with /o/. These pinyin representations obviously will make a Shona native speaker to think that the proper pronunciation should be [a], [e], [o], [u] respectively. These changes in turn affect Chinese language learners negatively. For instance a word which is written in Chinese pinyin as yan ("眼"eye) is pronounced as[jæn], also yan ("烟"cigarette) and yan ("盐"salt) are pronounced as [jæn]. For Shona native speakers they will read all such words as [jan], since [æ]vowel does not exist in Shona language. The pinyin /e/ in Chinese words such as /e/ ("饿"hungry), /e/ ("鹅"goose), /e/ ("额"quota) etcetera though they are orthographically represented as /e/ the proper pronunciation is [ɣ] not [e]. It is likely that native speakers of Shona may pronounce this [ɣ] vowel as [e] when asked to read such words as listed above or at worst pronounce it as [a] when asked to imitate the first speakers of Chinese language. Apart from the above the other variation of [e] in Chinese exists in the following words where it is pronounced as [ə] such as in 诶[ei] and"欸"[ei]. Wang and Lin (1992) believe that [ə] vowel exists only as interjectors. In Shona language these vowels [æ], [ə], [ɣ] do not exist yet they are represented by letters /a/, /e/, /e/ represepectively in Chinese pinyin… which is the authographic representation of Chinese sounds. It is likely that Chinese language learners who are native speakers of Shona language will think that these vowels are same as those vowels in their mother tongue represented by the same letters /a/ and /e/, thus they might have problems in producing these vowels [æ], [ɣ] and [ə].

The other Chinese vowel which is not found in Shona language is the [y] vowel, it is written in Chinese pinyin as /ü/. Though the distrubution of this vowel in Chinese language is limited to the consonants [l], [n] and [tɕ], it is one of the most troublesome vowel. According to the Chinesepod the Chinese vowel sound [y] is the most difficult vowel sound for most English language speakers because this vowel does not exist many languages. To make the sound [y] one has to shape his/her mouth lips in the position for the sound [o] and inside the mouth the tongue position should be on the aligned as if one is making an [ee] sound, the moment you make the [ee] sound while your lips are round that will be the [y] sound[5]. Many foreign students find it difficult to produce this sound. Therefore, for native speakers of Shona language it is this vowel that needs more practice than any others in order to achieve high level of pronunciation proficiency in Chinese language.

The standard Chinese vowel [o] though on the IPA is written just as in Shona language it is by far different when it is used as a single vowel with the following consonants; [p], [m] [pℑ] and [w]. In these cases the Chinese vowel /o/ does not sound like the [o] as in the Shona word /o̤na/ (to see) or as in the English word

[4] Mandarin pinyin refers to the representation of Mandarin characters using Latin words
[5] http://Mandarinpod.com/tools/pronunciation/section/15

/ọ̇range/ rather it sounds like [uwo]. While the [o] in Shona is produced with a steady round mouth, the Chinese [o] normally requires one to move the jaws as if one is making a double sound of [oo]. The difference in pronounciation do not affect the meaning but makes the pronunciation sound foreign to the Native speakers of Chinese

Apart from the above mentioned differences, there are also other Chinese vowels that do not exist in Shona vowel system such as retroflex vowels (卷舌元音) and tip of the tongue vowels (舌尖元音). According to Wanglijia and Linshou (ibid) the Chinese [□] vowel only appears as front-tip of the tongue vowels (舌尖元音) with the following consonants:- [ts], [tsℑ] and [s] as in the words;资[ts□] (capital), 疵[tsℑ□] and 四[s□] (four). The second version of the tip of the tongue vowels (舌尖元音) [□] appears in front of the following consonants; [τ♣], [tsℑ], [ʂ] and [ʐ̩]. The [□] and [□] vowels are normally controlled by the accompanying consonants. These two vowels are both represented by /i/ on Chinese pinyin system. Such phonological changes are quite rare in Shona language if none, thus such variations are likely to cause the native speakers of Shona language to have problems in acquiring Chinese vowels.

The retroflex vowel [ə ʃ] is limited to the word combination [ə ʃʐ̩] only as in the words而[ə ʃʐ̩] (as well as), 二[ə ʃʐ̩] (two), 儿[ə ʃʐ̩] (son), 尔[ə ʃʐ̩] (thus), 耳[ə ʃʐ̩] (ear), 饵[ə ʃʐ̩] (bait) etc. To make the [ə ʃʐ̩] sound one has to roll back the tongue a little, with the tip of the tongue near the hard palate then make an [a] sound. For this retroflex sound the Chinese pinyin system use /e/ for orthographic purposes, this therefore implies that Shona native speakers will think that this /e/ is same as the Shona vowel [e]. It is not surprising that Shona native speakers and even other Chinese language learners who are used to English alphabet will pronounce the above listed Chinese words as [ezʐ̩] instead of [ə ʃʐ̩].

Comparative analogy of Chinese and Shona's complex vowels

Chinese complex vowels can be divided into diphthong and triphthong. There are 9 Chinese Diphthongs which are [ai], [ei] , [ao] , [ou], [ia], [ie], [ua], [uo] and [ue] as well as four triphthong which are [iou], [iao], [uao], [uai]. Such complex vowels do not exist in Shona language. Mudzingwa (2010) quoting Fortune (1955, 1984) and Chimhundu (1983) also agreed with the notion that Shona sound system does not have any diphthong or triphthong. As observed from several Shona language speakers' daily conversations, words which are orthographically written with two or more consecutive vowels are normally produced with glides [w] or [j] in-between the vowels, as in the following examples;

Shona standard writing		Actual pronunciation
aenda	(s/he has gone)	ajenda
auja	(s/he has come)	awuja
uuje	(you should come)	uwuje
ma□goi	(cat)	mangoji
kuuraja	(to kill)	kuwuraja
aonda	(s/he is now slim)	awonda

From the above examples it can be seen that in spoken Shona where two vowels appear adjacent to each other, Shona speakers normally insert a [j] or [w]. This is what Kadenge (2009) described as vowel epenthesis, a strategy employed by Shona speakers in borrowing English words. Vowel epenthesis is defined as intrusion, where an extra sound has been inserted in a word (Crystal, 1997). Therefore, it is likely that native speakers of Shona language learning Chinese language might also add glides [w] and [y] on various Chinese diphthongs and triphthongs thus they are likely to end up producing Chinese complex vowels separately as shown below;

Chinese		Shona	Chinese	Shona	
[ai]	—	[a ji]	[ei]	—	[e ji]
[ao]	—	[a wo]	[ou]	—	[o wu]
[ia]	—	[i ja]	[ie]	—	[i je]
[ua]	—	[u wa]	[uo]	—	[u wo]
[ue]	—	[u je]			

If Chinese diphthongs are produced the Shona way as shown above it means that the two vowels which are supposed to be produced as one sound will be then produced as two independent syllables as shown above

yet in Chinese vowel system it's a single syllable. If this observation is true then it means that Chinese learners whose mother tongue is Shona are likely to have challenges in properly pronouncing some Chinese words as [kʻua] （夸 to exaggerate）which might end up sounding like [kʻuwa] (裤袜 leggings or tights), or word like [ai] (爱 love) will end up sounding like [aji] (阿姨 aunt). Apart from the above, if the native speakers of Shona will change diphthongs into two separate phonemes as shown above, logically for triphthongs they are also likely to change them into three separate phonemes as shown below;

Chinese	**Shona**		**Chinese**	**Shona**	
[iou]	—	[i wo ju]	[iao]	—	[I wa wo]
[uao]	—	[u wa wo]	[uai]	—	[u wa ji]

Such phonological changes as listed above if they are borrowed into Chinese triphthongs students are likely distort the meaning for such words as [kʻuai] (快 fast or peace of money) or [ɕiao] (小 small) which they may end up producing as [kʻuwaji](裤袜一 leggings or tights first or one leggings) or [ɕiyawo] (西亚我 west Asia, me) respectively. Such distortions on such Chinese vowels will certainly affect the students' pronunciation thus making it hard for them to be understood by native speakers of Chinese language.

It should be noted that the above described phonological changes that are likely to happen when a Shona speaker produce some of the Chinese vowels are not all the possible changes that are likely to happen when a Shona speaker actually speak Chinese. This research explored the basic phonological changes that happen due to the similarities between Shona and Chinese vowel orthographic representations. In real speech production it can be more complex than this. There are some researches related to Shona and English that revealed that in some cases Shona speakers employ vowel substitution strategies as a way of accommodating some English complex vowels. Vowel Substitution as described by Crystal (1997) refers to the process or result of replacing one vowel by another at a particular structure. For instance comparative researches between Shona and English by Kadenge (2009), Mabugu (2009), Mhete, G and Zivevenge (2009), showed that apart from vowel epenthesis speakers of Shona language normally substitute English vowels that are not found in Shona language with simple Shona vowel and in some cases there is deletion of other vowels.

In short this means that, this research is not enough; rather there is need for more data related to how Shona speakers acquire Chinese vowels. It is this researcher's hope that there will be more scientific researches to explore the actual errors that Shona speakers make when producing Chinese vowels. However, despite the fact that this research still lacks a more scientific approach, it is hoped it will provide a base for future researches. In this paper it was shown that there are 12 Chinese simple vowels and 13 complex vowels (9 diphthongs and 4 triphthongs) which gives a total of 25 Chinese vowels while Shona has 5 simple vowels only. In other words about 80% of Chinese vowels do not exist in Shona language. Thus this means that native Shona speakers will need an extra effort to master these Chinese vowels that do not exist in Shona language.

Conclusion

This research explores the various differences and similarities between the Chinese vowel system and Shona vowel system. It was established that more than three quarters of Chinese vowels do not exist in Shona vowel system, this therefore means that native speakers of Shona language are likely to find it difficult to acquire Chinese vowels. It is also clear that the Chinese vowel system is more complex than the Shona vowel system. This paper concludes that apart from paying attention to Chinese complex vowels, a native Shona speaker learning Chinese language should also do intensive pronunciation drills for those vowels such as [y] and retroflex vowels that do not exist in Shona language. Apart from that, there is also need for a well trained Chinese language teacher to coach students on how to pronounce these new Chinese vowels.

Considering the differences that exist between the Shona vowel [e] and the Chinese simple vowels [ɣ] and [ə] which are both represented orthographically with the letter /e/ in both languages, it is therefore advised that when teaching Chinese vowels to Shona language speakers, these two Chinese vowels [ɣ] and [ə] should not be represented by letter /e/ as it is right now in almost all Chinese textbooks. Students should rather know from the beginning that these are unique vowels, completely different from the Shona vowel [e], therefore it will be better to use their phonetic transcriptions when teaching Chinese to Shona speakers.

This will help students not to associate these two Chinese vowels with their Shona simple vowels. For complex vowels both diphthongs and triphthongs we also advise that teachers should simply illustrate in the change of meaning caused by adding glides [j] and or [w] between the Chinese vowels. By mentioning all these possible errors in advance, students will be aware of the various errors they are likely to make.

It is our hope that more comparative researches between Chinese and African languages will be done in order to predict and combat students' pronunciation errors that are caused by the differences between Chinese and students' mother languages. We also hope that more researches will be done to find out how the Shona language speakers and many other African students acquire Chinese vowels.

Reference

Archibald, J. 2010. *Conditions for Over-riding the L1 Phonological Filter*. St. Michael's College, University of Toronto Chao, Yuen-ren. 1980. A Grammar of Spoken Chinese, trans. by Pang-Hsin Ting.Taipei: Student Book.

Bodomozai, A. 2001. *Africa-Asia Relations: Some historical, cultural, and linguistic connections*. Hong Kong: University of Hong Kong.

Canada and the World. 2011. *The World's Hardest Language*. Accessed on the 12th of June 2013, retrieved from, http://www.canadaandtheworld.com.

Chinespod. 2011. http://Chinesepod.com/tools/pronunciation/section/15.

Crystal, D. 1997. *A dictionary of linguistics and phonetics*. 4th edition. Cambridge, MA: Blackwell.

Deng Tianjie. 2007. C*hinese Tutorials*. Beijing: Tsinghua University Press.

Fabricius, A. 2008. Using Angle calculations to demonstrate vowel shifts: A diachronic investigation of the short vowel system in 20th Century RP (UK). *Acta Linguistica Hafniensia*, 40, 7-21.

Fortune, G. 1955. *An Analytical Grammar of Shona*. Cape Town and New York: Longmans, Green & Company.

Gonzales, A. 2009. Intrinsic F0 in Shona Vowels: A Descriptive Study. In Akinloye Ojo and Lioba Moshi (eds). *Selected Proceedings of the 39th Annual Conference on African Linguistics*, 145-155. Somerville, MA:Cascadilla Proceedings Project.

Hair, P. E. 1966. A nineteenth-century link between Chinese and African languages studies. *Bulletin of the School of Oriental and African Studies*, 29 (01), 143-145.

He Ping. 2006. *Chinese phonetics Course*. Beijing: Peking University Press.

Jiang Lansheng. 2012. *Interview about Academia with Zhao Changcai,* Available on http://www.cssn.cn/news/474025.htm.

Laver J. 1994. *Principles of Phonetics*. Cambridge: Cambridge University Press.

Kagaya R. 2001. Tonal analysis of Nouns in Zezuru Dialect of the Shona dialect [J]. *Journal of Asian and African studies*, 62.

Kadenge M. 2009. African Englishes:The Indigenization of English Vowels by Zimbabwean Native Shona Speakers. *The Journal of Pan African Studies*, 3 (1).

Kadenge, M., and Mabugu. 2009. The Phonological Characteristics of Shona Loanwords from English. *Nawa Journal of Language and Communication*, 3(1).

Lado R. 1957. *Linguistics across cultures: Applied linguistics for language teachers*. Ann Arbor: University of Michigan Press.

Liu Na. 2010. *The Chinese Language and Language Planning in China*. Washington DC: Heritage Briefs Collection, Center for Applied Linguistics.

Mhete, G and Zivevenge. 2009. Phonological Adaptation of Borrowed Terms in Duramazwi reMimhanzi. *Lexikos 19 Supplement, AFRILEX-reeks/series* 19, 157-165.

Mudzingwa, C. 2010. *Shona Morphophonetics: Repair strategies in Karanga and Zezuru*. Unpublished Diserrtation. Vancouver: University of British Columbia.

Mushangwe H. 2012. Comparative Analysis of Chinese and Shona Tones. *Journal of Comparative Literature and Culture*, 2 (2).

Polivanov E. 1931. La perception des sons d'une langue étrangère. *Travaux du CercleLinguistique de Prague,* 4:79-96.

Tseng Chiu-yu. 1990. An acoustic phonetic study on tones in Mandarin Chinese. *Academia Sinica Special publication*, No. 94.

Tung Tung-ho. 1994. *Chinese Phonology*, 13th edition. Taipei:Wen-Shi-Zhe.

Wang Lijia and Linshou. 1992. *Phonetics Course*. Beijing: Peking University Press.

Wikipedia. 2012. *Foreign relations of Zimbabwe*. Accessed on the 12th June 2013, retrieved from, http://en.wikipedia.org/wiki/Foreign_relations_of_Zimbabwe.

Zhu Xiaonong. 2010. *Phonetics*. Beijing: The Commercial Press.