
Utilizing Phonological Knowledge of Previously Learned African Languages to Enhance Acquisition of Chinese Phonology: A Case Study of Learners of Chinese as a Fourth Language at Confucius Institute at Kenyatta University, Africa

利用习得的非洲语言语音知识来增强汉语语音的习得:非洲肯雅塔大学孔子学院汉语学习者第四语言为汉语的案例研究

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ABSTRACT

The Chinese language has been enjoying increasing popularity in Kenya, where the first Confucius Institute in Africa was established in 2005. By the time most learners of Chinese at the Confucius Institute at Kenyatta University are being exposed to the language, they have already mastered language skills in their indigenous African languages; Kiswahili and English (the official languages); and sometimes French, German or Japanese, which are taught in Kenyan schools as foreign languages. Thus the Chinese learner is already competent in over three languages, with different phonological, syntactic and morphological structures by the time he or she is being introduced to Chinese at the Institute. The thesis of this paper is that the knowledge that the learners have acquired in these three or four languages can be a useful resource in teaching of Chinese. This paper purposes to investigate how the phonological knowledge that learners of Chinese at the Confucius Institute at Kenyatta University have garnered from their acquisition/learning of English, Kiswahili and their respective first languages can be utilized by teachers at the Institute to enhance acquisition of speaking skills in Chinese. Data on which the paper is based were collected during classroom lessons of the certificate in Chinese language class in the 2010/2011 school year. The class comprised 30 students. Data were collected through a questionnaire and observation of classroom interactions to capture the information on how the teachers and learners made use of the already acquired phonological knowledge to explain and enhance understanding of phonological phenomena in Chinese, thus promoting acquisition of speaking skills in Chinese. The tenets of Selinker's (1972) Interlanguage theory guided the analysis of data and helped in the explanation of the emerging patterns. It is hoped that the findings have shed light on the usefulness of the already acquired knowledge of first, second or third languages in promotion of language proficiency and intercultural competency in Chinese and previously learned languages.

Key words: phonology, African languages, Kiswahili, Chinese, interlanguage

摘要

肯尼亚是一个多语言的国家，其官方语言是斯瓦西里语和英语，有时中小学会开设法语、德语或日语等外语学习课程。随着非洲第一家孔子学院于 2005 年在肯尼亚成立，汉语在肯尼亚的受欢迎程度与日俱增。肯雅塔大学孔子学院的学生在学习汉语之前，已经精通于肯尼亚的本土语言，所以汉语学习者到孔子学院学习汉语时就已经精通于三种或更多的语言，懂得这些语言的语音、词法和句法。本文旨在揭示肯尼亚汉语学习者已具备的语言能力对汉语学习的辅助作用，目的在于说明汉语教师可以利用肯雅塔大学孔子学院的学生已具备的斯瓦西里语、英语和他们各自的母语能力帮助对外汉语教学。笔者通过问卷调查和课堂教学观察等方式对 2010 年到 2011 年度汉语证书班学生的学习情况进行数据收集，此班一共有 30 个学生，从数据分析和课堂教学实践中笔者发现学生可以利用已有的语言能力理解并帮助汉语的语音学习，从而促进汉语口语的习得。本文以塞林格(1972)的中介语作为理论支持，分析数据，解释学生的汉语习得。笔者希望本文能够揭示肯尼亚学生的第一、第二和第三语言的能力对他们汉语习得和跨文化能力习得的辅助作用，从而对汉语教学起到实际指导作用。

关键字：语音，非洲语，斯瓦西里语，汉语，中介语

1.0 Language Situation in Kenya

Kenya is a multi-ethnic society with three major ethnic groups: Bantu, Nilotes and Cushites. Kenya Population Census (2009) reports observe that 75% of the population speak languages belonging to the Bantu family, which include Gikuyu, Kamba, Luhya, and Tharaka among others. About 20% speak Nilo-Saharan languages such as Dholuo, Maasai and Kalenjin. The rest speak Cushitic languages, which comprise Somali, Oromo and Rendille. These ethnic languages serve as languages of group identity at the sub-national level. Learners in Kenyan schools are therefore drawn from these ethnic backgrounds and are competent in these African indigenous languages. However, for them to communicate across the ethnic boundaries, they mostly use Kiswahili.

Kiswahili is the nation's language of pride and identification and is a co-official language with English. It is also the language used for cross-ethnic and cross-border communication in Kenya and generally in East Africa and the language that politicians use for interaction with the public (Musau, 2003). Kiswahili, being a national language, gives majority of the Kenyans a sense of belonging, national loyalty and common identity. It serves as the language of solidarity because it functions to establish among speakers a "common ground, a sense of unity, a degree of intimacy and closeness or shared fate" (Githiora, 2008). In the East and Central African region, Kiswahili is a tool that facilitates unity and motivates integration among the different language communities.

English is the language in the civil service in Kenya (Mbaabu, 1996). Moreover, it is the language of both intra- and inter-ethnic communication. English is also used as the language for international communication in Kenya. It is the language of the media, parliament, legal system, judiciary and most publications in Kenya. English is also the language that is used in the military and is the language of diplomacy and through which modern styles of life, science and technology are introduced. English is also the medium of instruction in Kenyan schools. The students who join Confucius Institutes in Kenya to learn Chinese have had a long exposure to the English language.

Except for Kiswahili, the rest of the indigenous Kenyan languages are mostly confined to domestic, local and traditional non-literate domains. For example, they are used for intra-ethnic communication and for expression of ethnic identity and solidarity. These languages are used as media for the promotion of diverse cultures and through them, Kenyans continue to preserve and transmit cultural values of their linguistic groups. Indigenous languages are normally used for communication with

family and friends. In the school system, they are used as media of instruction during the child's first three years of primary education. Most of the students in Kenya are competent in Kiswahili, English and the indigenous languages.

A number of foreign languages are taught to Kenya's school going children. For example, German, French, and to some extent Japanese, Spanish, and Chinese are taught in a number of public and private institutions in the country. These languages are important to Kenyans not only because of the role they play internationally, for example as UN working languages but also because of their significant function in intercultural communication globally. Of late, Chinese has become popular in Kenya, especially since the establishment of Confucius Institutes at the University of Nairobi and Kenyatta University. Indeed, Kenya hosts the oldest Confucius Institute in Africa.

2.0 Less Commonly Taught Languages in Kenya and the Statement of Issue

As stated in the preceding paragraph, Kenya is highly multi-lingual. Nevertheless, not all languages are taught in schools and not all of them have had their grammars codified and described. Although English and Kiswahili, the two co-official languages in Kenya, and a few major indigenous languages such as Kikuyu, Luo and Kalenjin are taught in Kenyan schools, quite a number of indigenous languages are not taught at all. They are not even used as media of instruction despite the fact that the language policy in Kenya stipulates that children should be taught in their mother tongue during their 3 years of formal learning. Such languages together with a number of foreign languages form what can be referred to as the less commonly taught languages in Kenya.

Majority of Kenyan's students' population is bi-lingual. This means they can speak English and Kiswahili, the two co-official languages, their first languages or mother tongues and one or two foreign languages. The co-author of this paper, for example, can speak Kiswahili, English, German, a number of indigenous languages, and Chinese, a language that he learned Chinese after he had been exposed to eight other languages. He admits that the knowledge of the phonologies and grammars of these previously learned languages significantly influenced his learning of Chinese.

In this paper, therefore, we use his own experiences and those of the students at the Confucius Institute at Kenyatta University to discuss how the phonological knowledge of the first, second, third and even fourth languages previously learned can be utilized to facilitate acquisition of Chinese phonology, particularly speaking and listening skills.

3.0 Literature Review and Rationale

Learning additional languages after one has been exposed to other languages means that one can benefit a lot from the knowledge of the already acquired languages. Els et al. (1984) note that skills that already exist in first language have a significant role to play in second or third language learning. Commenting on the same issue, Krashen (1988) observes that a learner's first language (and perhaps other languages learned before the target language) impacts his or her learning an additional language. These views informed the research on which this paper is based as we sought to find out if the phonological knowledge of the previously learned languages facilitated acquisition of Chinese phonology among students at the Confucius Institute at Kenyatta University in Kenya.

Ellis (2008) observes that there are communicative strategies that learners apply while learning second, third or additional languages. Such strategies include paraphrases, substitution, non-verbal cues, translation, language switch or even avoidance. Learners learning additional languages such as Chinese in the case of students at Confucius Institute may revert back to such skills in their language learning, thus enhance faster acquisition of Chinese phonology.

James (1980) asserts that a learner in the process of second or third language learning undergoes several phases in the quest of achieving native-like control of the target language. These stages are referred variously as 'approximative systems' (Nemser, 1981) and 'transitional dialects' (Corder, 1971). The stages are successive and intersecting and each stage has unique features as well as features it shares with the immediately preceding and the immediately succeeding approximative system. In the learning of Chinese at the Confucius Institute in Kenya, the learners are bound to go through these 'approximative systems' in their quest to achieve a proficient command of Chinese grammar, phonology, lexis, morphology and semantics.

Similar to Nemser's 'approximative systems' is Selinker's (1972) concept of interlanguage. Selinker asserted that second or foreign language learners, like the students of Chinese at the Confucius Institute at Kenyatta University, develop a separate linguistic system, different from that of the native speaker but performing similar functions. This is based on the observation of the utterances which he or she produces when attempting to use the target language. These are believed to be the result of cognitive learning strategies such as language transfer, overgeneralization, teacher input, among others.

Selinker (1972) stresses that learners of a target language keep on referring to the previously learned structures of the first language to test his or her hypotheses. The research reported in this paper assumed that learners of Chinese at the Confucius Institute used the knowledge of the previously learned languages to test hypotheses while learning Chinese. This phonological knowledge that the learners have already acquired as they learned Kenyan indigenous languages, English and Kiswahili may have a positive effect in the pursuit of phonological competence in Chinese.

Contrastive analysis method is a viable approach in the teaching of second and foreign languages. It involves a contrastive description of linguistic aspects of the learner's first language and that of the target language with a view to identifying similarities and differences between the two (Sridha, 1985). Such a description can provide a starting point from which the unknown features can be analysed and ways of teaching them be developed. It is assumed that the contrastive analysis approach can help teachers and learners in the learning/teaching of a second or a foreign language. The teacher can, for example, isolate the differences between a learner's first language and a target language (like Chinese in our case) and to anticipate the major areas of difficulty. A learner of Chinese may not have difficulty, for instance, understanding and articulating sounds in the target language that are similar with those in his or her first language.

Given the multilingual nature of Chinese language environment in Kenya, a study that will look at how the previously learned languages could be made use of in Chinese language learning process is timely. The findings of the study are hoped to highlight areas in which students of Chinese may find easier or more difficult depending on the knowledge already acquired through exposure to other languages before they are introduced to Chinese. The findings also point out some of the ideas that teachers of Chinese should bear in mind while teaching the language to learners from multilingual environment, who are already competent in a number of languages before joining Chinese language classroom.

4.0 Objective

The research that informed this paper aimed at surveying how the knowledge of the phonologies of previously learned languages facilitate acquisition of Chinese phonology by students of Chinese at the Confucius Institute at Kenyatta University, Kenya.

5.0 Methods

To achieve the objective of the study, data were collected from 30 students learning certificate in Chinese Language and Culture at Confucius Institute at Kenyatta University, Kenya. Random sampling method was used to select 30 students who participated in filling in the questionnaire, the main method of data collection. We also made use of observation as teaching went on in the classroom to observe how both the learners and the teachers were utilising the phonological knowledge of previously learned languages in acquisition of Chinese phonology. In addition, we relied on the experiences of the co-author who had learned Chinese as the ninth language. The filled-in questionnaires were coded and analysed qualitatively to get the responses on how the previously learned languages can be utilised in Chinese classrooms. Selinker's (1972; 1991) Interlanguage Theory was useful in explanation of the patterns that emerged from data analysis. The results were then presented and discussed.

5.1 Questionnaire

- Name (Optional)_____
- Male_____ Female_____ Course_____
- Languages you speak and write fluently:
1_____
- 2_____
- 3_____
- 4_____
- 5_____
- How has your knowledge of the phonologies of these languages helped you in the learning of the following? Elaborate on your answer as fully as possible.
(1) Chinese sound system, sequencing of sounds, syllables, and other phonological phenomena in Chinese
- (2). Pronunciation of Chinese words
- (3). Chinese tones
- (4). Listening and speaking skills in Chinese

6.0 Results

Data analysis done revealed that all the students concurred that the phonological knowledge of the previously learned languages was vital in understanding the sound system in Chinese. The results of the data analysis are presented below.

a) Knowledge of phonemic inventories

The students reported that by the time they were introduced to Chinese, they had had the knowledge of the International Phonetic Alphabet. This is because students had learned phonetics and phonology of the previously learned languages before the introduction of Chinese. Information on the central pool of the human speech sounds, (IPA) forms important content in phonetics and phonology course syllabus. The students, therefore, found some Chinese sounds similar to the sounds of Africa languages and therefore found it easy to articulate the sounds in Chinese. For example sounds [m, f, t, d, l, n, k, g, s, h] are common in the phonemic inventory of both Chinese and African languages. These sounds are found in Swahili words such as *Mama* (mother), *baba* (father), *fulana* (sweater), *gari* (car), and also in Chinese words such as 大夫, 猫, 楼, 你好, 不客气, 中国, 四, 他们, 喝水。

b) Sounds patterning

The students further reported that the similarity of sequencing of the sounds in both Chinese and Africa languages helped them in understanding Chinese more easily. For example, the sequencing of sounds in Swahili words *chai* (tea), *shinda* (win) and *maji* (water) in Kiswahili is similar to the sequencing of the corresponding sounds in Chinese words 愁 (worried); 柴 (wood); 身 (body) and 麻将 (mahjong).

c) Knowledge of vowels and Consonant Sounds

The students noted that having learned about the vowels and consonants in the first, second, third and even fourth languages made it easy for them to understand the consonants and vowels in Chinese, some of the sounds are similar while a few are different. Kiswahili (and most other African Bantu languages), for example, has the following vowels: **a, e, i, o, u**. Chinese has similar vowels: **a, o, e, i, u**. The Kiswahili consonants include **b, d, f, g, h, j, k, l, m, n, p, r, s, t, v, w, y, z** while Chinese consonants include **b, p, m, f, d, t, n, l, g, k, h, j, q, x, z, c, s, r**. Further, Kiswahili has nine digraphs **ch, dh, gh, kh, ng', ny, sh, th, ts** and Chinese has digraphs as follows: **zh, ch, sh**.

Thus by the time the students are learning Chinese at the Confucius Institute, they already have a good understanding of the consonants and vowels and are able to follow easily when they are being taught the pronunciation of consonant and vowels sounds in Chinese.

d) Concept of Minimal Pairs

During their learning of other languages earlier, the students had learned how to use minimal pairs to practice on the new sounds in the target languages. During their Chinese classes, the learners therefore found the application of the concept of minimal pairs useful in understanding Chinese phonology and specifically used the minimal pairs to practice the Chinese sounds that appeared difficult to articulate such as **ji, qi, xi, zhi, chi, shi, ri, zi, ci, si**.

e) Prior Knowledge of Syllable structure

One basic component of the content of the study of phonology of any language is the structure of the syllable. This knowledge is important in understanding how sounds in a particular language pattern. The students from whom the data were collected had been exposed to the study of syllable structure in English, Kiswahili, a number of African languages and foreign languages. Therefore, they were familiar with concepts such as nucleus code, onset, open syllable, closed syllables, complex syllable and simple syllables. Hence, the students found the knowledge of the syllable structure useful in their understanding of Chinese syllable.

f) Tones

Chinese is a highly tonal language. The language utilizes pitch volitions to communicate different meanings. For example, 四 means 'four', while 死 means 'to die'. The understanding of correct tone is therefore very important in Chinese if the speaker has to communicate the intended meaning. The students observed that just like Chinese, most African languages are tonal and the fact that they had been exposed to tones while learning these languages made it easy to relate to the tone markings in Chinese.

The word *iria* in Kikuyu can mean **milk, sea, those ones** or **blacken** depending on the tone used while the word *moet* in Kalenjin can mean **wound** or **stomach**. Chinese is equally tonal with four Basic tones as in the following examples: 八 (eight); 拔 (pull); 靶 (target); 爸 (father). Luo, a major Nilotic language spoken in Kenya, also utilises tone in communicating different meanings. The word *tero*, for example, can mean 'to

inherit a widow' or 'to deliver something to someone and the word '*pondo*' refers to a traditional tree in Dholuo community or 'to hide' depending on the pitch variation.

Having been exposed to tone marking while learning and acquiring African languages, the students reported that, this knowledge of tone in previously learned languages prepare them well in understanding of application of tone in Chinese .it also facilitated their acquisition of listening and speaking skills in Chinese, because they have to listen and understand the correct tone, to be able to interpret the intended meaning.

g) Other Benefits of Phonological Knowledge of Previously Learned Languages

The responses from the questionnaires indicated that knowing that there is discrepancy between writing and pronunciation in other languages helped the students in understanding the discrepancy between pronunciation and orthography in Chinese, especially in the use of Pinyin. For example, q [tʂ], r [ʐ] do not correspond with their Pinyin orthographic symbols <q> and <r >. A number of students noted that when they remembered that it was not easy to learn second, third, and fourth language, yet they have achieved mastery of the languages, this motivated them a lot. Thus they felt that it was possible to become proficient in Chinese. They reported that they felt motivated to work harder so as to achieve similar speaking and listening proficiency as in the other languages previously learned. The students noted that while learning the second, third and fourth languages, they were made aware of the influence of the mother tongue in language learning. Such knowledge therefore made them more aware of the positive and negative influences of other languages on learning Chinese.

The students also observed that they were learning other languages they were able to apply a number of strategies. For example, they observed that they were able to use paraphrases, translation, substitution, dictation, gestures and other non-verbal strategies to encounter communicative problems due to their limited vocabularies. They also remembered that they made use of overgeneralization to test their hypothesis in Chinese language learning process. They also observed that they had already known that the importance of language practice in the acquisition of competent in a language. Further, they noted that teacher input was very important in language learning. This made them attentive to the teachers' instructions in the Chinese classroom.

7.0 Teaching points

To utilize the phonological knowledge of the previously learned languages, the teacher can identify the sounds that differ in the two languages to determine the points of emphasis while teaching Chinese phonology. For example, the articulation of [r] in Chinese differs from its articulation in African languages. The learner can benefit from knowing that it can be articulated like the “ge” in **garage** then the teacher exposes the learner to that sound through more practices using minimal pairs and other phonological exercises. Such an approach will result in better articulation and pronunciation of Chinese words.

The teacher of Chinese should consider the structure of the syllable in Africa languages while introducing the syllable structure in Chinese because the learners will easily understand the syllable structure in their own languages. By doing this, the teachers will be moving with the students from the known to the unknown, thus avoiding complicated information that could make the understanding of the Chinese syllable difficult.

8.0 Implications

The findings of the study have implications on Chinese language teaching in Kenya. First, the teachers of Chinese should note that the phonological knowledge of already learned languages is a blessing in learning of Chinese in Kenya. There is much that learners could benefit from this prior knowledge; second, while teaching , teachers should begin from what the learners know before introducing the unknown; third, while teaching Chinese phonology, teachers should focus first on the similar sound segments, then move on to the dissimilar sound segments. They should then expose the learners to a lot of practice exercises on the dissimilar sound so that they are able to overcome articulation difficulties.

The teachers should encourage the learners to utilise the learning strategies which they had applied while learning first, second, third, and even fourth languages. In addition, students should be encouraged to make use of the available Chinese audio-visual resources to facilitate faster acquisition of speaking and listening skills of Chinese. The teachers should in addition use the multi-media approach in their teaching of Chinese phonology. By so doing, the teachers will enhance faster acquisition of the speaking and listening skills of the students. The students should also participate in the language activities such as Chinese bridge, Chinese corner, HSK exam, summer and winter camps for more exposure to the Chinese language. The students should also be encouraged to take part in the Chinese Festival

celebrations, such Chinese Spring Festival, Chinese National Day, mid-autumn Day among others.

9.0 Conclusion

The main thesis of this paper has been to explain how learners of Chinese language in Africa could utilize the phonological knowledge of previously learned languages in the acquisition of Chinese phonological competence. The paper has highlighted how this phonological knowledge can be utilized in Chinese classroom in Africa and beyond. It has emerged from the paper that the multilingual nature in many African countries offers many advantages to learners of Chinese as fourth or fifth language. The knowledge of the phonologies of the many African languages is useful in effective teaching and learning of Chinese and teachers should utilize this knowledge to enhance the learners' acquisition of proficiency in all skills in Chinese, especially listening and speaking skills.

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