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Similarities in English words pronunciation errors between Japanophones and Bembaphones

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Abstract

This article focuses on similarities in English words pronunciation errors shared between Japanese and Bemba speakers who have learnt or are still learning English as their second language. Second language learners encounter many challenges depending on how different the L2 is from their ambient language. One of these challenges is phonotactic constraints. This paper first introduces the Bemba language and its phonetic system, comparing it to that of English and Japanese. The paper then explains in depth three observed shared pronunciation difficulties between Bemba and Japanese learners of English. Namely, perception of the English /l/ and /ɹ/, 'th' fricatives – /θ/ /ð/ and finally consonant clusters. It should be noted that the paper focuses on Bemba speakers who grew up in a monolingual Bemba-speaking home and were only introduced to the English language in their later years. Another important thing worth noting is that no known experiments have been carried out to test these errors in Bemba speakers in comparison to Japanese; and, therefore, the ones noted in this paper are purely from our own observations and on analyses done on English loanwords in Bemba.

Keywords: English words pronunciation errors, Phonotactics, Epenthesis, Japanophones and Bembaphones

Introduction

Previous research has shown that language interference is one of the factors that affect learning of a second or third language. Second language learning especially in adulthood can be quite a challenge Chishiba G. and Mukuka J. (2012) [2] argue that interference can be observed at all the linguistic levels, namely; phonetic, structural, phonological, morphological, syntactical, grammatical and semantic. For instance, as Lupande (1994) [5] indicates, phonological interference occurs in speech productions of Bembaphones learning English or French because of phonological disparities. Some of the second language learners we interviewed argued that speaking is the most difficult part, as the learners are not only faced with using the newly learnt grammar, but also expected to pronounce words with sounds or sound combinations that might not exist in their ambient language. Studies in second language learning have shown that learning, perceiving and production of the L2 are influenced by the learner's L1. This is because of the language transfer theory which, according to the online Oxford linguistics dictionary, is the phenomenon whereby acquisition of a new language is influenced by the grammar, pronunciation, orthography, or other aspects of an individual's first language (or another previously learned language), which may either inhibit or facilitate learning.

This study seeks to bring out some of the pronunciation difficulties that Japanese learners of English face and which are interestingly shared by Bemba speakers of English, too. We have singled out three main pronunciation errors that we have observed, namely, the lateral alveolar approximant /l/ and the alveolar approximant /ɹ/; the two 'th' fricative sounds: /θ/ and /ð/ and consonant clusters.

In this paper, the focus will be on Zambian Bemba speakers who grew up in a monolingual home and were only exposed to the English language in later stages of their lives. Despite Zambia being an English-speaking country where the education system from elementary to tertiary level is English instructed, most Zambians grow up in bilingual homes where, other than English, indigenous languages are spoken too. In most cases, traditional parents insist on the use of indigenous languages in the home such as Bemba in order to preserve culture. In addition, some Zambians who do not have access to education and live in rural areas only speak their tribal language and little to no English (Chishiba G. and Manchishi, 2016) [3].

Bemba: A Bantu language

Bemba, which is one of the Bantu languages, is also called Cibemba or Icibemba (ISO 639-3 code *bem*). In addition, it is further classified as a Niger-Congo language belonging to the Central Narrow Bantu branch (Zone M in Guthrie's 1948, 1967-71 classification). Its largest population is now concentrated in the Copperbelt, Luapula, Northern and Muchinga provinces of Zambia. In fact, Bemba is also spoken as a lingua franca in these provinces as well as the rest of Zambia. There are 18 ethnic groups that can be said to be related to Bemba. Among them we can mention the Lala people of central Province and the Bisa people found in Mpika and Lake Bangweulu in Zambia, and some parts of Katanga province in the Democratic Republic of Congo, (Vidali, et al, 2014) [9].

The Bemba language has got five vowels and 19 consonants. We can also that there are three consonant sounds in Bemba which do not occur in Standard American English. We are referring here to the voiced bilabial fricative [ß] that occurs in two contexts: word initially (for example in bwangu 'fast') and between vowels (as in abana 'children'). In all other contexts, the character 'b' is pronounced as the English plosive [b]. You can hear this voiced bilabial fricative [ß] as the first two consonant sounds in the word abaBemba 'Bemba people' and as the second consonant in the related word iciBemba 'Bemba language/customs. Another difference from Standard American English appears in the sound represented by /l/. This is an alveolar lateral flap in Bemba, rather than the English approximant /l/. Lastly, the characters ny in Bemba orthography represent a palatal nasal [ñ], as in the Spanish breña (rough ground) or the French gn in montagne (mountain) and the 'ng' which is used to represent the velar nasal - a hooked n [ŋ] is also used in some orthographic systems. In English, the velar nasal [ng'] only exists at the end or in the middle of a word and never in the onset like in Bemba 'ring' and 'ringer. In Bemba however, it can occur in the onset as in: ng'ng'anga', a 'traditional healer/doctor' and ng'ng'anda, a 'house'. The 19 consonants identified by Vidali et al. (2014) [9] which were established after a thorough linguistic analysis are shown below.

Table 1: Bemba Consonants

	Bilabial	Labiodental	Alveolar	Alveopalatal	Palatal	Velar
Stops						
Voiceless	p		t			k
Voiced	(b)		(d)			g
Fricatives						
Voiceless		f	s	(ʃ)		
Voiced	ß					
Affricates						
Voiceless				tʃ		
Voiced				dZ		
Nasals	m		n		ñ	ng'
Laterals			l			
Approximates						
Semivowels	w				y	

Table 2: Bemba Vowels

	Front (unrounded)	**Central** (unrounded)	**Back** (rounded)
High	i ii		u uu
Mid	e ee		o oo
Low		a aa	

Table 3: Japanese Sounds

Manner of Articulation:	Place of Articulation: Bilabial	Labiodental	Interdental	Alveolar	Palatal	Velar	Glottal
Stop voiceless	p			t		k	
voiced	b			d		g	
Nasal	m		n			ŋ	
Fricative voiceless	ɸ			s	ɕ		h
voiced				z			
Affricate voiceless					c		
voiced					ɟ		
Glide voiceless							
voiced	w				j	w	
Liquid				ɾ			

The Japanese language consists of five pure vowel sounds (a, i, u, e, o) that can be short or long just like the Bemba language. It has a simple CV syllable structure with the vowel sound preceded by one of approximately 15 consonant sounds. Below is a table of the Japanese consonant sounds.

Table 4: Bemba alphabet and pronunciation

A a	B b	C c	D d	E e	F f	G g	I i
[a]	[b/ɓ~w/β]	[tʃ/tj]	[d]	[e]	[f~v]	[g]	[i]
J j	K k	L l	M m	N n	Ng' ng'	O o	P p
[dʒ/dj]	[k]	[l]	[m]	[n]	[ŋʰ]	[ɔ]	[p]
S s	Sh sh	T t	U u	V v	W w	Y y	
[s]	[ʃ]	[t]	[u]	[f~v]	[w]	[j]	
Other letters							
aa	ee	ii	oo	uu			
[a:]	[e:]	[i:]	[ɔ:]	[u:]			

Source: https://omniglot.com/writing/bemba.php

2. Pronunciation difficulties

According to Elizabeth Zsiga (2014), "Languages do not allow random sequences of sounds; rather, the sound sequences a language allows are a systematic and predictable of its structure". When it comes to learning English pronunciation, Japanese learners face two main problems. The first one is sounds used in English that are not found in Japanese. Of these, the English /l/, /r/, /θ/ and /ð/ will be discussed. The second problem is what Martin (2004) [6] called the 'Katakana effect'. Katakana is the script

used to transliterate foreign words adapting them to the syllable structure of Japanese. For example, the word 'table' in katakana would be 'teeburu' and 'bus' - 'basu'. Foreign words in Bemba are also nativized and pronounced with the same phonotactics as Bemba words. For example, 'table' is 'teebulo' and 'bus' is basi'. Many Japanese learners of English when faced with difficult words tend to katakanise them (Martin, 2004) [6]. This happens because words borrowed from other languages or difficult words in the target language are treated according to the sound system of the receiving language. Words with sounds that do not fit into the phonetic system of the ambient language need to be adapted to fit that system, and consistent patterns of adaptation can be explained by assuming particular rankings of phonological constraints (Prince and Smolensky, 1993).

When producing a loanword, speakers attempt the closest approximation to the model. However, because the L2 and L1 phonological patterns do not correspond identically, speakers may have to exercise sound alternation because the L1 does not have the sounds that are in the L2 (Hafez, 1996). To facilitate their production, speakers of Bemba resort to the closest native sound available in their repertoire.

The next part of the paper will discuss difficulties in pronouncing the four English phonemes; /l/, /r/, /θ/ /ð/ and consonant clusters.

2.1 /l/ and /ɹ/

A number of studies have been done on the difficulties that adult Japanese learners of English face in the perception and production of the English /l/ and /ɹ/ phonemes including perception of syllable-initial /l/ and /ɹ/ as singletons or in initial clusters, and some have also dealt with /l/ and /ɹ/ between vowels (Masuda et al, 2010) [7]. However, no available studies have been carried out such a study on Bemba speakers. The absence of the English lateral alveolar approximant /l/ and the alveolar approximant /ɹ/ in both Japanese and Bemba results in pronunciation and perception difficulties for both Japanese and Bemba learners of English.

Due to its absence, Japanese speakers who have learnt the lateral alveolar approximant /l/ will either pronounce it as /r/ or /ɹ/. Both the sound /l/ and /ɹ/ are voiced alveolar approximants; hence they are similar in both perception and articulation creating a problem. An example of this is a Japanese learner of English pronouncing the word 'lamb' as 'ram' (Carr, 2020) [1].

As mentioned earlier, in the Bemba language, the sound represented with /l/ is an alveolar lateral flap, rather than the English approximant /l/. Hence, a similar problem occurs - Bemba speakers are heard saying 'led' as opposed to 'red' for the colour. It should be noted however, that where the Japanese /r/ is between an English /l/ and /r/, the Bemba language does not have an /r/ sound at all.

2.2 'th' Fricatives – /θ/ /ð/

Fricatives articulated in the front of the mouth are very difficult for Japanese speakers, most noticeably the two 'th' sounds: /θ/ and /ð/. Japanese learners of English usually replace these sounds with either dental /t/ & /d/ or alveolar /s/ & /z/. For example, the word 'thanks' would be pronounced 'sanks'. Similarly, Bemba speakers when pronouncing words such as 'thousand', would say 'souzand' and in some cases 'southand'. This is so because the Bemba speakers try to find the closest sound to the 'th' from the Bemba repertoire.

2.3 Consonant Clusters

Every language varies in what sequences of phonemes it allows in different positions in the syllable. As mentioned earlier, because of the transfer theory, second language learners will often pronounce words in their target language according to the phonotactics of their native language. Bemba and Japanese have similar open CV syllable structures and because of this, both languages do not allow for many consonant clusters in onsets and codas, hence, consonant clusters in English present a significant problem.

For Japanese learners of English, one of the most difficult clusters is the three-consonant onset clusters in words such as ''strike'' as /sutoraiku/ with a vowel inserted after a consonant in order to avoid syllables ending in a consonant Carr, (2020) [1]. Generally, [u] is inserted after a consonant except after [t, d] and [/ʧ/, and /ʤ/] in which case the vowels inserted are [o] and [i], respectively. Insertion of [u] is preferred because it is the shortest vowel in duration to be pronounced in Japanese, and it is also most likely to become devoiced along with [i] Tajima et al, (1991).

As with many other Bantu languages, syllables in Bemba are characteristically open and are of four main types: V, CV, NCV, and NCGV (where V = vowel (long or short), C = consonant, N = nasal, G = glide (w or y)). These types are illustrated by isa (i-sa) 'come!', soma (so-ma) 'read!', yamba (ya-mba) 'begin!' and impwa (i-mpwa) 'eggplants' (Kula, 2000). Bemba speakers like Japanese learners of English have similar challenges in pronouncing English consonant clusters in both word-initial; for example, where Japanese speakers would insert [u] in the onset consonant clusters in the word 'strike', Bemba speakers would insert [i] i.e., sitiraiki. In word-final coda consonant clusters in words such as 'against' [e] is inserted between the /n/ and /st/ resulting in the word 'against'.

3. Conclusion

Due to the similarities in their phonemic systems and syllables, Japanese learners of English and Zambian speakers of Bemba make similar errors when speaking English due to L1 transfer or interference. This is interesting because it could possibly mean Zambians would find it easier to pronounce Japanese words than other learners of Japanese. A phonological comparative study of the two languages would perhaps add essential information to the field of linguistics.

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