The Role of Shift-Induced Interference in the Development of a Typologically Rare Phonological Contrast in Somali Bantu Kizigua

*Le rôle de l'interférence induit par conversion linguistique dans le
développement d'un contraste phonologique typologiquement rare en bantou
somalien (kizigua)*

Holman Tse

Electronic version

URL: <http://journals.openedition.org/tipa/1426>

DOI: 10.4000/tipa.1426

ISSN: 2264-7082

Publisher

Laboratoire Parole et Langage

Electronic reference

Holman Tse, « The Role of Shift-Induced Interference in the Development of a Typologically Rare Phonological Contrast in Somali Bantu Kizigua », *TIPA. Travaux interdisciplinaires sur la parole et le langage* [Online], 31 | 2015, Online since 22 December 2015, connection on 26 May 2020. URL : <http://journals.openedition.org/tipa/1426> ; DOI : <https://doi.org/10.4000/tipa.1426>

This text was automatically generated on 26 May 2020.

La revue *TIPA. Travaux interdisciplinaires sur la parole et le langage* est mise à disposition selon les termes de la licence Creative Commons Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International.

The Role of Shift-Induced Interference in the Development of a Typologically Rare Phonological Contrast in Somali Bantu Kizigua

Le rôle de l'interférence induit par conversion linguistique dans le développement d'un contraste phonologique typologiquement rare en bantou somalien (kizigua)

Holman Tse

This paper presents a significantly revised and expanded analysis of data originally presented at the 44th Annual Conference of African Linguistics and published in its proceedings (Tse, 2015). Reconstructing the linguistic history and the social history of speakers of an under-documented language was a very challenging yet ultimately rewarding experience that involved many twists and turns. I could not have arrived at the analysis presented in this paper without the assistance and support of many individuals along the way. Any errors are entirely my own. I would like to thank the following:

- 1) University of Pittsburgh Dietrich School of Arts and Sciences for partial funding support.*
- 2) US Department of Education Foreign Language Area Studies (FLAS) Fellowship Program for giving me the opportunity to study Swahili and East African history. Asante sana to my Swahili instructor Mwalimu Leonora Kivuva!*
- 3) All participants in the Spring 2012 Field Methods class at the University of Pittsburgh.*
- 4) Faculty Advisors: David Mortensen, Scott Kiesling, Claude Mauk, Shelome Gooden.*
- 5) Conversations with: Dave Odden and Larry Hyman.*
- 6) Audience feedback from: RFP 2014 and LSA 2015.*
- 7) Rachel Coulter for proofreading the manuscript.*
- 8) And most importantly of all: the Somali Bantu Community Organization of Pittsburgh and all anonymous consultants who volunteered their time. Asante sana!*

1. Introduction

- 1 In their seminal critique of strictly internalist approaches to historical linguistics, Thomason & Kaufman (1988) discuss two general mechanisms for contact-induced change. One is *borrowing* while the other is *interference through shift* (or *shift-induced interference*). One of the key differences between the two is the initiator of change. While interference through *borrowing* is initiated by native speakers of the target language, *shift-induced interference* is initiated through a community of non-native speakers who acquire the target language through “imperfect learning” and by doing so introduce structural features of their native language to the target language. Although the presence of one does not mean the other cannot operate in a given contact situation, Thomason & Kaufman (1988) argue that these two distinct mechanisms have important implications for the resulting outcomes. For example, in interference through borrowing, the borrowing of loan words precedes structural transfer while in shift-induced interference the reverse may be possible. Thus, there may be some cases of borrowing in which no structural transfer takes place (ex: borrowing words only for new technological items) and cases of shift in which structural transfer takes place with little or no borrowing of loan words (ex: immigrant groups shifting to a dominant language).
- 2 Of these two types of interference, cases of shift are far less reported in the literature. Yet, shift may have historically played a greater role in initiating change than has otherwise been described. As Thomason & Kaufman (1988) explain, the problem stems from the very nature of language shift. A completed shift means the disappearance of a language within a community. If a language disappears, so does key evidence about the structure of a language. Unless there is surviving documentation of the language or unless the language continues to be spoken elsewhere, the structural effects of shift-induced interference can be difficult to prove.
- 3 The goal of this paper is to present a case study in which there is sufficient socio-historical and linguistic evidence available to support the argument that shift-induced interference was the primary mechanism in the development of a typologically rare phonological contrast. The target language of interest is Somali Bantu¹ Kizigua² (henceforth abbreviated as “SBK”), an under-documented and possibly endangered dialect of the Kizigua³ language from Tanzania. SBK diverged from Tanzanian Kizigua (henceforth abbreviated as “TK”) following the forced migration of some members of the Zigua tribe, who were taken to Somalia⁴ in the 19th Century to work as slaves. SBK has a typologically unusual contrast between front coronal (dental or alveolar)⁵ and retroflex Nasal + Consonant (NC) clusters. These NC clusters are a genetic feature found across Bantu languages. Retroflex NC (/ɳɬ/ and /ɳɖ/), which developed from alveolar NC (/nt/ and /nd/), occurs only in vocabulary inherited from TK while front coronal NC occurs exclusively in loan words.
- 4 Although such a distributional pattern suggests internal motivation in the emergence of retroflexion, this paper will instead argue that the initial trigger for these changes was shift-induced interference from a genetically related language (Chimwiini) that shares a high degree of both lexical and phonological similarity. If internal motivation were the case, there would need to be a phonetically grounded reason to account for the diachronic retroflexion of NC clusters. No previous research, however, has shown

phonetic motivation for such a sound change. Given the history of migration involved, contact would be the most obvious explanation especially since areal linguistics research has shown languages with retroflex NC in Somalia but none in the part of Tanzania where Kizigua has traditionally been spoken. Yet, what may be less obvious is the particular sequence of events involved. The account presented is consistent with Thomason & Kaufman's (1988) claim that structural transfer may precede borrowing of loan words in shift situations resulting in relatively rapid change. The chronology involved is complex, reflecting the complex socio-historical reality of 19th and 20th Century East Africa.

- 5 The structure of this paper will proceed as follows. After presenting relevant background on retroflexion and shift-induced interference in Section 2, the data from SBK will be presented in Section 3. Section 4 presents the socio-historical evidence for shift while Section 5 presents an analysis of the diachronic linguistic data in light of the social history of Kizigua speakers. This paper concludes in Section 6 with a summary and brief discussion of implications of this study.

2. Background on Retroflexion and Shift-Induced Interference

- 6 According to the World Phonotactics Database (Donohue et al., 2013), retroflex plosives are found only in 14.3% (or 542) of the 3,798 languages included. Even more rare are retroflex prenasalized stops, which are found in SBK⁶. Table 1 includes information on the occurrence of these sounds in the PHOIBLE (PHOnetics Information Base and LExicon) database (Moran et al., 2014). While languages from the Indian sub-continent are well known for having multiple retroflex sounds in their consonant inventories, a language with two of the less common types of retroflex sounds such as found in SBK is extremely unusual. This raises the question of how they would develop in the first place.

Table 1. Occurrence of Selected Retroflex Stops in PHOIBLE (Moran et al., 2014)

Sound	Description	# of Languages	Occurrence (out of 1,010 languages)	Example Languages
t̪	voiceless retroflex plosive	79	7.82 %	Bengali, Hindi-Urdu
d̪	voiced retroflex plosive	74	7.32 %	Bengali, Hindi-Urdu
ɳ̪	voiceless prenasalized retroflex stop	2	0.40 %	Tiwi, Yanyuwa
ɳ̪̥	voiced prenasalized retroflex stop	1	0.20 %	Alawa

- 7 Bhat (1973) presents perhaps the most comprehensive study of how retroflexion developed cross-linguistically. Based on a survey of 150 languages containing retroflex sounds, Bhat (1973) observed that most languages containing retroflex sounds occur in geographical clusters. These clusters often contain unrelated as well as related languages. He identified only a handful of phonetically motivated reasons for which a retroflex sound can develop independently in a language. These include having a preceding apical tap or trill, a following back vowel, and implosion. Once a retroflex sound develops in one language, it can consequently spread to neighboring languages through contact. This, according to Bhat (1973), accounts for the geographical clustering of a majority of languages with retroflex consonants.
- 8 None of the phonetic environments mentioned by Bhat (1973) would account for the retroflex NC stops found in SBK. An internalist explanation of their development, thus, finds very little support. Then again, there are very few documented languages that have such sounds in their phonemic inventories. So it could simply be the case that we know too little about the nature of such sounds to propose a phonetically motivated reason for their development. Nevertheless, there are at least a few cases in the literature in which a convincing externalist account can be developed to account for their emergence.
- 9 Nurse & Hinnebusch (1993), for example, have described a cluster of Northeastern Bantu languages spoken in Northeastern Kenya and Southern Somalia that have such sounds that developed as a result of historic contact with neighboring Cushitic languages. As will be discussed later, these languages coincidentally happen to include some of the languages that Kizigua speakers encountered when they migrated to Somalia. These languages also share a common ancestor with Kizigua. The split between these two sub-groups of Bantu, however, occurred at least a millennium ago. Some of these languages such as Bajuni (considered a Northern Dialect of Swahili) have only /ŋd/ while others such as Chimwiini (also considered a Northern Swahili Dialect) and Pokomo have both /ŋd/ and /ŋt/. Nurse & Hinnebusch (1993) refer to this areal feature as *nt/*nd retroflexion reflecting the fact that these inherited consonants were alveolar in Proto-Bantu. They describe *nt/*nd retroflexion as having developed as a perceptual enhancement for the contrast between these consonants and dental counterparts. The introduction of dental consonants in these Bantu languages, however, preceded the development of the retroflex consonants through a rather complicated chronology.
- 10 According to Nurse (1985), the first step was the borrowing of dental sounds through loan words from an ancestor of one of the Cushitic languages spoken in the region. All Cushitic languages have a two-place coronal contrast in their stop inventory with one category being dental and the other being either post-alveolar or retroflex. Thus, any of the Cushitic languages could have been the original source. As words with dental stops became more common, the second step was that words with inherited non-prenasalized alveolar consonants shifted in place of articulation to become dental. Finally, the third step was for historic palatal (including prenasalized) stops to undergo a similar shift in which they also became dental. Nurse (1985) justifies the last step as possible due to the similarity in the disposition of the tongue tip and blade for both sounds. While the tongue tip is raised and the blade operates on the palate for palatal sounds, the tongue tip operates on the teeth and the blade is lowered from the palate for dental sounds⁷. Thus, *in a kind of rocking movement, one part is raised as the other is*

lowered (Nurse, 1985, p. 260). This made possible the “skipping” of the alveolar place of articulation in their diachronic development and would account for why many of the inherited words with dental stops correspond to palatal stops in other Bantu languages. Contrast maintenance may have also played a role since the inherited alveolar consonants remained alveolar. With such a system, the remaining alveolar consonants including prenasalized ones became retracted over time (Nurse & Hinnebusch, 1993). The ultimate outcome is that all the Bantu languages spoken in this region have developed a consonant system that increasingly resembles the consonant inventory of Cushitic languages in having a two-place coronal contrast in stops. This example finely illustrates in detail how retroflexion as well as dentality can spread across a region and become areal features as Bhat (1973) described.

- 11 One weakness in this account, as Nurse (1985) admits, is the lack of socio-historical information about the nature of contact between Bantu and Cushitic speaking groups. As he states :
A sociolinguist would presumably claim that it is not enough to show that two or more historical communities coexisted and that a feature inherited in one led in some way to its appearance in the other. He would demand a more rigorous demonstration of the nature of the transfer (Nurse, 1985, p. 276).
- 12 This, of course, is a common but understandable problem in historical linguistics and is also a common assumption made in many studies of contact-induced change. Yet, as is true in many cases, there simply is not enough information available about the history of social interaction in the region.
- 13 Nurse’s (1985) analysis also relies on borrowing of loan words as the initial trigger of these changes although he does hint at the possibility of shift-induced interference⁸. He discusses how Cushitic groups were once the dominant groups in the region and how this changed over time with the growth and expansion of Swahili and other Bantu communities along the coast. If this is the case, this may have created the social conditions for some of these Cushitic speakers to shift to these Bantu languages. With language shift from Cushitic to Bantu, Cushitic phonological features such as a two-place coronal contrast may have spread through shift-induced interference. If this really were the case, such a change could have happened within a few generations rather than over the course of several centuries as Nurse (1985) claims. The problem once again is lack of historical evidence. The long period of time since the initial Bantu arrival in Somalia also obscures the chronology of events.
- 14 Another example of the historic emergence of retroflex consonants is discussed by Thomason & Kaufman (1988) as a case of shift-induced interference. The target language involved in this case was Indic while the shifting speakers spoke Dravidian. In this case, the Indo-Aryans, who spoke Indic, invaded the Indian subcontinent where the indigenous population spoke Dravidian. This invasion resulted in Dravidian speakers shifting to Indic. In the process of this shift, Dravidian speakers introduced Dravidian features into the Indic spoken by their conquerors. These features included a dental vs. retroflex contrast. One notable outcome of this shift is that old Dravidian loan words are extremely few in Indic. In contrast, literary Dravidian languages have plenty of Indic (and more specifically Sanskrit) loan words. This reflects the different outcomes that result from shift (as in Indic) as opposed to borrowing (as in Dravidian). In spite of their high-degree of confidence in their shift-induced account for Indic, some scholars

remain unconvinced. The way to strengthen an externalist account would be more detailed historical evidence about the nature of social interaction between Indic and Dravidian speakers. Once again, this is something that is lacking in this situation. Furthermore, the time that has elapsed since the period of initial contact also means that some of the purported shift-induced changes have been obscured by later changes. This can make it more difficult to reconstruct an accurate chronology of changes.

- 15 The SBK case discussed in this paper addresses some of the methodological problems found in other purported cases of shift, namely gaps in linguistic and socio-historical evidence. The time frame involved spans less than 200 years. This is far enough in the past for notable changes to have occurred while at the same time not so long ago that much of the evidence has disappeared. Although there are still some uncertainties in the record, the relatively recent history involved has meant more surviving pieces of evidence available than is the case for the aforementioned examples discussed. This includes missionary documentation of languages, traveler accounts, and oral histories as told by the oldest members of the community, some of whom had grandparents who lived during the 19th Century. The next section presents the available linguistic data followed by a discussion of the available socio-historical evidence.

3. The Data

- 16 Thomason & Kaufman (1988, p. 111) identify three key pieces of information needed for establishing convincing arguments for shift-induced interference. They include 1) an identifiable substratum language, 2) information about the structure of the substratum, and 3) information about the target language before the shift. Table 2 below summarizes the list of available sources with linguistic data. This includes data from consultant work (henceforth referred to as the Pitt SBK Data) collected by the author, dictionaries, and grammatical descriptions.
- 17 The Pitt SBK Data includes digitized recordings of the speech of four speakers from a Somali Bantu refugee community present in the United States since 2004⁹. This included one female and three male speakers ranging in age from 21 to 30 at the time of recording. The first speaker was recorded as part of a Field Methods course that took place between January and April 2012. The three other speakers were recorded several months later as part of a broader survey of general pronunciation patterns within the SBK speaking community. All four of these speakers were born in Somalia and also speak Af-Maay, Somali, Standard Swahili, and English to varying levels of proficiency. Finally, all four of these speakers have a two-place coronal NC contrast in their speech. The development of this contrast is what needs to be accounted for in this paper.
- 18 Section 4 fulfills Thomason & Kaufman's (1988) first criterium by presenting the socio-historical evidence for Chimwiini as the substrate language. Data fulfilling the second criterium, information about the structure of the substratum, can be found in Nurse & Hinnebusch (1993), which also includes an extensive analysis of the historical development of Northeastern Bantu languages. All sources on Chimwiini and many of the geographically adjacent languages spoken in Southern Somalia have a two-place coronal NC contrast. Finally, to fulfill the third criteria, we have data on TK from both before and after the purported shift. None of these sources report the presence of a

two-place coronal NC contrast. Thus, the contrast must have developed some time after the arrival of Kizigua speakers in Somalia during the second half of the 19th Century.

Table 2. Data Sources (c. 1880's to the present)

Approximate Time Period Represented	Tanzanian Kizigua	Somali Kizigua Bantu	Chimwiini (Substrate)
Before the shift	Kisbey, 1897, 1906 ; Last, 1885 ¹⁰		Kisseberth & Abasheikh, 2004; Nurse & Hinnebusch, 1993 and sources cited within
After the shift	Mochiwa, 2008	Crevatin, 1993; Odden, n.d.; Pitt SBK Data	
Presence of Two-Place Coronal NC Contrast	NO	YES	YES

- 19 The NC clusters described in this paper are an inherited feature found across Bantu languages. In some contexts such as in word-initial position, they are phonetically produced as prenasalized stops while in other contexts it is not clear whether or not they are phonetically prenasalized. They also appear to behave like two distinct segments in a morpho-phonological alternation involving a nasal prefix. In general, their phonetic and phonological status is controversial among Bantu linguists (cf. Hyman, 2003 for a general discussion). For the purpose of this paper, I describe them as single units because they behave diachronically as single units. When transcribing them, however, I follow the common Bantuist convention of representing them as two segments and more specifically as a nasal segment followed by a homorganic stop (ex: ηt and ηd) rather than with a superscript (ex: ^nt and ^nd). What is most crucial to the argument of this paper is that there is a contrast between a front coronal (dental or alveolar) and a back coronal (post-alveolar or retroflex) NC cluster.
- 20 Acoustic evidence of the contrast can be found by comparing the spectrograms and waveforms for the pair [b ηnt i] ‘door’ vs. [haranti] ‘courtyard’ and for the pair [ndoni] ‘boat’ vs. [t ηnd o]¹¹ ‘star’. All of the spectrograms and waveforms shown in this paper come from the same speaker (Speaker #2 in the Pitt SBK Data recordings) and were produced using the phonetic analysis software PRAAT (Boersma & Weenink, 2015). As illustrated in Figure 1 for [b ηnt i], there is no pause between the nasal and the onset of the following stop. The production of the [t] is accompanied by a significant amount of aspiration, which appears to be a secondary phonetic cue¹². There is also a lowering of the third formant (F3), which has been described as an acoustic correlate of retroflexion (Ladefoged & Maddieson, 1996, pp. 27–28). In contrast, heavy aspiration and retraction are absent for the [nt] in [haranti]. There is also a significant pause between the [n] and [t] as illustrated in Figure 2. For the contrast between /nd/ and / ηd /, spectrograms and waveforms of the words [ndoni] and [t ηnd o] are shown in Figure 3 and Figure 4 below. For the [ηd] in [t ηnd o] (Figure 4), there is a notable lowering effect on the F3 in both the preceding and following vowel. In contrast, the F3 following the [nd] in [ndoni] (Figure 3) appears to be relatively level.

Figure 1. Waveform and Spectrogram of [baŋti]

21

This media file cannot be displayed. Please refer to the online document <http://journals.openedition.org/tipa/1426>

NOTE THE ASPIRATION OF [t̚] AND SLIGHT LOWERING OF F3. (FROM SPEAKER #2 IN THE PITT SBK DATA)

Figure 2. Waveform and Spectrogram of [haranti]

22

This media file cannot be displayed. Please refer to the online document <http://journals.openedition.org/tipa/1426>

Note the short duration of [t] in contrast to the heavily aspirated [t] in Figure 1 as well as relatively level F2 and F3. (From Speaker #2 in the Pitt SBK Data)

Figure 3. Waveform and Spectrogram for [ndoni]. (From Speaker #2 in the Pitt SBK Data)

This media file cannot be displayed. Please refer to the online document <http://journals.openedition.org/tipa/1426>

23

Figure 4. Waveform and Spectrogram for /ɲtɔndo/ > [tɔndo]

This media file cannot be displayed. Please refer to the online document <http://journals.openedition.org/tipa/1426>

24

NOTE THE DEPRESSING EFFECT OF RETROFLEXION ON F3. (FROM SPEAKER #2 IN THE PITT SBK DATA)

- 25 Table 3 below has a longer word list that places the SBK forms along with their TK counterparts. By identifying words with retroflexion and their corresponding forms in TK, we can clearly see that /nt/ and /nd/ in TK correspond to retroflex NC in SBK as illustrated in Table 3. In all cases of inherited vocabulary, /nt/ and /nd/ are retracted. Exceptions to retroflexion, in contrast, appear to be limited to non-inherited vocabulary as illustrated in Table 4. Thus, it appears that loan words can contain /nt/ and /nd/ while cases of inherited /nt/ and /nd/ all became [ɲt] and [ɲd]¹³. The overall result of retraction of the alveolar NC stops and the borrowing of new vocabulary with dental/alveolar NC is a consonant inventory that includes a two-place coronal contrast that is absent in TK.

Table 3. nt > ɲt and nd > ɲd in Inherited Vocabulary

TK (Kisbey, 1906)	SBK ¹⁴	Gloss
mntu	mɲtu	'person'
ntondo	ɲtɔndo	'star'
ntambo	ɲtambo	'traveler'
ntembo	ɲtembo	'elephant'
banti	bɲti	'door'
ntangulu	ɲtangulu	'basket'

vundi	vuṇḁe	‘cloud’
nkonde	hoṇḁe / nkṇḁe	‘cultivated field’
(ma)-tunda	(ma)-tuṇḁa	‘fruit’
kindedi	ciṇḁedi	‘correct’
kudanta	kuḁaṇṭo ¹⁵	‘to lie, to deceive’
nkande	haṇḁe / nkaṇḁe	‘food’

Table 4. /nt/ and /nd/ in Non-Inherited Vocabulary

SBK	Gloss
haranti	‘courtyard’
asante	‘thank you’
bandera	‘flag’
ndoni	‘boat’
ndeḁe	‘airplane’
kuandika	‘to write’

- 26 Finally, retroflexion also occurs productively in SBK. This is illustrated in a morpho-phonological alternation that occurs with words containing the morpheme /N-/, which is used to mark adjectives belonging to Bantu Noun Classes 9 (singular) and 10 (plural). For example, the word for ‘other’ is /-tuhu/. When a Noun Class 9/10 prefix is attached, the /t/ is produced as a retroflex [ṭ]. In other environments, a front coronal occurs. Although the alternation itself may be inherited, Kisbey (1897) describes the prefix as triggering aspiration rather than retroflexion. This alternation is illustrated in Table 5.

Table 5. [t] ~ [ṭ] Alternation in Selected Noun Classes

SBK	Gloss
mṇṭu m-tuhu	‘other person’ (Noun Class 1)
wanṭu wa-tuhu	‘other people’ (Noun Class 2)
cinṭu ci-tuhu	‘other thing’ (Noun Class 7)
vinṭu vi-tuhu	‘other things’ (Noun Class 8)
/mbwa N-tuhu/ > [mbwa ṇṭuhu] ¹⁶	‘other dog’ (Noun Class 9)

/mbwa N-tuhu/ > [mbwa nt uhu]	'other dogs' (Noun Class 10)
--------------------------------------	------------------------------

4. The Socio-historical Evidence for Chimwiini as the Substratum

- 27 To build an argument for a case of shift-induced interference using socio-historical evidence, we need to show how Kizigua speakers came in contact with Chimwiini speakers in Somalia and how some of these Chimwiini speakers shifted to Kizigua. The source of information for this section comes from the work of historians, anthropologists, and social scientists who have worked with Kizigua speakers both in Somalia and in refugee communities in the US. How all of this happened involved a complex series of events.
- 28 Although there are reports of some Zigua people arriving in Somalia as early as the 1700's (cf. Grottanelli, 1953), the first mass migration to Somalia began in 1836 and was precipitated by a drought and famine in Tanzania (Declich, 1995). According to Eno and Eno (2007), Arab-Omani traders took advantage of this environmental disaster by luring the Zigua to Somalia and by promising them the opportunity to work on fertile land. Instead of being offered wage labor, they were tricked into slavery and forced to work on commercial plantations. Some also sold themselves into slavery hoping this would give them access to food. Whatever their exact circumstances were, servitude was typically very short. Many of them eventually rebelled and escaped by foot. It is estimated that over 20,000 slaves escaped from their masters between 1865 and 1895 (Eno & Eno, 2007). The fugitive slaves found their way to a forested area in the Juba River Valley in Southern Somalia. This area became known as Gosha (from the Somali word for "forest"). As stories of Gosha spread across the region, more and more slaves became aware of this safe haven and sought to escape to this destination. This contributed to the growth of Gosha as a *republic of free ex-slaves* (Declich, 1995, p. 96).
- 29 After the disestablishment of Gosha around the turn of the 20th Century, the region became an Italian colony until the end of World War II. European colonization brought the end of slavery. After Italian colonization, Somalia became part of a British protectorate until it gained independence in 1960. Even with the disestablishment of Gosha, the Zigua remained relatively immobile throughout this entire time period. This situation did not change significantly until the 1990's when the Somali Civil War began. This forced the Zigua as well as members of other oppressed minority groups to move to UN refugee camps across the border in Kenya. From Kenya, some of the Zigua were able to resettle in their ancestral homeland in Tanzania while others resettled elsewhere including the US, which accepted a total of 12,000 Somali Bantu refugees (Eno & Eno, 2007).
- 30 The time period in which shift from Chimwiini to Kizigua most likely occurred would have been the decades following the establishment of Gosha during the second half of the 19th Century. Menkhaus (1989) traces the development of a major sociolinguistic division during this period. This division was one between the Zigua former slaves and slaves from other ethnic groups. The other ethnic groups included the Yao, the Makua, the Ngindo, and the Nyasa, all from present-day Mozambique and speakers of Bantu

languages (and more specifically from the P-Zone sub-branch). Although this was a very diverse group, all of the Bantu groups eventually lost their native languages after a generation. The Zigua were an exception because most of them were adults at the time they were captured into slavery while the other groups included many children.

- 31 According to Menkhaus (1989), evidence for this age-based difference comes from 19th Century records produced by British colonial authorities and anti-slave societies. These records show that most of the slaves captured along the East African coast were children. From the viewpoint of slave masters and traders, the capturing of children was preferable to the capturing of adults because children can become more easily assimilated and acculturated into a new environment than adults can. This would mean that they would be less likely to rebel. Furthermore, it was also more economical to transport larger numbers of children than adults. The Zigua, however, were different in being primarily adults. Why this was so is not clear, but it may have simply been a historical accident precipitated by a drought and famine that encouraged a significant number of Zigua adults to migrate to Somalia¹⁷.
- 32 The sociolinguistic effect of the Zigua slaves being primarily adults meant that they were less likely to learn languages spoken by the many groups that they came in contact with in Somalia. To this day, a common theme in oral histories told by the Zigua is how they successfully maintained their language and culture in spite of adversity while other groups did not. Furthermore, their consciousness as adults also meant that many more of them rebelled and escaped than was the case for the younger slaves from other ethnic groups. Oral narratives also highlight the leadership of adult leaders such as a woman named Wanankhucha, who successfully helped many Zigua slaves escape. The role Wanankhucha played has been compared to the role that Harriet Tubman played in the history of freeing slaves in the US South (Eno & Eno, 2007). Menkhaus (1989) observes that such detailed stories about escape are unique to Zigua tradition while other slave groups lack such stories. This, he argues, provides further support for his claim that the Zigua slaves were primarily adults while the other slave groups were primarily children.
- 33 Unlike the adult Zigua slaves, however, children slaves did acquire the local languages spoken in Somalia and typically spent more time in servitude. According to (Menkhaus, 1989, p. 153), these languages included the Af-Maay (Cushitic) and Swahili (Bantu). Swahili subsequently developed as the lingua franca within Gosha to communicate among speakers of different ethnic backgrounds including the Zigua. A British explorer who traveled through the region at the time explicitly mentions the use of Swahili (Dundas, 1893).
- 34 The term “Swahili” needs clarification. The Standard Swahili that is widely recognized today as based on the Unguja dialect from Tanzania was not established until later in the 20th Century. Thus, it is doubtful that the lingua franca in Gosha was the Unguja dialect. Instead, the Swahili used would have more likely been a local dialect. In fact, as Nurse & Hinnebusch (1993) show, Northern dialects of Swahili have been spoken in the region for at least a millennium. The main center of Swahili in the region was the coastal port of Brava (also known as “Barawa”), which also happens to be one of the main ports of entry for many of the slaves. The name of the dialect spoken in Brava is also referred to as “Chimwiini”.
- 35 Given their diverse origins and the fact that many of the slaves worked in and around Brava, it seems quite likely that the Chimwiini variety of Swahili was the dialect that

emerged as the lingua franca described by Menkhaus (1989, p. 153). Since it is a genetically related Bantu language, it would have also been relatively simple for adults to learn or at least to passively understand. This is a point that is further developed in the next section. Children slaves who grew up in and around Brava would have become fluent speakers by the time they reached adulthood.

- 36 The acquisition of Chimwiini, however, would have been only the first step in a two-step process of language shift over time. The second step would have been shift from Chimwiini to Kizigua, which would have introduced structural features from Chimwiini to Kizigua. After the 1900's, there was, in fact, a decline in the use of Bantu languages among the non-Zigua slaves and increasing use of Af-Maay. According to Menkhaus (1989), this shift in language use also corresponded to a shift in identity. It was around this time period that many of the non-Zigua Bantu groups began to see themselves as collectively part of the same group rather than as part of their ancestral Bantu groups. Inter-marriage between different Bantu groups also increased, which led to blurring of ethnic boundaries. This also affected the Zigua. Still the Zigua persisted in maintaining their culture and language up through the present-day. According to Declich (2010), anyone who married a Zigua person would have had to learn to speak Kizigua. Those who did would have also likely spoken Chimwiini.
- 37 Although the actual frequency of intermarriage is unknown, what is most crucial for supporting a shift-induced interference account is that it occurred enough times to have had a linguistic impact on SBK. The strongest piece of linguistic evidence for intermarriage can be found in kinship vocabulary. The word for "older brother" in SBK is [aɓoɓo] while the word for "older sister" is [aɓaju]. These are very different from TK ([mkulu] and [lumbu] respectively) but similar to the Chimwiini words, which are [abawa] and [abaja] respectively, both of which appear to be loans borrowed centuries ago from a Cushitic language (Nurse & Hinnebusch, 1993, p. 300).
- 38 In addition to intermarriage, it is also known that polygamy was practiced among some individuals. The best example is Nassib Bundo, one of the most important leaders of Gosha. According to oral narratives (Menkhaus, 1989), he had multiple wives and fathered many children. He used these marriages to build alliances between different ethnic groups in Gosha. It is also known that he was born a slave with Yao origins and lived in Brava for the first 20 years of his life before escaping to Gosha (Declich, 1995). If he grew up in Brava, he must have acquired both Chimwiini and Af-Maay as a child. With his political status as leader of Gosha and his multiple wives and children, his speech may have had an influence on the speech of all Gosha residents. Thus, it seems possible that both intermarriage and polygamy may have facilitated the spread of Chimwiini-influenced features.
- 39 Finally, as the 20th Century progressed, the languages spoken within the community changed. With Italian colonization came the introduction of Italian. Knowledge of Af-Maay and Somali also increased particularly during the second half of the 20th Century. Migration to Kenya to escape from the Somali Civil War brought exposure to Standard Swahili while migration to the US led to exposure to English. Although the influence of these languages is generally limited to the borrowing of loan words¹⁸, borrowing, especially from Standard Swahili, is relevant in accounting for a two-place coronal contrast, as will be explained in the next section.
- 40 To summarize this section, the Zigua were successfully able to maintain their language while other Bantu slave groups that arrived in Somalia were not. These other slave

groups acquired Af-Maay and likely Chimwiini, the language of Brava, which was the city where they first arrived in Somalia. Once they escaped to Gosha, some of them intermarried the Zigua. While some of them switched from Chimwiini to exclusive use of Af-Maay after a generation, the ones that integrated with the Zigua would have passed down Chimwiini-influenced structural features into Kizigua.

5. Shift-Induced Interference from Chimwiini to Kizigua

- 41 As a Bantu language, the phonological structure of Chimwiini shares many similarities with the phonological structure of Kizigua such as the presence of NC clusters. The key difference is that Chimwiini has a two-place coronal NC contrast while Kizigua historically did not. This makes Chimwiini a highly probable source for this typologically rare feature in SBK. Further supporting the influence of Chimwiini is the presence of a morpho-phonological alternation that occurs generally across Northern Swahili dialects (including Bajuni and Chimwiini) that involves attaching the Noun Class 9/10 morpheme, /N-/ (Nurse, 1982). This alternation looks strikingly similar to the one described for SBK in Table 5.
- 42 The genetic relatedness of Chimwiini also means a high number of phonetically similar lexical items. This suggests that phonological interference through borrowing could be a possibility. Under a *borrowing* situation, native Kizigua speakers would have been the primary agents of change. The borrowing of a large set of loanwords from a related language could easily give the appearance of an internally motivated sound change if the words differ only in the pronunciation of one segment. For example, the word for ‘fruit’ in TK is [matunda] while the word in Chimwiini is [matu:ŋda]. The only segmental difference between the two forms is the pronunciation of the NC cluster. Borrowing this particular word from Chimwiini would result in an outcome that would be identical to one resulting from a sound change involving retroflexion of alveolar NC.
- 43 An account based exclusively on borrowing, however, runs into problems if we examine a longer list of words with their corresponding forms in the two languages as shown in Table 6 below. For example, the word for ‘elephant’ in TK is [ntembo] while the Chimwiini word is [te:mbo], which lacks an NC cluster at the beginning of the word. The SBK form, however, does have an NC cluster at the beginning and is [ŋtembo]. So in this case, this word would not have been borrowed from Chimwiini. There are also words that completely lack a phonetically similar cognate in Chimwiini such as the words for ‘star’ and ‘cloud’. An account based exclusively on borrowing would not be able to explain why SBK would have retroflex NC in these words.

Table 6. NC Cluster Correspondences

TK (Kisbey, 1906)	Chimwiini ¹⁹	SBK	Gloss
nkonde	hoŋde	hoŋde / qoŋde	‘cultivated field’
-nkundu	-hu:ŋdu	-huŋdu	‘red’

nkondo	nk ɔ̃ do	q ɔ̃ do	'war'
kenda	ke ɔ̃ da	ce ɔ̃ da	'nine'
matunda	matu: ɔ̃ da	matu ɔ̃ da	'fruit'
kintu	ci ɔ̃ tu	ci ɔ̃ tu	'thing'
m ɔ̃ ntu	mu ɔ̃ tu	m ɔ̃ tu	'person'
n ɔ̃ tembo	(te :mbo)	n ɔ̃ tembo	'palm wine', 'elephant'
n ɔ̃ tondo	(no:ta)	n ɔ̃ tondo	'star'
vundi	(iwi:ngu)	vu ɔ̃ de	'cloud'

- 44 An explanation involving shift-induced interference, however, would provide a more straightforward account of the data in Table 6. Shift-induced interference would mean that native Chimwiini speakers would have been the primary agents of this change. It would have involved transfer of Chimwiini structural features into Kizigua. When speaking Kizigua with Chimwiini-influenced phonology, all instances of alveolar NC in TK would have been pronounced instead with a retroflex NC as found in Chimwiini. This would affect all inherited vocabulary in Kizigua and hence account for all the data in Table 6. This would also account for the [t] ~ [ɲ] alternation presented in Table 5. In a case like this, the outcome of substitution of alveolar NC with retroflex NC would resemble an across-the-board sound change. This Chimwiini-influenced pronunciation would have then been passed along to subsequent generations of Kizigua speakers in the community²⁰.
- 45 Shift-induced interference, however, would only explain the change from alveolar to retroflex NC. Another step would be needed to explain the development of a two-place coronal contrast. This is where borrowing becomes crucial. Table 7 below shows a list of words with front coronal NC instead of retroflex NC. All of the words above have one fact in common. None of them can be traced as inherited from TK so they must have all been borrowed. The most obvious case of borrowing would be the word for 'airplane' since airplanes did not exist in the late 19th Century. The source for the word for 'airplane' is most likely Standard Swahili. In Standard Swahili, the word for 'airplane' involves semantic extension of the word for 'bird'. In Kizigua, however, the word for 'bird' is [deŋe]. The fact that the Standard Swahili word for 'bird'/'airplane' has an initial alveolar NC makes it possible for 'bird' [deŋe] and 'airplane' [ndeŋe] to be two different words in SBK.

Table 7. Front Coronal NC in Loan Words

SBK	Source	Gloss
haranti	Unknown	'courtyard'

ndoni	<i>Somali</i> : [ɗoni] or <i>Af-Maay</i> ²¹ : [ɗoːŋ]	‘boat’
bandera	<i>Portuguese</i> : [bandeira] or <i>Italian</i> : [bandiera], probably via <i>Standard Swahili</i> : [bandera]	‘flag’
kuandika	<i>Standard Swahili</i> : [kuandika]	‘to write’
asante	<i>Standard Swahili</i> : [asante]	‘thank you’
ndege	<i>Standard Swahili</i> : [ndege]	‘airplane’

- 46 The word for ‘airplane’, however, was not the only word borrowed from Standard Swahili. As shown in Table 7, the words for ‘flag’, ‘to write’, and ‘thank you’ were also borrowed from Standard Swahili and all of these words have a front coronal NC in both Standard Swahili and in SBK. The remaining words include the word for ‘courtyard’, which has an unknown origin, and the word for ‘boat’, which appears to be Cushitic (either Somali or Af-Maay) in origin. The word for ‘boat’ would have had a non-prenasalized dental stop in the source language. Yet the SBK pronunciation has a front coronal NC as the initial sound. With the borrowing of a set of loan words with a front coronal NC, a two-way coronal NC contrast has now emerged in SBK.
- 47 The chronology of linguistic events seems to match up well with the chronology of socio-historical events. The integration of Chimwiini speakers into the Kizigua-speaking community appears to have occurred shortly after the establishment of Goshu in the late 19th Century. This event would correspond to shift-induced interference, which would have had to have taken place first in order to account for the linguistic data in this section. Widespread knowledge of a standard dialect of Swahili containing alveolar instead of retroflex NC occurred in more recent times. Thus it makes sense that the borrowing of Standard Swahili words with alveolar NC occurred after shift-induced interference led to the retraction of historic alveolar to retroflex NC in Kizigua. This particular sequence of events can account for the emergence of a two-place coronal contrast in SBK.

6. Conclusion

- 48 To conclude, this paper presented a study of phonological change in which shift-induced interference was argued to have been the initial trigger. The case presented from SBK involves a history of migration from Tanzania to Somalia. This brought Kizigua speakers in contact with Chimwiini speakers. Some Chimwiini speakers later became integrated into the Kizigua speech community. This introduced Chimwiini structural features such as retroflex NC into Kizigua. This led to a systematic sound change in which all cases of inherited alveolar NC became retroflex NC. Once this change happened, it became possible for a two-place coronal contrast to develop through the borrowing of loan words with a front coronal NC. The loan words would have come from either Standard Swahili or a Cushitic language.

- 49 By presenting a case study of phonological change involving shift-induced interference, this paper has touched on a wide variety of topics with relevance to a range of fields including contact linguistics, historical linguistics, historical sociolinguistics, and diachronic phonology. First of all, this paper supports Thomason & Kaufman's (1988) claim that in shift situations, structural transfer can happen without substantial borrowing of loan words. In fact, the only borrowing of loan words from Chimwiini discussed in this paper was kinship vocabulary. Yet, a case was built that Chimwiini was the most influential language in the development of retroflex NC in SBK. The outcome of the retraction of historic alveolar NC is one that resembles a pattern expected from a Neogrammarian sound change. This paper, however, argued instead for an alternative to an internalist account. The rich history of the Zigua people in the past 200 years is a very complicated one. By closely examining what is known about the history of the Zigua and Southern Somalia, this paper managed to correlate socio-historical changes with the emergence of linguistic changes. In doing so, it invites future research to put more careful consideration on how contact-induced changes actually take place.
-

BIBLIOGRAPHY

- Besteman, C. (2012) Translating Race across Time and Space: The Creation of Somali Bantu Ethnicity, *Identities: Global Studies in Culture and Power*, 19, 3, p. 285–302. <http://doi.org/10.1080/1070289X.2012.681862>
- Bhat, D. N. S. (1973) Retroflexion: An Areal Feature. *Working Papers on Language Universals*, 13, p. 22–67.
- Boersma, P., & Weenink, D. (2015) *Praat: doing phonetics by computer* [Computer program] (Version 5.4.17), Retrieved from <http://www.praat.org/>
- Crevatin, F. (1993) Incontri con l'Africa, *Studi Italiani di Linguistica Teorica e Applicata*, 22, 1, p. 11–26.
- Declich, F. (1995) "Gendered Narratives," History, and Identity: Two Centuries along the Juba River among the Zigula and Shanbara, *History in Africa*, 22, p. 93–122. <http://doi.org/10.2307/3171910>
- Declich, F. (2010) Can Boundaries not Border on One Another?, in Feyissa, D. & M. V. Hoehne (eds), *Borders and Borderlands as Resources in the Horn of Africa*, Boydell & Brewer, p. 169–186.
- Donohue, M., Hetherington, R., McElvenny, J., & Dawson, V. (2013) *World phonotactics database*, Department of Linguistics, Australian National University, Retrieved March 6, 2014, from <http://phonotactics.anu.edu.au/>
- Dundas, F. G. (1893) Expedition up the Jub River through Somali-Land, East Africa, *The Geographical Journal*, 1, 3. <http://doi.org/10.2307/1773817>
- Eno, O., & Eno, M. (2007) The Journey Back to the Ancestral Homeland: the Return of the Somali Bantu (Wazigwa) to Modern Tanzania, in Kusow, A. & S. R. Bjork (eds), *From Mogadishu to Dixon: the Somali Diaspora in a Global Context*, Trenton, NJ: Red Sea Press, p. 13–43.

- Grottanelli, V. L. (1953) I Bantu del Giuba nelle tradizioni dei Wazegua, *Geographica Helvetica*, 8, 1, p. 249–260. <http://doi.org/10.5194/gh-8-249-1953>
- Guthrie, M. (1967) *Comparative Bantu : an introduction to the comparative linguistics and prehistory of the Bantu languages*, vols. 1–4, Farnborough: Gregg Press.
- Hyman, L. (2003) Segmental Phonology, in Nurse, D. & G. Philippson (eds), *The Bantu Languages*, London: Routledge, p. 42–58.
- Kisbey, W. H. (1897) *Zigula exercises*. Compiled for the Universities' Mission to Central Africa, London: Society for Promoting Christian Knowledge.
- Kisbey, W. H. (1906) *Zigula-English dictionary*. Compiled for the Universities' Mission to Central Africa by Rev. Walter H. Kisbey, England. Retrieved from <http://babel.hathitrust.org/cgi/pt?id=nyp.33433081991006;view=1up;seq=9>
- Kisseberth, C. W., & Abasheikh, M. I. (2004) *The Chimwiini lexicon exemplified*, Tokyo: Research Institute for Languages and Cultures of Asia and Africa (ILCAA), Tokyo University of Foreign Studies.
- Ladefoged, P., & Maddieson, I. (1996) *The sounds of the world's languages*, Cambridge, Mass: Blackwell.
- Last, J. T. (1885) *Polyglotta Africana orientalis: or a comparative collection of two hundred and fifty words and sentences in forty-eight languages and dialects spoken south of the Equator and additional words in nineteen languages*, Society for Promoting Christian Knowledge.
- Maho, J. F. (2009) NUGL Online: The online version of the New Updated Guthrie List, a referential classification of the Bantu languages. Retrieved from <http://goto.glocalnet.net/mahopapers/nuglonline.pdf>
- Menkhaus, K. J. (1989) *Rural transformation and the roots of underdevelopment in Somalia's lower Jubba Valley* (Unpublished Ph.D. Dissertation) University of South Carolina, United States.
- Mochiwa, Z. S. M. (2008) *Kizigula : msamiati wa Kizigula-Kiswahili-Kiingereza = Zigula-Swahili-English lexicon*, Dar-es-Salaam: Languages of Tanzania Project University of Dar-es-Salaam.
- Moran, S., McCloy, D., & Wright, R. (eds) (2014) *PHOIBLE Online*, Leipzig: Max Planck Institute for Evolutionary Anthropology. Retrieved from <http://phoible.org/>
- Mukhtar, M. H., & Ahmed, O. M. (2007) *English-Maay Dictionary*, London: Adonis & Abbey. Retrieved from <http://site.ebrary.com/id/10594042>
- Nurse, D. (1982) The Swahili Dialects of Somalia and the Northern Kenya Coast, in M.-F. Rombi (ed), *Etudes sur le Bantu Oriental*, Paris : SELAF, p. 73–146.
- Nurse, D. (1985) Denticity, Areal Features, and Phonological Change in Northeastern Bantu, *Studies in African Linguistics*, 16, 3, p. 243–279.
- Nurse, D. (1991) Language Contact, Creolization, and Genetic Linguistics: The Case of Mwiini, *Annual Meeting of the Berkeley Linguistics Society*, 17, 2, p. 177–187. <http://doi.org/10.3765/bls.v17i2.1655>
- Nurse, D. (2010) The Decline of Bantu in Somalia, in F. Floricic (ed), *Essais de typologie et de linguistique générale*, Mélanges offerts à Denis Creissels. Lyon : ENS Editions, p. 187–200.
- Nurse, D., & Hinnebusch, T. J. (1993) *Swahili and Sabaki: a linguistic history*, Berkeley: University of California Press.

Odden, D. (n.d.) *Mushunguli - Chizigua language of Somalia*. Retrieved December 28, 2013, from <http://www.ling.ohio-state.edu/~odden/mushunguli/>

Thomason, S. G., & T. Kaufman. (1988) *Language contact, creolization, and genetic linguistics*, University of California Press.

Tse, H. (2013) Methodological considerations in the study of sociophonetic variation in an underdocumented minority language: Somali Bantu Kizigua as a case study, in *Proceedings of the 4th Edition of Journées d'Études Toulousaines (JéTou)*, University of Toulouse, p. 129-139. Retrieved from <http://jetou2013.free.fr/documents/JeTou2013-Actes-p129-139-Tse.pdf>

Tse, H. (2015) The Diachronic Emergence of Retroflexion in Somali Bantu Kizigua: Internal Motivation or Contact-Induced Change?, in Kramer, R., Zsiga, E. C., & O. T. Boyer (eds), *Selected Proceedings of the 44th Annual Conference on African Linguistics*, Somerville, MA: Cascadilla Proceedings Project, p. 277-289. Retrieved from <http://www.lingref.com/cpp/acal/44/paper3145.pdf>

ENDNOTES

1. Besteman (2012) discusses the ethnic term “Somali Bantu” as a relatively recent creation that developed in the context of the Somali Civil War. Nurse (2010) has used the term in a linguistic context. My use of this term is intended to highlight the multi-ethnic identity that has developed among Kizigua speakers.
2. Although the native name is actually Chizigula, speakers frequently use the Swahili name Kizigua when referring to their language. According to a web search conducted by the author in 2012, “Kizigua” is the most common spelling used for websites created by members of the Somali Bantu community. Some sources have also used the Somali name “Mushungulu” or “Mushunguli”.
3. For reference, Tanzanian Zigu(l)a has been classified as G.31 by Bantu linguists (Guthrie, 1967). A more recent classification has given SBK (Mushungulu) a separate code, G.311 (Maho, 2009).
4. Tanzania and Somalia did not exist as political entities in the 19th Century. Thus, all references to African country names in this paper refer to their present-day location.
5. Several commentators have pointed out that what I had previously described as alveolar NC may actually be dental since an alveolar vs. retroflex contrast would be highly unusual. This would make sense, however, I did not realize this until after my consultant work. I have since been unable to confirm with speakers that these are in fact dental rather than alveolar so I use the term “front coronal” throughout this paper. What is most important for this paper is the front (dental or alveolar) vs. back (post-alveolar or retroflex) coronal contrast rather than the precise place of articulation.
6. SBK also has a retroflex implosive, which is also typologically rare. Data on this sound appears in Tse (2015).
7. I would like to thank Derek Nurse for mentioning a typo in his original article, which stated that “the blade is *raised* above the palate” rather than “lowered from”.
8. Nurse (1991) discusses how one can identify borrowing vs. shift retrospectively in Chimwiini.
9. A more detailed description of data collection methodology can be found in Tse (2013), which reports the results of another study on the language using the same data.
10. Although this is the oldest known source available with data from TK, it appears to represent a dialect that differs from the one described by Kisbey (1897; 1906). One of the main differences is noun class assignment for some of the words in the basic vocabulary list. The dialect described by

Kisbey (1897; 1906), however, appears to be more similar to modern SBK and is treated as the dialect from which SBK initially developed.

11. This should actually be /ɲʈonɔ/. The initial /ɲ/ is devoiced in utterance-initial position.
12. There is quite a bit of phonetic variation in the production of /ɲʈ/. While some speakers produce a more trill-like aspiration, others produce a more flap-like aspiration.
13. Although I do not use the dental diacritic here, the front coronal NC in SBK is likely dental as explained in endnote 5. The NC in TK, however, is most likely alveolar since it has been described as an inherited feature from Proto-Bantu.
14. The data from all SBK words comes from the Pitt SBK Data. Some of this data also appears in Tse (2015).
15. The [o] is not a typo. Nevertheless its occurrence is unusual given the fact that the infinitive form of most verbs in SBK ends with an [a]. The same goes for all the other Bantu languages mentioned in this paper. Why this word ends with an [o] instead of an [a] is a puzzle. One hypothesis is that the [o] in this word comes from Af-Maay influence since Af-Maay verbs typically end in [o].
16. For one speaker, this was [mbwa nɔɸu] and hence there is voicing in addition to retroflexion.
17. According to Declich (1995), there may have actually been several periods of famine and several waves of migration in the 19th Century.
18. One major exception that is beyond the scope of this paper is a negative concord construction that appears to have come from Af-Maay.
19. The Chimwiini data comes from combining Nurse & Hinnebusch (1993) and Kisseberth & Abasheikh (2004). I converted the original transcriptions to IPA based on the phonetic and phonemic inventory information provided by Nurse & Hinnebusch (1993).
20. The spread of retroflexion could have been motivated by prestige or other social factors. This could be described as *borrowing* following Thomason & Kaufman's (1988) definition. It is important to note that shift-induced interference would have still preceded borrowing.
21. The source for Af-Maay lexical information was Mukhtar & Ahmed (2007).

ABSTRACTS

This paper discusses the development of a typologically rare phonological contrast in an under-documented language called Somali Bantu Kizigua. The contrast in question is a contrast between two coronal places of articulation for NC (Nasal + Consonant) clusters, a genetic feature found across Bantu languages. The argument of this paper is that shift-induced interference as a mechanism for contact-induced change (Thomason & Kaufman, 1988) played a crucial role in the development of this contrast. The linguistic data comes from consultant work with speakers from a Somali Bantu refugee community in the US. This data was compared with data from missionary publications from the late 19th and early 20th Centuries (Kisbey, 1897, 1906). The comparison shows a two-place coronal contrast in the recently collected data, but only one place of articulation for coronal stops in the older data. To build a case for contact-induced change, relevant socio-historical information is presented. This discussion shows that the Zigua people, originally from Tanzania, migrated to Somalia in the 19th Century as part of the East African Slave Trade. This forced migration eventually brought the Zigua in contact with Chimwiini speakers. Some Chimwiini speakers absorbed themselves into the Kizigua speech community in Somalia through intermarriage. Language shift from Chimwiini to Kizigua is argued to have introduced retroflex NC into Kizigua. The subsequent borrowing of Standard Swahili loan words with alveolar NC then introduced the two-place coronal contrast found in the language as spoken by speakers today. What is most intriguing about this change is how retroflexion of historic

alveolar NC results in a pattern identical to what would be expected of a Neogrammarian sound change. The fact that it is not and the fact that cases of shift-induced interference are under-reported in the literature raises the question of how many other purported cases of internally-motivated change may actually be due to shift-induced interference.

Dans cet article, il est discuté du développement d'un contraste phonologique rare dans un dialecte d'une langue peu documentée qui s'appelle le bantou somalien (kizigua) (« SBK » aussi nommée « mushungulu » ou « mushunguli », classifiée comme bantoue G.311 selon le système de Guthrie, 1967 révisé par Maho, 2009). Le contraste en question est un contraste entre deux lieux coronaux d'articulation pour la suite NC (nasale + consonne homorganique), un trait génétique trouvé dans les langues bantoues. Plus précisément, il s'agit d'un contraste entre une suite NC alvéolaire/dentale et une suite NC rétroflexe. Le kizigua est une langue d'origine tanzanienne mais pendant le XIX^e siècle, il y a eu une migration en Somalie où une communauté a continué à exister jusqu'au début de la guerre civile somalienne (dans les années 1990). Cette histoire joue un rôle important dans l'analyse. L'hypothèse de cet article est que *l'interférence induite par conversion linguistique* comme un mécanisme de changement induit par le contact (Thomason & Kaufman, 1988) a joué un rôle principal dans le développement de ce contraste.

Après avoir présenté le problème dans l'introduction (Section 1), il est discuté de la typologie des sons rétroflexes et de leur développement (Section 2). Sont présentées ensuite les données à expliquer (Section 3). Pour soutenir l'idée du rôle de contact (et plus précisément du rôle de la conversion linguistique), est examinée l'histoire des locuteurs de SBK (Section 4). Ces détails historiques jouent un rôle essentiel dans l'analyse (Section 5). Cet article se conclut dans la Section 6.

Selon Thomason & Kaufman (1988), il y a deux mécanismes de changement induit par le contact : l'emprunt (*borrowing* en anglais) et l'interférence induite par conversion linguistique (*shift-induced interference* en anglais). Une différence est l'agent du changement. Dans les cas de *l'emprunt*, ce sont ceux qui parlent la langue cible comme langue maternelle qui initient le changement. Dans les cas de *conversion linguistique*, ce sont ceux qui apprennent la langue cible qui initient le changement en introduisant des interférences structurelles de leur langue maternelle. Parmi ces deux mécanismes, la conversion linguistique est beaucoup moins décrite et beaucoup moins étudiée. Le problème vient de la nature de la conversion linguistique. Si la conversion devient complète, la langue originale de la communauté disparaît. Les données importantes de la structure de la langue originale disparaissent aussi. Sauf s'il existe une documentation de la langue ou sauf si la langue est parlée ailleurs, une explication de l'interférence induite par conversion linguistique est souvent difficile à soutenir.

Il existe quand même quelques exemples comme dans les dialectes de swahili du nord en Somalie (Nurse, 1985 ; Nurse, 1991 ; Nurse & Hinnebusch, 1993) et Indique (Thomason & Kaufman, 1988). Dans ces deux cas, il s'agissait du développement d'un contraste de deux lieux coronaux de l'articulation comme dans cet article. Cependant, l'histoire de l'interaction sociale n'est pas suffisamment connue dans ces deux cas. Le cas de SBK est différent parce qu'il existe des études réalisées par les historiens, les anthropologues, et autres chercheurs qui ont travaillé dans les communautés de locuteurs de SBK en Somalie et aux États-Unis. De plus, ce cas satisfait les trois critères décrits par Thomason & Kaufman (1988) pour soutenir une explication de conversion linguistique. Selon ces critères, il faut avoir des données sur : (1) quelle était la langue substrat (chimwiini), (2) la structure du substrat (Nurse & Hinnebusch, 1993), et (3) la langue cible avant la conversion linguistique (Kisbey 1897, 1906).

Sauf cas contraire signalé, toutes les données de SBK dans cet article viennent du travail de terrain de l'auteur dans une communauté réfugiée bantoue somalienne aux États-Unis. Quatre locuteurs (trois hommes et une femme, tous entre 21 et 30 ans) sont enregistrés alors qu'ils prononcent une liste de mots. Ce qui est important pour cette étude c'est le fait que tous les

locuteurs prononcent le même contraste entre une NC alvéolaire/dentale et NC rétroflexe. Il y a une distinction claire entre les NC dentale/alvéolaire et les NC rétroflexe. On trouve la NC rétroflexe uniquement dans les mots hérités du kizigua de Tanzanie. En revanche, la NC dentale/alvéolaire existe uniquement dans les mots empruntés. Selon le dictionnaire de Kisbey (1906), il n'y a qu'une NC alvéolaire en kizigua de Tanzanie. Cette NC correspond à la NC rétroflexe en kizigua de Somalie. Quelques exemples sont cités en Table 1 dans l'article. Le gabarit qui apparaît est un gabarit qui ressemble à un changement néogrammairien.

On peut expliquer ces données si on connaît l'histoire de la région. En examinant les détails historiques, on peut voir les faits sociaux qui soutiennent un cas de conversion linguistique. Pendant le XIX^e siècle, il y a eu une traite qui a emmené une communauté de locuteurs de kizigua de Tanzanie en Somalie où ils ont travaillé en esclavage. Après avoir fui l'esclavage, ils ont établi une communauté d'esclaves marrons dans les forêts du sud de Somalie qui s'appelaient *Gosha*. Des marrons d'origines diverses se sont installés dans la communauté *Gosha*. Là, il y a eu contact et mariage entre groupes différents. Certains groupes parlaient le chimwiini (aussi une langue bantoue) qui était aussi une lingua franca parlée dans la ville portuaire de Brava, un port d'entrée pour beaucoup d'esclaves. Il a été montré que c'étaient probablement ceux qui parlaient chimwiini comme langue maternelle et kizigua comme deuxième langue qui ont introduit la NC rétroflexe (un son qui existe en chimwiini) en kizigua. Pour ceux qui parlaient chimwiini, la NC alvéolaire en kizigua a été remplacée par la NC rétroflexe que l'on trouve en chimwiini. Cette prononciation a alors été adoptée par les générations suivantes. C'est donc un cas d'interférence structurelle induite par la conversion linguistique d'abord et cela a ouvert la possibilité de l'émergence d'un contraste entre les NC dentale/alvéolaire et rétroflexe pour les emprunts plus récents.

Pour conclure, le cas de SBK montre un exemple avec des données suffisantes pour y voir un cas de changement induit par la conversion linguistique. Le résultat de la rétroflexion de la NC alvéolaire donne un résultat qui ressemble à un changement néogrammairien. Mais, si on connaît les détails historiques, on peut bien voir qu'il y a eu contact entre les locuteurs de kizigua et les locuteurs de chimwiini, une langue avec une NC rétroflexe. L'histoire sociale de mariage et contact entre ces groupes présentent les détails nécessaires pour soutenir l'hypothèse de changement induit par la conversion linguistique.

INDEX

Mots-clés: rétroflexion, changement phonologique, prénasalisation, conversion linguistique, chimwiini (bantou)

Keywords: retroflexion, sound change, prenasalized stops, language shift, Chimwiini (Bantu)

AUTHOR

HOLMAN TSE

University of Pittsburgh- Department of Linguistics
hbt3@pitt.edu