

# Pre-nasalized Retroflexion in Somali Bantu Kizigua:

A Typologically Rare Sound Change  
Facilitated by Historic Contact with  
Related Languages



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# Presentation Overview

- Topic: Contact with Genetically Related Languages
- Question: What implications does contact with related languages have for the study of sound change?
- Data: Somali Bantu Kizigua (SBK)
  - An underdocumented language from East Africa
  - History of 19<sup>th</sup> Century migration from Tanzania to Somalia and subsequent contact with Chimwiini (a related Bantu language)
  - Diachronic retroflexion of prenasalized stops: nt, nd > nṭ, nḍ
- Conclusion: Relatedness through lexical similarity facilitated a typologically rare sound change that otherwise appears to be the result of internal motivation when in fact it was contact with a related language through shift-induced interference (not borrowing)

# Issues Encountered in Contact with Related Languages (Epps et al 2013)

## What actually happens

- Minor differences between languages easily conflatable
- Speakers may see less of a distinction between languages  
→ Facilitate transfer of linguistic features
  - Ex: Transfer of bound morphemes very rare, but the few attested cases occur in contact with related languages (cf. Mithun 2013 for Tuscarora, Law 2013 for Mayan languages)

## How to analyze the outcome

- Difficulty distinguishing between inherited and non-inherited (ex: borrowed) features
  - Similarity can be a result of common inheritance or borrowing
- Problematic in the reconstruction of phylogenetic trees



# The Importance of Similarity in Contact

- Interlingual Identification (Weinreich 1953)
  - The identification of points of similarity by bilingual/multilingual speakers to identify equivalent meanings in two or more languages
  - Mechanism that facilitates transfer
  - Example: Russian /p/ vs. English /p/
    - Different phonetic pronunciations (sometimes aspirated in English)
    - But treated by speakers as similar enough to be equivalent
    - Explains “foreign accent”
      - Unaspirated pronunciation in English by Russian L1 speakers in contexts in which aspiration found for L1 English speakers
      - Aspirated pronunciation in Russian by English L1 speakers

# Typology vs. Relatedness in Contact

## Typological Similarity

- Weinreich (1953)
  - Structural similarity facilitates transfer of features between two languages
  - Genetic relatedness immaterial to transfer
  - “A language is a dialect with an army”

## Genetic Relatedness

- Law (2013)
  - Structural similarity facilitates transfer, but related languages share a much higher number of points of similarity across all levels of linguistic structure
    - Morpho-Syntactic similarity AND
    - Phonological similarity AND
    - Lexical similarity
  - Thus, genetic relatedness can be a facilitating factor in a way that is less likely for unrelated languages because of the much greater magnitude of similarity
    - Transfer of bound morphemes (otherwise very rare in cases of unrelated languages)

# Lexical Similarity

- Possible in unrelated languages
  - Example: /hol/ in Mayan and /hol/ ‘hole’ in English (Law 2013)
  - But such points of similarity relatively few
- Much more frequent in related languages
  - In fact, such frequency used to establish cognates and to identify sound correspondences to identify genetic relationship between languages

# Question

1. If related languages share a much higher degree of etymological similarity and
  2. If etymologically related vocabulary is the starting point for identifying cognates and sound correspondences
- What implications could contact between related languages have for the study of sound change?
    - SBK data used to explore this question

# Presentation Goals

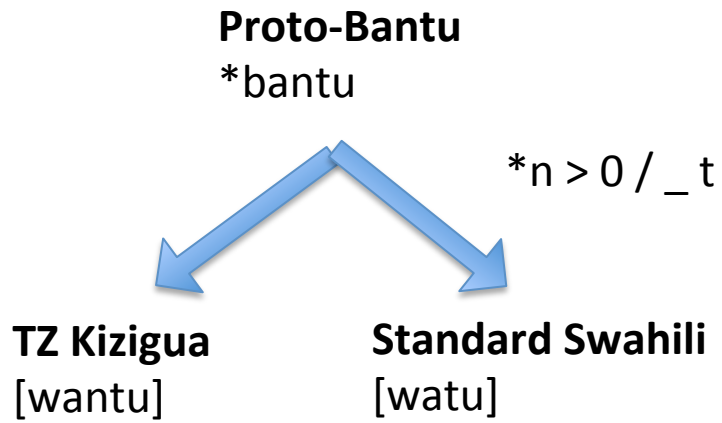
To show that:

1. Contact with genetically related languages played a major role in facilitating a typologically unusual change.
2. The mechanism was *shift-induced interference*, NOT *borrowing* (following Thomason & Kaufman 1988)
3. Genetic relatedness and shift-induced interference conspired together leading to change that appears to be the result of internal motivation



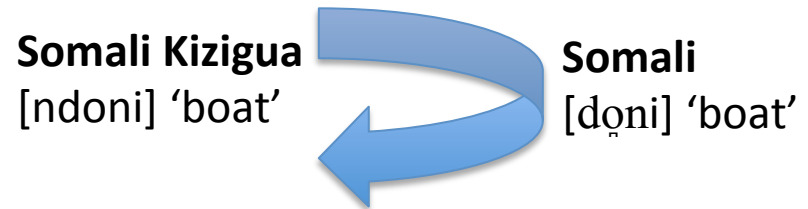
# The Traditional Dichotomy

## Inheritance



**Internally Motivated Change**

## Contact (borrowing)



**Externally Motivated Change**

# Two Mechanisms for Contact-Induced Change

## Following Thomason & Kaufman (1988)

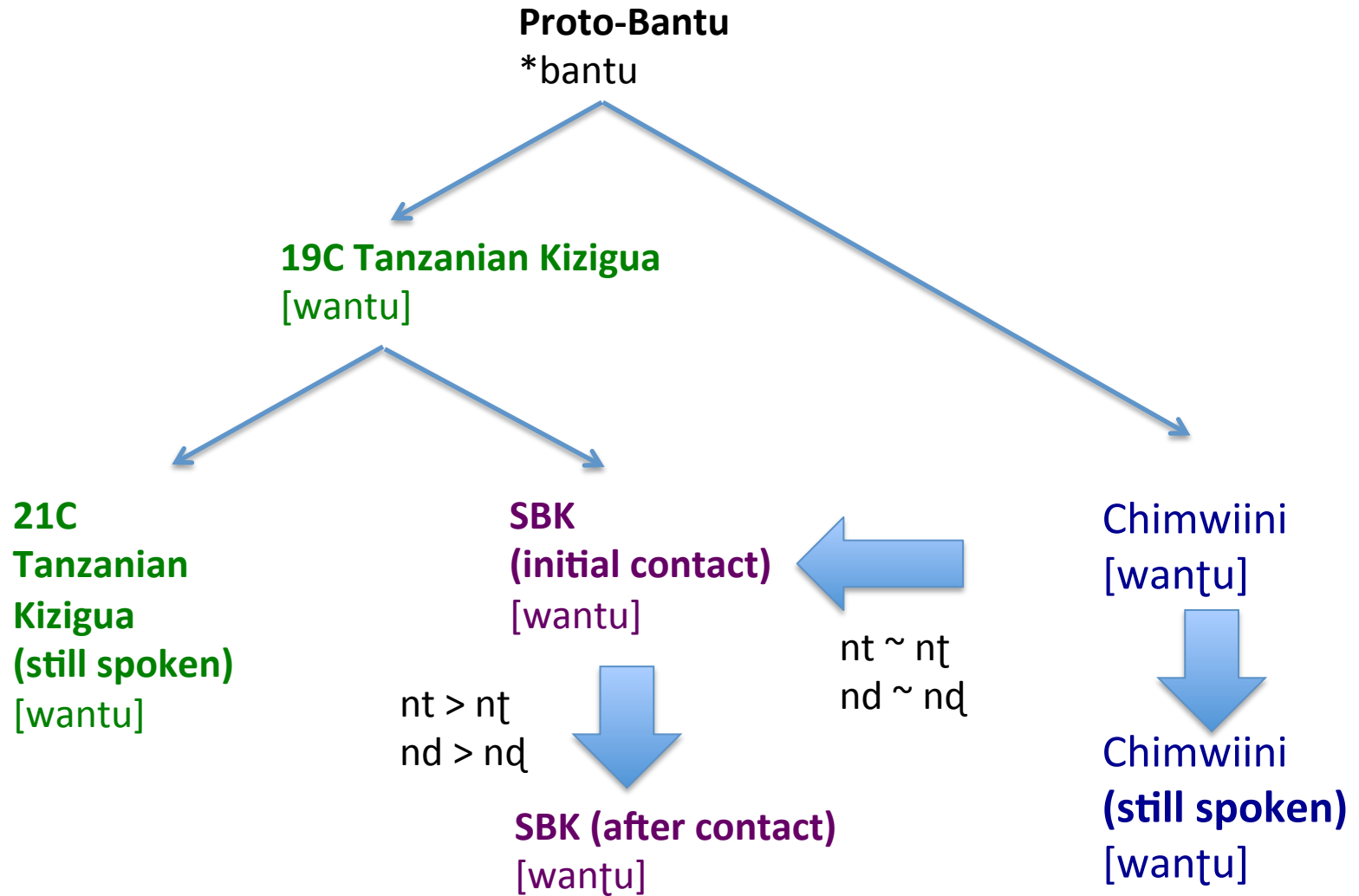
### Borrowing (external)

- L1 speakers of a language influencing direction of change
- What usually first comes to mind

### Shift-Induced Interference (Also External)

- L2 speakers of a language influencing development of language by introducing L1 features into the L2
- May have historically happened more often than discussed in the literature
  - Can be difficult to prove
    - If a group shifts to another language, evidence often lost of the language before the shift
  - But for SBK, argument developed that there is sufficient evidence supporting shift-induced interference

# Model of Shift-Induced Interference



# Major Data Sources

- 19<sup>th</sup> Century Tanzanian Kizigua (TK)
  - 3,500 word Dictionary of Late 19<sup>th</sup> Century TK (Kisbey 1906)
- 21<sup>st</sup> Century Somali Bantu Kizigua (SBK)
  - Pitt Kizigua Corpus
    - Lexicon of ~ 700 words, including 220 basic word list from Samarin (1967)
    - Began with 4-month long Field Methods course at U. Pitt.
    - Supplemented by consultant work with additional speakers in the Pittsburgh Somali Bantu community

# Kizigua Documentation

Approx. Time Period Represented	Tanzanian Kizigua	Somali Kizigua
1840's-1860's	Migration to Somalia	
1860-1910	Last 1885, Kisbey 1897, Kisbey 1906	???
1960-1995	Brenzinger 1987, Kenstowicz 1988	Crevatin 1993
1995-present	Mochiwa 2008	Odden n.d

- No retroflex stops reported in any documentation of TK (19<sup>th</sup> Century-present)
- All documentation on SK describe presence of retroflex or /r/-like sounds
  - Retroflexion likely developed in SK either in the 19<sup>th</sup> or early 20<sup>th</sup> Century

# Words from Pitt Corpus with /nt/ or /nd/

Late 19 <sup>th</sup> Century TZ	SK	Gloss
mnt <sup>h</sup> u	m̄nt̄u	‘person’
nt <sup>h</sup> ondo	n̄ton̄do	‘star’
nt <sup>h</sup> ambo	(mwe)n̄tam̄bo	‘traveler’
nt <sup>h</sup> embo	n̄tem̄bo	‘elephant’
bant <sup>h</sup> i	b̄ant̄i	‘door’
nt <sup>h</sup> angulu	n̄tanḡulu	‘basket’
ndevu	n̄devu	‘beard’
vundi	vun̄de	‘cloud’
nkonde	hon̄de / qon̄de	‘cultivated field’
tunda	tun̄da	‘fruit’
kindedi	cin̄dedi	‘correct’
kudant <sup>h</sup> a	kuḍant̄o	‘to lie, to deceive’
nkande	han̄de / qan̄de	‘food’

- Unconditioned pair of sound changes: nt > n̄t̄, nd > n̄d̄ 14

# Noun Class Prefix Alternation

SBK	Gloss
m̄n̄tu m-tuhu	‘other person’ (Noun Class 1)
wan̄tu wa-tuhu	‘other people’ (Noun Class 2)
cin̄tu ci-tuhu	‘other thing’ (Noun Class 7)
vin̄tu vi-tuhu	‘other things’ (Noun Class 8)
/mbwa N-tuhu/ → [m̄b̄wa n̄tuhu]	‘other dog’ (Noun Class 9)
/mbwa N-tuhu/ → [m̄b̄wa n̄tuhu]	‘other dogs’ (Noun Class 10)

- Some speakers say [m̄b̄wa n̄duhu]
  - Still have voicing contrast elsewhere: [m̄n̄tu] vs. [n̄duhu]
- Similar alternation in TK (Kisbey 1897, Nurse & Hinnebusch 1993), but t → t<sup>h</sup> / n \_
  - No alternation discussed for /d/.

# Exceptions to Retroflexion

SBK	19 <sup>th</sup> C TK	21 <sup>st</sup> C TK	Source	Gloss
kuandika	(kugonda)	kuandiko	Standard (Southern) Swahili: [kuandika]	‘to write’
ndege	--	ndege	Std Swa: [ndege] ‘bird’, ‘airplane via semantic extension. SBK: [dege] ‘bird’	‘airplane’
bandera	bendela	bendelo	Portuguese: [bandeira] or Italian: [bandiera], possibly via Std Swa [bandera]	‘flag’
ndoni	--	(mashua)	Somali: [dɔni]	‘boat’
asante	(kushukulu)	(hongela, kushukulu)	Std Swa: [asante]	‘thank you’
haranti	(lwazo)	(lwazo)	Possibly Northern Swahili: [hara +nti] LOC + ‘ground’ (Odden 2012, p.c.)	‘courtyard’

- All appear to be loans



# Data Summary

- Retroflexion limited to words that are inherited from 19<sup>th</sup> C. TK.
- Retroflexion completely absent in words that are loans or have unknown origin
- One POA for coronal pre-nasalized stops in TK (19<sup>th</sup>-21<sup>st</sup> C.)
  - Alveolar
- But 2 POA possible for coronal pre-nasalized stops in SBK
  - Alveolar and Retroflex
- An alveolar/retroflex contrast has emerged in SBK
  - [haranti] ‘courtyard’ vs [bant̪i] ‘door’
  - [ndege] ‘airplane’ vs [nd̪evu] ‘beard’

# Internal Motivation?

- Bhat (1973)
  - Survey of retroflexion based on 150 lgs
  - Most languages with retroflex sounds developed retroflexion through contact
  - Very few phonetic environments lead to retroflexion
    1. A preceding apical tap or trill
      - N/A to SBK
    2. A following retroflex consonant
      - N/A to SBK
    3. A following back vowel
      - N/A to SBK, can occur before front AND back vowels
    4. Implosion
      - Found in SBK, but NA to pre-nasalized stops

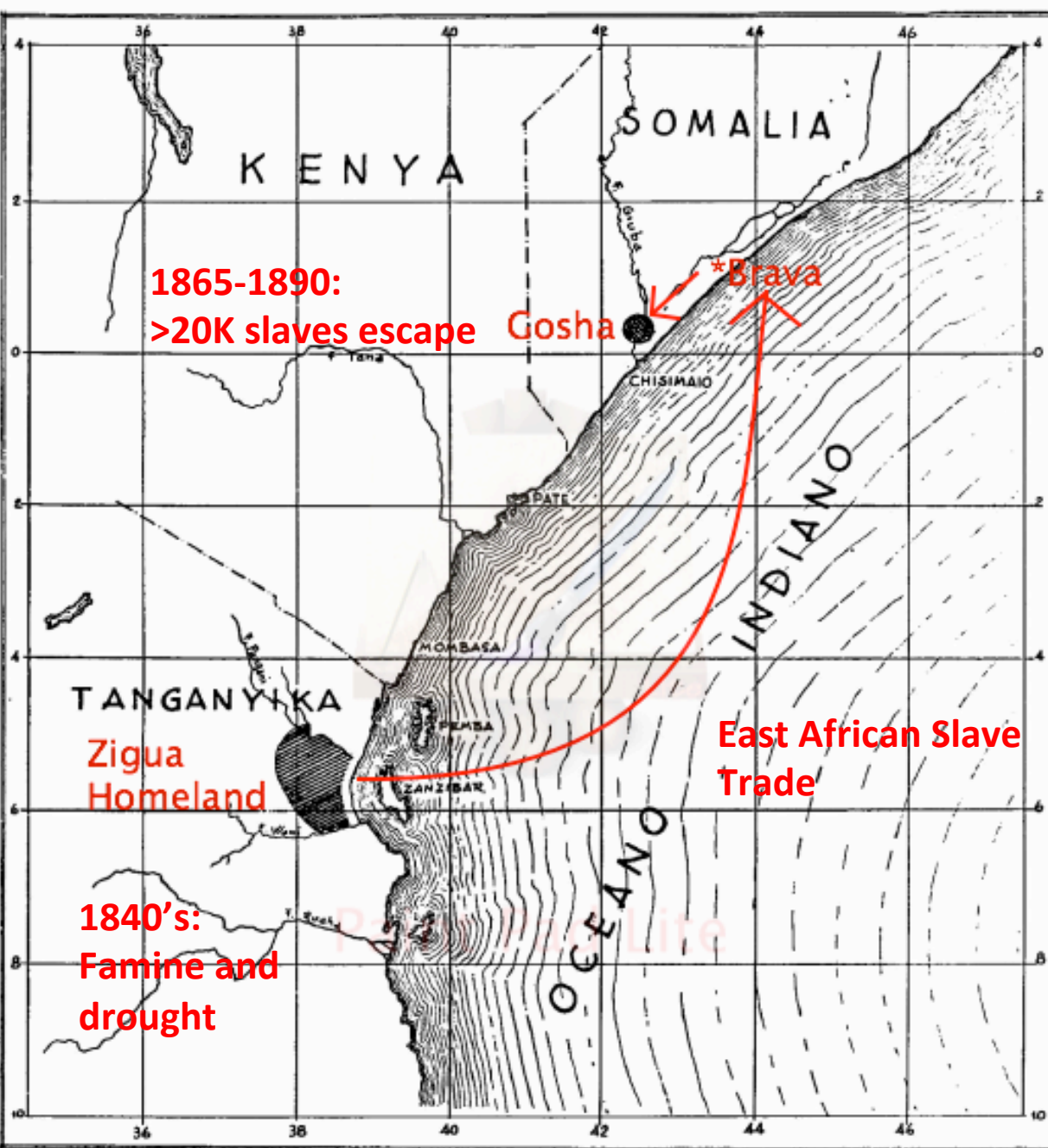
# Internal Motivation? (contd.)

- Hamann & Fuchs (2010)
  - $d > d̥$  in Dhal, Thulung, Afar
    - Due to greater phonetic tendency for [d] to retract than for [t]
  - Not clear about whether applicable to prenasalized stops
  - Would not explain  $nt > nt̥$  in SBK
  - Still needs an external trigger (sociolinguistic factors)

# Northeastern Kenyan/Somali Bantu Languages

- Nurse (1985), Nurse & Hinnebusch (1993)
  - Introduction of dental phoneme from Cushitic loan words with dentals
  - Subsequent perceptual enhancement of two-way coronal contrast
    - nt, nd > nt̪, nd̪
- Lack of loan words in SBK with dentals, so explanation N/A
- Instead, better evidence for SBK contact with these languages

# History of the Zigua



- ✦ Gosha: a de facto “republic of free ex-slaves” (Declich 1995:96) until Italian colonization (early 1900’s)
- ✦ Zigua Leadership
  - ✦ Non-Zigua would learn Kizigua
- ✦ 100+ years in Gosha region
  - ✦ Until Somali Civil War (1990’s-present)

# Two Major Groups in Contact in Gosha

1. The Zigua

2. Mixed Group of

– Indigenous Tribes

- Bantu: Bajuni, Pokomo
- Cushitic: Oromo, Boni, Somali

– Other fugitive slaves

- All Bantu: Yao, Makua, Ngindo, Nyasa



# Two Groups in Gosha

According to Menkhaus (2003):

## The Zigua

- All Adults
  - Explains why Kizigua was maintained
  - Very strong loyalty to ancestral language/culture

## Other Bantu Slave Groups

- Included some children
  - More likely able to acquire other languages
  - Did not pass their heritage languages to subsequent generations

## In the city of Brava:

### Languages Spoken

1. Chimwiini (dialect of Northern Swahili) – lingua franca
2. Af-Maay (Cushitic)
3. Tunni Dialect of Somali (Cushitic)

**Other Bantu Slave Groups shifted to these languages and some to Kizigua**

# Source of SBK /nt/ and /nd/?

Language	Family	[-voice] Prenasalized Retroflex Stops	[+voice] Prenasalized Retroflex Stops	Source
Af-Maay	Cushitic	--	--	(Paster 2006)
Aweera (Boni)	Cushitic	--	--	(Nurse 1985)
Oromo	Cushitic	--	--	(Gragg 1982)
Somali – Standard	Cushitic	--	--	(Saeed 1999)
Somali – Tunni Dialect	Cushitic	--	--	(Tosco 1997)
Northern Swahili – Bajuni Dialect	Bantu G Zone	--	✓	(Nurse 1985)
Northern Swahili – Chimwiini Dialect	Bantu G Zone	✓	✓	(Nurse and Hinnebusch 1993)
Upper Pokomo	Bantu E Zone	✓	--	(Nurse and Hinnebusch 1993)
Lower Pokomo	Bantu E Zone	✓	--	(Nurse and Hinnebusch 1993)
Makua	Bantu P Zone	ɽ (some dialects)	✓	(Maples 1879; Kröger 2005)
Yao	Bantu P Zone	ʂ	--	(Sanderson 1922)



<b>TZ</b>	<b>SBK</b>	<b>Chimwiini</b>	<b>Gloss</b>
-nkundu	-hundu	-hu:ndu	‘red’
nkondo	qonɔ	nkondɔ	‘war’
kenda	cenɔ	kenɔ	‘nine’
matunda	matundɔ	matu:ndɔ	‘fruit’
kintu	cinɕu	cinɕu	‘thing’
mntu	mɔɕu	munɕu	‘person’
ntembo	nɕembo	(te:mbo)	‘palm wine’, ‘elephant’
ntondo	nɕondɔ	(noota)	‘star’
vundi	vundɛ	(i-wiingu)	‘cloud’
nkonde	honde / konɛ	ikonɛ	‘fist’
nkonde	honɛ / qonɛ	honɛ	‘cultivated field’

- One-to-one correspondence between SBK and Chimwiini /nɕ/ and /nd/

# Borrowing Hypothesis

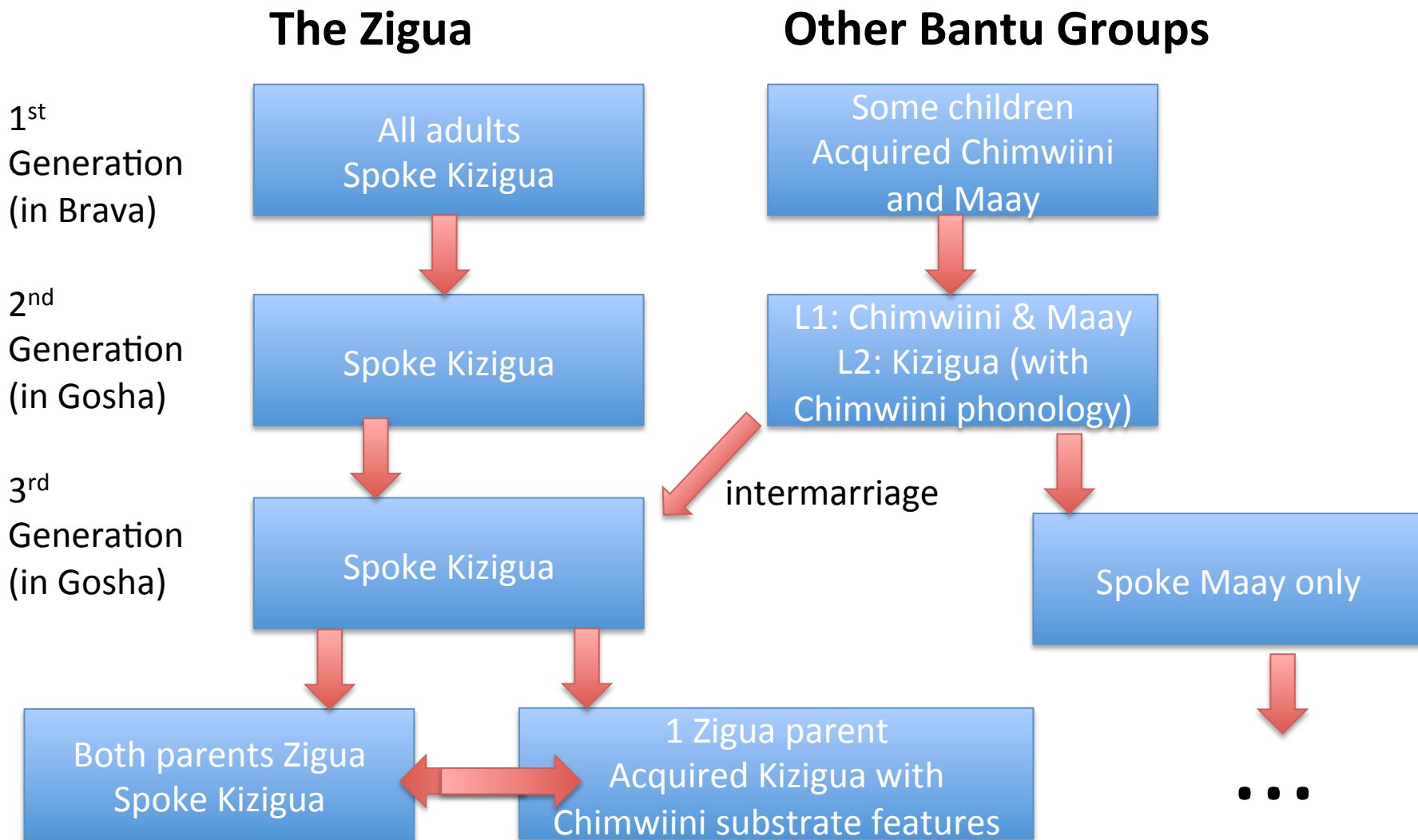
- If all words with retroflex stops borrowed from Chimwiini
  - Why would some words with retroflexion in SBK lack cognates in Chimwiini?

TZ	SBK	Chimwiini	Gloss
ntembo	nɽembo	(te:mbo)	‘palm wine’, ‘elephant’
ntondo	nɽonɽo	(noota)	‘star’
vundi	vunɽe	(i-wiingu)	‘cloud’

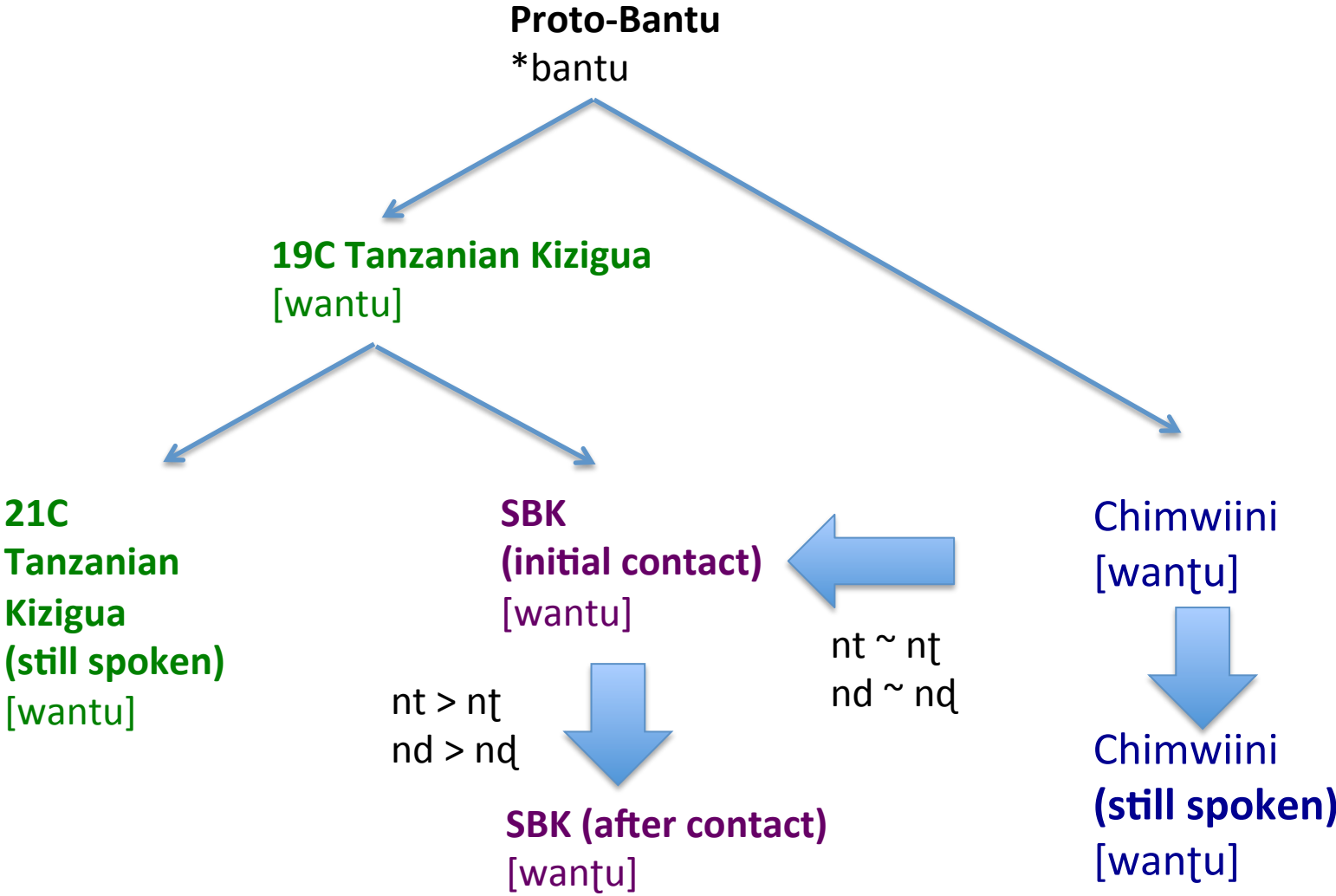
# Shift-Induced Interference

- Chimwiini L1 speakers learned Kizigua as an L2
- Would have spoken Kizigua with Chimwiini phonological features
  - Would have included pronunciation of Kizigua /nt/ and /nd/ as [nt̚] and [nd̚]
- No need to explain lack of corresponding cognates with retroflexion in Chimwiini
  - They would have observed (unconsciously or consciously) the sound correspondence and extended it to words in SBK lacking cognates in Chimwiini

# How /nt/ and /nd/ may have spread from Chimwiini to SK



# Review of Shift-Induced Interference



# Conclusion

- The restriction to inherited vocabulary makes it appear that pre-nasalized retroflex sounds developed through internal motivation
- Socio-historical evidence suggests otherwise
  - Contact with many other Bantu languages including Chimwiini, one of the few languages that has /<sup>n</sup>t/ and /<sup>n</sup>d/
  - Inter-marriage between different Bantu groups
  - Zigua leadership important in development of Goshu
- The diachronic correspondence we see today is a result of shift-induced interference rather than internally motivated phonetic change
  - Contact with genetically related languages made this pattern possible



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Asante! / Thank you! / Merci!

Questions, comments?  
Je pourrai prendre des questions en  
français

For Handouts: email [hbt3@pitt.edu](mailto:hbt3@pitt.edu)



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