Historical evolution of the *-ile* suffix and language genetic relationship in the Nyasa-Tanganyika Corridor

Nichodamus Robinson

Published online: 22 Dec 2023.

Submit your article to this journal

View related articles

View Crossmark data

Historical evolution of the *-ile* suffix and language genetic relationship in the Nyasa-Tanganyika Corridor

Nichodamus Robinson ⓘD

Department of Languages Studies, Sokoine University of Agriculture, Morogoro, Tanzania
Correspondence: robinson.nichodamus@sua.ac.tz

This article examines the extent to which the changing morphological and phonological properties of the *-ile* suffix illuminates change in the genetic language relationships among four languages in the Nyasa-Tanganyika corridor. Scholarly works indicate that based on lexical similarity, Nyiha, Malila, Nyakyusa and Ndali are so closely related genetically that one may regard these pairs of languages as dialects and not distinct languages. Beyond lexical similarity, this article contributes to the existing knowledge on genetic classification by comparing changes in the *-ile* suffix in Nyiha, Malila, Nyakyusa and Ndali. Data collection techniques involved a review of written texts, narrative stories and interviews. The analysis in this article considered two major aspects, namely the Nyiha-Malila and Nyakyusa-Ndali genetic relationships. The findings indicate that although Nyiha and Malila demonstrate striking lexical similarity, we have noted significant differences between the two languages on the change involving the *-ile* suffix. Also, Nyakyusa and Ndali demonstrate differences caused by the change involving the *-ile* suffix. Therefore, this article concludes that the morphological and phonological evolution of the *-ile* suffix illuminates change in the genetic relationship of Nyakyusa, Ndali, Nyiha and Malila. The languages develop distinctive features which made them depart from their Proto-Bantu, and among themselves.

Introduction

This article seeks to examine the extent to which the morphological and/or phonological change caused by *-ile* suffixation affects genetic language relationships among four Bantu languages forming the Nyasa-Tanganyika corridor. The selected languages are Nyakyusa (M31), Ndali (M301), Nyiha (M23) and Malila (M24). The Nyasa-Tanganyika Corridor is a geographical stretch that was named by the social anthropologist, Monica M. Wilson, in 1958 after the two lakes (Nyasa and Tanganyika) defining it to the south and north. The area has Bantu languages (in zone M) of south-west Tanzania, north-east Zambia and north Malawi (Walsh & Swilla, 2000). These languages have generally been sub-divided into three groups: the Fipa-Mambwe group (M10): Pimbwe (M11), Rungwa (M12), Fipa (M13), Rungu (M14) and Mambwe (M15); the Nyiha-Safwa group (M20): Lambya (M201), Sukwa (M202), Wanda (M21), Mwanga (M22), Nyiha (M23), Malila (M24), Safwa (M25), Iwa (M26) and Tambo (M27); and the Nyakyusa-Ngonde group (M30): Nyakyusa (M31) and Ndali (M301).

Studies (Kahigi, 1989; Nurse & Philippson, 2006) indicate that the *-ile* suffix is changing, and its evolution triggers language change in the realms of morphology and phonology. To start with morphological change, the existing literature shows that the phonetic forms of *-ile* change over time as the suffix manifests itself in different forms such as *-ida, -ide, -ite, -ile/-ire, -ye* and *-ie*. Regarding morphological change, the *-ile* suffix was originally an aspect marker, however, studies (Nurse & Philippson, 2006; Robinson, 2021) indicate that the role of the suffix is constantly changing such that the

suffix is either an aspect or tense marker depending on the language. This article postulates that the historical evolution of the *-ile* suffix (changing phonological and morphological properties of the suffix) illuminates change in the genetic relationship that exists among selected languages.

Languages are genetically related because they belong to the same language family. The languages descend from a single original, proto-language (Campbell, 1999). Although different criteria for linguistic classification have been applied by scholars, genetic language relationships have become the most influential criteria (Ehret, 1999; Maho, 2001; Bostoen, 2008). Concerning Bantu languages, several studies have been conducted on Bantu language classifications. They include, among others, Johnston (1922), Guthrie (1948; 1971), Greenberg (1963), Maho (2001; 2003) and Nurse and Philippson (2003). These Bantu linguists applied different methods in classifying Bantu languages. Some of these methods become very influential in Bantu linguistics, nevertheless, they remain unchallengeable. For instance, both Johnson and Guthrie's classifications employed a coding system consisting of letters and numbers signifying linguistic grouping and individual languages, which excluded some languages. For example, Johnson's classification of the Corridor languages was narrower than it is today. Johnson classified them into group M with three subgroups, namely M1, M2 and M3. Subgroup M1 comprised of M48 (Ungu / Ici-wungu), M49 (Kimanda) and M50 (Ici-wandia, Icilambia, Ici-ndali); subgroup M2 was made up of M51 (Ikinyakyusa and Nkonde), M51a (Mwamba or Ikikukwe); and subgroup M3 consisted of M52 (Cihenga), M52a (Citumbuka, and Ci-kamanga), M53 (Citonga) M53a (Cisika or Ci-sisya).

Guthrie classified Bantu languages into 15 zones coded by letters followed by numbers. According to Maho (2001), with the coding system proposed by Guthrie, a veritable mess is noted when referring to individual languages as well as larger linguistic groupings since, in the first place, different codes are used for identical languages and/or the same codes are used for different languages. For this reason, Guthrie's classification has been updated. The analysis made by Maho using SIL's (Summer Institute of Linguistics) classification and Tervuren's update shows that many languages have reshuffled from their original places in Guthrie's classification into new ones in the SIL and Tervuren classifications, or rather some have become empty. For example, C10 and C20 in Guthrie's classification have become C20 and C30 respectively in SIL's classification. Also, D60, E50 and M10 of Guthrie's classification are non-existent in SIL's classification. Both Johnson and Guthrie's referential classifications were typological as they did not consider classifying languages based on genetic relationships. The SIL and Tervuren classifications updated Guthrie's classification by considering some traits of genetic classification. Their genetic classifications discovered that in Guthrie's classification languages that were genetically related were given different codes and/or the same codes were given to languages that were genetically different. For this reason, lexicostatistics, a method of classifying languages based on genetic relationships, has become a supplement to the referential method.

Lexicostatistics has become an important method of classifying languages based on genetic relationships. According to Dimmendaal (2011), lexicostatistics is a statistical method that was developed in the 1950s by an anthropological linguist. With this method, languages are classified based on their internal genetic relationships by comparing core/basic vocabulary. The lexicostatistical method is used in the following assumptions as far as the core vocabulary is concerned. First, the rate of loss is approximately the same across languages; second, the rate of retention of core vocabulary is relatively stable and constant; and third, the core vocabulary of any language, based on empirical evidence, is much less subject to change. However, this assumption has been challenged because what is believed to be conventional or change-resistant does change over time through innovation and propagation (Croft, 2000).

Generally, in classifying languages in genetic relationships, scholars have been employing different criteria and methods, thus arriving at different conclusions. Campbell and Poser (2008) point out that throughout the history of linguistics the criteria employed in both pronouncements about the method and actual practice for establishing language families consistently included evidence from three sources: basic (core) vocabulary, grammatical evidence (especially morphological) and sound correspondences. These three methods, according to these scholars, were widely recognised and accepted, although not every scholar used all three sources.

Regarding languages under study, it is not clear whether Ndali falls into the Nyiha-Safwa group (M20) or the Nyakyusa-Ngonde group (M30). For instance, Mtenje (2016) points out that Ndali is very closely related to Sukwa as they share a 96% lexical similarity. On top of that, Walsh and Swilla

(2000) point out that Ndali is called Sukwa in Malawi. The conclusions made by Mtenje (2016) and Walsh and Swilla (2000) suggest that Ndali falls under M20. Contrary to this, Mbembela (2016) concludes that Ndali and Nyakyusa are dialects since they share more than 90% lexical similarity. In this view, Ndali falls under M30. Also, there is a controversy concerning the relationship between Nyiha and Malila. Asheli (2013) points out that these languages, based on lexical similarities, are so closely related that one may be tempted to judge the languages as dialects.

However, this article views that studying genetic language relationships by lexical similarity alone is not sufficient (see Campbell, 1997). Welmers (1973) points out that the most important, comprehensive and widely accepted genetic classification of languages is that which not only includes lexical items, but also bound morphemes commonly described as having only a grammatical function. According to this author, if several languages show striking similarities in both form and meaning, it is concluded that those languages are related.

This article establishes a genetic relationship among the selected languages through a morpho-phonological method involving the changing properties of the -*ile* suffix. Beyond lexical similarity, the article contributes to the existing knowledge on genetic language classification by comparing changes in the -*ile* suffix in Nyiha, Malila, Nyakyusa and Ndali. It addresses two main aspects, namely the Nyiha-Malila and Nyakyusa-Ndali genetic relationships.

Theoretical framework

This article is guided by the family tree model, also called *Stammbaum* (Campbell, 1999). This model essentially provides an insight into linguistic diversification, which implies how a single language (proto-language) develops into dialects. In time through the accumulation of changes, the dialects became distinct languages. In this article, how these languages have departed from the traits of their proto-language to become dialects is investigated, and to what extent these dialects have developed into distinct languages through accumulated changes. Generally, the article capitalises on inheritance as the basic factor for sub-grouping the selected languages based on the shared innovation involving the morphological and phonological properties of the -*ile* suffix. According to Campbell (1999), shared innovation is the generally accepted criterion for sub-grouping and refers to a linguistic change that shows a departure from some trait of the proto-language and is shared by a subset of the daughter languages.

Methodology

The data collection process began by reviewing written texts, particularly the thesis by Robinson (2021), portions of the Bible translated by SIL into the selected languages, and stories narrated by one native speaker from each of the four languages. In the written texts and narrative stories, some clues for the evolving phonological and morphological properties of the -*ile* suffix were noticed. To supplement the data from these texts and as a member-check strategy for validity and reliability, interviews were done with at least

one informant: a native speaker of each of the selected languages, living in Ilembo (M24), Isongole (M301) and Talatala (M31), the villages where the languages are spoken. Therefore, written texts, narrative stories and interviews were the main data collection strategies involved here.

Results and discussion

This article intended to determine the extent to which changes in the -*ile* suffix illuminates changes in genetic relationships (linguistic diversification) among four languages in the Nyasa-Tanganyika corridor. By comparing changes in the phonological and morphological properties of the -*ile* suffix, the findings show that linguistic diversification exists as far as the Nyasa-Tanganyika corridor is concerned. The selected languages are departing from some traits of the so-called Proto-Bantu as well as among themselves. Some features involving phonological and morphological changes in the -*ile* suffix are common across the languages, whereas other features are distinct to an individual language. In this regard, the following subsections present the extent to which the four languages are genetically related by way of shared features involving the -*ile* suffix to account for their diversity. The presentation on how these languages are genetically related considered two aspects, namely the Nyiha-Malila and Nyakyusa-Ndali genetic relationships.

The Nyiha-Malila genetic relationship
The analysis in this section intended to ascertain the genetic relationship between Nyiha and Malila by comparing changes in the -*ile* suffix. The findings show that the languages, in the realm of the morphological and phonological properties of the -*ile* suffix, demonstrate a departure from the traits of Proto-Bantu. For instance, while Proto-Bantu was said to be aspect prominent (Nurse & Philippson, 2006), these languages have up to six tenses, namely remote past, yesterday past, today past, present tense, near future and far future. In this regard, the languages are tense prominent and this has effected changes in the role of the -*ile* suffix. The same observation has been made by Mallya and Robinson (2021), who maintain that since the languages are now becoming tense prominent (see Bhat, 1999), the -*ile* suffix in the two languages gradually vanishes in the forms for aspect (anterior) in favour of marking different tense categories.

Regarding the encoding of tense and aspect, the languages under study demonstrate changes. These changes have a direct effect on the role of -*ile* to tense/aspect marking. For instance, in Nyiha and Malila, the remote past and yesterday past are encoded by a combination of both pre-root and post-root formatives, while Proto-Bantu was said to encode tense by pre-root morphemes and aspect by post-root morphemes. Also, the role of the -*ile* suffix in Proto-Bantu was to mark aspect, but in these languages, it marks remote past, yesterday past and today past. Both Nyiha and Malila encode past tenses (except the today past) by a combination of pre-root formative -*a*- and/or high tone mounted on the subject marker with the -*ile* suffix. Today past is marked by the -*ile* suffix occurring with zero pre-root formatives. Table 1 provides examples to illustrate how Nyiha and Malila are genetically related based on the morphological properties of the -*ile* suffix.

The examples presented in Table 1 demonstrate similarities between the two languages based on how the languages encode different pasts. As indicated, the role of the -*ile* suffix manifests itself in marking all the three pasts, where in marking the remote past the suffix co-occurs with a tone mounted on either subject marker á- or negative marker -*tá-*, it co-occurs with the slot 4 formative -*a*- when marking yesterday past, and it occurs alone when it denotes today past. Robinson (2021) concludes that the -*ile* suffix occurring alone when marking today past, which is closer to the anterior, provides evidence that the -*ile* suffix was originally an aspect marker in these languages.

Phonologically, Malila and Nyiha demonstrate innovations in the phonetic shapes of the -*ile* suffix where some of the traits are shared by the two, but some are not. First, Nyiha has two forms of the suffix which are -*ite* and -*ile*, while Malila has only the -*ile* form. These two forms of the suffix are different from that of Proto-Bantu (-*ida/-ide*). Table 2 illustrates the way -*ile* forms create the genetic difference between Nyiha (M23) and Malila (M24).

The examples provided in Table 2 show a high level of lexical similarity between Nyiha and Malila, but the same languages are different in the forms of the -*ile* suffix. While Malila (M23) takes the -*ile* form to these verbs, Nyiha (M23) takes the -*ite* form. This stands as evidence for us to argue that even if we could regard Malila and Nyiha as dialects due to lexical similarity, the two languages demonstrate changes involving the phonetic shapes of the -*ile* suffix to the extent

Table 2: M23 versus M24 based on the suffix's phonetic shapes

Stem	Gloss	M24 (-*ile* suffixation)	M23 (-*ite* suffixation)
loota	dream	*lootile*	*loosite*
leeta	bring	*leetile*	*leesite*
laata	confess	*laatile*	*laasite*
kuuta	cry	*kuutile*	*kuusite*
puuta	pray	*puutile*	*puusite*
kaata	sleep	*kaatile*	*kaasite*
poota	fail	*pootile*	*poosite*

Table 1: Shared tenses marked by -ile between Malila and Nyiha

Tense (pasts)	Examples	Gloss	Languages
Remote past	*Uluuka á-simb-ile ibhangili*	Luke wrote the Bible	M23; M24
	atásimb-ile ibhangili	He did not write the bible	M23; M24
Yesterday past	bha-a-div-ile ikwi ipiti	They cut a big tree	M23
	bha-a-dib-ile ikwi ipiti	They cut a big tree	M24
Today past	bha-θ-*telesile imponzo*	They cooked beans	M23
	bha-θ-teleshile imponzo	They cooked beans	M24

that they become distinct languages. For instance, in the Malila speech community, when I uttered a word with the *-ite* form, one of the speakers (an informant) reacted by saying 'this is not Malila'.

Also, the *-ile* suffix in its historical evolution induces two phonological changes, namely imbrication and consonant mutation (C-mutation). These two languages share a lot of innovations as far as the triggering conditions for imbrication and/or the phonological processes shaping imbrication are concerned. For instance, the conditions for imbrication shared by these two languages are: verbs with CV-roots and extended roots with applicative suffixes *-il-/-el-*, reciprocal *-an-*, causative *-izi-/-is-* and passive *-u-*. But CVC-roots and verbs extended by the stative suffix *-eh-/-ih-* in these languages are regular (verbs which do not imbricate when attached with the *-ile* suffix). In other words, with regular verbs, the form of the *-ile* suffix is predictable as opposed to irregular verbs. Table 3 summarises examples for regular and irregular verbs as shared by these languages, where the asterisk (*) indicates that the word is ill-formed and thus is not used in the language.

The examples provided in Table 3 demonstrate shared innovations by the two languages in the realm of imbrication. However, there are instances where these languages demonstrate differences in the same phonological change involving *-ile* suffixation. Regarding imbrication, while some verbs with C(G)VC and CV:C roots imbricate in Nyiha, the same do not imbricate in Malila. Table 4 illustrates the differences (linguistic diversity) between Malila and Nyiha based on the regularity of the verbs.

As shown in Table 4, while C(G)VC and CV:V verbs are regular in Malila (M24), the same verbs are irregular in Nyiha (M23). For instance, when *-ile* is attached to the verb, *bhoola* the expected form would be *bhoolile*, but in Nyiha, the expected form changes into *bhooye* after being shaped by several phonological processes as illustrated in (1).

(1)   Underlying form   /bhoolile/
      Stage 1:   Deletion of [l]   /bholie/
      Stage 2:   CV metathesis   /bhoile/
      Stage 3:   Deletion of [l]   /bhoie/
      Stage 4:   Gliding   /bhoye/
      Stage 5:   Comp. vowel lengthening   /bhooye/
      Surface form   [bhooye]

As example (1) shows, the change from the expected (underlying) form, *bhoolile*, to the surface form, *bhooye*, is shaped by five phonological processes, namely deletion of [l] the consonant of the tense/aspect suffix, consonant-vowel (CV) metathesis where there is a position swap between adjacent sound segments, deletion of [l] – the consonant of the original word, gliding of [i], and compensatory vowel lengthening that occurs after gliding. But in Malila, there is no change to these verbs caused by *-ile* suffixation. For this reason, we argue that although Malila and Nyiha are lexically similar, they demonstrate a difference concerning the phonological change involving the *-ile* suffix. It is through this difference that the languages could be seen as distinct.

Concerning C-mutation, the two languages demonstrate significant differences. The findings show that more consonants are relatively affected by *-ile* suffixation in Nyiha than in Malila. Table 5 provides examples to illustrate the genetic difference between Nyiha (M23) and Malila (M24) based on C-mutation.

Table 4: *-ile* suffixation to C(G)VC/CV:C-roots for M23 and M24

Verbs	Gloss	M23	M24
bhoola	slaughter	*bhooye*	*bhoolile*
twala	bring here	*twaye*	*twalile*
zwala	dress	*zwaye*	*zwalile*
paala	praise	*paaye*	*paalile*
hoola	cry loudly	*hooye*	*hoolile*
bhyala	plant	*byaye*	*bhyalile*

Table 5: M24 versus M23 based on C-mutation

Word	Gloss	M23	M24
mala	finish	ámazile	ámalile
bhola	decay	*bhozile*	*bholile*
bhala	go/head to	*bhábhazile*	*bhábhalile*
lola	see	*lozile*	*lolile*
kala	buy	*bhákazile*	*bhákalile*
leeta	bring	*áleesite*	*áleetile*
loota	dream	*náloosite*	*nálootile*
puuta	pray	*bhápuusite*	*bhápuutile*
lita	be tired	*lisite*	*litile*
laata	confess	*laasite*	*laatile*
anda	begin	*bhánzite*	*bhándile*
tenda	do in a way	*tenzite*	*tendile*
londa	find	*lonzite*	*londile*

Table 3: Shared conditions for imbrication between M24 and M23

Stem	Root	*-ile*	Surface form
Regular verbs			
lima 'cultivate'	CVC-	*limile*	*limile*
teleha	CVC- stative	*telehile*	*teleshile/teleshile* M24/23
loota	CV:C	*loosile*	*loosile/loosite* M24/M23
fu-a 'die'	CV	**fuile*	*fuuye*
lu-a 'fight'		**luile*	*luuye*
kua 'pay dowry'		**kuile*	*kuuye*
k/homana 'beat'	CVC-reciprocal	**k/homanile*	*k/homiine*
bhombesya 'cause one to work'	CVC- causative	**bhombesyile*	*bhombesiizye*
simbwa 'write'	CVC-passive	**simbwile*	simbiilwe

As shown in Table 5, in Nyiha, the verbs that end with [l], [t], [d] and [nd] mutate into [z], [s], [z] and [nz] respectively as a result of *-ile* suffixation, while, in Malila, the final consonants of these verbs do not mutate. This difference in C-mutation (sometimes called spirantisation) justifies the generalisation made by Labrouiis (1999), who pointed out that five-vowel (5V) languages normally experience full spirantisation (C-mutation), whereas the seven-vowel (7V) languages experience limited spirantisation. Regarding the two languages, the findings indicate that Nyiha is a 5V language, so it experiences full spirantisation, whereas Malila has maintained the seven vowels from Proto-Bantu where the high vowels [u] and [i] were split into [u] [ʉ], and [i], [ɨ] respectively.

The findings further show that in the two languages, the consonant [g], the voiced velar stop, is affected by the vowel of the *-ile* suffix, as the suffix induces C-mutation. However, we noted the difference in the resulting consonant after affixing the *-ile* suffix in the languages, as shown in Table 6.

Some of the examples presented in Table 6 demonstrate similar lexical realisations, but the *-ile* process creates a slight difference. In Malila, the voiced velar stop [g] changes into a voiced palate-alveolar affricate [ʄ], whereas in Nyiha, [g] changes into [z]. In Malila, this mutation involves both: a change in place of articulation under the processes called palatalisation (involving place feature), as in [g > ʄ]; and a change in the manner of articulation through affrication where the obstruent/stop becomes an affricate (Myers, 1994). However, in Nyiha, the mutation involves a change in the manner of articulation through spirantisation: the stop [g] becomes the fricative [z], as in [g > z]. Also, the same change in Nyiha involves a place of articulation where the velar becomes an alveolar.

To sum up the Nyiha-Malila genetic relationship: on the one hand, I noted a lot of innovations that show a departure from the traits of Proto-Bantu based on the changing phonological and morphological properties of the *-ile* suffix. I also noted linguistic diversity between the two languages. The notable change that distinguishes the two languages is manifested in C-mutation. For instance, during data collection, when I uttered *na-a-kazile* 'I bought' (from the word *kala* 'buy') in the Malila community, the speakers reacted that this is not a Malila word. Also, when I uttered *na-a-kal-ile* 'I bought' in the Nyiha community, the speakers pointed out that 'we don't

say so in our language'. Although we may lack statistical evidence, by observing the noted difference between Nyiha and Malila based on the phonological changes involving the *-ile* suffix, this article concludes that the two (Malila and Nyiha) are distinct languages.

Nyakyusa and Ndali genetic relationship

As far as the Ndali question is concerned, the analysis in this section is intended to determine the position of Ndali in relation to its sister languages (Nyakyusa, Nyiha and Malila). It has been pointed out earlier that there is a lack of consensus among scholars on whether Ndali falls under the Nyakyusa-Ngonde group (M30) with Nyakyusa (M31), or the Nyiha-safwa group (M20) together with Malila (M24) and Nyiha (M23). The analysis of this aspect (Nyakyusa-Ndali relationship) considered shared innovations by the four languages based on phonological and morphological changes in the *-ile* suffix. Based on the phonological changes, some features can be used to sub-group Ndali with its sister languages. These features can be talked about in the realm of phonetic manifestation of the *-ile* suffix, C- mutation and imbrication.

Starting with the phonetic manifestation of the *-ile* suffix, the findings indicate that there exist three forms of the suffix across the four languages. It is evident that Ndali and Nyiha use two forms, *-ile* and *-ite*, with varying conditions, as summarised in Table 7.

Based on Table 7, in Ndali, two forms of the suffix (*-ite* and *-ile*) exist under varying conditions and domains of use. In this language, the *-ile* form has a relatively narrower domain of use, as it is restricted to verbs with CV-roots. Across Bantu, these verbs are very few (see Kula, 2001). However, all other regular verbs accept the *-ite* form in the Ndali language. In Nyiha, two forms of *-ile* exist just like in Ndali. However, the difference is that, while in Ndali the *-ite* form is widely used, in Nyiha, the *-ile* form is widely used. The *-ite* form in Nyiha is restricted to regular verbs whose final consonants are [t], [d] and [nd] only. In Nyakyusa, *-ile* and *-ie* forms exist. While the *-ile* form is widely used in Nyakyusa, the *-ie* form has a restricted domain of use, as it is sometimes used in connected speech. Finally, in Malila, there is only one form of the suffix which is the *-ile* form. Regarding the relationship among the four languages, it is possible to conclude that Nyiha (M23) and Ndali (M301) are genetically closer than the other two languages since they all use the *-ite* and *-ile* forms. However, Malila (M24) and Nyakyusa (M31) are somehow closer as they use the latest forms, that is the *-ile* form for M24, and the *-ile* form as well as *-ie* for M31.

The second piece of evidence to expose the genetic relationship among selected languages in the realm of phonological change is C-mutation. When the *-ile* suffix is attached to some verbs whose roots end with [t], [d], [nd], [g], [ng] and [h], this causes these consonants to mutate

Table 6: C-mutation in verbs ending with [g] in Malila and Nyiha

Stem	Gloss	*-ile* suffixation	Surface form	
			M24	M23
goga	kill	**gogile*	*gojile*	*gozile*
teega	get lost	**teegile*	*teejile*	*teezile*
zuga	cook/stir ugali	**zugile*	*zujile*	*zuzile*

Table 7: Summary of *-ile* forms in the four languages

Language	Phonetic forms	Possible condition	Widely used form
M301	*-ite; -ile*	*-ile* restricted to CV-roots	*-ite*
M23	*-ite; -ile*	*-ite* restricted to regular verbs whose final consonants are [t], [d], [nt], [nd]	*-ile*
M31	*-ile; -ie*	*-ie* used in connected speech (common in spoken form)	*-ile*
M24	*-ile*	To all verbs	*-ile*

into [s], [z], [nz], [†] and [n†] in Nyiha, whereas consonants [h], [g] and [ng] mutate in Malila into [ʃ], [†] and [n†]. This phonological change is restricted to Malila and Nyiha. Since the -ile suffix induces C-mutation in Nyiha and Malila but not in Nyakyusa and Ndali, we conclude that Nyiha and Malila demonstrate innovations in the properties of the -ile suffix from Proto- Bantu and share the properties. Thus, the languages are genetically closely related as opposed Ndali and Nyakyusa.

The third piece of evidence for the genetic relationship among Nyakyusa, Ndali, Malila and Nyiha is presented under the realm of imbrication which occurs under varying conditions in and across languages, as summarised in Table 8. The plus (+) indicates that the language has the phonetic property that a feature designates, whereas (-) indicates that the language does not have the phonetic property.

Table 8 shows the conditions under which the -ile suffix induces imbrication. Variations have been noted regarding the conditions for imbrication across the four languages. For instance, while in Nyakyusa all verb extensions condition imbrication, in Ndali, verbs with stative and reciprocal extensions do not imbricate. This implies that Ndali is departing from its sister Nyakyusa regarding the conditions under which -ile induces imbrication. Also, in Nyiha and Malila, the verbs with the stative extension do not imbricate, rather the -ile suffix induces consonant mutation. Since stative verbs in Malila, Nyiha and Ndali do not imbricate but they do in Nyakyusa, it implies that the three languages are more genetically related than Nyakyusa.

It has been pointed out that the -ile suffix makes an opaque difference between the input (underlying) form and output (surface) form. This difference is shaped by a set of phonological processes. The phonological processes shaping this change vary significantly across these languages, as summarised in Table 9.

Table 9 provides a summary of the phonological processes shaping imbrication across the four languages under study. The first phonological process is deletion occurring in three types, namely deletion of [l] (the consonant of tense/aspect), deletion of [l] (the consonant of the applicative) and deletion of a vowel. Deletion of the consonant of the tense/aspect suffix occurs in all conditions across the four languages, and this implies that the four languages are genetically related. But the deletion of the consonant in the applicative extension occurring in verbs with applicative extension and vowel deletion occurring in verbs with reciprocal extension is based

on Nyiha and Malila. This also implies that Nyiha and Malila are more genetically related than Nyakyusa and Ndali.

The second phonological process is vowel harmony, which is of two types, namely the leftward spread of vowel height and rightward spread of vowel height. The leftward spread of vowel height involves the spread of [i] as a way of breaking the [ei] into [ee]. This occurs in verbs with applicative -el- (M31; M301) and implies that Nyakyusa and Ndali are more genetically related than Malila. Also, the same phonological process occurs in verbs with stative -ek- and causative -esi- and the process is distinct to Nyakyusa. This implies

Table 9: Summary of phonological processes across selected languages

Processes	Conditions	M31	M301	M23	M24
Deletion of *l; the tense/aspect suffix	All	+	+	+	+
Deletion of *l; the applicative suffix	Applicative	-	-	+	+
Vowel deletion	Reciprocal	-	-	+	+
Leftward spread of vowel height [ei]-[ii]	Applicative -el-	+	+	-	-
	Stative -ek-	+	-	-	-
	Causative -esi-	+	-	-	-
Rightward spread of vowel height [ei]-[ee]	Applicative -el-	-	-	+	+
Vowel coalescence [ai]→ [ee]	Reciprocal	+	-	-	-
	CVCVC- [a]	+	+	-	-
	CV:C-/C(G)VC-	+	-	-	-
Insertion of ghost consonant [y]	Applicative -el-/-il-	-	-	+	+
	CV-	-	-	+	+
Compensatory vowel lengthening	CVCV(N)-	-	-	+	+
	Reciprocal	-	-	+	+
Vowel assimilation [ui]-[uu]/[oi]-[oo]	CV-/CVCVC-	-	-	+	+
Gliding	CVCVC- [u]	+	+	-	-
CV metathesis	All	+	+	+	+
Distant assimilation	Causative	-	+	-	-

Table 8: Summary of the conditions for imbrication

Condition(s)	M31	M301	M23	M24
Verbs with CV-	-	-	+	+
Verbs with applicative	+	+	+	+
Verbs with reciprocal	+	-	+	+
Verbs with stative	+	-	-	-
Verbs with causative	+	-	+	+
Verbs with passive	+	+	+	+
C(G)VC- (some verbs such as bhyala/zwala/kwata	+	-	+	-
CV:C- (some verbs such as bhaala/hoola)	+	-	+	-
CVCVC- with [k], or [kh], or [h] as the coda	+	-	-	-
Verbs with CV:C(G)- such as leefya	+	-	-	-

that Nyakyusa is departing from its three sister languages by developing distinct features in the *-ile* suffix. However, the rightward spread involves the spread of [e] as a way of breaking the diphthong [ei] into [ee] in Nyiha and Malila. This phonological change occurs in verbs with applicative *-el-* in the two languages.

The third phonological process is vowel coalescence in Nyakyusa and Ndali. In Nyakyusa, vowel coalescence occurs in verbs with reciprocal *-an-*, verbs with CV:C-, C(G)VC-roots whose syllable nucleus is a low vowel and CVCVC-root with [a] as the nucleus of the penultimate syllable. In Ndali, vowel coalescence occurs only in verbs with CVCVC whose penultimate syllable is made up of a low vowel [a]. For comparison purposes, example (2) demonstrates the difference in phonological processes shaping the change in verbs with a reciprocal extension across the four languages.

(2)

	M31	M301	M24	M23
Underlying form	*komanile*	*komanite*	*khomanile*	*homanile*
Stage 1: deletion of [l]	*komanie*	—	*khomanie*	*homanie*
Stage 2: CV metathesis	*komaine*	—	*khomaine*	*homaine*
Stage 3: Vowel coalescence	*komeene*	—	—	—
Stage 4: Vowel deletion	—	—	*khomine*	*homine*
Stage 5: Vowel lengthening	—	—	*khomiine*	*homiine*

The illustration presented in (2) indicates that there are considerable variations in terms of the phonological processes shaping the change involving the *-ile* suffix when attached to verbs with a reciprocal extension. While M301 defines the verb with a reciprocal extension as a regular, M31, M23 and M24 define the verbs as irregular. However, some of these phonological processes are shared and/or not shared by these three languages. For instance, two phonological processes, namely deletion of [l] and consonant of the tense/aspect suffix and CV metathesis are shared by the three languages. On the difference, while M31 undergoes vowel coalescence of [ai] into [ee], M23 and M24 do not. Rather, they undergo deletion of [a] preceding the [i], and compensatory vowel lengthening of the [i] as illustrated in stages 4 and 5 respectively.

Other phonological processes are: insertion of the ghost consonant (in verbs with applicative *-el-/-il-,* CV-); compensatory vowel lengthening (verbs with reciprocal *-an-*); and vowel assimilation (verbs with CVCVC-, CV). All these are common phonological processes in Nyiha and Malila. Others are gliding in CVCVC- with [a] as the nucleus of the last syllable (M31; M301), distant assimilation (M301) and consonant-vowel metathesis, a process which is common across all four languages and occurs in all conditions.

In this view, the sub-grouping of these languages considers shared innovations in triggering conditions and phonological processes shaping the change by involving verbs with CV-roots, extended verbs with applicative, reciprocal and stative suffixes. To start, the illustration in (3) indicates the extent to which *-ile* induces imbrication in verbs with a CV structure across the selected languages.

(3)

	M31	M301	M24	M23
Underlying form	*fuile*	*fuile*	*fuile*	*fuile*
Stage 1: gliding	*fwile*	*fwile*	—	—
Stage 2: deletion	—	—	*fuie*	*fuie*
Stage 3: gliding	—	—	*fuye*	*fuye*
Stage 4: vowel lengthening	—	—	*fuuye*	*fuuye*

The illustration presented in (3) indicates that there are shared and varying features among languages based on the phonological change made by *-ile* suffixation to verbs with CV roots. For instance, in Nyakyusa and Ndali, no imbrication is caused by *-ile* to these verbs of the said structure. But in Malila and Nyiha, *-ile* triggers imbrication which is shaped by three phonological processes, namely deletion of the [l], CV gliding and vowel lengthening. In this regard, based on the illustration, we argue that Ndali and Nyakyusa fall under the same group, M30, whereas Nyiha and Malila share the same group, M20.

Secondly, the *-ile* suffix induces imbrication in verbs with applicative suffixes, *-il-* and *el-*, which are common across the languages. For instance, the verb *limila* changes invariably from its expected form *limilile* across these languages to *limiile* (M31; M301) and *limiiye* (M24; M23). The change from the expected word *limilile* to *limiile* and/or *limiiye* is shaped by several phonological processes as illustrated in (4).

(4)

	M31	M301	M24	M23
Underlying form	*limilile*	*limilile*	*limilile*	*limilile*
Stage 1: deletion of [l]	*limilie*	*limilie*	*limilie*	*limilie*
Stage 2: CV metathesis	*limiile*	*limiile*	—	—
Stage 3: deletion of [l]	—	—	*limiie*	*limiie*
Stage 4: gliding	—	—	*limiye*	*limiye*
Stage 5: vowel lengthening	—	—	*limiiye*	*limiiye*

The illustration presented in (4) shows a phonological change shaped by several phonological processes. Some of the processes are shared and some are not shared by the sister languages. For instance, the deletion of [l] and the consonant of the tense/aspect suffix is shared by all four sister languages. However, CV metathesis is shared by only two of the languages, namely M31 and M301. In this view, M31 and M301 move away from M24 and M23. Also, M24 and M23 undergo further deletion of [l], the consonant of the applicative suffix, whereas M31 and M301 do not. Moreover, the *-ile* suffix undergoes gliding and vowel lengthening in M24 and M23. Also, the applicative suffix

-el- offers a different condition for imbrication in the -ile suffix as illustrated in (5).

(5)

	M31	M301	M24	M23
Underlying form	komelile	komelile	homelile	homelile
Stage 1: deletion of *l	komelie	komelie	homelie	homelie
Stage 2: CV metathesis	komeile	komeile	homeile	homeile
Stage 3: vowel deletion	komile	komile	—	—
Stage 4: comp. vowel leng.	komiile	—	—	komiile
Stage 5: deletion of *l	—	—	homeie	homeie
Stage 6: gliding	—	—	homeye	homeye
Stage 7: vowel lengthening	—	homeeye	homeeye	—

As the illustration (5) shows, the change that involves -ile suffixation to verbs extended by the applicative suffix -el- from its underlying form (such as komelile in M31 and M301) to komiile and /or homelile (in M23 and M24) to homeeye) is shaped by different phonological processes across these languages. Two phonological processes, namely deletion of the consonant of the tense/aspect suffix and CV metathesis, are common across the four languages. From there, Nyakyusa and Ndali share two more phonological processes, namely deletion of a vowel preceding another vowel in stage 3 and vowel lengthening to compensate for the deleted one in stage 4. These two phonological processes are different from the three shared by Malila and Nyiha, which are deletion of the *l the consonant of the applicative suffix, gliding and vowel lengthening as illustrated in stages 5, 6 and 7. In this context, Nyakyusa and Ndali are more closely related than Malila and Nyiha. Also, Malila and Nyiha are more closely related than Nyakyusa and Ndali.

We also noted more variations in the phonological change involving the -ile suffix when attached to the verbs with the reciprocal suffix -an-, which is common across the four languages. For instance, the word koma 'beat' is semantically common to all four languages. When a reciprocal suffix is attached to the word, the resulting word is komana 'beat each other'. Then when the -ile suffix is attached to komana, the expected (underlying) form was supposed to be komanile, but this form is not found in these languages The existing (surface) form becomes komeene (M31), komanite (M301) homiine (M23) and khomiine (M24). In the same context, the phonological processes shaping a change of this word from the expected form to surface form vary across these languages, and they have been illustrated stage by stage in (6).

(6)

	M31	M301	M24	M23
Underlying form	komanile	komanite	khomanile	homanile
Stage 1: deletion of [l]	komanie	—	khomanie	homanie
Stage 2: CV metathesis	komaine	—	khomaine	homaine
Stage 3: vowel coalescence komeene	—	—	—	
Stage 4: vowel deletion	—	—	khomine	homine
Stage 5: comp v. lengthening	—	khomiine	homiine	—

The illustration presented in (6) indicates considerable variations in terms of the phonological processes shaping the change involving the -ile suffix when attached to verbs with a reciprocal suffix. First, M301 defines the verb with a reciprocal suffix as a regular verb, and in this regard no changes or associating phonological processes occur in this language. However, in M31, M23 and M24, verbs with a reciprocal suffix are irregular and thus they involve a change shaped by a set of phonological processes. But some of these phonological processes are shared and/or not shared by these three languages. For instance, two phonological processes, namely deletion of [l], consonant of the tense/aspect suffix and CV metathesis are shared by the three languages. In the difference, while M31 undergoes vowel coalescence of [ai] into [ee], M23 and M24 do not, instead they undergo two phonological processes, namely deletion of the vowel [a] preceding the vowel [i], and compensatory lengthening of the remaining vowel [i].

M301 departs from its sister languages M31, M23 and M24 based on the regularity of the verbs with a reciprocal suffix. In the same context, M31 is slightly closer to M23 and M24 as they share two of the phonological processes involving the -ile suffix when attached to verbs with a reciprocal suffix, but M23 and M24 are exactly genetically related since they share the same phonological processes shaping the change involving -ile suffixation to verbs with a reciprocal suffix.

The last condition involves the phonological change caused by -ile suffixation to verbs with a stative suffix, -ik- for M31 and M301, and -ih- for M23 and M24. For instance, the verb lima 'cultivate' with a stative suffix becomes limika (M31; M301) and limiha (M23; M24). When the -ile suffix is attached to this verb, the resulting (surface) form becomes limiike (M31), limikite (M301), limisile (M23) and limishile (M24). Example (7) illustrates the diversity in terms of phonological processes shaping the change involving -ile suffixation to verbs with a stative suffix.

(7)

	M31	M301	M24	M23
Underlying form	limikile	limikite	limihile	limihile
Stage 1: C-mutation	—	—	limishile	limisile
Stage 2: deletion of [l]	limikie	—	—	—
Stage 3: CV metathesis	limiike	—	—	—

The illustration presented in (7) indicates that the verbs with a stative suffix are regular across M301, M23 and M24 since the -ile suffix does not trigger imbrication, although it triggers C-mutation in M23 and M24. In this regard, the three languages are more closely related on that basis. But since M31 defines verbs with a stative suffix as irregular, and the imbrication is shaped by two phonological processes, namely deletion of the [l], consonant of the tense/aspect suffix, and CV metathesis, therefore, it parts from its three sister languages.

Generally, we have observed trait sharing and departures among these four languages from the Nyasa-Tanganyika corridor based on phonological changes involving the -ile suffix with its associating phonological processes shaping the changes. In this category of sharing and departing, it is found that one phonological change is common across the four languages, but the same becomes uncommon based on conditions and/or phonological processes shaping the change. For instance, imbrication is a phonological change common across the four languages, but the conditions/phonological processes are somewhat different among the languages.

After having grouped the languages under study based on phonological changes involving the -ile suffix, it is now worth presenting the genetic relationship among these languages based on morphological changes involving the suffix. In this context, these languages demonstrate linguistic diversity in tense/aspect prominence and the role of the -ile suffix in tense and aspect marking. Starting with tense/aspect prominence, Ndali, Malila and Nyiha share innovation in tense systems as they have split the past tense into three categories, namely remote past, yesterday past and today past. Moreover, these languages have split the future into two categories, namely near future and far future. But Nyakyusa has only one past tense and one form for future tense. In this view, Nyakyusa stands out from the other languages, and Ndali parts ways with the Nyakyusa subgroup to join the Nyika subgroup.

On the roles of the -ile suffix in the verb, in Ndali, Malila and Nyiha the suffix co-occurs with pre-root formatives to mark remote past (M23; M24), yesterday past and today past (M301; M24; M23). But in Nyakyusa, the suffix marks both simple past tense when it co-occurs with the pre-root formative -a-, and the anterior (which in this study is regarded as an aspect) when it occurs alone. For this view, Ndali moves from its original Nyakyusa subgroup to the Nyika group.

Apart from marking the anterior, the -ile suffix marks the non-progressive aspect across these four languages under study but with varying semantic properties. In denoting the non-progressive aspect, Ndali, Malila and Nyiha use both the -a-…-a form and -θ-…-ile form under different conditions. For instance, the -a-…-a form is used in the circumstance when a particular state has occurred closer to the time of speaking. For example, when one travels and gets sick on the way, then in Ndali, Malila and Nyiha people would say a-a-bhin-a, but one would say a-θ-bhin-ite in Ndali, or a-θ-bhin-ile in Malila and Nyiha showing that the state started before than the latter and continues. Likewise, to show that one has loved someone in Ndali, a person would say a-a-mu-gan-a, in Malila and Nyiha they would say a-a-mu-sungw-a. But to show that someone loves somebody we

would use the form with the -ile suffix in these languages. For example, in Ndali, we would say a-θ-mu-gan-ite, and in Malila and Nyiha, we would say a-θ-mu-sungwiizye. But in Nyakyusa, only the form with the -ile suffix is used to denote the non-progressive aspect. For instance, in this language one may say bhabha gwangu a-bhin-ile 'my father is sick', or umwana a-lambaleele 'the child is asleep'. The fact that Ndali, Malila and Nyiha use two forms that is -a-…-a, and a-θ-…-ile for the non-progressive aspect implies that these languages are closely related. Likewise, Nyakyusa's use of a-θ-…-ile, which is also one of the forms used by its three sister languages, indicates some genetic relationship with the other languages.

The forms -a-…-a, and -θ-…-ile are also used in different situations such as salutation, intensification, thanksgiving and the indefinite aspect with some variations. In this view, these situations can be used as a candidate to comment on the genetic relationship among the languages under study. In all of the four other situations, Nyakyusa uses a form with -ile, while Ndali, Nyiha and Malila use the form without the -ile suffix. In this view, the three languages that use the form without the suffix are more closely related compared to Nyakyusa which uses the form with the -ile suffix.

Generally, we have presented the roles of the -ile suffix in the realm of tense and aspect. Table 10 provides a summary of the genetic relationship among the four languages based on the roles of the -ile suffix in marking different tense/aspect categories.

In Table 10, the (+) indicates that in this language, the -ile suffix marks the specified tense/aspect category, whereas (-) indicates that -ile does not mark the specified tense/aspect category. The data presented in Table 10 show that based on morphological properties of the -ile suffix, Nyiha, Malila and Ndali are more closely related than their sister Nyakyusa because the three languages share a lot regarding the morphological properties involving the -ile suffix.

Conclusion

This article has determined the extent to which the selected languages have diversified based on the changing properties of the -ile suffix. Building on the statement made by Campbell (1999) that dialects develop from a proto-language through innovation and eventually through further innovations, the same dialects may become distinct languages, I noted some features in the -ile suffix that differentiate one sister language from another. For instance, the difference between Nyiha and Malila is seen in the

Table 10: Summary of the morphological changes involving -ile suffix

Item	Function/type	M31	M301	M24	M23
Roles of -ile (tenses)	Remote past	-	-	+	+
	Yesterday past (past tense)	+	+	+	+
	Today past		+	+	+
Roles of -ile (aspect)	Anterior	+	-	-	-
	non-progressive	+	-	-	-
	Indefinite conditional aspect	+	-	-	-
	Salutation	+	-	-	-
	Compliment	+	-	-	-

phonological change called C-mutation. With this change, a particular lexical item may have the same meaning across languages, but be different based on C-mutation. For example, the word for 'finish' is *mala* in both Nyiha and Malila. But when *-ile* suffix is attached to this word in Malila, the output form becomes *malile* 'finished', while in Nyiha, it becomes *mazile*. In this view, to group these languages, we need to go beyond lexical items into looking at the morpho-phonological processes, and in the case of this article, the processes involving the *-ile* suffix.

Concerning the position of Ndali in relation to Nyakyusa, Nyiha and Malila based on the morphological changes involving the *-ile* suffix, I conclude that Ndali is closely related enough to Nyiha and Malila to fall into the Nyiha-Safwa group (M20) as opposed to the Nyakyusa-Ngonde group (M30). But based on phonological change, Ndali has some features unique to itself. For instance, while *-ile* triggers imbrication in verbs with a reciprocal suffix in Nyakyusa, Nyiha and Malila, the suffix does not trigger imbrication in the same verbs in Ndali.

Generally, because of manifesting itself in three phonetic shapes, inducing imbrication and C-mutation across the four languages, and changing its original role from Proto-Bantu, the *-ile* suffix is evolving. Based on shared and varying phonological and morphological properties of the suffix, this article concludes that Nyiha and Malila and Nyakyusa and Ndali demonstrate genetic similarities and differences to the extent that the language subgrouping in the Nyasa-Tanganyika corridor is affected. Therefore, this article recommends further study to categorise all corridor languages based on the changing *-ile* properties.

ORCID iD

Nichodamus Robinson – https://orcid.org/0009-0006-7185-4961

References

Asheli N. 2013. *A grammatical sketch of Shinyiha*. Dar es Salaam: Languages of Tanzania Project.

Bhat DNS. 1999. *The prominence of tense, aspect and mood.* Amsterdam: John Benjamins. https://doi.org/10.1075/slcs.49

Bostoen K. 2008. Bantu Spirantization: Morphologization, lexicalization and historical classification. *Diachronica* 25(3): 299–356. https://doi.org/10.1075/dia.25.3.02bos

Campbell L. 1997. Genetic classification, typology, areal linguistics, language endangerment, and languages of the north Pacific rim. In: Miyaoka O, Oshima M (eds), *Languages of the North Pacific Rim.* Kyoto: Kyoto University. pp. 179–242.

Campbell L. 1999. *Historical linguistics: An introduction* (2nd edn). Cambridge, Massachusetts: MIT Press.

Campbell L, Poser WJ. 2008. *Language classification: history and method*. Cambridge: Cambridge University Press

Croft W. 2000. *Explaining Language Change: An Evolutionary Approach*. London: Longman.

Dimmendaal GJ. 2011. *Historical Linguistics and the Comparative Study of African Languages.* Amsterdam: John Benjamins Publications. https://doi.org/10.1075/z.161

Ehret C. 1999. Subclassifying Bantu: The evidence of stem morpheme innovation. In: Hombert JM, Hyman LM (eds), *Bantu Historical Linguistics*. Stanford: CSLI Publications. pp. 5–41.

Greenberg GH. 1963. *The languages of Africa*. Bloomington: Mouton & Co

Guthrie M. 1948. *The classification of Bantu languages*. London: Oxford University Press.

Guthrie M. 1971. *Comparative Bantu*. London: Gregg Press.

Johnston HH. 1922. *A comparative study of the Bantu and semi-Bantu languages*. Oxford: Clarendon Press

Kahigi KK. 1989. Development affecting the Bantu perfective in *-ile: Another view. *Journal of the Institute of Kiswahili Research* 56: 92–107.

Kula NC. 2001. Imbrication in Bemba. In: Hume E, Smith N, van de Weijer J (eds), *Surface Syllable Structure and Segment Sequencing* (pp. 102–116). HIL Occassional Papers.

Labrouiis C. 1999. Vowel system and spirantization in south-west Tanzania. In: Hombert JM. Hyman LM (eds), *Bantu historical linguistics: Theoretical and empirical perspective.* Stanford: CSLI Publications. pp. 335–377.

Maho J. 2001. The Bantu area: (towards clearing up) a mess. *Africa & Asia* 1: 40–49.

Maho JF. 2003. A classification of the Bantu languages: An update of Guthrie's referential system. In: Nurse D, Philippson G (eds), *The Bantu languages*. London: Routledge. pp. 639–652.

Mallya A, Robinson N. 2021. The morphological evolution of the *-ile* suffix across Bantu languages in the Nyasa-Tanganyika corridor. *Journal of the University of Namibia Language Centre* 6(1): 36–48.

Mbembela R. 2016. A comparative analysis of Ndali and Nyakyusa. MA dissertation. University of Dar es Salaam, Tanzania.

Mtenje A. 2016. A comparative analysis of the phonology and morpho-syntax of Cisukwa, Cindali and Cilambya. PhD thesis. University of Cape Town, South Africa.

Myers S. 1994. Epenthesis, mutation, and structure preservation in the Shona causative. *Studies in African Linguistics* 23: 185–218. https://doi.org/10.32473/sal.v23i2.107414

Nurse D, Philippson G, eds. 2003. *The Bantu Languages*. London: Routledge.

Nurse D, Philippson G. 2006. Common tense-aspect markers in Bantu. *Journal of African Languages and Linguistics* 27: 153–194. https://doi.org/10.1515/JALL.2006.009

Robinson N. 2021. Historical evolution of *-ile* suffix across Bantu languages: The case of Nyasa-Tanganyika corridor. PhD thesis. University of Dar es Salaam, Tanzania.

Walsh M, Swilla IN. 2000. Linguistics in the Corridor: A review on research on Bantu languages of South-west Tanzania, North-east Zambia and North Malawi. *Journal of Asia and African Studies* 61: 275–302.

Welmers WE. 1973. *African language structures*. Stanford: University of California Press.