

Research Article

A Morphological Analysis of Verb Extensions in Kirombo

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Abstract

Verb extensions are an important morphological feature of Bantu languages because they contribute to the modification of verb forms and meanings. Despite their significance in Bantu morphology, the verb-extension system of Kirombo (E623), particularly the Kimashati variety, remains insufficiently documented. This study aims to identify the morphemic affixes of verb extensions in Kirombo. It is guided by Basic Linguistic Theory (BLT) and employs a qualitative research design. Data are collected through questionnaires, recorded natural speech, and narrative elicitation from ten native speakers of Kirombo aged 55 years and above in Mrere Village. The analysis identifies five verb extensions in the Kimashati dialect of Kirombo, namely the applicative, causative, reciprocal, passive, and stative extensions. The applicative extension is realized by the morphemes *-i/-e-*, the causative by *-ish/-esh-*, the reciprocal by *-an-*, the passive by *-w/-iw/-ew-*, and the stative by *-ik/-ek-*. The variation among the identified forms is associated with phonological conditioning, including vowel alternation and, in some cases, processes that may be related to Advanced Tongue Root (ATR) harmony and epenthesis. The findings demonstrate that Kirombo possesses a distinct and systematically organized set of morphological affixes for marking verb extensions. The study contributes to the grammatical documentation of Kirombo and provides empirical evidence for comparative studies of verb-extension morphology in Bantu languages.

Keywords

Kirombo, Verb Extensions, Morphemes, Bantu Morphology, Basic Linguistic Theory

1. Introduction

Verb extensions are important morphological features of Bantu languages because they modify verbal meanings and grammatical relations. These bound morphemes typically attach to verb stems and express functions such as benefaction, causation, reciprocity, passivity, and stativity, Guthrie, [13], Rugemalira, [28]. Although these functions occur across Bantu languages, their morphological forms, distribution, and phonological realization vary. Examining these variations is

essential for documenting individual languages and understanding patterns of morphological diversity within the Bantu language family.

Previous studies have investigated verb extensions in several Bantu languages. Bresnan and Moshi [5] examine the syntactic properties of applicative constructions, while Lodhi [21] discusses passive formation in Kiswahili and Kinyamwezi. Mushi, [26] investigates causative formation in Kikibosho, and Masebo [23] examines verbal extensions in Chindali.

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Similarly, Kahigi [17], [18] provides evidence concerning extension formation and functions in Sumbwa and Kikahe. These studies demonstrate that verb extensions can modify participant roles, argument structure, and verbal interpretation. However, their findings also highlight the need to investigate individual languages because morphological forms and their conditioning environments are not necessarily identical across Bantu languages.

Despite these contributions, the verb-extension system of Kirombo (E623), particularly the Kimashati variety, remains insufficiently documented in the literature reviewed. Specifically, the inventory of extensions attested in this variety, the morphemes through which they are realized, and the variation in their forms require systematic description. In addition, the phonological conditions associated with these variations, including possible vowel alternation, Advanced Tongue Root (ATR) harmony, and epenthesis, need to be examined using language-specific evidence. Consequently, existing descriptions of other Bantu languages cannot adequately establish the morphological patterns that characterize Kirombo. This constitutes the descriptive gap addressed by the present study.

The study aims to identify the morphemic affixes of verb extensions in the Kimashati variety of Kirombo. Specifically, it seeks to identify the types of verb extensions present and describe their morphological realization. By examining the forms of the applicative, causative, reciprocal, passive, and stative extensions, the study establishes an empirical account of their occurrence and formal variation in the variety.

The study contributes to the grammatical documentation of Kirombo by providing a systematic description of its verb-extension morphology. It also broadens the empirical basis for comparative research on Bantu languages by documenting morphological patterns that may differ from those reported elsewhere. Furthermore, the findings provide a foundation for subsequent investigations into Kirombo phonology, morphology, and morphosyntax.

2. Literature Review

This chapter reviews the literature on verb-extension morphemes in Bantu languages and establishes the conceptual, empirical, and theoretical foundations of the study. It is organized into three main sections: the conceptual review, the empirical review, and the theoretical framework. The conceptual review discusses the meaning, functions, and morphological realization of verb extensions and establishes the operational definition used in this study. The empirical review examines previous studies on applicative, causative, stative, reciprocal, and passive extensions, highlighting their contributions and limitations. The final section explains how Basic Linguistic Theory guides the analysis of verb-extension morphemes in Kirombo.

2.1. Conceptual Review

2.1.1. The Concept of Verb-Extension Morphemes

Verb-extension morphemes are bound morphological elements attached to verb roots or stems to modify their meanings and, in many cases, their argument structures. In Bantu languages, these morphemes commonly occur as suffixes within the verbal macro-stem, typically preceding the final vowel, Hyman, [14], Schadeberg, [29], Stegen, [32]. Scholars such as Hyman [15], Rugemalira, [28], and Ngonyani, [27] discuss verb extensions as important components of Bantu verbal morphology, although their forms, productivity, and grammatical effects vary across languages.

From a morphological perspective, verb extensions are identifiable through recurring forms attached to verbal bases. From a semantic perspective, they modify the interpretation of an action, state, or relationship between participants. Syntactically, some extensions influence valency by introducing, suppressing, or reorganizing grammatical arguments. For example, applicative and causative extensions may increase the number of participants associated with a predicate, whereas passive and some reciprocal constructions may reduce or reorganize argument structure. Stative extensions commonly express states, resultant conditions, or potential meanings, depending on the language.

The literature also demonstrates that Bantu languages differ in the number and form of their extensions. Hyman [15] and Cocchi [7] observe that the inventory of derivational suffixes varies across languages, with some possessing more extensive systems than others. These differences indicate that the morphology of one Bantu language cannot automatically be assumed to represent that of another.

Operational definition. In this study, verb-extension morphemes refer to identifiable bound suffixes attached to verb roots in the Kimashati variety of Kirombo that systematically modify the meaning or grammatical interpretation of the resulting verbal forms. The analysis focuses on five extension categories: applicative, causative, reciprocal, passive, and stative. Each extension is identified by examining its recurring morphological form, position within the verb stem, and contribution to the derived verb, using data from questionnaires, recorded natural speech, and narrative elicitation.

2.1.2. The Applicative Extension

The applicative is a verbal extension that introduces or foregrounds a participant associated with the action expressed by a verb. The applied participant may function as a beneficiary, recipient, instrument, location, goal, or other semantically relevant participant (Bresnan & Moshi, [5], Güldemann, [12]). Applicative constructions can also influence grammatical relations by allowing an applied participant to occupy an object position.

The morphological realization of the applicative varies across Bantu languages. Forms such as -il-, -el-, -ir-, and -er-

are reported in different languages, depending on language-specific morphological and phonological conditions, Güldemann, [12], Seidel, [30]. Its interpretation is not determined by the suffix alone but also depends on the meaning of the base verb and the grammatical and discourse context (Marten & Kula, [22], Jerro, [16].

For this study, the applicative is operationally defined as a verbal extension identified by a recurring suffix that introduces or marks an additional participant or a semantic relationship associated with the base verb. Its forms in Kirombo are examined independently rather than assumed to match those documented in other Bantu languages.

2.1.3. The Causative Extension

The causative is a verbal extension that expresses a causal relationship between a causer and an event or participant associated with the base verb. It commonly introduces an external causer and may change the grammatical relations of the original predicate (Alsina & Mchombo, [1], Ngonyani, [27]. Depending on the construction, the original subject may be interpreted as the causee.

Causative extensions have different morphological realizations across Bantu languages. Forms such as -is-, -esh-, and -ets- illustrate this variation, Muhdhar, [25], Gibson et al., [11]. Causative constructions may also differ in the degree or type of causation expressed, including direct and indirect causation, Simango, [31]. In this study, the causative is defined as a bound verbal suffix that derives a predicate expressing the causing of an action, event, or state.

2.1.4. The Stative Extension

The stative is a verbal extension associated with a state, condition, or potentiality related to the event expressed by the base verb. Unlike a canonical passive, which presents a participant as undergoing an event while reorganizing grammatical relations, the stative typically emphasizes a condition or state without necessarily foregrounding an external agent, Lodhi, [21], Ngonyani, [27].

Studies of Bantu languages report forms such as -ik- and -ek-, although their semantic interpretation and distribution vary. For example, stative forms may describe a resultant state or express potential meanings, as discussed by Taji [33]. Research on Kagulu, Tumbuka, Ndebele, and Manda likewise illustrates variation in the relationship between stativity, decausativity, and potentiality Chavula, [6] Dom et al., [10] Bernander, [3]. For this study, the stative is defined as a bound suffix that derives a verb expressing a state, condition, or potential property associated with the base verb.

2.1.5. The Reciprocal Extension

The reciprocal is commonly associated with the suffix -an-

in Bantu languages. It expresses mutual or symmetrical participation, whereby two or more participants perform an action in relation to one another Rugemalira, [28], Chavula, [6], Zacharia, [34]. In transitive constructions, reciprocity may reorganize the relationship between the subject and object. With certain intransitive verbs, it may instead introduce a mutual interpretation without necessarily reducing grammatical valency.

Although -an- is widely attested, its productivity and interpretation depend on the grammatical properties of individual languages and the lexical meanings of the verbs involved, Gibson et al., [11]. Accordingly, this study defines the reciprocal as a bound verbal suffix that expresses mutual or symmetrical participation among the referents associated with a predicate.

2.1.6. The Passive Extension

The passive is a verbal extension that reorganizes grammatical relations by reducing the prominence of the external agent and promoting the patient or theme to subject position. Passive morphology in Bantu languages includes forms such as -w- and -iw-, although their distribution differs across languages, Schadeberg, [29], Lodhi, [21], Bernander, [3]. Some languages also employ alternative constructions to express passive meanings.

This variation demonstrates that the passive has a broadly shared grammatical function but does not necessarily have an identical morphological realization throughout the Bantu family. In this study, the passive is defined as a bound verbal suffix that marks a passive construction by changing the grammatical presentation of the participants associated with the base verb.

2.1.7. Theoretical Framework

This study is guided by Basic Linguistic Theory (BLT), a descriptive approach associated with Dixon [9]. BLT emphasizes the systematic analysis of linguistic structures using language data and descriptive categories such as roots, stems, morphemes, and affixes.

BLT guides the analysis of Kirombo verb extensions through morphological segmentation, which distinguishes verb roots from their attached suffixes. By comparing basic and extended verb forms, the study identifies recurring morphemes and establishes their positions within verb stems.

The framework also supports the classification of the applicative, causative, reciprocal, passive, and stative extensions according to their morphological forms and grammatical functions. In addition, it provides a basis for examining variations in suffix realization and considering possible phonological processes, such as vowel alternation, Advanced Tongue Root (ATR) harmony, and epenthesis, where supported by the data.

BLT is therefore appropriate for this study because it provides a systematic, evidence-based approach to describing the morphological structure of Kirombo verbs while allowing comparison with other Bantu languages.

2.2. Empirical Review

The empirical review examines previous investigations of verb extensions in Bantu languages, emphasizing their research contexts, major findings, limitations, and relevance to the present study.

2.2.1. Empirical Studies on Applicative Extensions

Bresnan and Moshi [5] examine applicative-related argument structure and grammatical relations in Bantu, demonstrating the importance of distinguishing participant roles and object relations. Their work provides a foundation for understanding how applicative constructions affect the organization of verbal arguments. However, their analysis does not establish the morphological inventory of the Kimashati variety of Kirombo.

Chavula [6] investigates verbal morphology in Citumbuka and documents applicative forms such as -il-. Muhdhar [25], examining Kisukuma, particularly the Jinakiiya dialect, reports applicative forms including -il- and -el-. These studies provide comparative evidence that applicative morphology is widely attested but subject to language-specific formal variation. Nevertheless, their findings cannot directly establish which applicative suffixes occur in Kirombo.

Marten and Kula [22] investigate applicative constructions in Bemba, demonstrating that applied participants may express different semantic roles rather than one fixed interpretation. Jerro [16] similarly emphasizes the relationship between applicativization, participant interpretation, and grammatical structure in Kinyarwanda. These studies broaden the understanding of applicatives beyond their morphological forms, but they do not resolve the descriptive gap concerning applicative morphology in Kimashati a dialect of Kirombo. The present study builds on these contributions by identifying the applicative suffixes attested in Kirombo and documenting their morphological realization from language-specific data.

2.2.2. Empirical Studies on Causative Extensions

Alsina and Mchombo [1] investigate causative constructions in Chichewa and demonstrate how causativization introduces an external causer and reorganizes grammatical relations. Their findings establish the importance of examining causatives in relation to argument structure rather than treating them solely as changes in lexical meaning.

Muhdhar [25] documents causative morphology in Kisukuma, illustrating forms such as -esh-. Gibson et al. [11] discuss broader patterns of verbal-extension morphology across Bantu languages, while Simango, [31] examines distinctions in causative interpretation, including direct and indirect causation. Collectively, these studies demonstrate that causative morphology has a recognizable grammatical function but exhibits formal and semantic variation.

However, the studies do not provide a systematic inventory of causative morphemes in Kimashati dialect of Kirombo. The

present study addresses this limitation by identifying the causative forms in Kirombo and describing their contribution to derived verbal meanings.

2.2.3. Empirical Studies on Stative Extensions

Lodhi [21] discusses verbal extensions in Kiswahili and Kinyamwezi, providing comparative evidence of the relationship between morphological forms and grammatical functions. Chavula [6] documents stative-related forms in Tumbuka, while Dom et al. [10] examine stative and decausative extensions in Kagulu and West Ruvu Bantu. Bernander [3] reports potential interpretations associated with verbal morphology in Manda.

Taji [33] further demonstrates that Kiswahili stative morphology can express not only states but also potential meanings, illustrating the semantic range associated with this extension. These studies show that stative morphology cannot always be described as a simple marker of a resultant state because its interpretation may extend to potentiality and related meanings.

Nevertheless, the available studies do not establish how stative morphology is realized in Kirombo. This study therefore investigates its suffixal forms and the meanings associated with the resulting verb forms.

2.2.4. Empirical Studies on Reciprocal Extensions

Rugemalira, [28] examines verbal morphology in Runyambo and discusses the role of reciprocal constructions in establishing symmetrical relations between participants. Zacharia [34] documents reciprocal morphology in Kuria, while Chavula [6] examines reciprocal forms in Tumbuka. These studies support the general observation that -an- is a recurrent marker of mutual participation across Bantu languages.

The findings also suggest that reciprocal constructions should be examined in relation to the grammatical and semantic properties of the base verb. However, the existence of -an- in other Bantu languages does not establish its precise form, distribution, or productivity in Kirombo. The present study addresses this limitation by examining reciprocal morphology in Kirombo using elicited and naturalistic data.

2.2.5. Empirical Studies on Passive Extensions

Lodhi [21] documents passive morphology in Kiswahili and Kinyamwezi, showing that passive forms may differ across languages despite their shared grammatical function. Stegen [32] examines verbal morphology in Rangi, while Bernander [3] documents relevant patterns in Manda. These studies provide evidence of passive forms such as -w- and -iw- and demonstrate that their distribution is language-specific.

Other research, including Kula and Marten [20], illustrates that passive constructions may interact with broader grammatical strategies rather than relying exclusively on a single suffix. Such findings support the need to distinguish the general func-

tion of passivization from its particular morphological realization.

Despite these contributions, the morphological forms and distribution of passive extensions in Kirombo remain insufficiently documented. The present study therefore identifies the passive suffixes occurring in the variety and describes their position within the verbal stem.

2.3. Synthesis of the Empirical Literature and Research Gap

Previous studies on Bantu languages demonstrate that applicative, causative, stative, reciprocal, and passive extensions play important roles in verbal morphology. Research on languages such as Chichewa, Kisukuma, Citumbuka, Runyambo, Kuria, Rangi, Manda, and Kiswahili show that these extensions vary in their morphological forms and grammatical functions across languages.

Despite these contributions, the morphological realization of verb extensions in Kirombo, particularly the Kimashati variety, remains insufficiently documented in the literature reviewed. In particular, further investigation is needed to establish the forms of its verb-extension morphemes and the phonological conditions that may influence their realization. The findings from other Bantu languages cannot automatically be generalized to Kirombo because of possible language-specific morphological and phonological differences.

Therefore, this study investigates the applicative, causative, reciprocal, passive, and stative extensions in Kirombo. It identifies their morphemic forms and examines variations in their realization, including possible vowel alternation, Advanced Tongue Root (ATR) harmony, and epenthesis were supported by the data. The study contributes to the grammatical documentation of Kirombo and provides evidence for comparative research on Bantu verbal morphology.

3. Methodology

The study used a qualitative descriptive approach to identify and describe verb-extension morphemes in the Kimashati variety of Kirombo. The study was conducted in Mrere Village, Katangara Mrere Ward, Rombo District, Kilimanjaro Region, Tanzania. Ten native speakers aged 55 years and above were selected through convenience sampling based on their ability to speak Kimashati fluently and their knowledge of the language.

Data were collected through a questionnaire, audio recordings, and natural speech. The questionnaire contained 26 base verbs that were used to collect information about verb extensions. Some participants were asked to translate words into Kimashati, while others were requested to provide extended forms of the given verbs. However, not all participants were required to provide forms for all 26 verbs. Some forms had

similar pronunciations, and repeated examples were avoided when presenting the data. Before the main study, a pilot study was conducted with two native speakers who were not included in the main sample to check and improve the questionnaire.

The collected data were transcribed, organized, and grouped according to the identified verb extensions and their forms. Basic Linguistic Theory (BLT) guided the analysis by helping the researcher identify verb roots, extension morphemes, and final vowels. The analysis focused on five types of extensions: applicative, causative, reciprocal, passive, and stative. The forms collected from participants were compared to identify similarities and differences in the way the extensions were formed. Audio recordings were also checked to ensure that the transcribed forms matched what participants said.

The quality of the data was supported by testing the questionnaire before the main study, checking the transcriptions against the recordings, and comparing the information collected through different methods. Research permission was obtained, and participants were asked for their consent before data collection and audio recording. Participants agreed to take part in the study willingly, without being forced. To protect participants' dignity, personal information was not included in the report. The recordings and transcripts were treated as confidential, and all sources used in the study were properly acknowledged.

4. Findings and Discussion

This section identifies and describes the morphological forms of the five verb extensions examined, that is to say the applicative, passive, causative, reciprocal, and stative extensions. For every extension, the analysis considers its morphological structure, semantic function, distribution, and contribution to the argument structure of the verb.

4.1. Applicative Verb Extension in Kirombo

The distribution of the two applicative forms indicates that a strong relationship with the vowel composition of the verb root. In the data observed, roots containing high vowels such as /i/ and /u/ normally occur with the applicative form -i-, while roots containing the middle vowels /e/ and /o/ occur with -e-. Roots with /a/ also occur with -i-. This distribution indicates that vowel quality plays an important function in applicative allomorph selection. However, the presented data do not support treating the pattern as a totally automatic vowel-harmony rule. It is therefore more suitably described as vowel-conditioned allomorphy, with possible lexical conditioning in some forms. Therefore, Kirombo chooses -i- or -e- depending on the phonological environment of the verb root as indicated in Table 1.

Table 1. The Applicative Morpheme *-i-* and *-e-*.

No.	Base	Gloss	Applicative Form	Gloss
a)	Kaba	Hit	Kabia	Hit for someone
b)	Tirima	Stand	Tirimia	Stand for (substitution)
c)	Kunda	Love	Kundia	Love on behalf of
d)	Ola	Buy	Olia	Buy on behalf of
e)	Ishura	Be full	Ishuria	Be full on behalf of
f)	Suma	Dig	Sumia	Dig on behalf of
g)	Sambura	Sort	Samburia	Sort on behalf of
h)	Koba	Borrow	Kobia	Borrow on behalf of
i)	Kiira	Throw	Kiiria	Throw on behalf of
j)	Shicha	Cover	Shichia	Cover on behalf of
k)	Ninga	Give	Ningia	Give on behalf of
l)	Soma	Read	Somea	Read for
m)	Jenga	Build	Jengea	Build for someone
n)	Seka	Laugh	Sekea	Laugh at
o)	Enda	Go	Endea	Go on behalf of
p)	Toola	Jump	Toolia	Jump at
q)	Wonika	Born	Wonikia	Be born at

Source: Field data (2026).

The findings in Table 1 show that the Kirombo applicative has two morphological realizations, *-i-* and *-e-*. Although these forms vary in their phonological realization, they perform the same grammatical function by extending the base verb and introducing an additional participant into the event. Morphologically, the applicative occurs between the verb root and the final vowel, giving the structure ROOT + APPL + FV, as illustrated in 1(a-b).

- 1) (a). *kaba - kabia*
kab-a - kab-i-a
hit-FV -root-APPL-FV
'hit' - 'hit for/on behalf of someone'
- (b). *soma - somea*
som-a - som-e-a
read-FV -root-APPL-FV
'read' - 'read for someone'

In (1a), the verb root *kab-* combines with the applicative extension *-i-* and the final vowel *-a*, forming *kab-i-a*. Similarly, in (1b), the verb root *som-* combines with the applicative extension *-e-* and the final vowel *-a*, forming *som-e-a*. Morphologically, these examples demonstrate that the applicative extension occurs between the verb root and the final vowel. The examples presented in (1a) and (1b) represent the remaining data in the table and illustrate the morphological realization and position of the applicative extension in Kirombo.

Semantically, the applicative extension modifies the relationship between the event expressed by the base verb and an additional participant. The data collected in this study indicate that this participant is most commonly interpreted as a beneficiary, that is, the person for whose benefit the action is performed. However, the precise semantic interpretation depends on the lexical meaning of the verb and the discourse context.

Significantly, the two forms do not differ in their grammatical function. Both *-i-* and *-e-* derive applicative verb forms and may introduce an additional participant into the event structure. The difference between the two forms is therefore primarily morphological and phonological rather than semantic.

The findings from Kirombo are broadly consistent with descriptions of applicative structures in other Bantu languages. Bresnan and Moshi [5], for example, discuss the relationship between applicative morphology and object structure, while Baker [2] relates applicative morphology to the introduction of an additional argument. The Kirombo data therefore support the broader analysis of the applicative as a derivational extension that can affect both the semantic interpretation and the argument structure of a verb.

Therefore, the findings identify *-i-* and *-e-* as the morphological realizations of the applicative extension in Kirombo. Both forms occur between the verb root and the final vowel,

as illustrated in examples (1a) and (1b), which represent the remaining data in the table. These findings establish the morphological forms and position of the applicative extension in Kirombo.

4.2. Passive Verb Extensions in Kirombo

The passive verb extension in Kirombo is formed by adding the suffixes -w-, -iw-, or -ew- between the verb root and the

final vowel (infinitive final mode morpheme) -a. In most cases, the passive follows the pattern Root+Passive Suffix+Final Vowel. The forms -iw- and -ew- are used in some phonological environments to make pronunciation easier.

As noted by Keenan and Dryer [19], passive constructions highlight the affected participant instead of performing the action. In Kirombo, the passive morpheme is usually added without changing the spelling of the verb root, as indicated in Table 2.

Table 2. Passive Extension morphemes -w-, -ew-, -iw-.

No.	Base	Gloss	Passive Form	Gloss
a)	Kaba	Hit	Kabwa	Be hit
b)	Kora	Cook	Korwa	Be cooked
c)	Tema	Play	Temwa	Be played
d)	Lemba	Lie	Lembwa	Be lied
e)	Shinga	Close/shut	Shingwa	Be closed
f)	Lesa	Pour	Leswa	Be poured
g)	Osha	Burn	Oshwa	Be burnt
h)	Ola	Buy	Olwa	Be bought
i)	Kunda	Love	Kundwa	Be loved
j)	Suma	Dig	Sumwa	Be diggable
k)	Rara	Wear	Rarwa	Be worn
l)	Lya	Eat	Lyiwa	Be eaten
m)	Kiira	Throw	Kiirwa	Be thrown
n)	Sambura	Sort	Samburwa	Be sorted
o)	Fa	Die	Fiwa	Be bereaved
p)	Ra	Catch	Rewa	Be caught
q)	Sa	Grind	Sewa	Be ground
r)	Waa	Kill	Wawa	Be killed
s)	Shinsha	Slaughter	Shinshwa	Be slaughtered
t)	Misha	Break	Mishwa	Be broken
u)	Asa	Lingt/turn on	Aswa	Be turned on
y)	Alika	Marry	Alikwa	Be married
w)	Itikira	Greet	Itikirwa	Be greeted by

Source: Field data (2026).

The findings in Table 2. recognize three morphological realizations of the passive verb extension in Kirombo: -w-, -ew-, and -iw-. These morphemes occur between the verb root and the final vowel -a, providing morphological structure ROOT+PASS+FV, as illustrated in 2(a-c).

- 2) (a). *kora - korwa*
kor-a - kor-w-a
cook-FV - root-PASS-FV
'cook' - 'be cooked'
 (b). *ra - rew-a*

r-a - r-ew-a
catch-FV -root-PASS-FV
 'catch' - 'be caught'
 (c). *lya - lyiwa*
ly-a -ly-iw-a
eat-FV -root-PASS-FV
 'eat' - 'be eaten'

Example (2a) illustrates the realization of the passive morpheme as *-w-*. The verb root *kor-* combines with the passive morpheme *-w-* and the final vowel *-a* to form *korwa*. This demonstrates the morphological pattern in which the passive morpheme is attached directly to the verb root before the final vowel. In (2b) illustrates the passive form *-ew-* in *rewa*, where the passive element occurs between the verb root *r-* and the final vowel *-a*. Similarly, in (2c) shows the realization of the passive form *-iw-* in *lyiwa*, where *-iw-* occurs between the root *ly-* and the final vowel *-a*. These examples illustrate three proposed morphological realizations of the passive extension in Kirombo: *-w-*, *-ew-*, and *-iw-*.

The data presented in Table 2. identify these three forms as morphological realizations of the passive extension. The examples *korwa*, *rewa*, and *lyiwa* represent the respective forms, while the remaining data in the table provide further evidence for their occurrence in Kirombo. Morphologically, the forms occupy the position between the verb root and the final vowel *-a*, although their internal segmentation differs. This variation demonstrates that a single grammatical extension may have different surface realizations within the verbal system of Kirombo.

Semantically, the passive extension changes how the participants involved in an event are presented. In passive constructions, the participant affected by the action is typically given prominence as the grammatical subject, while the agent, or the participant performing the action, may be omitted or expressed in a phrase where the language permits it. The passive extension therefore changes the grammatical perspective from which an event is presented without necessarily changing its basic event meaning. In Kirombo, the forms *-w-*, *-ew-*,

and *-iw-* are analysed as expressing the same grammatical function, namely passive voice. Their differences are therefore primarily morphological rather than semantic, provided that the examples in Table 2. confirm that all three forms have the same passive function.

The identification of these forms is broadly consistent with descriptions of passive morphology in Bantu languages. Schadeberg [29] identifies the passive as one of the principal verbal extensions in Bantu, while Hyman [15] discusses passive morphology within the broader system of Bantu verbal extensions. Similarly, Mchombo [24] describes passive marking as part of the morphological structure of Bantu verbs. These studies provide a comparative basis for analysing *-w-*, *-ew-*, and *-iw-* as morphological realizations of the passive extension in Kirombo.

Therefore, the findings establish the proposed morphological forms and position of the passive extension in Kirombo and identify their shared grammatical function. The forms *-w-*, *-ew-*, and *-iw-* demonstrate morphological variation in the realization of passive voice, while their semantic function relates to the presentation of event participants, particularly the prominence of the affected participant over the agent.

4.3. Causative Verb Extension in Kirombo

The findings of this study indicate that causative in Kirombo is realised through two forms, *-ish-* and *-esh-*. The two forms perform the equal broad grammatical function but vary in their distribution across verb roots. Morphologically, the causative occurs between the verb root and the final vowel. Semantically, the causative expresses a condition in which one participant, the causer, causes, enables another participant, the causee, to perform the action uttered by the base verb or to enter the state expressed by it. Therefore, causative introduces a causal relationship between the causer and the event described by the base verb as shown in Table 3.

Table 3. Causative Extension morphemes *-ish-* and *-esh-*.

No.	Base	Gloss	Causative Form	Gloss
a)	imba	Sing	Imbisha	Cause to sing
b)	tirima	Stand	Tirimisha	Cause to stand
c)	inama	Bend	Inamisha	Cause to bend
d)	soma	Read	Somesha	Cause to read
e)	ohova	Fear	Ohovesha	Cause to fear
f)	nwa	Drink	Nweshasha	Cause to drink
g)	jenga	Build	Jengeshasha	Cause to build
h)	seka	Laugh	Shekeshasha	Cause to laugh

No.	Base	Gloss	Causative Form	Gloss
i)	Shinga	Close/shut	Shingisha	Cause to close
i)	Toola	Jump	Toolisha	Cause to jump
J)	Runda	Do	Rundisha	Cause to do

Source: Field data (2026).

The findings in Table 3 identify two morphological realizations of the causative verb extension in Kirombo: *-ish-* and *-esh-*. The two forms express the same grammatical category but it is different in their morphological realization. The causative happens between the verb root and the final vowel *-a*, giving the structure ROOT + CAUS + FV, as illustrated in 3(a-c).

- 3) (a). *toola - toolisha*
Tool-a - tool- ish- a
jump-FV - root-CAUS-FV
'jump' - 'cause to jump'
 (b). *runda - rundisha*
rund-a - rund-ish-a
do-FV - root-CAUS-FV
'do' - 'cause to do'
 (c). *ohova - ohovesha*
ohov-a - ohov- esh- a
fear-FV - root-CAUS-FV
'fear' - 'cause to fear'

Example (3a) illustrates the realization of the causative extension as *-ish-*. The verb root *tool-* combines with *-ish-* and the final vowel *-a* to form *toolisha*. Similarly, in example (3b), the root *rund-* combines with *-ish-* and *-a* to form *rundisha*. Example (3c) illustrates the second realization, *-esh-*, in which the root *ohov-* combines with *-esh-* and the final vowel *-a* to form *ohovesha*. Morphologically, these examples demonstrate that the causative extensions *-ish-* and *-esh-* occur between the verb root and the final vowel. The remaining examples in Table 3 provide further evidence for these forms, while their distribution is examined in relation to the phonological properties of the verb roots.

Semantically, the causative extension introduces a causal relationship in which one participant, the causer, causes or enables another participant, the causee, to perform an action or undergo a particular state. Thus, *toolisha*, *rundisha*, and *ohovesha*, derived from *toola*, *runda*, and *ohova*, respectively, retain a semantic relationship with their base verbs while expressing causation. The precise interpretation of each derived verb depends on the lexical meaning of the base verb and the context in which it is used.

The findings identify *-ish-* and *-esh-* as the morphological realizations of the causative extension in Kirombo. Although they differ in form, both perform the same basic grammatical function of deriving causative verbs. Their variation is there-

fore primarily morphological and potentially phonological rather than semantic. This analysis is broadly consistent with descriptions of causative morphology in Bantu languages. Hyman [15] discusses causative marking within the system of Bantu verbal extensions, while Simango, [31] examines the morphological realizations of causative extensions. These studies provide a comparative basis for understanding the forms identified in Kirombo within the broader system of Bantu verbal morphology.

On the other hand, the existence of the causative allomorphs in Kirombo is not totally predictable. Although *-ish-* is the more productive causative marker, its distribution is constrained with certain verb roots. Native-speaker judgments specify that some expected *-ish-* formations are unacceptable, as illustrated in 4(a-b).

- 4) (a). *Kaba - Kabisha (unacceptable)*
Kab-a - kab -ish -a
Beat-FV - Root + CAUS + FV
'beat' - 'cause to beat'
 (b). *Kora -korisha (unacceptable)*
kor-a - kor-ish -a
cook- FV - root + CAUS + FV
'cook' - 'cause to cook'

Source: Field data (2026).

The unacceptability of these forms proposes that causative formation in Kirombo is subject to lexical constraints, such that not all verb roots are free to combine with the productive *-ish-* allomorph. As a result, the causativized forms *kabisha* and *korisha* are judged unacceptable by native speakers.

Likewise, although *-esh-* is a productive causative allomorph in Kirombo, its distribution is also subject to lexical constraints. Native-speaker judgments show that some verb roots do not willingly permit causativization with *-esh-*, as illustrated in 5.

- 5) *Osha -oshesha (unacceptable)*
Osh-a - osh- esh -a
Burn-FV - Root + CAUS + FV
'burn' - 'cause to burn'

Source: Field data (2026).

The unacceptability of *-ish-* and *-esh-* validates that the productivity of *-esh-* does not require unlimited compatibility with all verb roots. Together with the forms presented in (4 and 5), the data specify that the distribution of the causative allomorphs in Kirombo is constrained by root-specific lexical

properties. Hence, neither -ish- nor -esh- can be freely attached to every verb root, suggesting that causative allomorph choice is only partially predictable and cannot be accounted for by phonological conditioning alone.

4.4. Reciprocal Verb Extension in Kirombo

The reciprocal verb extension in Kirombo is realised through the suffix -an-, which occurs between the verb root and the final vowel. The data presented in Table 4. indicate

that the form of the reciprocal extension remains constant in the verb roots observed in this study. Semantically, the reciprocal extension expresses a symmetrical relationship between two or more participants. Rather than expressing an action directed unidirectionally from one participant towards another, the reciprocal construction represents the participants as mutually involved in the same event. Hence, the participants can be interpreted as acting upon one another, depending on the lexical semantics of the base verb as shown in 4.4.

Table 4. Reciprocal Verb Extension in Kirombo.

No.	Base	Gloss	Reciprocal Form	Gloss
a)	Kaba	Hit	Kabana	Hit one another
b)	waa	Kill	Waana	kill for one another
c)	Ohova	Fear	Ohovana	Fear each other
d)	Kora	Cook	Korana	Cook each other
e)	Jenga	Build	Jengana	Build each other
f)	Kunda	Love	Kundana	Love one another
g)	Seka	Laugh	Sekana	Laugh at each other
h)	Hemba	Ask	Hembana	Ask one another
i)	Huura	Return	Huurana	Return each other
j)	Iya	Tell	Iyana	Tell each other
k)	Ara	Help	Arana	Help each other
l)	Misha	Break	Mishana	Break each other
m)	Sua	Hate	Suana	Hate each other
n)	Itikira	Greet	Itikirana	Greet each other
o)	Alika	Marry	Alikana	Marry each other

Source: Field data (2026).

The findings in Table 4. recognize -an- as the reciprocal verb extension in Kirombo. The morpheme appears between the verb root and the final vowel -a, providing the structure ROOT+RECIP+FV. Different from other extensions identified in the study, the reciprocal has one morphological realization in the data. Its form remains constant across the verb roots examined, as illustrated in 6(a-c).

6) (a). *itikira - itikirana*

itikir-a - itikir- an- a

greet-FV -root-RECIP-FV

'greet' - 'greet each other'

(b). *seka - sekana*

sek-a - sek- an- a

laugh-FV - root-RECIP-FV

'laugh' - 'laugh at each other'

(c). *hemba - hembana*

hemb-a - hemb-an-a

ask-FV - root-RECIP-FV

'ask' - 'ask one another'

The examples in 6(a-c) determine that -an- occupies a static morphological position between the verb root and the final vowel. In each form, similar morpheme is added to the root to derive the reciprocal, even though the basic lexical meaning of the verb is retained. This uniformity supports the identification of -an- as the reciprocal morpheme in Kirombo.

Semantically, the reciprocal extension expresses a mutual action involving two or more participants, whereby each participant performs and receives the action. In the word *itikirana* 'greet each other', for example, the action involves two participants who greet one another: A greets B, and B greets A (A↔B). The action hence not directed in only one direction but is shared between the participants.

In the same way, the word *sekana* ‘laugh at each other’ describes a situation where the participants mutually direct the action towards one another. In this case, A laughs at B, and B laughs at A, making a reciprocal relationship between the two participants. The form *hembana* ‘ask one another’ provides another clear example. Here, A asks B, and B asks A, therefore both participants are involved in performing and receiving the action.

These examples show that -an- changes a one-directional relationship into a mutual one. The participants are therefore understood as mutually involved in the same event, with each participant functioning as both an initiator and a recipient of the action. The reciprocal meaning is therefore contributed by the extension -an-, whereas the specific nature of the mutual relationship is determined by the lexical meaning of the base verb.

The findings identify -an- as the morphological realization of the reciprocal extension in Kirombo. Morphologically, it

occurs between the verb root and the final vowel, while semantically, it expresses mutual action between participants. This analysis is consistent with Comrie [8], who describes reciprocity in terms of symmetrical relationships between participants, and Hyman [15], who discusses reciprocal marking within the broader system of Bantu verbal extensions. These studies provide a comparative basis for analysing -an- as the reciprocal extension in Kirombo.

4.5. Stative Verb Extension in Kirombo

The findings of this study indicate that the Kirombo stative extension is realised through two forms, -ik- and -ek-, which occur between the verb root and the final vowel. The particular interpretation depends partly on the lexical meaning of the base verb and the context where the derived form occurs, as shown in Table 5.

Table 5. The Stative Verb Extension Suffixes -ik- and -ek-.

No.	Base	Gloss	Stative Form	Gloss
a)	kaba	Hit	Kabika	Be hittable
b)	kora	Cook	Korika	Be cookable
c)	imba	Sing	Imbika	Be singable
d)	kunda	Love	Kundika	Be lovable
e)	Ola	Buy	Oleka	Be bought/purchasable
f)	ruma	Extinguish	Rumika	Be extinguished
g)	soma	Read	Someka	Be readable
h)	ohova	Fear	Ohoveka	Be in a state of fear
i)	nwa	Drink	Nweka	Be in a drinkable state
j)	hemba	Ask	Hembeka	Be in a state of being asked
k)	Kumba	Sell	Kumbika	Be in a state of being sold
l)	Shinga	Close	Shingika	Be in a state of being closed
m)	Misha	Break	Mishika	The state of being broke

Source: Field data (2026).

The findings in Table 5. recognize two morphological realizations of the stative verb extension in Kirombo: -ik- and -ek-. Both morphemes occur between the verb root and the final vowel -a, giving the morphological structure ROOT + STAT + FV. The derived forms express state-oriented meanings, including resultant conditions, potential states, and conditions associated with the action expressed by the base verb, illustrated in 7(a-d).

7) (a). *ola - oleka*
ol-a - ol- ek- a

buy-FV -root-STAT-FV
buy' - 'be bought/purchasable'
 (b). *ohova - ohoveka*
ohov-a - ohov- ek- a
fear-FV - root-STAT-FV
'fear' - 'be in a state of fear'
 (c). *ruma - rumika*
rum-a - rum- ik- a
extinguish-FV - root-STAT-FV
'extinguish' - 'be extinguished'

(d). misha - mishika
 mish-a -mish- ik- a
 break-FV -root-STAT-FV
 'break' - 'be in a state of being broken'

Example (7a) illustrates the realization of the stative extension as *-ek-* in *oleka*, which consists of the root *ol-*, the stative morpheme *-ek-*, and the final vowel *-a*. The derived form expresses a state or potential associated with the action of buying, meaning 'be bought' or 'be purchasable'. Similarly, example (7b), *ohoveka*, contains *-ek-* and expresses a state of fear. These examples demonstrate the morphological realization of *-ek-* in Kirombo.

Examples (7c) and (7d) illustrate the second realization, *-ik-*, in *rumika* and *mishika*, respectively. In these forms, the stative morpheme occurs between the verb root and the final vowel *-a*. Morphologically, the examples in (7a–d), together with the remaining data in Table 5., identify *-ek-* and *-ik-* as the two realizations of the stative extension in Kirombo.

Semantically, the stative extension expresses a state, condition, or result associated with the action or meaning of the base verb. In *oleka*, it conveys a potential or state related to being bought, while *rumika* and *mishika* express states associated with extinguishing and breaking, respectively. The precise interpretation depends on the lexical meaning of the base verb.

The findings identify *-ek-* and *-ik-* as the morphological realizations of the stative extension in Kirombo. Although the two forms differ morphologically, both occur between the verb root and the final vowel *-a* and express states or conditions associated with the base verbs. This analysis is broadly consistent with descriptions of Bantu verbal extensions that convey stative, potential, or resultative meanings. Bresnan [4] provides a broader discussion of verbal structure, although additional literature specifically addressing stative extensions in Bantu would strengthen the comparative analysis. Overall, the findings establish the forms, position, and shared semantic function of the stative extension within the Kirombo verbal system.

5. Conclusion

The study can conclude that Kirombo has five productive verb extensions: the applicative *-i/-e-*, passive *-w/-iw/-ew-*, causative *-ish/-esh-*, reciprocal *-an-*, and stative *-ik/-ek-*. The applicative generally introduces an additional participant and may increase valency, while the passive reorganizes grammatical relations by foregrounding the affected participant. The causative increases valency by introducing a Causer, although its allomorphs show root-specific lexical restrictions. The reciprocal expresses mutual participation through a stable *-an-* form, while the stative derives state, resultative, and potential meanings. Naturalistic data, including forms such as *rum-ik-a*, further confirm the productivity of these extensions. Overall, the findings demonstrate the interaction of morphological, phonological, semantic, and syntactic properties in Kirombo verb extensions.

6. Recommendations

Based on the findings of this study, further research on Kirombo verb extensions should focus on several areas. First, future studies should investigate the phonological conditioning of extension allomorphs, particularly *-i/-e-*, *-ik/-ek-*, and *-iw/-ew-*, to establish the factors governing their distribution.

Second, further research should examine the Kirombo vowel system and possible vowel harmony, including ATR harmony, vowel classes, direction, and domain of harmony. Forms such as *nw-a* and *ly-a* should also be investigated to determine whether they are exceptions or result from specific phonological or morphological conditions.

Third, future studies should examine other morphophonological alternations, such as *sek-/shek-*, and investigate other verb extensions that were beyond the scope of this study, including neuter, reversive, intensive, and associative extensions.

Finally, research should examine the interaction between verb extensions and other grammatical categories, including tense, aspect, mood, negation, and object marking, to provide a more comprehensive description of Kirombo verbal morphology.

The verb-extension morphemes identified in this study should be documented in Kirombo grammars, dictionaries, and teaching materials, together with appropriate examples. Researchers should also continue collecting natural Kirombo speech, including narratives, conversations, and traditional stories, to support language documentation.

Finally, linguists, educators, community members, and other stakeholders should collaborate in the documentation, teaching, and preservation of Kirombo. These efforts will support the continued use and transmission of the language to future generations.

Abbreviations

APPL	Applicative
ATR	Advanced Tongue Root
BLT	Basic Linguistic Theory
CAUS	Causative
FV	Final Vowel
PASS	Passive
RECIP	Reciprocal
STAT	Stative

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The authors declare no conflicts of interest.

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