

Accounting for Post-Verbal Affixes on the Kĩmwĩmbĩ Verb

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Abstract

Bantu languages are known to cluster affixes on the verb root, some before the root and others after the verb root. Each of these affixes carries some meaning that contributes to the final meaning of the verb. This raises the question as to whether there are any principles that guide these combinations, and whether these affixes occur in any particular order. This paper is an account of all the suffixes that may occur on the Kĩmwĩmbĩ verb, as well as the order in which they occur, starting with the plugs that are idiomatic with the root and on outwards to the affix that occurs farthest from the root. The semantic import of these morphemes has also been dwelt upon as most of them are valency-changing. The paper also presents the variations in their occurrences, the associated phonological and syntactic processes as well as the constraints surrounding their occurrences. The population for the study was all Kĩmwĩmbĩ verbs containing post- verbal affixes and data for the study was obtained from respondents from Tharaka-Nithi sub-county, Kenya, who are competent speakers of Kĩmwĩmbĩ and who were purposively sampled. The instrument of data collection was a structure generation exercise based on Kĩmwĩmbĩ verbs. Data was also gathered using introspective reports. Researcher-generated structures were also instrumental in informing the analysis. This being a qualitative and descriptive study, data was analyzed in terms of words, phrases and sentences and rules were developed and discussed to account for the affix manifestation on the verbs. The data has been presented in the light of the Principles and Parameters theory. The results demonstrate that suffix occurrence on the agglutinated verb is orderly relative to the first affix to occur after the root. This study contributes new data for the continuing analysis of Kĩmwĩmbĩ, a language that is yet to be fully analyzed. It also contributes to the linguistic theory by advancing knowledge on the morphology of Bantu verbs and the typology of African languages.

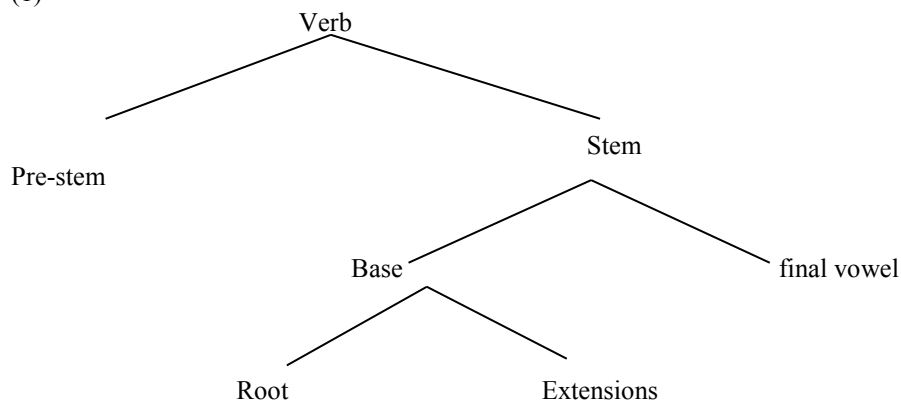
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1 Introduction

Bantu languages are agglutinative by nature. The Bantu verb consists of a stem to which are added one or more prefixes and also one or more suffixes. The verbal affixes relate to person, number, negation, tense, voice, and mood. Suffixes added to certain stems contribute semantically to the verb by introducing arguments such as reciprocation, causativisation, passivisation and applicativisation. Each of this is marked on the agglutinated verb by a distinct morpheme.

The manifestation of suffixes in Kĩmwĩmbĩ is in line with what Hyman, Inkelas and Sibanda (2009) present as the traditional view of the internal structure of the Bantu verb stem.

(1)



As seen, a verb stem consists of a base and an obligatory final vowel (FV) morpheme, which is *-a* in most verb forms. This paper isolates and analyzes these morphemes.

2. Suffixes in Kĩmwĩmbĩ

Suffixes are morphemes that occur after the main part of the verb (Haspelmarth & Sims, 2010). Suffixes are of two types. Firstly, there are inflectional suffixes that modify words to express different grammatical categories such as tense, mood, voice, aspect, person, number, gender and case. Examples in English include *-s* that marks the plural in *Girls* and third person singular present tense in *He makes*. Secondly, there are derivational suffixes. Morphological derivation is the process of forming a new word on the basis of an existing word, e.g. *happiness*

and *unhappy* from the root word *happy*, or *determination* from *determine*. It often involves the addition of a morpheme in the form of an affix, such as *-ness*, *un-*, and *-ation* in the preceding examples (Brinton, 2000)

In Kĩmwĩmbĩ, inflectional morphemes occur as prefixes. However, derivational morphemes occur in post-verbal position, and they are the concern of this paper. The paper notes that this is the class of affixes that best illustrates the rich derivational tendency of Kĩmwĩmbĩ verbs in order to come up with other verbs that have different forms but which are semantically related to the basic meaning of verb root.

Data in this section has been presented in the manner that affixes closest to the root have been presented first, and then on outwards to the last one that occurs on the agglutinated verb, the plural addressee. Verbs from the language have been used for exemplification and illustration of discussions where they are applicable for use.

2.1 The Plugs

Mũriũngi (2008) defines plugs as suffixes that certain roots require before they can be used in any construction. These suffixes are low because they are idiomatic with the root and therefore must be stored as a constituent within the root. There are two types of plugs: substitutable and non-substitutable plugs. Substitutable plugs can replace each other on the same root. This substitution could be two-way or three-way. Three way substitutable plugs in Kĩmwĩmbĩ take the affixes *-ĩk-* *-ur-* and *-ũk-*. Consider the following:

- 2) Umb-*ĩk*-a (bury in the ground)
Umb-*ũr*-a (unbury)
Umb-*ũk*-a (be unburied)

Despite the observation that the default final vowel in Bantu verbs is *-a* (Cook, 2013; Ferrari-Bridgers, 2009) we find that we cannot have the verb *umb-a* which shows that these affixes must be attached to certain verbs to confer meaning upon them. Neither can we attach more than one of the affixes at a time, in whatever order. For example we cannot have:

- (3) *umb-*ũk*-*ũr*-a
*umb-*ĩk*-*ũk*-a

This is just as we cannot have more than one affix before the verb ending *-ceive* in English, thus we can have *re-ceive*, *per-ceive*, *con-ceive* and such others but not a form like **per-con-ceive*.

The class of verbs that display this behaviour is quite limited. Mũriũngi (2008) lists all the verbs with three-way substitutable plugs in Kĩĩtharaka, also applicable to Kĩmwĩmbĩ, which is a sister dialect.

- (4) a. Kun-*ĩk*-a 'X covers Y'
kun- *ũr*-a 'X uncovers Y'
kun- *ũk*-a 'Y gets uncovered'
b. kund-*ĩk*-a 'X ties a knot'
kund- *ũr*-a 'X unties knot'
kund-*ũk*-a 'knot gets undone'
c. tand-*ĩk*-a 'X spreads Y e.g. a bed-sheet'
tand- *ũr*-a 'X takes Y from a spread state'
tand- *ũk*-a 'Y gets un-spread'
d. an-*ĩk*-a 'X spreads Y in the sun in order for Y to dry'
an- *ũr*-a 'X takes away Y from a drying location'
an- *ũk*-a 'Y gets from a drying location'
e. tha-*ĩk*-a 'X ties Y, Y an animate thing'
thar- *ũr*-a 'X unties Y, Y an animate thing'
thar- *ũk*-a 'Y gets untied'
f. kaand-*ĩk*-a 'X fastens Y'
kaand- *ũr*-a 'X unfastens Y'
kaand- *ũk*-a 'Y comes loose'

Besides those noted above, this study adds the following as it also applies in Kĩmwĩmbĩ:

- g. ĩn-*ĩk*-a 'X turns Y upside-down'
ĩn-*ũr*-a 'X turns Y down-side up'
in-*ũk*-a 'Y turns upside down'

Secondly, we have two-way substitutable plug suffixes. This class consists of verbs that are like the three member class above, except that the positive member (the one containing *-ĩk-*) is missing. Consider:

- (5) Om-*or*-a X tears down
Om-*ok*-a X crumbles

Once again we find that only one of these affixes can occur in a verb at a time, so we cannot have:

- (6) *om-*or*-*ok*-a
*om-*ok*-*or*-a

The following is a list of verbs that show this tendency in Kĩmwĩmbĩ:

- (7) a. at- **ūr**-a ‘X splits Y’
at- **ūk**-a ‘Y splits’
b. bīnd- **ūr**-a ‘X turns Y’
bīnd- **ūk**-a ‘Y turns’
c. tūūm- **ūr**-a ‘X bursts Y’
tūūm- **ūk**-a ‘Y bursts’
d. kū- **ūr**-a ‘X uproots Y’
kū- **ūk**-a ‘Y gets uprooted’
e. ak- **ūr**-a ‘X gathers Y’
ak- **ūk**-a ‘Y (e.g cereals) gets gathered’
f. can- **ūr**-a ‘X combs Y’
can- **ūk**-a ‘Y gets combed’
g. cumb- **ūr**-a ‘X disturbs Y’
cumb- **ūk**-a ‘Y struggles’

On the other hand we have non-substitutable plugs. These do not have a member to substitute them. The first category of non-substitutable plugs has the affix *-ar-* in the root. Consider:

- (8) Tig-**ar**-a (remain)
Umb-**ar**-a (squat)
Kūth-**ar**-a (be creased)

Muriungi (2008) observes that the verbs with *-ar-* mostly mark causation by adding the transitive marker *-i-*. This is also applicable in Kĩmwĩmbĩ verbs. Consider:

- (9) a. Tig-**ar**-i-a (leave some)
b. Rig-**ar**-i-a (cause to be surprised)
c. Kūth-**ar**-i-a (crease)
d. Umb-**ar**-i-a (cause X to squat)
e. Tag-**ar**-i-a (cause X to step over Y)

It is also worth noting that with certain verbs containing *-ar-* in Kĩmwĩmbĩ causation can still be marked by use of the causative marker *-ith-*, for example in (d) and (e) above as below:

- (10) a. Umb-**ar-ith**-i-a (cause X to squat)
b. Tag-**ar-ith**-i-a (cause X to step over Y)

However, this usage will sound unnatural to Kĩmwĩmbĩ native speech when applied to (9a), (9b) and (9c). A few other verbs in this category include:

- (11) Amb-**ar**-a (X spreads)
Cam-**ar**-a (to suffer)

Verbs with *-ar-* rarely form the reversive, but when they do, they do so with a combination of the transitive morpheme *-i-* and the reversive morpheme *ūk*. Consider:

- (12) Umb-**ar-ūk**-i-a (remove X from squatting position)
Rig-**ar-ūk**-i-a (cause X to stop being surprised)

However, if the verb had not been transitively used then the *-i-* transitive marker will not feature in the reversive thus:

- (13) Umb-**ar-ūk**-a (withdraw from squatting position)
Rig-**ar-ūk**-a (stop being surprised)

To qualify the *-ar-* as a bona fide suffix Muriungi (2008) observes that when it is added to two transitive verbs (both verbs mean *to fold*) they become intransitive thus:

- (14)a. kūtha ‘X folds Y’
kūth-**ar**-a ‘Y gets folded’
b. kūnja ‘X folds Y’
kūnj-**ar**-a ‘Y gets folded’

The other category of non-substitutable plugs in Kĩmwĩmbĩ contains the affix- *am-*. Consider:

- (15) Rūng-**am**-a (stand)
In-**am**-a (go down)
Ku-**am**-a (bend)

The above verbs also form the transitive by addition of the transitive marker *-i-* thus:

- (16) Rūng-**am-i**-a (make X to stand)
In-**am-i**-a (cause X to go down)
Ku-**am-i**-a (cause X to bend)

They form the reversive by use of the morpheme *-ūr-* and *-ūk-* as shown below:

- (17) Ku-**am-ūr**-a (X removes Y from bent position)
Ku-**am-ūk**-a (X goes back to upright position)

The last category of non-substitutable plugs in Kĩmwĩmbĩ contains the morpheme *-at-*. Mũriũngi (2008) says that, roughly, this morpheme occurs in roots that have a meaning of contact, so that it is sometimes labeled the contactive in Bantu. Most verbs with *-at-* are transitive (in (18) only (g) is intransitive). Consider:

- (18)a. *gũata* (hold)
b. *kumbata* (embrace/get a handful of something)
c. *kamata* (carry)
d. *ataata* (feel something by moving the hands)
e. *ambata* (to go up' (a ladder for example)
f. *thingata* (follow)
g. *ut-at-a* (turn the other way)

(All examples except last adopted from Mũriũngi (2008).)

In Kĩmwĩmbĩ transitive verbs in this category mark the reversive by introduction of *-uk-* as below:

- (19)a. *Gũ-at-a* 'hold'
Gu-at-ũk-a (release/ let go)
b. *Kumb-at-a* (embrace)
Kumb-at-ũk-a (let go)

However, for some other members in transitive use the reversive reading is not possible because the sense of undoing is inconceivable. Consider:

- (20)a. *Kam-at-a rũjĩ* (carry water)
**kamat-ũk-a rũjĩ* (uncarry water)
b. *At-at-a rũthingo* (feel the wall)
**at-at-ũk-a rũthingo* (unfeel the wall)

Also, verbs with the *-at-* plug mark causation in an interesting way because they use both *-i-* and *-ith-* but with different results. Consider:

- (21)a. *Gũ-a-ta* (hold)
Gũ-at-i-a (hold tighter)
Gũ-at-ith-i-a (Cause X to hold Y)
b. *Thing-at-a* (follow X)
Thing-at-i-a (follow X closely)
Thing-at-ith-i-a (cause X to follow Y)

The introduction of the transitive marker *-i-* may not increase the argument of the verb since the verbs are inherently transitive. However, the above behavior does not apply with all the verbs in this category. Consider:

- (22)a. *Kam-at-a* (carry)
**Kam-at-i-a*
Kam-at-ith-i-a (cause X to carry Y)
b. *Ata-at-a* (feel something by moving the hands)
**Ata-at-i-a*
Ata-at-ith-i-a (cause X to feel something by moving the hands)

Not all the verbs in this class may allow the *-i-* marking but all of them allow the *-ith-* causation marker.

The fourth non-substitutable plug in Kĩmwĩmbĩ is the *-an-*. It occurs in a limited number of verbs, both transitive and intransitive, and like all the other plugs, these verb roots cannot exist without this plug. Consider:

- (23)a. *Im-an-a* (go down)
b. *Ej-an-a* (give out to)
c. *Īg-an-a* (be enough)
d. *Ririk-an-a* (remember)

This class of verbs does not allow the reversive reading hence we may not have forms like:

- (24)a. **im-an-ũk/ũr-a*
b. **ig-an-ũk/ũr-a*
c. **ririk-an-ũk/ũr-a*

The marking of causation in these verbs is rather erratic. Like the verbs with the *-am-* plug above certain verbs mark causation by use of both *-i-* and *-ith-* to produce different results. Consider:

- (25)a. *Īm-an-a* (go down, say, a slopy place)
b. *Īm-an-i-a* (take X down)
c. *Īm-an-ith-i-a* (cause X to go down)

However, with (23c) and (23d) only the *-i-* transitive marker is applicable, as below:

- (26)a. *Īg-an-a* (be enough)
Īg-an-i-a (have enough of)
**Īg-an-ith-i-a* (cause X to have enough of)

- b. Ririk-an-a (remember)
 Ririk-an-i-a (remind)
 *ririk-an-ith-i-a (cause X to remember)

With (23b) we find that it will allow neither the *-i-* nor the *-ith-* marking thus:

- (27) Ej-an-a (give)
 *ej-an-i-a
 *ej-an-ith-i-a

There are certain verbs in Kĩmwĩmbĩ that behave like the ones discussed above in terms of reversive and causative derivations, although they do not have plugs in them, but the study does not dwell on them. Plugs, as mentioned earlier, are idiomatic with the root and so in identifying the order of post-verbal morphemes on the Kĩmwĩmbĩ verb they come first and will in subsequent ordering in this chapter be labelled number 1. However, the plugs *-ũk-*, *-ũr-* and *-ũk-* are used in Kĩmwĩmbĩ to supply the reversive/convertive readings. Wawerũ (2011) observes that there are very few studies on the reversive as compared to the other affixes. A reversive indicates an entire reversal of an action (Lodhi, 2002). At times it is also referred to as the converse or reversative. Quirk et al (1985) refer to it as the privative. In this study it is referred to as the reversive. The affix is restrictive in that it licences some verbs but not others. The reversive does not affect the valence of the verb for it neither increases nor decreases the arguments. An analysis of the English reversive by Kemmerer and Wright (2002) indicates that the verbs that host the reversive share the property of designating events in which an agent causes something to enter a constricted, potentially reversible spatial configuration. These semantic constraints are revealed by the different uses of the verb *cross*: one can cross one's arms and then uncross them (because a constricted spatial configuration is created and then reversed), but if one crosses a street and then walks back again, it cannot be said that one has uncrossed the street (because no constricted spatial configuration is involved (Kemmerer, 2006).

In English, the reversive is marked by the prefixes *un-*, *dis-*, *de-* as in unfold, disarrange and defrost respectively. Therefore this morpheme conveys the meaning "to undo" in transitive sentences or "to come undone" in intransitive constructions. What is inherent in this meaning is that a verb that is expressible as such must have a sense in which it is "doable" before it can be reversed in the sense : *X un-does Y (-ur-)* or *X comes undone (-uk-)*. In the previous section this tendency was illustrated using verbs that contain plugs in their roots. However, the convertive is not a preserve of these verbs but is applicable with regular verbs containing a verb root and a final vowel, as the following examples will attest:

- (28)a. Bang-a X arranges Y (for animate objects)
 Bang-ũr-a X disarranges Y
 Bang-ũk-a Y gets disarranged
 b. Cimb-a X digs
 Cimb-ũr-a X digs out Y from the ground
 Cimb-ũk-a Y has been dug out

There are a few other verbs that can be added to the list in Kĩmwĩmbĩ, except for the plugs which, as Mũriũngi (2008) observes, are a rather limited class of verbs (see 3.2). However, on the whole the reversive affix is highly restrictive; it is only hosted by a few dynamic transitive verbs and even fewer intransitive. Also, as attested in the literature, it follows that the reversive in Kĩmwĩmbĩ is a lexical extension; its presence does not change the agreement patterns of the syntactic string in which it occurs.

Beyond the plugs that are synonymous with the root the Kĩmwĩmbĩ verb hosts a number of extensions that contribute to the meaning of the verb in specific ways. The following section is a discussion of these morphemes following in the order in which they have been identified to occur. Consider the verb *bunga* (button up) which forms the reversive by use of the morpheme *-ũr* to form *bung-ũr-a*, so that *-ur-* becomes the first post-verbal argument to follow the verb. Now this verb can be extended by addition of other arguments like:

- (29) Bung-ũr-**ik**-a -able
 Bung-ũr-**an**-a reciprocal
 Bung-ũr-**ang**-a erratic
 A-bung-ũr-**ag**-a habitual

When the morphemes follow the reversive in isolation there is no way to discern the ordering relations in order to determine the morpheme that occurs after it. So to do this we need verbs in which more than one of these morphemes occur. Now consider:

- (30) a. Tũkũbungũranangĩa.
 Tũ- kũ- bung- **ũr-an**- ang-ĩ- a
 2pl-cur-button-**rev-rec**-err- tr-fv
 We have opened them (erratic readings apply).
 b. Ibungũrikaga
 I- bung- **ũr- ik**- ag- a
 S_{m8}-button-**rev-able**-hab-fv

They get opened (habitually).

In (30)a the reversive is followed by the reciprocal morpheme while in (30)b it is followed by the –able marker. In (30)c we have a construction in which the two morphemes occur after the reversive thus:

c. Ibungūranangīkaga

I- bung- ūr-an-ang-īk- ag- a
1-2- 3

Sm-button-rev-rec-err- able-hab-fv

They (erratically) get opened

It is evident that when these morphemes occur in one verb the reciprocal morpheme takes a position after the reversive. This morpheme has been discussed next.

2.2 Reciprocal I

A reciprocal is a linguistic structure that marks a particular kind of relationship between two noun phrases. In a reciprocal construction, each of the participants occupies both the role of agent and patient with respect to the other. This is because the action or activity is mutually done between the participants. The participants act on each other (Payne, 1997). The reciprocal pronouns found in English are *one another* and *each other*, and they form the category of anaphors. For example, the English sentence *John and Mary cut each other's hair* contains a reciprocal structure: *John cuts Mary's hair*, and *Mary cuts John's hair*. Within the theory of generative grammar, and within phrase-structure grammar, Binding Theory explains how anaphors share a relationship with their referents.

The reciprocal is a de-transitivizing morpheme; it derives intransitive verbs from transitive verbs. For this reason it is said to be a valence or argument reducing operator. Mchombo & Ngūnga (1994) as quoted in Wawerū (2011) observe that the effect of the reciprocal construction is that of ascribing the members of a group the property that they are involved in an activity such that each member is performing the action on the other. They further point out that this is the commonest reading and it is clearest when the group consists of two members. Although the construction is syntactically intransitive, it is semantically transitive. The construction is semantically transitive since two participants are doing some action on each other. The participants are both subjects (agents) and objects at the same time.

Another feature of the reciprocal which is closely related to the loss of an argument is subjectivization (Kīmenyi, 1980). The direct object of the basic sentence is promoted to subject position in the reciprocal construction. The two then form a coordinated NP subject as in Shona, a Bantu language (Mudzingwa, 2008).

In Kīmwīm̄bī (as in a few other Bantu languages, for example Gikūyū and Kiswahili) it is marked on a verb by use of the morpheme *-an-* to supply the reading of *doing to each other*. The reciprocal can be hosted by mono-transitive verbs. Consider:

- (31) Nyaga na Kageni bakūringana.
Nyaga na Kageni ba- kū-ring-an-a
1.Nyaga and 1.Kageni sm₂-cur-hit- rec₁-fv
Nyaga and Kageni have hit each other.

The sentence means Nyaga hit Kageni and Kageni hit Nyaga. Now consider the following that demonstrates that the reciprocal can also be hosted by di-transitive verbs:

- (32) Nyaga na Kageni bakūrombana rūūjī.
Nyaga na Kageni ba- kū-romb-an- a rūūjī.
1.Nyaga and 1.Kageni sm₂-cur-ask- rec-fv 11.water
Nyaga and Kageni have asked each other for water.

Both of the participants occupy both the role of agent and patient with respect to the other, and then there is the second object, rūūjī (water), which is *what* they ask from each other. It is important to note that the reciprocal cannot be hosted by intransitive verbs because they do not have two participants that can mutually act on each other. However, that some intransitive verbs can host the reciprocal morpheme but only after they are transitivised through processes like introduction of the applicative. The examples below illustrate the transitivisation and the eventual adding of the reciprocal:

- (33)a. Nyaga akūtheka.
Nyaga a- kū- thek- a
1.Nyaga-sm₁-cur-laugh-fv
Nyaga has laughed.
b. Njerū akūtheka.
Njerū a- kū- thek- a.
1.Njerū –sm₁-cur-laugh-fv
Njerū has laughed.
b. Nyaga akūthekera Njerū.

- Nyaga a- kũ- thek-er- a Njerũ
1.Nyaga-sm1-cur-laugh-app-fv 1.Njerũ
Nyaga has laughed at Njerũ.
- c. Njerũ akũthekera Nyaga.
Njerũ a- kũ- thek- er- a Nyaga
1.Njerũ -sm1-cur-laugh-appl-fv 1.Nyaga
Njerũ has laughed at Nyaga.
- d. Nyaga na Njerũ bakũthekanĩr-a.
Nyaga na Njerũ ba-kũ- thek- an- ĩr- a
1.Nyaga and 1.Njerũ sm2-cur-laugh-rec-app-fv
Nyaga and Njerũ have laughed at each other.

The reciprocal morpheme can also supply a human indefinite reading as in the following example:

- (34) Nyaga nĩaringanire.
Nyaga nĩ- a- ring-an- ir- e
1.Nyaga fm-sm1-hit- rec-perf-fv
Nyaga hit someone.

As will be demonstrated later, the reciprocal morpheme may occur more than once on the agglutinated Kĩmwĩmbĩ verb, hence the labeling of this first one as Reciprocal₁.

Now consider again:

- (35) Twana tũkũringana.
Twana tũ- kũ- ring-an- a
13.children sm13-cur- hit- rec1-fv
The children have hit each other.

We can build on the verb in (35) thus:

- (36) a. Twana tũkũringanĩra irio.
Twana tũ- kũ-ring- **an- ĩr-** a irio
2- 3
Children sm13-cur-hit- **rec-appl**-fv food
The children have hit each other because of food.
- b. Akũrũ bakũringanithia twana.
Akũrũ ba- kũ-ring-**an-ith-** i- a twana
2- 3
2.Men sm2-cur-hit- **rec-caus**-tr-fv 13.children
The men have caused the children to fight.

Both of the morphemes following the reciprocal are labeled 3, so to distinguish their ordering we need a construction featuring the two morphemes as follows:

- (37)a Akũrũ bakũringanirithia thimũ.
Akũrũ ba -kũ- ring- an- **ĩr- ith-** i-a thimũ.
2- 3- 4
2.Men sm2-cur-call- rec1 -**appl-caus-** tr-fv 9.phone
The men have caused someone to be called at the same time.
- b. Akũrũ bakũringanithiria twana kĩenini.
Akũrũ ba -kũ- ring-an- **ith- ĩr-** i-a twana kĩenini
2- 3- 4
2.Men sm2-cur-hit- **rec-caus-appl**-tr-fv 13.children in the field
The men have caused the children to fight each other in the field.

Now it is evident in the above examples that the applicative marker *-ĩr* and the causative marker *-ith* can occur in more than one position relative to each other. This suggests that the position of these morphemes is determined compositionally, depending on the semantic import they are meant to contribute to the verb. But in subsequent ordering it will be determined that where the causative occurs first then so many other morphemes intervene between it and the applicative. This suggests that the first occurrence of the applicative was before the causative₁. In its position next to the reciprocal₁ this morpheme is identified as applicative₁ and is labeled as 3. Its semantics are discussed in the next section.

2.3 Applicative 1

An applicative is a derived verb stem denoting an action with an additional participant which is not an actor-like argument. When the applicative voice is applied to a verb, its valency may be increased by one. Prototypically, applicatives apply to intransitive verbs (Dixon & Alexandra, 1999). They can also be called "advancements" or "object promotion", because they bring a peripheral object to the center as a direct object. This object is

sometimes called the applied object.

The applicative affix in Kĩmwĩmbĩ is realised as *-ĩr-* or *-er-* with the distribution determined by the vowel within the verb base. If the preceding vowel is ‘a’, ‘i’, ‘ĩ’, ‘u’, or ‘ũ’, then the applied affix is *-ĩr-*; if the vowel is ‘e’ or ‘o’ the applicative affix is *-er-*. Consider the following verbs:

- (38) (a) bang-a (set/plan) bang-**ĩr**-a (set/plan for/at)
 (b) in-a (sing) in-**ĩr**-a (sing for/at)
 (c) thĩnj-a (slaughter) thĩnj-**ĩr**-a (slaughter for/at)
 (d) un-a (break) un-**ĩr**-a (break at/for)
 (e) tũr-a (pierce/puncture) tũr-**ĩr**-a (pierce/puncture at/for)
 (f) ret-e (bring) ret-**er**-a (bring for/through/at)
 (g) o-a (tie) o-**er**-a (tie for/at)

This same distribution applies in Gĩkũyũ (Wawerũ, 2011) and Kĩĩtharaka (Mũriũngi, 2008) and it is a result of vowel harmony where the vowel in one syllable acquires the features of that in another syllable. In Kĩmwĩmbĩ the applicative increases the valency of a verb by conveying either one of the following readings: the benefactive, the locative, the malefactive and motive, as well as to indicate simultaneity in the occurrence of the action of the verb. In Kĩmwĩmbĩ, the applicative may occur before the causative to deliver the simultaneity reading which can be hosted by intransitive verbs thus:

- (39) A geni bagũkinyanĩria.
 A geni ba- gũ-kiny- an- ĩr- i- a
 Visitors sm₂-cur-arrive-rec₁-appl₁-tr-fv.
 The visitors have arrived at the same time.

This reading may also be hosted by transitive verbs thus:

- (40)a Akũrũ bakũringanirĩthia thimũ.
 Akũrũ ba -kũ- ring- an- **ĩr**- **ith**- i-a thimũ.
 2.Men sm₂-cur-call- rec₁ -**appl-caus**- tr-fv 9 phone
 The men have caused someone to be called at the same time.

It is worth noting that the benefactive reading is also included in this kind of sentence. As was demonstrated in (37) the applicative₁ morpheme *-ĩr* forces the causative *-ith* out of slot 3, and it is the morpheme identified to follow reciprocal₁ in the sequence. The causative is discussed next.

2.4 Causative 1

This morpheme that conveys the meaning of causation alters the argument structure introducing a semantic ‘causer’ to the action of the verb that replaces the subject and turns the old subject into a causee-object. According to Bybee (1985), the causative is the most common valence-changing category in her world-wide sample of 50 languages. The causative, just like the applicative, adds another argument or increases the valence of the verb. The core arguments in the causative construction are ‘the causee’ and ‘the causer’. Payne (1997) defines the ‘causee’ as the agent of the caused event which is sometimes referred to as the coerced endpoint. ‘Causer’ is defined as the agent of the predicate of cause and is sometimes referred to as the ‘agent of cause’. The causative affix can be hosted by both intransitive and transitive verbs (Schadeberg, 2003). There are three types of causatives as outlined by Comrie (1981) and Payne (1997). These are: lexical, periphrastic and morphological.

In lexical causatives the notion of ‘cause’ is wrapped up in the lexical meaning of the verb itself; it is not expressed by an additional affix. Almost all languages have lexical causatives. An example in English is *John dropped the ball*.

Periphrastic causatives, also known as analytical causatives, are of the type that there is a separate lexical verb that functions as a causative marker in the language. The causing and the caused events are encoded in separate clauses in a multi-clause sentence: the causing event is contained in the first predicate while the effect or result of cause is in the second. In English this is realized by use of the verb *make* thus:

- (41) John **made** the ball to fall.

In Kĩmwĩmbĩ the periphrastic causative is realised by use of the verb *tum-*. In the following construction, causation is expressed by the use of two predicates: ‘made it’ and ‘fall down’. Consider:

- (42) Mũtegi nĩatũmire mũbira ũgw-a.
 Mũtegi nĩ- a- **tũm**- ir- e mũbira ũ-gw-a
 1.Mũtegi fm-sm₁-**make**-perf-fv 3.ball 3-fall
 Mũtegi made the ball to fall.

Other languages also have the periphrastic causative. Mũriũngi (2010) identifies the periphrastic causative in Kĩĩtharaka as *-tem-* as in the following example:

- (43) Maria agũtema mwathũ gũũmia nguo.
 Maria a- gũ- **tem**- a mw-athũ gũ-ũm-i- a nguo

₁Maria sm₁-cur-**make**-fv ₃. heat ₃- dry-tra-fv clothes
 Maria has made the sun's heat to dry clothes.' (by putting the clothes outside)

Morphological causatives involve a productive change in the form of the verb, and most express causation and permission. A morphological causative is formed by attaching a causative affix to a bare verb or a base which yields a derived causative construction. The current study has concerned itself with this kind of causation. In Kĩmwĩmbĩ the causative is realized by the use of the morpheme *-ith-*, and this is ranked fourth from the root in the order of morphemes after the applicative₁ as in:

- (44) Kũringĩrithia
 Kũ- ring-ĩr- ith- i- a
 ncp₁₅- hit-appl₁-caus₁-tra-fv
 Cause to be called

The causative can be hosted by intransitive verbs. However, the introduction of the causative necessitates the introduction of an object. Consider:

- (45)a. Nyaga akũrũa.
 Nyaga a- kũ- rũ- a
₁Nyaga sm₁-cur-fight-fv
 Nyaga has fought.
- b. Nyaga akũrũithia akũrũ.
 Nyaga a- kũ- rũ- ith- i- a akũrũ
₁Nyaga sm₁-cur-fight-caus-tra-fv ₂men
 Nyaga has caused the men to fight
- c. Nyaga akũbarũithia.
 Nyaga a- kũ- ba- rũ- ith- i- a
₁Nyaga sm₁-cur-om₂-fight-caus-tra-fv
 Nyaga has caused them to fight

The introduction of the causative automatically triggers transitivity and therefore the obligatory introduction of the object, either as a separate lexeme (45)b or as a morpheme in the verb (45)c. The causative morpheme can also be hosted by monotransitive verbs. Consider:

- (46)a. Njeri akũgũra ndigũ.
 Njeri a- kũ-gũr- a ndigũ
₁Njeri sm₁-cur-buy-fv ₁₀bananas
 Njeri has bought bananas.
- b. Njeri akũgũrithia (Nyaga) ndigũ.
 Njeri a- kũ-gũr- ith- i- a (Nyaga) ndigũ.
₁Njeri sm₁-cur-buy-caus-tra-fv ₁₀.bananas
 Njeri has caused (Nyaga) to buy bananas.

When a causative morpheme is added to a mono-transitive verb, the addition of an indirect object is obligatory, whether it will be stated explicitly or not. In (46)b Nyaga can be left out if it is not important to state who was coerced.

The causative can also be hosted by di-transitive verbs. Consider:

- (47) Mwarimũ akũtunyithia aritwa mbuku.
 Mwarimũ a- kũ- tuny- ith- i- a aritwa mbuku
₁Teacher sm₁-cur-take-caus-tra-fv ₂students ₁₀books
 The teacher has caused the books to be taken away from the students.

A sentence featuring reciprocal 1 and the causative will thus take the shape:

- (48) Akũrũ bakũringanithia twana.
 Akũrũ ba- kũ-ring-**an-ith-** i- a twana
₂Men sm₂-cur-hit- **rec**₁-**caus**₁-tr-fv ₁₃.children
 The men have caused the children to hit each other.

Mũriũngi (2008) makes a note of the causative morpheme *-i-* which accompanies the coerce causative *-ith-* and glosses it as IC for inner causative. He notes that this morpheme is usually used to transitivize monotransitive verbs. A verb like *ũraga* 'kill', however, is already transitive without *-i-*. In a simple transitive sentence therefore, *ũraga* would occur without *i*. When causative *-ith-* is added to *ũraga* however, *-i-* shows up even though it is not semantically significant. Wawerũ (2011) combines the two together and identifies the *-ithi-* as the long causative in Gĩkũyũ, whereas the *-i-* alone is the short causative. This study however takes the position that this is the transitive marker (also adopted by Lindfors, 2003) which is supported by the syntactic distribution of the morpheme: it occurs in the exact same position as the passive marker, which means the two exist in mutual exclusion.

2.5 Reciprocal 2

Consider again:

- (49) Nyaga akūringanithia cuba.
 Nyaga a- kū-ring- an- ith- i- a cuba
 Nyaga sm₁- cur-hit- rec₁-caus₁-tr-fv₁₀.bottles
 Nyaga has knocked the bottles against each other.

This sentence features reciprocal 1 and causative 1. In this construction Njerū holds the bottles and bangs them against each other. He is a causer and actor. But certain constructions can allow double marking of the reciprocal reading in which the second morpheme comes after the causative morpheme *-ith-*. The semantic significance of this morpheme is the same as of the first reciprocal: each of the participants occupies both the role of agent and patient with respect to the other. Consider the next sentences with two reciprocals:

- (50) Njerū akaringanithia cuba.
 Njerū a- ka- ring- **an-** ith- i- a cuba
₁Njerū sm₁-fut-hit- **rec₁**-caus- tra-fv₁₀bottles
 Njerū will bang the bottles against each other.
- (51) Njerū akaringanithania cuba.
 Njerū a- ka- ring-**an-** ith- **an-** i- a cuba
₁Njerū sm₁-fut-hit- **rec₁**-caus-**rec₂**-tra-fv₁₀bottles
 Njerū will cause the bottles to hit each other.

While the meaning in (50) still applies in (51), an additional one is introduced: that Njerū is reduced to a causer; what he does is set off something that causes the bottles to bang each other without his actually holding them.

2.6 Causative 2

Now consider the following:

- (52) Akūrū bakūringithanithia twana.
 Akūrū ba- kū- ring-**ith-** an- **ith-** i- a twana
 Children sm₂-cur-hit- **caus₁**-rec-**caus₂**-tr-fv₁₃.children
 The men have caused the children to fight.

This construction manifests the second marking of the causative *-ith* in a position after reciprocal₂. The semantic significance of this morpheme is the same as of the first causative: one participant coerces another to do something or to take a particular action. In such a construction as in (52) only one of either the reciprocal or the causative may be double-marked. Therefore we may not have:

- (53) *ba- kū-ring-**an-** **ith-** **an-** **ith-** i- a
 Sm-cur-hit- **rec-caus-rec- caus-**tr- fv

So far thus the order of morphemes is:

REV- REC₁. APPL₁- CAUS₁ – REC₂- CAUS₂
 1 2 3 4 5 6

Now consider:

- (54) Irio nīkūrūgīkanga.
 Irio nī- i- kūrū- g- īk- ang-a
₁₀Food fm-sm₁₀-cur-cook-able-err-fv
 The food is getting cooked pretty fast.

But in Kimwĩmbĩ it is also correct to say:

- (55) Irio nīkūrūgāngīka.
 Irio nī- i- kūrū- g- ang- īk- a
₁₀Food fm- sm₁₀-cur-cook-err-able-fv
 The food is getting cooked pretty fast.

(54) and (55) mean exactly the same thing except that in (54) the *-able* morpheme comes before the erratic while in (55) the *-able* morpheme comes after the erratic. Their surface manifestation therefore can only mean that the *-able* morpheme can occupy two different slots in the sequence. Now consider:

- (56) a. Twana tūkūringithanīka.
 Twana tū- kūrū- ring-ith- an- īk-a
₁₃.Children sm₁₃-cur-hit-caus₁-rec₂-able-fv
 4 5 6
 It has been possible to cause the children to fight.
- b. Akūrū bakūringithanangia twana.
 Akūrū ba-kūrū- ring-ith- an- ang- i- a twana
₂.Men sm-cur-hit-caus₁-rec₂-err- tr-fv₁₃.children
 4 5 6

The men have caused the children to fight each other.

The two morphemes have been introduced in constructions where they do not co-occur and where their positions cannot be interchanged and they have both been labeled as 6. Bearing in mind that the *-able* can occupy two positions then to determine the ordering relations between them we need a sentence that features the three morphemes. Consider:

- (57) Cuba ikūringithīkangīka.
 Cuba i- kū-ring-ith- an- īk- ang-īk- a
 10.bottles sm₁₃-cur-hit-caus₁- rec₂-able-err-able-fv
 4- 5 6 7 8

It has been possible to cause the bottles to be hit (for quite some time).

The deduced ordering is thus that Causative₂ is followed by *-able*₁, the erratic and then *-able*₂. The semantics of the able morpheme have been presented in the next section.

2.7 The *-able* Morpheme

Seidl & Dimitriadis (2003) in their analysis of Kiswahili statives and reciprocals observe that the verbal suffix *-ik* (or *-ek*, with vowel harmony) appears in numerous Bantu languages and that in its canonical use it applies to a transitive change-of-state verb, such as *vunja* 'to break' in (58)a. The agent of the base verb is suppressed, and the object of the base verb becomes the subject. The result generally receives a stative interpretation (58)b.

- (58) a. Msichana amevunja kikombe.
 Msichana a- me- vunj- a kikombe
 1.Girl sm₁-perf-break-fv 7.cup
 The girl has broken the cup.
 b. Kikombe kimevunjika.
 Ki-kombe ki- me-vunj- ik- a
 7.cup sm₇-perf-break-stat-fv
 The cup is broken.

As earlier discussed this morpheme occurs in some verbs as a plug, where it is idiomatic with the root as below:

- (59)a. tand-īk-a 'X spreads Y e.g. a bed-sheet'
 b. an-īk-a 'X spreads Y in the sun in order for Y to dry'
 c. tha-īk-a 'X ties Y, Y an animate thing'

However, this morpheme can be hosted by non-plug verbs in which case it conveys the reading that X is doable. Consider:

- (60)a. Rug-a X cooks Y (for inanimate objects)
 Rug-īk-a Y gets cooked
 b. Andik-a X writes
 Andik-īk-a Y is writable
 c. Uur-a wash X
 Uur-īk-a Y is wash-able
 d. Munt-a prick X
 Munt-īk-a Y is prick-able

Sometimes the *-able* morpheme can also be realized as *-ek-* as a result of vowel assimilation, where a vowel of one syllable becomes more like the vowel of another syllable. In this connection, /e/ occurs when the vowel immediately preceding it is *e* or *o* (Massamba, 1996). This is demonstrated below:

- e. End-a X love/like Y
 End-ek-a Y is loveable / likeable
 f. On-a X see Y
 On-ek-a Y can be seen
 g. Romb-a X borrow Y
 Romb-ek-a Y is borrowable

This *-ek-* is also evident in Kiswahili in words like *omb-ek-a* (can be borrowed) and *som-ek-a* (readable).

Where this morpheme occurs closest to the root it is restrictive on the kind of arguments that may follow it. For example, it may not be followed by the causative or the passive thus:

- (61) *munt-īk-ith-i-a
 *munt-īk-w-a

However, all aspectual affixes discussed earlier as well as the erratic can follow this morpheme. Consider:

- (62) Munt-īk-ir-e (was pricked)
 Munt-īk-īt-e (is pricked)
 Munt-īk-ag-a (is usually prickable)
 Munt-īk-ang-a (all the meanings of the erratic are applicable here).

The –able morpheme does not always occur in a position next to the root. Consider the following sentence where it is hosted by a mono-transitive verb:

- (63)a. Mwarimū akūringīrīka thimū.
Mwarimū a- kū-ring-īr- **īk-** a thimū
1.Teacher sm₁-cur-call-app-able-fv 9.phone
It has been possible to call the teacher.

It is not possible for the –able morpheme to be hosted in a sentence with two syntactic objects. This is because in a sentence like (63a), the syntactic subject *teacher* is a semantic object and so only one object may occur after the verb. However, the –able can be hosted by intransitive verbs as in the following example:

- b. Akūrū bataringīthanīka.
Akūrū ba- ta- ring-ith- an- **īk-** a
2.Men sm₂-neg-fight-caus₁-rec₁-able-fv
It has not been possible to cause the men to fight each other.

As was determined earlier, the –able morpheme will be followed by the erratic morpheme. The semantics of the erratic have been presented next.

2.8 The Erratic

In Kīmwĩmbĩ this morpheme is realized in the form –ang- and is used to convey four different readings on the verb. Firstly, it is used to capture an action that takes place sporadically. This reading can be captured in a mono-transitive verb as follows:

- (64) Njeri nīaringangāira jūjū wae.
Njeri nī- a- ring-**ang-** ag- īr- a jūjū wae
1.Njeri fm-sm₁-call-**err**-hab-appl-fv 1.grandmother hers
Njeri calls her grandmother every once in a while.

The sporadic reading can also be expressed in di-transitive verbs as in (65):

- (65) Njeri nīanenkerangaga kaana thimū.
Njeri nī- a- nenker-**ang-** ag- a kaana thimū
1.Njeri fm-sm₁- give- **err**-hab-fv 12.child 9.phone
Njeri gives the phone to the child every once in a while.

Also, the sporadic reading can be captured in intransitive verbs. Consider:

- (66) Njerū nījangaga gūtūcerera.
Njerū nī- a- īj- **ang-** ag- a gūtūcerera
1.Njerū fm-sm₁-come-**err**-hab-fv to visit us
Njeru comes to visit us every once in a while.

The second reading conveyed by the erratic is that an event occurs quickly as in the following sentence where the verb is mono-transitive:

- (67) Kawīra nīarugangire irio.
Kawīra nī- a- rug-**ang-** ir- e irio
1.Kawīra fm-sm₁-cook-**err**-perf-fv 8.food
Kawīra prepared the food quickly.

The same reading can be expressed with a di-transitive verb thus:

- (68) Kawīra nīatunyangire kaana thimū.
Kawīra nī- a- tuny- **ang-** ir- e kaana thimū.
1.Kawīra fm-sm₁-take (by force) -**err**-perf-fv 12.child phone
Kawīra took the phone from the child very fast.

The same reading of happening quickly can be captured in intransitive verbs as follows:

- (69) Mūgeni agaūkanga.
Mūgeni a- ga- ūk- **ang-** a
1.Visitor sm₁-fut-come-**err**-fv
The visitor will come fast.

Thirdly, the erratic conveys a comparative reading. Consider the following sentence where the verb has been used mono-transitively:

- (70) Njeri nīaringangaga thimū.
Njeri nī- a- ring-**ang-** ag- a thimū
1.Njeri fm-sm₁-call-**err**- hab-fv 9.phone
Njeri calls more often (as compared to Kawīra).

This reading can also be expressed using di-transitive verbs as follows:

- (71) Njeri niatunyangaga kaana kajiū.
Njeri ni- a- tuny-**ang-** ag- a kaana kajiū.

¹.Njeri fm-sm₁-take-**err**- hab-fv ¹².child ¹².knife

Njeri takes the knife from the child (faster than anyone else).

Intransitive verbs can also host the comparative reading of the erratic thus:

(72) Kawīra nīaūkangaga naa.

Kawīra nī- a- ūk- **ang-ag**- a naa

¹.Kawīra fm-sm₁-come-**err**- hab-fv here

Kawīra comes here more often (than anyone else).

The fourth and last reading of the erratic is *rather often*. This usage may be complemented by use of intensifiers that augment the reading. It can be expressed using mono-transitive verbs as follows:

(73) Njeri akaringanga thimū mūno.

Njeri a- ka- ring-**ang-a** thimū mūno.

¹.Njeri sm₁-fut -call-**err**- fv ⁹.phone much

Njeri will call often (now she has a reason).

This reading can also be hosted by di-transitive verbs. This is exemplified thus:

(74) Njeri agatunyanga twana thimū.

Njeri a- ga- tuny-**ang-a** twana thimū

Njeri sm₁-fut-take-**err**-fv ¹³.children ⁹.phone

Njeri will have to keep taking the phone from the children (because they will keep taking it)

Intransitive verbs can also host the *rather often* reading. Consider:

(75) Ageni bagaūkanga gwetū.

Ageni ba- ga- ūk- ang-a gwetū

².Visitors sm₂-cur-come-err-fv home

The visitors will keep coming to our home (for some reason).

While erratic derivations are possible with the many verbs in Kimwĩmbĩ, the study found that respondents practised avoidance phenomenon with certain “problematic” verbs whereby they used post- verbal adjuncts to convey the erratic sense. For example with the verb *twĩra* (get fodder for domestic animals) they avoided (76a) in favour of (73b) thus:

(76) a. Mūtwĩri nīatuj**angagĩra** ntigiri yae thaara.

Mūtwĩri nī- a- tuj-**ang-ag**- ĩr- a ntigiri yae thaara.

¹.Mūtwĩri fm-sm₁-cut-**err-hab**-appl-fv ⁹.donkey his ⁹.napier grass

Mūtwĩri gets napier grass for his donkey every so often.

b. Mūtwĩri nīatujagĩra ntigiri yae maita maingĩ ma.

Mūtwĩri nī- a- tuj-ag- ĩr- a ntigiri yae maita maingĩ ma

¹.Mūtwĩri fm-sm₁-cut-hab-appl-fv ⁹.donkey his times many quite

Mūtwĩri used to look for fodder for his donkey quite a number of times.

This avoidance may be a reflection of ordering challenges that may face the speaker when regarding certain multiple combinations.

2.9 –able 2 Morpheme

In (57) it was demonstrated that the able may occur in two positions on the verb. Consider the sentences:

(77) a. Cuba ikūringithĩka.

Cuba i- kū-ring-ith- ĩk- a

¹⁰.bottles sm₁₃-cur-hit-caus₁-able₁-fv

4- 6

It has been possible to cause someone to hit the bottle.

b. Cuba ikūringithanĩkangĩka.

Cuba i- kū-ring-ith- an ĩk- ang- ĩk- a

¹⁰.bottles sm₁₃-cur-hit-caus₁-rec₁ able₁-err-able₂-fv

4- 7 8 9

It has been possible to cause the bottles hit one another (all meanings of the erratic apply).

It is evident from the gloss that the occurrence of two –able morphemes changes the meaning of the verb in an augmentative way such that it conveys a reading not just about the possibility of the action but also on how it was done.

In many of the examples regarding the erratic the habitual marker –ag- has tended to occupy the slot right next to it, which can be taken to be its natural position in the order. However, this was checked against the introduction of the –able morpheme, which has been identified to occur before the habitual marker –ag- even when it manifests double occurrences. Consider:

(78) Cuba nīringithĩkangĩkaga.

Cuba nī- i- ring-ith- ĩk- **ang-ĩk-** ag- a

13. Bottles fm-sm₁₃-hit-caus₁-able₁-**err-able₂**-**hab**-fv
 4 7 8 9 10

It is usually possible to cause the bottles to be hit.
 The sentence introduces the habitual marker which has been discussed next.

2.10 The Habitual Marker

The habitual aspect specifies an action as occurring habitually: the subject performs the action usually, ordinarily, or customarily. Dahl (1985) found that the habitual past, the most common tense context for the habitual, occurred in only seven of 60 languages sampled, including English. Standard English has two habitual aspectual forms in the past tense. One is illustrated by the sentence *I used to go there frequently*. The “used to” infinitive construction always refers to the habitual aspect when the infinitive is a non-stative verb; in contrast, when *used to* is used with a stative verb, the aspect can be interpreted as stative (that is, it indicates an ongoing, unchanging state, as in *I used to know that*, although Comrie (1976) classifies this too as habitual. *Used to ...* can be used without an indicator of temporal location in the past, or with a non-specific temporal indicator for example *We used to do that*; *We used to do that in 1974*; but Comrie (1976) states that the time indicator cannot be too specific, so that *We used to do that every Monday in 1974* is not grammatical.

The second way that habituality is expressed in the past is by using the auxiliary verb *would*, as in *Last summer we would go there every day*. As with *used to*, *would* also has other uses in English that do not indicate habituality: in *In January 1986 I knew I would graduate in four months*, it indicates the future viewed from a past perspective; in *I would go if I felt better*, it indicates the conditional mood.

English can also indicate habituality in a time-unspecific way, referring generically to the past, present, and future, by using the auxiliary *will* as in *He will make that mistake all the time, won't he?*. As with *used to* and, the auxiliary *will* has other uses as well: as an indicator of future time as in *The sun will rise tomorrow at 6:14*, and as a modal verb indicating volition as in *At this moment I will not tolerate dissent* (Comrie, 1976). Comrie further notes that the habitual aspect is frequently expressed in unmarked form in English, as in *I walked to work every day for ten years*, *I walk to work every day*, and *I will walk to work every day after I get well* and that the habitual and progressive aspects can be combined in English, as in *He used to be playing*.

Following Givón (2001), the habitual is treated here as a sub-aspect of the imperfective, not as a tense, as it does not refer to any particular event-time. In the Kĩmwĩmbĩ verb it is marked by use of the affix *-ag* and it occurs with the past and the future tenses. In the present tense the habitual can be expressed as in the following sentence where the verb is used monotonically:

(79) Njeri nĩamũkethagia.
 Njeri nĩ- a- mũ- keth-**ag**- i- a
 1.Njeri fm-sm₁-om₁-greet-**hab**-tra-fv
 Njeri (usually) greets him/her.

The above sentence indicates that the action has been happening regularly, and it is expected it will continue. In Kiswahili this habitual sense is realized by the use of the *hu-* marker, which, in contrast to the Kĩmwĩmbĩ habitual marker, is attached in verb initial position. Consider:

(80) Yeye huja hapa.
 Yeye **hu-** j- a hapa
 He/she **hab**-come fv here
 He/she usually comes here

Lindfors (2003) notes that the *hu-* marker is the only grammatical morpheme that can specify the action expressed by the verb-group as habitual or recurrent without co-occurrence of aspectual adverbs as above, so that the speaker does not have to specify in terms of , for example, He comes here every day. This is similar to the Kĩmwĩmbĩ habitual marker in that in (79) the speaker does not have to say Njeri greets him/her every day. Further, the *hu-* marker may not be used with the past tense (Ashton, 1944) as below:

(81) *A-li-ku-w-a hu-j-a hapa
 Sm₁-pt-sm₁₅-be-fv hab-come-fv
 He used to come here.

In contrast, the habitual marker in Kĩmwĩmbĩ is marked on the past tenses in varying levels. This morpheme occurs in all levels of the graded continuity; what differentiates the one level from the other is the tense marker appearing in the pre-verbal position such that the markers for the today past, yesterday past and the remote past occur respectively as shown in (82):

(82) a. Today past: Nĩakũringaga kũmũkethia.
 Nĩ- a- **kũ**-ring-**ag**- a kũ- mũ- keth- i- a
 Fm-sm₁-**cur**-call-**hab**-fv ncp₁₅-om₁-greet-tra-fv
 He/she was calling to greet him/her (earlier today.)
 b. Yesterday past: Nĩararingaga kũbakethia.

- Nĩ- a- **ra-ring-ag-** a kũ- ba- keth- i- a
Fm-sm₁-**yp-call-hab**-fv ncp₁₅-om₂-greet-tra-fv
He/she was (frequently) calling to greet him/her (before today, but recently)
- c. Remote past: Nĩaring**aga** kũbakethia.

Nĩ- a- **a-** ring-**ag-** a kũ- ba- keth- i- a
Fm-sm₁-**rp-call-hab**-fv ncp₁₅-om₂-greet-tra-fv
He/she was (frequently) calling to greet him/her (some time ago; not recently).

Kĩmwĩmbĩ also allows the future habitual aspect marking. Consider:

- (83) Njeri akaring**aga** thimũ o kiumia.
Njeri a- ka-ring-**ag-** a thimũ o kiumia
1.Njeri sm₁-fut-call-**hab**-fv 9.phone every 7.week
Njeri will be calling every week.

The habitual morpheme is also the one used in capturing expressions denoting the progressive aspect. Consider:

- (84) Njeri arĩrugaga ndigũ.
Njeri a-rĩ-rug-**ag-**a ndigũ
Njeri sm₁-be-cook-**hab**-fv 10.bananas
Njeri was cooking bananas.

In this usage the habitual morpheme denotes the fact that the action was in progress for a while. The realization of this reading is in conformity with the tense usages presented. However, the future continuous aspect is realized by the introduction of a separate lexeme before the verb in which the habitual marker occurs. Consider:

- (85) Njeri akethwa akĩrugaga.
Njeri a-**ka-** ith-w-a a-kĩ- rug- ag- a
1.Njeri sm₁-**cur**-be-psv-fv sm₁-be- cook-hab-fv
Njeri will be cooking.

Cable (2013) presented the Gĩkũyũ equivalent of the continuous aspect marking as in the following example:

- (86) Mwangi akũkorwo akĩthondek-a 9.ruga
Mwangi a- **kũ-**kor-w-o a- **kĩ-**thondek-a 9.ruga
1.Mwangi sm₁-**cur**-find-psv-fv sm₁-hab-make-fv cake
Mwangi will be making a cake.

The use of the progressive aspect in Kĩmwĩmbĩ is restricted to dynamic verbs.

Although it is an aspectual marker, the habitual does not occur in the same distribution as the perfect and the perfective. For example, while the two usually occur in a position before the final vowel, the habitual may be followed by other readings as illustrated in the following example where the applicative marker *-ĩr-* follows it:

- (87) Njeri arugag**ĩra** nja.
Njeri a- rug- **ag-** **ĩr-** a nja
Njeri sm₁-cook-**hab-appl**₂-fv outside
10 11

Njeri cooks in the open.

The applicative₂ morpheme is the one that follows the habitual marker. It's occurrences have been discussed next.

2.11 Applicative 2

As was noted earlier, in Kĩmwĩmbĩ the applicative increases the valency of a verb by conveying either one of the following readings: the benefactive, the locative, the malefactive, motive and simultaneity. It was demonstrated that the first occurrence of the applicative on a verb is able to convey only two of these readings. However, the second occurrence of the applicative is able to host all except the last reading of simultaneity. The applicative argument can be hosted by intransitive verbs to deliver a motive reading. Consider:

- (88) Kendi niarĩrag**ĩra** nderemende.
Kendi ni-a- rĩr- **ag-** **ĩr-** a nderemende
1.Kendi sm₁- cry-**hab-app**-fv 10.sweets
Kendi cries for sweets.

Intransitive verbs can also host the locative reading as in the following example:

- (89) Kendi niarĩrag**ĩra** cukuru.
Kendi nĩ-a- rĩr-**ag-ĩr-** a cukuru
1.Kendi fm-sm₁-cry-**hab- app**-fv 9.school
Kendi cries at school.

Consider the following non-applicative verb which is already transitive:

- (90) Njerũ akũringa.
Njerũ a- kũ- ring-a
1.Njerũ sm₁-cur-call-fv

Njerũ has called.

The verb *ringa* above is argumentless. When the applied affix is attached, an applied object, a theme, which becomes an obligatory argument, is introduced. Now consider the following monotransitive construction, in which the applicative serves a benefactive function, whereby it conveys the meaning “doing for”:

- (91) Njeri niarug**agĩra** mwana.
Njeri nĩ- a- rug- **ag- ĩr-** a mwana
1.Njeri fm-sm1-cur-cook-**hab-app**-fv 1.baby
Njeri cooks for the baby.

As already noted the same reading may be gained by use of the applicative allomorph *-er-* as below:

- (92) Njeri akũrombera mwana.
Njeri a- kũ- romb-**er-** a mwana
1.Njeri sm1-cur-pray-**appl**-fv 1.baby
Njeri has prayed for the baby.

Mono-transitive verbs can also convey a malefactive reading. Consider:

- (93) Njeri nĩakũthũkagĩra mwana.
Njeri nĩ- a- kũthũk-**ag- ĩr-** a mwana
1.Njeri fm-sm1- shout- **hab- app**-fv 1.child
Njeri has shouted at the baby.

A malefactive reading suggests harm; something hurtful to the recipient. Monotransitive verbs can also convey a locative reading, delivering the meaning where at. Consider:

- (94) Kendi arĩngagĩra thimũ cukuru.
Kendi a- rĩng-**ag- ĩr-** a thimũ cukuru
1.Kendi sm1- call-**hab- app**-fv 9.phone 9.school
Kendi calls while at school.

The motive reading can also be hosted by mono-transitive verbs. Consider:

- (95) Kendi arĩngagĩra Njeri nderemende.
Kendi a-ra- rĩng-**ag- ĩr-** a Njeri nderemende
1.Kendi sm1-yp-hit-**hab-app**-fv 1.Njeri 10.sweets
Kendi was hitting Njeri because of sweets.

The motive reading gives the reading why something was done. The above demonstrates that mono-transitive verbs can host all the readings of the applicative.

The applicative can also be hosted by ditransitive verbs to supply different readings. Firstly, it can convey a benefactive reading. Consider:

- (96) Njeri nĩagũragĩra mwana iratũ.
Njeri nĩ- a- gũr- **ag- ĩr-** a mwana iratũ.
1.Njeri fm-sm1-buy-**hab-app**-fv 1.baby 8.shoes
Njeri buys shoes for the baby.

Di-transitive verbs can also convey a malefactive reading. Consider:

- (97) Njeri nĩaithagĩra mwana irio.
Njeri nĩ- a- ith- **ag- ĩr-** a mwana irio
1.Njeri fm-sm1-hide-**hab-app**-fv 1.baby 10.food
Njeri hides the baby's food.

The locative reading can also be conveyed in a manner such as in (98) thus:

- (98) Njeri arĩjagĩra mwana irio kĩenini.
Njeri- a- rĩj- ag **ĩr-** a mwana irio kĩenini
1.Njeri sm1- eat-hab- **app**-fv 1.baby 10.food in the field
Njeri eats the babys food in the field.

Lastly, ditransitive verbs can deliver a motive reading thus:

- (99) Njeri arĩjagĩra mwana irio ũ-tũrĩ.
Njeri- a- rĩj- ag **ĩr-** a mwana irio ũ-tũrĩ
1.Njeri sm1- eat-hab- **app**-fv 1.baby 10.food 14-notoriety
Njeri eats the baby's food out of notoriety.

The applicative marker in Kĩmwĩmbĩ is a very productive morpheme as it can be hosted by most verbs. Evidently, transitive verbs can host all the readings of the applicative. However, intransitive verbs cannot host the benefactive and the malefactive as inherently these require an object to whom the reading is directed.

As already mentioned, the second applicative precedes the aspectual markers, notably the perfect and the perfective. Consider:

- (100) a. Njeri ararug**ĩrĩte** nja.
Njeri a- ra- rug- **ĩr- ĩt-** e nja

Njeri sm₁-yp-cook-**appl-pft**-fv outside

11 12

Njeri cooked out in the open yesterday.

b. Njeri n̄arugangire.

Njeri n̄i- a- rug- ang-**ir**- e.

₁Njeri fm-sm₁-cook- err -**pfv**-fv

8 12

Njeri cooked (within the day).

Notably, the applicative may not co-occur with the perfective. The perfect and the perfective, as well as other aspect markers identified as occurring on the Kĩmwĩmbĩ verb are discussed next.

2.12 Aspect-marking Morphemes

Aspects are different ways of viewing the internal temporal constituency of a situation, that is, how a situation is distributed within time (Comrie, 1976). Aspect concerns the manner in which the verbal action is experienced or regarded, for example as completed or in progress. Mood relates the verbal action to such conditions as certainty, obligation, necessity and possibility. Quirk and Greenbaum (1973) observe that these three impinge on each other; in particular the expression of time present and past cannot be considered separately from aspect, and the expression of the future is closely bound up with mood. Lyons (2001) posits that this is partly because certain notions might be classified equally well as modal, aspectual or temporal (as in the English sentence *He must come regularly*) and partly because more distinctions have to be realized in the semantic analysis of these languages that are overtly distinguished by the systematic morphological and syntactic contrasts labeled as tense, aspect and mood. He also notes that no one of the three categories is essential to human language, and different languages vary considerably in the way in which they group together or distinguish temporal, modal and aspectual notions. It is only when these notions are expressed by means of some such device as inflection or the use of particles that linguists tend to refer to them as grammatical notions.

Languages tend to vary as to how important the objective measurement of time is for the choice of tense marker. Most languages allow some room for the speaker's subjective experience of time (Dahl 1985). Lindfors (2003) notes that in order to understand grammatical aspect, we first need to consider inherent aspect, which is a property of lexical verbs. Givón (2001) divides verbs into four major categories, depending on their inherent aspectuality, as follows:

- a) Compact (short duration) verbs: e.g. spit, shoot, jump, hit
- b) Accomplishment-completion verbs: e.g. arrive/come, obtain/get, die, be born, finish
- c) Activity- process verbs: e.g. break, bend, step, walk, work, read
- d) Stative verbs- be sad, be cold, know, want, be tall, be red

The inherent aspectuality closely interacts with the morphological or grammatical aspectuality. It is also often difficult to separate the inherent aspect from contextual influence (Dahl 1985). Grammatical aspect adds a communicative perspective to the events or states described by the inherently aspectual verbs. Aspectuality can thus best be investigated by observing the interaction between inherent and grammatical aspect.

Aspect is therefore a grammatical category that expresses how an action, event or state, denoted by a verb, relates to the flow of time. Comrie (1976) defines aspect as different ways of viewing the internal temporal constituency of a situation, that is, how a situation is distributed within time. Nurse (2007) presents the following aspects:

2.12.1 The Perfect

A perfect is a grammatical form used to describe a past event with present relevance, or a present state resulting from a past situation. Nurse (2007) calls it the anterior. For example, *I have come to the cinema* implies both that I went to the cinema and that I am now in the cinema; *I have been to France* conveys that this is a part of my experience as of now; and *I have lost my wallet* implies that this loss is troublesome at the present moment.

As English has a perfect, the distinction can be illustrated with the simple past standing in for the perfective. A perfect construction like *I've eaten* conveys the continued significance of that action, with implications such as *I'm full* or *You've missed dinner* depending on context. As such, it is ungrammatical to assign it a time in the past, such as *I've eaten yesterday*.

In Kĩmwĩmbĩ the perfect is marked by use of the morpheme *-gu/ku-*. Like the Swahili *me-*marker (Lindfors, 2003), it expresses an action initiated before the time of speech, which at the same time has a lingering relevance to the present. Following Cable's (2013) analysis of distinctions in perfects in Gĩkũyũ, the following perfect forms can be identified in Kĩmwĩmbĩ:

- (101) a) Simple Perfect: Nyaga akũgũra mũgũnda.
Nyaga a- kũ- gũr- a mũgũnda.
₁Nyaga sm₁-cur-buy-fv ₃land
Nyaga has bought land (a few moments ago; earlier

- today).
- b. Current Perfect: Njeri n̄arugir̄ite mwana.
 Njeri n̄i- a-rug-**ir- ĩt-** e mwana
 1.Njeri fm-sm₁-cook-**appl-pft**-fv 1.child
 Njeri has cooked for the baby.
- c. Near Perfect: Njeri n̄ararugir̄ite mwana.
 Njeri n̄i- a- ra-rug- **ir- ĩt-** e mwana
 1.Njeri fm-sm₁-yp-cook-**appl-pft**-fv 1.child
 Njeri had cooked for the baby (recently).
- d. Remote Perfect: Njeri n̄arugir̄ite mwana.
 Njeri n̄i- a- a- rug- **ir- ĩt-** e mwana
 1.Njeri fm-sm₁-rp-cook-**appl-pft**-fv 1.child
 Njeri had cooked for the baby (sometimes back).

The simple perfect behaves like the *-me-* marker in Kiswahili, which is normally marked in pre-verbal position. A distinction of the simple perfect and the current perfect in Gĩkũyũ is also more morphologically obvious, as brought out in *Mwangi n̄ain̄ite* and *Mwangi n̄ekũin̄ite* respectively. (Mwangi has/had danced and Mwangi has/had danced [within the day]). In pre-verbal position the near perfect is marked by use of the yesterday-past marker *ra-*, while the remote perfect is marked by the use of the remote-past marker *-a-*.

The perfect aspect is also marked on future tense forms by the use of a separate lexeme before the agglutinated verb. Consider:

- (102) Njerũ akethwa ain̄ir̄ite ageni.
 Njerũ a- **ka-** ĩthwa a- in- **ir- ĩt-** e
 1.Njerũ sm₁-**fut**-have sm₁-sing-**appl- pft**-fv
 Njerũ will have sung for the visitors.

The above denotes the future perfect tense. The future tense marker *-ka-* is affixed on the lexeme preceding the verb but the perfect marker is affixed onto the verb. This is similar to the Kiswahili form used to denote the same aspect. Consider:

- (103) Nitakuwa nimelal-a.
 Ni- **ta-** ku- w- a ni-**me-**lal- a
 1sg-**fut**-sm₁₅-be-fv 1sg-**pft**-sleep-fv
 I shall have slept.

To demonstrate the continuing identification of the order of morphemes on the agglutinated Kĩmwĩmbĩ verb then the above morpheme will be accommodated as follows:

- (104) Njerũ n̄araring**anithanir̄itie** cuba k̄ienini.
 Njerũ n̄i- a- ra-ring-**an₁-ith- an₂- ir- ĩt-** i- e cuba k̄ienini
 1.Njerũ fm-sm₁-yp-hit-**rec₁-caus-rec₂-appl-pft**-tra-fv 10.bottles in the field
 Njerũ caused the bottles to hit each other in the field.

2.12.2 The Perfective Aspect

The perfective aspect is a grammatical aspect used to describe an action viewed as a simple whole - a unit without interior composition. Lindfors (2003) notes that perfectivity is connected with temporal boundedness and duration. A situation can be regarded as sharply or diffusely bounded in time, and as of being of short or long duration. Although the essence of the perfective is an event seen as a whole, most languages which have a perfective use it for various similar semantic roles, such as momentary events and the onsets or completions of events, all of which are single points in time and thus have no internal structure. In the perfective aspect, the focus is on termination and boundedness, and there is a strong association with the past tense. Compact verbs like *shoot* and *jump* often occur in the perfective aspect. Should a verb from the other end of the scale, for example a stative verb like *know* or *want* occur in the perfective aspect, it may be interpreted as an event (Lindfors, 2003).

Nurse (2007) observes that Bantu perfectives are typically morphologically relatively unmarked. However, in Kĩmwĩmbĩ the perfective aspect is marked by use of the affix *-ir-* in a position before the final vowel. It is marked on past tense forms, that is, it combines with verbsthat are in past tense. There are three possible realizations that a past-perfective verb in Kĩmwĩmbĩ can take thus:

- (105)a. Current Past: Njeri n̄arugire.
 Njeri n̄i- a- rug- **ir-** e
 1.Njeri fm-sm₁-cook-**pfv**-fv
 Njeri cooked (within the day).
- b. Near Past: Njeri n̄ararugire.
 Njeri n̄i- a- **ra**-rug- **ir-** e
 1.Njeri fm-sm₁-**yp**-cook-**pfv**-fv

- c. Remote Past: Njeri cooked (before today, but recently).
Njeri n̄arugire.
Njerĩ n̄- a- a- rug -ir- e
1.Njeri fm-sm1-rp-cook-pfv-fv
Njeri cooked (some time ago; not recently).

To demonstrate the continuing identification of the order of morphemes on the agglutinated Kĩmwĩmbĩ verb then the above morpheme will be accommodated thus:

- (106) Njerũ n̄aringanithanĩririe cuba k̄ienini.
Njerũ n̄- a- a-ring-an-ith- an- ĩr- ir- i- e cuba k̄ienini
1.Njerũ fm-sm1-rp-hit-rec1-caus-rec2-appl-perf-tra-fv 10.bottles in the field
Njerũ had caused the bottles to hit each other in the field

In fast speech of native Kĩmwĩmbĩ it is not uncommon to apply ellipsis and be left with only one *-ĩr-*. In linguistics ellipsis refers to the omission from a clause of one or more words that are nevertheless understood in the context of the remaining elements (in this case one morpheme is omitted.)

2.12.3 The Imperfective Aspect

The imperfective (IPFV) is used to represent the structure of any unbounded situation that lasts over a period of time (Nurse, 2007). It is a grammatical aspect used to describe a situation viewed with interior composition. In the imperfective aspect the focus is no longer on termination and boundedness (Lindfors, 2003). Stative verbs often occur in the imperfective aspect. Should an inherently compact verb occur in the imperfective aspect, it is usually interpreted as repetitive. As a result, combinations of inherent and grammatical aspects produce new shades of meaning. The imperfective aspect has traditionally been subdivided into two subgroups: the progressive /durative /continuous aspect, which describes ongoing activity (progressive), and the habitual/repetitive aspect (habitual), which describes repeated events (Givón 2001, Nurse, 2007) whether the situations occur in the past, present, or future. In this study the imperfective has been presented in terms of the progressive aspect.

The continuous/ progressive aspects are grammatical aspects that express incomplete action or state in progress at a specific time: they are non-habitual, imperfective aspects. Nurse (2007) notes that the progressive represents an unbounded situation as in progress at reference time. The field of reference of the progressives varies: in some languages they represent situations only ongoing at the reference time while in others they cover a wider field. Progressives tend to be associated with dynamic rather than stative verbs. They can occur with the past and future tense markers. In Kĩmwĩmbĩ the present continuous is not morphologically marked post-verbally. Consider:

- (107) Njeri n̄akũruga.
Njeri n̄- a- kũ-rug- a
1.Njeri fm-sm1-cur-cook-fv
Njeri is cooking.

In Kiswahili the *na-* morpheme is used to refer to an ongoing activity. As in Kĩmwĩmbĩ marker, it is marked pre-verbally on the agglutinated verb thus:

- (108) Tunatazama michezo.
Tu- na- tazam-a michezo
2pl-con-watch-fv 4.games
We are watching games.

Na- in Kiswahili may also be used with stative verbs (Lindfors, 2003). Consider:

- (109) Koti linachafuka.
Koti li- na-chafu-ka
Coat sm5-con-dirt-state
The coat is getting dirty.

The above in Kĩmwĩmbĩ would be:

- (110) Kĩgoti n̄gĩkũgĩa rũko.
Kĩgoti n̄- gĩ- kũ- gĩ- a rũko
7.Coat fm-sm7-ncp15-be-fv dirt
The coat is getting dirty.

As is evident from the above discussion Kĩmwĩmbĩ has a rich tense and aspect system with an equally rich derivational system to denote the two on the agglutinated verb. Tense and aspect interact in Kĩmwĩmbĩ to anchor an action in a certain deictic center. It was also noted that aspect morphemes sometimes take the same forms, for example *-ĩr-* for both the perfect and the persistent. In other instances the aspect-marking morphemes take the form of other verbal derivations. For example, the habitual form *-ag-* is also used to mark the erratic in Kĩmwĩmbĩ. Similarly, to the casual observer, *-ir-* occurs both in perfectives and also to mark the applicative. However, in Kĩmwĩmbĩ the applicative marker makes use of *ĩ* (English /ei/ and not *i* (English /i/). The co-

occurring morphemes, besides the context, will help declare the usage.

It is important to note that aspectual morphemes occur in mutual exclusion, and are usually marked in a position before the final vowel. However, as already noted, the presence of the causative marker *-ith* predicts transitivity or passivity, realized by *-i-* and *-w-* respectively, and these are the ones that, occurring in mutual exclusion, take the slot labeled 13. Consider:

(111)a. Njeri niarug**ithĩtie** nyama.

Njeri ni- a- rug- **ith- ĩt- i- e** nyama
Njeri fm-sm₁-cook-caus₁-**pft**-tra-fv ₉meat
4 12 13

Njeri has already caused someone to cook meat.

b. Njeri ni-a-rug-**ith-ir-u-e** nyama

Njeri ni-a-rug-**ith-ir-u-e** nyama.
Njeri fm-sm-cook-caus₁-**pft**-psv-fv meat
4 12 13

Njeri was caused someone to cook meat.

The transitive and the passive have been presented in more detail below.

2.13 The Transitive marker

In linguistics, transitivity is a property of verbs that relates to whether a verb can take direct objects and how many such objects a verb can take (Carnie, 2013). Many languages mark transitivity through morphology (Pusztay, 1990).

In the literature this morpheme is also called the inner causative (Mūriūngi, 2008, (Mwangi, 2001). Wawerū (2011) in his analysis of Gikūyū causatives calls it the short causative, whereas the longer counterpart is the *-ithi-*. In Kĩmwĩmbĩ the transitive takes the form *-i-* and always occurs in the position before the final vowel. It denotes directed action in transitive or ditransitive constructions. Consider the following as it occurs in a mono-transitive verb:

(112) Nyaga nĩagiririe kĩratũ.

Nyaga nĩ- a- gir- **ir- i- e** kĩratũ
₁Nyaga fm-sm₁- wipe-**perf- tra**-fv ₇shoe
Nyaga wiped the shoe.

This morpheme denotes directed action, such that the action of *wiping* in (115) is directed at the shoe. Mwangi (2001) observes that this morpheme is associated with the non-coercive meaning. Consider:

(113) Nyaga niaroririe mwanki.

Nyaga nĩ- a- ra- or- **ir- i- e** mwanki
₁Nyaga fm- sm₁-yp-put out-**perf-tra**-fv ₃fire
Nyaga put out the fire.

While Nyaga caused the fire to go out, the notion of coercion may not apply in so far as it is inconceivable that the fire can be “coerced” to go out.

The transitive is also hosted by ditransitive verbs. Consider:

(114) Kendi nĩatwaririe mwana mbuku.

Kendi nĩ- a- twar- **ir- i- a** mwana mbuku.
₁Kendi fm- sm₁- help carry-**perf- tra**-fv ₁baby ₉book
Kendi helped the child carry the book.

In the absence of other arguments the transitive marker occurs adjacent to the causative marker *-ith-* resulting in what several studies call the ling causative as thus:

(115) Nyaga akũgirithia Njerũ kiratũ.

Nyaga a- kũ- gir- **ith- i-** a Njerũ kiratũ
₁Nyaga sm₁-cur-wipe-**caus-tra**-fv ₁Njerũ ₇shoe
Nyaga has coerced Njerũ to wipe the shoe.

However, there are many instances when other arguments intervene between the causative and the transitive, thereby pushing the latter to the periphery, usually in its canonical position before the final vowel, and in mutual exclusion with the passive marker *-w-*. Consider:

(116)a. Nyaga niararingithanĩtie cuba.

Nyaga nĩ- a- ra-ring- ith- an- **it- i- e** cuba
₁Nyaga fm-sm₁-yp-knock-**cau**₁-rec-**pft-tra**-fv ₁₀bottles
Nyaga had caused the bottles to knock against each other.

b. Nyaga aringithanirie cuba kienini.

Nyaga a- ring- ith- an- ir- **i-** a cuba kienini
₁Nyaga sm₁- knock-**cau**-rec-**perf-tra**-fv ₁₀bottles in the field

Nyaga caused the bottles to knock against each other in the field. In (116)a the reciprocal and perfect markers intervene while in (116)b the reciprocal and the perfective morphemes intervene. It is this possibility of separation of the *-ith-* and the *-i-*, as well as the consequent landing point of the *-i-* that motivates this study to treat it as a separate morpheme.

2.14 The Passive Marker

The passive is a grammatical voice. In grammar, the voice of a verb describes the relationship between the action (or state) that the verb expresses and the participants identified by its arguments (for example subject or object). In a clause with passive voice, the grammatical subject expresses the theme or patient of the main verb – that is, the person or thing that undergoes the action or has its state changed (O'Grady et al., 2001) This contrasts with active voice, in which the subject has the agent role. For example, in the passive sentence *The tree was pulled down*, the subject (*the tree*) denotes the patient rather than the agent of the action. In contrast, the sentences *Someone pulled down the tree* and *The tree is down* are active sentences.

Typically, in passive clauses, what is usually expressed by the object (or sometimes another argument) of the verb is now expressed by the subject, while what is usually expressed by the subject is either deleted, or is indicated by some adjunct of the clause. Thus, turning an active verb into a passive verb is a valence-decreasing process or a detransitivizing process because it turns transitive verbs into intransitive verbs (Kroeger, 2005).

Many languages have both an active and a passive voice; this allows for greater flexibility in sentence construction, as either the semantic agent or patient may take the syntactic role of subject. The use of passive voice allows speakers to organize stretches of discourse by placing figures other than the agent in subject position. This may be done to foreground the patient, recipient, or other thematic roles (Saeed, 1997; Keenan, 1985). The object of the active sentence is raised to the subject position as the subject gets demoted to an oblique position. According to Marten and Kula (2007) the two main functions of the passive are to change the argument structure and encode agency.

According to Comrie (1989), a prototypical passive structure is characterised both morphosyntactically and in terms of its discourse function. Morphosyntactically a passive is semantically transitive (it has two arguments or participants) for which the following properties hold :

- a) The agent or most agent like participant is either omitted or demoted to oblique case
- b) The other core participant possesses all the properties of subject relevant for all the languages as a whole
- (c) The verb possesses any and all language specific formal properties of intransitive verbs

There are two major classifications of passive constructions, namely: personal and impersonal passives. Personal passives are constructions for which some specific agent is implied, but either is not expressed or is expressed in an oblique role. An example in English:

(117)a. They say men live longer than women.

Impersonal passives downplay the importance of an agent. Comrie (1977) notes that there is no raising of the object as the agent/subject gets relegated. Consider:

- b. It is said that men live longer than women.

Personal passives can be lexical, morphological or periphrastic. Lexical passives are not common. A lexical passive is a verb that is inherently passive. It is a verb that must express a scene that includes the presence of a causing agent, but the patient being the grammatical subject. Morphological passives are the most common. They involve the attaching of a passive affix to a transitive verb root as is evident in many Bantu languages, and as will be discussed in this study. Periphrastic passives require an auxiliary verb as is the case with English passives.

In Kĩmwĩmbĩ as in some other Bantu languages the passive is marked by use of the morpheme *-w-* inserted between the root and the final vowel (usually *-a*). This can be marked on a verb used intransitively thus:

(118)a. *Thimũ ĩringĩtwe maita mathatũ.*

Thimũ ĩ- ring- **ĩt-w-** e maita mathatũ
9.phone sm9- call- **pft- psv-** fv times three
The phone has been rung three times.

- b. *Kaaria aringirwe nĩ bikibiki.*

Kaaria a- ring-**ir-** **w-** e nĩ bikibiki
1.Kaaria sm1- call-**perf- psv-**fv by 9.motorbike
Kaaria was hit by a motorbike.

In (118)a the intransitive verb is followed by an adverbial complement while in (118)b the complement is agentive.

The passive can also be hosted by monotransitive verbs. Monotransitive verbs have two arguments, a

subject and an object.

- (119) Njeri n̄arombire Kageni mbuku.
Njeri n̄i-a- romb- **ir-** e Kageni mbuku
1.Njeri fm-sm1-borrow- perf- fv 1.Kageni 9.book
Njeri asked Kageni for a book

When the passive is attached, the object gets fore-grounded as the subject gets demoted to an oblique position or is omitted. Consider:

- (120) Kageni n̄arombirwe mbuku (n̄i Njeri).
Kageni n̄i-a- romb- **ir-** **w-**e mbuku (n̄i Njeri)
1.Kageni fm-sm1-borrow-**perf- psv-**fv 9.book
Kageni has been asked for a book (by Njeri).

The passive can also be hosted by ditransitive verbs. Ditransitive verbs have three arguments: a subject and two objects. Consider:

- (121) Kendi n̄agūrīrīte Njeri iratū.
Kendi n̄i- a- gūr- īr-īt- e Njeri iratū
1.Kendi fm-sm1- buy-app-pft-fv 1.Njeri 8.shoes
Kendi has bought shoes for Njeri.

When the passive is attached, the indirect object Njeri is raised to subject position while the subject Kendi is reduced to an agent as shown in (122):

- (122) Njeri n̄agūrīrītwe iratū n̄i Kendi.
Njeri n̄i- a- gūr- īr- **īt-** **w-** e iratū n̄i Kendi
1.Kendi fm-sm1- buy- app-**pft-psv-**fv 8.shoes (by 1.Njeri)
Njeri has been bought shoes by Kendi.

While in English the second passivised interpretation maybe that *Shoes have been bought for Njeri by Kendi* is a perfectly acceptable construction, the equivalent in Kĩmwĩmbĩ sounds unnatural:

- (123) *I-ratū ikūgūrīrwa Njeri n̄i Kendi.
I-ratū i- kūr- gūr- īr- w- a Njeri n̄i Kendi
8-Shoe sm8-cur-buy-app-psv-fv 1.Njeri by 1.Kendi
Shoes have been bought for Njeri by Kendi

In some verbs the passive is marked by use of *-u-* as a variant of *-w-* as shown below:

- (124)a. Mugeni akinyirue n̄i Njeri.
Mugeni a- kiny- **ir-** **u-** e n̄i Njeri
1.Visitor sm1- escort-**perf-psv-**fv by 1.Njeri
The visitor will be escorted by Njeri.
b. Mwana aracoketue igoro.
Mwana a- ra- cok- **et-** **u-** e igoro.
1.Child sm1-yp- return-**pft- psv-** fv yesterday
The child was being brought back yesterday.

The study does not dwell on the reasons for the choice of one and not the other, but it assumes that is as a result of tone issues in actual utterance, of the nature discussed by Marlo (2013) in which, basing his studies on the Hehe Bantu language, he singles out the passive and the causative as morphemes which in verb-penultimate position impact on the tone in complex ways. This study adopts this explanation considering, for example, that (125) is exactly like (124)a except for the meaning of the verb and the consequent passive marking:

- (125) Mugeni akinyirwe n̄i Njeri.
Mugeni a- kiny- **ir-** **w-** e n̄i Njeri
1.Visitor sm1- escort-**perf-psv-**fv by 1.Njeri
The visitor was stepped on by Njeri.

The passive may occur in argumentless verbs as demonstrated below:

- (126) N̄ikūthūrīrwe.
N̄i- kūr- thūr- **ir-** **w-** e
Fm- ncp15- be angry-**perf-psv-**fv
Anger was felt.
N̄ikūthūrītwe.
N̄i- kūr- thūr- **īt-** **w-** e
Fm- ncp15- be angry-**pft-psv-**fv
Anger has been felt.

In Kĩmwĩmbĩ this does not change the final vowel which in all occurrences of the passive with the perfect or perfective is *-e-*. However, in Gĩkũyũ, introducing the passive to argumentless verbs results in a change of the final vowel from the usual *-a-* to *-o-* as demonstrated in the following example from Waweru (2011):

- (127) Nīkwanyotwo (nī ciana).
 Nī- kũ- a- nyot- w- o (nī ciana)
 Foc-ncp₁₅-ts-grown thirsty-pas-fv (by ciana)
 Thirst has been felt (by the children); The children have grown thirsty.

The transitive and the passive are the final valency-changing morphemes on the Kĩmwĩmbĩ verb, and they occur in a position before the final vowel, which is a feature of all Bantu verbs and which in the ordering takes slot number 14. The distribution of the final vowel in Kĩmwĩmbĩ verbs has been presented next.

2.15 The Final Vowel

The final vowel is a morphological feature that, together with the verb root, forms the only two obligatory constituents of the Bantu verb (Nurse, 2006). Buell (2005) notes that the distribution of the various final suffixes is sensitive to (or itself encodes) mood, polarity and modality, a property also true of some auxiliary verbs. Marten and Kula (2014) note that while in some Bantu languages, the final vowel is always *-a*, in others it appears to carry inflectional information, for example the Kiswahili *-i* that denotes the present negative. In Kĩmwĩmbĩ the final vowel is appears in various word categories and is marked using either one of the seven vowels in Kĩmwĩmbĩ, that is, a e i o u ĩ ũ. The final vowels that occur in verbs have been discussed next.

2.15.1 Final Vowel –a

The default final vowel for a verb is the *-a* found throughout Bantu (Cook, 2013). Ferrari-Bridgers (2009) notes that it seems to be a widely accepted fact in the Bantu literature that the final vowel *-a* found suffixed to verbs is either an inflectional morpheme or a default vowel. As an inflectional suffix, *-a* has been interpreted as either a marker for indicative mood (Buell, 2005) and/or a zero tense marker (Kinyalolo, 1991). As a default vowel, the final vowel *-a* has been interpreted as having no morphological value and, therefore used only to phonologically fill out the final stem position as below:

- (128) Ringa hit/call
 Ũka come
 Rũga jump

-a is also used at the end of a verb with the current tense marker *-kũ-* thus:

- (129) Nkũmũringĩra.
 N- kũ- mũ- ring- ĩr- a
 1sg-cur- om₁-call-appl-fv
 I have called him/her.

This final vowel is also evident in imperatives that direct *X to do something*, issued in form of uninflected verbs though optionally followed by complement elements. Consider:

- (130) Rugũra mũrango!
 Rugũr-a mũrango
 open- fv₃door
 Open the door!

-a also occurs at the end of verbs with a passive reading as illustrated below:

- (131) Njeri akũringwa nĩ mũtĩ.
 Njeri a- kũ- ring- w- a nĩ mũtĩ
 1.Njeri sm₁-cur-hit- psv-fv by 3.tree
 Njeri has been hit by a tree (she didn't see it in her way)

2.15.2 Final Vowel –e

The other common final vowel is *-e*. Cook (2013) observes that in Bantu languages this vowel is used in certain forms, such as the recent past and subjunctive. This final vowel occurs in several distributions in Kĩmwĩmbĩ syntax. Firstly, it is used in verbs with all verbs with perfect and perfective readings where the endings will be *-ĩte* or *-ire* respectively as in the following examples:

- (132)a. Nyaga nĩagũrĩte mũgũnda.
 Nyaga nĩ- a- gũr -ĩt-e mũgũnda
 1.Nyaga fm-sm₁-buy-pft-fv₃land
 Nyaga has bought land (he owns land).
 b. Nyaga nĩagũrĩre mũgũnda.
 Nyaga nĩ-a- gũr- ir- e mũgũnda
 1.Nyaga fm-sm₁-buy-perf-fv₃land
 Nyaga has bought land (a while back).

Similarly, it is used with verbs with persistive readings of the form ending in *-ĩt/et* thus:

- (133) Nyaga no aretete mbeca.
 Nyaga no a- ret- et-e mbeca
 1.Nyaga still sm₁-bring-per-fv₁₀money

Nyaga is still bringing the money.

-e is also the one used with stative verbs in constructions with accomplishment-completion reading (Lindfors, 2003) as in:

- (134)a. Mũtĩ nĩmũande aa.
Mũtĩ nĩ- mũ- and-**e** aa
3.Tree fm-sm₃-plant-fv
There is a tree planted here.
b. Gĩtanda nĩkĩare.
Gĩtanda nĩ- kĩ- ar- **e**
7.Bed fm-sm₇ -spread-fv
The bed is spread.

Lastly, *-e* is used expressions in narrative aspect. Nurse (2007) says that the narrative aspect denotes a string of situations. For example one might say:

- (135) Ūjukie kĩbiriti, ūmuntie mwanki, ūtege ruujĩ...
You **take** match box, **light** a fire, **heat** some...

2.15.3 Final Vowel -i

In Bantu languages this final vowel *-i* appears to carry inflectional information and is correlated with negation, for example the present negative in Swahili (Cook, 2013; Marten & Kula, 2014).

In Kĩmwĩmbĩ this vowel occurs after verbs of state making statements of fact/ declarations followed by predicative deverbal adjectives as below:

- (136) Aritwa nĩba- kir-i kĩrathini.
Aritwa nĩ- ba- kir-**i** kĩrathini
2.Students fm-sm₂-quiet-fv 7.class
The students are quiet in class.

The final vowel is marked on a lexeme that is basically an inflected adjective, marked for person and number features, and which is the complement of the stative verb. Instructively, these adjectives are themselves derived from verbs, hence the possibility to isolate the root.

It is also this final vowel that is used with majority of deverbal nouns in Kĩmwĩmbĩ. Deverbal nouns are formed by the combination of a noun class prefix (NCP) with a simple or modified verb stem followed by a final vocalic segment (Ferrari-Bridgers, 2009) as represented in the examples below:

- (137) Mũthomi Mũrũngamĩri Kĩati
Mũ- thom-**i** Mũ-rũngam-an- ĩr- **I** kĩ- at- i
ncp₁ -read-fv ncp₁-stand- rec-appli-fv ncp₇-sweep-fv

To sum up this section, it is important to note that the data presented above is based on the occurrence of final vowels in different verbal derivations in Kĩmwĩmbĩ unlike, for example, in Ferrari-Bridgers (2009) that discusses the occurrence of final vowels only in deverbal nouns in Luganda. The manifestation of final vowels in non-verbal forms in Kĩmwĩmbĩ has been presented in appendix 2. In many occurrences of Bantu verbs the final vowel is the last morpheme. However, there is one last reading that may be marked on the Kĩwĩmbi verb. It is the plural addressee marker and in the ordering it takes slot number 15. It has been discussed next.

2.16 The Plural Addressee

In linguistics an addressee is any of the immediate intended recipients of the speaker's communication, as grammaticalized in second person morphemes (Fillmore, 1975). The presence of this morpheme on a Kĩmwĩmbĩ verb denotes the fact that more than one person is being addressed. It is realised by use of the morpheme *-ni* in verb final position. It can be used with intransitive verbs like *theka* (laugh) thus:

- (138) Thekani.
Thek- a- ni
Laugh -fv-pa
You laugh.

The plural addressee can also be used with monotransitive verbs thus:

- (139)a. Jukia mũkanda.
Jũki-a mũkanda
take-fv 3.rope
Take the rope. (Singular addressee)
b. Jũkiani mũkanda.
Jũki- a- **ni** 3.mũkanda
Take-fv- pa 3.rope
Take the rope. (Plural addressee)

Ellipsis may be applied in transitive verbs with the plural addressee. For example in (139)b the speaker does not

have to add *mũkanda* (rope) to be understood.

This morpheme can also be hosted by ditransitive constructions. Consider:

- (140) Kumiani Mũrungu akristiano.
 Kumi- a- ni Mũrungu akristiano
 Praise-fv-pa 1.God 2.christians
 Praise God Christians.

The plural addressee is not marked in interrogative sentences, therefore it would be ungrammatical in Kĩmwĩmbĩ to say:

- (141) *Bũ-kwĩja-nĩ
 Bũ- kwĩja-nĩ
 Sm₁-come-pa
 Have you (plural) come?

The *-ni* morpheme can also be marked on the modal particle and not on the main verb itself, hence a speaker can say:

- (142) **Tigani** tũmũringĩre.
Tiga-ni tũ- mũ ring-ĩr- e
 Mod- pa 1pl-om₁-call-appl-fv
 Let us call him.

In this case the speaker includes him/herself among the addressees, but the same marking is possible where this is not the case as in:

- (143) **Ambani** bũ-mũ ring-ĩr- e.
Amba-ni bũ-mũ- ring- ĩr- e
 Mod- pa 2pl-om₁-call-appl-fv
 You first call him/ her.

Kihore, Massamba and Msanjila (2003) note in Kiswahili the plural addressee can be attached to words other than verbs but even when this happens it still carries the same meaning, as in *karibu-ni* (welcome), *kwaheri-ni* (good-bye), *asante-ni* (thanks). This is true with the common greeting form in Kĩmwĩmbĩ, *muga*, to which *-ni* can be added when more than one person is being greeted. However this necessitates the revision of the final vowel from *-a* to *-e* to form *mugeni*, for reasons that are unclear at the moment. However, in Kĩĩtharaka, where the same thing can happen, the final vowel is not revised and so the greeting remains *mugani*.

Mũriũngi (2008) observes that in Kĩĩtharaka this morpheme also denotes an addressee respected by the speaker, regardless of the plurality. He notes that the sentence in (144) is ungrammatical given the context in (144)a because the respected person is not an addressee. When the respected person is also the addressee, then the sentence is fine as in (144)b.

- (144) Nakarĩreni aga.
 Na-kar-ĩr-e-ni aga
 1sg-rt-perf-fv pa here
 a. * She sat here: a husband telling his wife that his mother-in-law (whom he respects) sat there.
 b. She sat here: father telling his mother-in-law where his daughter sat.

2.17 Conclusion

In this chapter all suffixes that may occur on the Kĩmwĩmbĩ verb root were presented, starting with the plugs that are synonymous with the root and on outwards to the plural addressee that may occur on verb final position. These suffixes introduce varied readings on the verb and they occur in a certain compositional order. This order is loosely summarized as below (loosely because it will be demonstrated that the order the arguments may take is largely determined by the affix that will occur immediately after the root):

[VERB ROOT]-[PLUGS (Rev)] REC₁ –APPL₁–CAUS₁ –REC₂ –CAUS₂ - ABLE₁ -
 1 2 3 4 5 6 7
 ERR- ABLE₂ – HAB – APPL₂ – PERF/PFT – TRA/PSV –FV – PA
 8 9 10 11 12 13 14 15

No single verb may carry all the attested morphemes, even theoretically, because as evidenced some readings occur in mutual exclusion. Examples include the transitive and the passive; the perfect and the perfective. Therefore to deduce the general order we go by the natural principle thus:

If A precedes B and
 B precedes C then
 A precedes C

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