Lexical Semantics and Selection of TAM in Bantu Languages: A Case of Semantic Classification of Kiswahili Verbs

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Abstract

The existing literature on Bantu verbal semantics demonstrated that inherent semantic content of verbs pairs directly with the selection of tense, aspect and modality formatives in Bantu languages like Chasu, Lucazi, Lusamia, and Shiyeyi. Thus, the gist of this paper is the articulation of semantic classification of verbs in Kiswahili based on the selection of TAM types. This is because the semantics and morphology of Kiswahili verbs have been extensively and intensively researched but the semantic classification of verbs has not been fully provided. Findings for the current research point towards the fact that, based on the realizations of three important sections of the verbal semantics, namely, onset, nucleus, and coda, Kiswahili verbs are divided into three major categories: activity (durative), achievement (inchoative), and stative verbs. A clear TAM-selection is provided for in achievement verbs whose semantic contents prohibit co-occurrence with progressive aspect, habituality, and futurity. This behaviour is attested in other Bantu languages though Kiswahili has no -**ile** formative.

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1. Introduction

In the grammar of Bantu languages, there exists a close association between Bantu verbal semantics and the manifestations of the tense, aspect, and modality (TAM) formatives. For instance, Kershner (2002) and Botne and Kershner (2008) found that some achievement verbs (also known as inchoatives) in Chisukwa [M202] demonstrate a keen semantic interaction with the formatives and readings of the perfective aspect. The grammar of Kiswahili [G42] (see Appendix 1 for codifications), whose examination is the subject matter of concern herein, has verb classes affect the selection of the TAM in negative forms (Contini-Morava, 1989). Thus, this paper reports on the findings of linguistic research about the extent to which the previous studies of TAM in Kiswahili (Beaudoin-Lietz, 1999; Hewson, Nurse & Muzale, 2000; Lindfors 2003; Rieger, 2011) captured the association of TAM with verbal semantics. In addition, the paper reports on the extent to which existing literature on TAM in individual Bantu languages (e.g., Besha, 1989; Nurse & Muzale, 1999; Swilla, 1998) evaluate the power of the verbal semantics on the realisations of the TAM systems in respective languages.

The other motivation for the current research emanates from underlining the morphology of TAM rather that verbal semantics in the seminal work on TAM in Bantu languages (Nurse, 2008). An analysis of the book yields the need for focused examinations of the power of internal semantic content of verbs which force the realisations of some TAM formatives. One of the setbacks to proper analysis of the connection between TAM and verbal semantics is Nurse's (2008) underscoring of the physical realizations of TAM formatives instead of looking into the semantics of the verbs as well. For instance, although he recognizes the semantic content of inceptive verbs as inchoative or ingressive verbs, he accentuates on the form used to indicate the coming into being or entry into a situation or state. This is apparent in the contention, "the morphology involved gives some support to this dual interpretation. Examination of the morphemes associated with 'inceptive' in the languages just listed shows considerable diversity, typologically

and geographically" (Nurse, 2008, p. 162). Thus, Nurse (2008) does not focus on the inherent semantic content of verbs rather he sticks on the functions of TAM formatives across Bantu languages. Given this backdrop, and in order to provide a proper analysis of TAM in Kiswahili, a connection between verbal semantics and TAM selection is offered in this paper.

The choice of verbs used in the previous studies for TAM is another motivating factor for this study. Many of the existing works (e.g., Hewson et al., 2000; Mreta, 1998; Muzale, 1998; Nurse & Muzale, 1999) used activity or dynamic verbs such as **gurá** 'buy', **lima** 'cultivate', **soma** 'read' etc. The seminal work by Nurse (2008) has several dynamic and stative verbs being highly referred for illustrations, e.g., **teleká** 'cook', **kóma** 'tie', **dya** 'eat', **kapa** 'hit' etc. Consequently, the many dynamic verbs have been broadly categorized as actions, activity, or event (Nurse, 2008). This choice must allow easy classification of the morphological elements for TAM, mainly the perfective or completive **-ile/ire** and past tense marker -**aa**-. The connection between these forms (the perfective or completive -**ile/ire** and past tense marker -**aa**-) with the inchoative, stative, and achievement verbs across Bantu languages need be examined in detail. This paper provides findings on the utilization of the semantics of verbs in relation to the choice of TAM formatives in Kiswahili.

The last reason that factored this study is the use of dissimilar terminologies by different scholars while referring to a single reference. For instance, Nurse (2008) is aware of aktionsart as referring to the inherent semantic content of the verbs that function to distinguish various aspects lexically. Botne (2006) on the other hand makes use of this term (aktionsart) when referring to various stages of the completion of situation described by a specific verb. This anomaly warrants investigation of the terms used for the analysis of TAM (Nurse, 2007) in relation to the various terms used for the representation of lexical verbal semantics (Botne, 2006; Botne & Kershner, 2008; Kershner, 2002).

2. Paramount Issues from the Existing Literature

2.1. Terminologies and Groupings of Verbs

Probably, the best way to arrive at the proper classification of verbal semantics for Kiswahili is by beginning with the description and synthesis of the technical terms used to refer to the various types of verbs. This is because the linguistic knowledge about the verbal semantics has to do with the inherent semantic contents of the verbs themselves, the agentive changing features associated with the verbs, and the encoding of TAM systems. A survey of the literature shows that, there are attempts to classify verbs semantically in a few Bantu languages, namely Chasu [G22] (Mreta, 1998), Lucazi [K13] (Fleisch, 2000), Chisukwa [M301] (Kershner, 2002), Lusaamia [JE34] (Botne, 2006), Nyakyusa [M31] (Lusekelo, 2007, 2013), and Yeyi [R40] (Seidel, 2008). Although findings from individual researchers provide dissimilar nomenclatures, synthesis arrives at the fact that previous studies of Bantu languages seem to provide three major types of verbs.

A large amount of verbs in Bantu languages are termed semantically as 'activity verbs' or 'dynamic verbs'. In the literature, they are either termed as activity verbs (Botne, 2006; Lusekelo, 2007; Mreta, 1998), actions (Fleish, 2000), durative verbs (Kershner, 2002; Seidel, 2008) or dynamic verbs (Nurse, 2007). This group of activity verbs in Bantu languages is made of dynamic verbs in nature (Mreta, 1998) or has durative nuclear phase (Botne, 2006) because they possess a well marked initiation (or onset), continuation (or nucleus), and completion (coda) points which are evident in the inherent semantic features of the verbs (Seidel, 2008). The literature suggest that 'activity verbs' possess three features: (i) the marked beginning of the situations encoded by the verbs (onset), (ii) the continuation of the situations which take relatively longer period in time (nucleus), and (iii) marked the ending of the situations (coda). For examples, Mreta (1998) gives an example of the verb **ima** 'cultivate' in Chasu [G22]; Botne (2006) provide the verb **deexa** 'cook' in Lusaamia [JE34]; Seidel (2008) has **ruka** 'weave' in Yeyi [R41], and Lusekelo (2013)

offers an example of the verb **tiima** 'graze, to herd' for Kinyakyusa [M31].

The second cluster of verbs in Bantu languages will be treated as 'inchoative verbs, or 'achievement verbs' because the literature suggests many verbs in Bantu languages are inchoative (Mreta, 1998), achievement (Botne, 2006; Kershner, 2002), change-of-state verbs (Seidel, 2008) and/or processes (Fleish, 2000). Each nomenclature is derived from the manifestation of verbal internal situations. Thus, Fleish (2000) suggests that these are processes because they are not controlled by the logical subjects in Lucazi [K13]. Other scholars suggest that this kind of verbs comprises lexical items whose inherent semantics show change of state or transition (Seidel, 2008) or they have a punctual nuclear phase (Botne, 2006).

These inchoative (achievement) verbs are classified into different sub-clusters. Different scholars offer groupings of achievement verbs differently. Both Kershner (2002) and Botne (2006) provide three categories but the former has transitional punctive, inceptive punctive, and resultative, while the latter gives inceptive, transitional, and resultative verbs. Seidel (2008) has four categories for the same, namely punctive achievement verbs, inceptive transitional verbs, terminative transitional verbs, and resultative verbs. This prolific nomenclature of inchoative (achievement) verbs emanate from the behaviour of different verbs which eventually provide virgin ground of research for semantic behaviour of Kiswahili verbs. Moreover, in other literature, some minor types are treated as independent groups. For instance, terminative verbs appear as an independent semantic type in Mreta (1998) and Lusekelo (2007). All in all, the existing differences available in the minor categories of verbs emanate from the realization of one of the sections of the whole event/situation contained in a verb together with the punctual nucleus.

Furthermore, cases of inchoative (achievement) verbs provide particular characterizations. For instance, inceptive verbs denote an onset as in **oxufwá** 'to die' in Lusaamia (Botne, 2006) and/or the state around its beginning as in **bwará** 'rot' in Yeyi (Seidel, 2008). Transitional verbs accentuate

both the onset and coda as in **abuxa** 'split' in Lusaamia (Botne, 2006). Resultative verbs underscore the result of the change-of-state as in **nonga** 'get wet' in Yeyi (Seidel, 2008) or encode the nucleus and coda as in **deexa** 'become married' in Lusaamia (Botne, 2006). Another minor type of the change-of-state verbs includes terminative verbs which Seidel (2008) assumes as they focus on the completion of the change of state. It is claimed in other literature that terminative verbs have the exact and well marked starting and ending points and take abrupt starting, continuation and ending points (Lusekelo, 2007; Mreta, 1998). One terminative verb is **pasuka** 'split/burst/explode' in Kinyakyusa [M31] (Lusekelo, 2007) and another one is **pwara** 'heal' in Yeyi [R41] (Seidel, 2008).

The third cluster of verbs are 'stative verbs'. Three labels are used for this semantic type of verbs: stative verbs (Botne, 2006; Lusekelo, 2007; Mreta, 1998), states (Kershner, 2002), and/or situations (Fleish, 2000). Other scholars do not identify this category in their studies, For instance, Seidel (2008) does not recognize any stative verb in Yeyi [R41]. This kind of researcher-based differences opens up an arena

virgin to be examined the semantic properties of an individual language such as Kiswahili.

Generally, the semantics show that stative verbs lack boundaries (onset and coda). This is suggested by Mreta (1998) who argues that, stative verbs have neither the situations' starting boundaries nor the dynamics ready to mark the dynamic ends. The same is proposed by Botne (2006) who claims that stative verbs have no internal phrasal structure rather they represent a homogeneous domain across the domain. Therefore, for the stative verbs, it is very difficult to mark or realize three features of the verbs: (i) the beginning of the situations encoded by the verbs, (ii) the continuation of the situations, and (iii) to trace the ending of the situations (Lusekelo, 2007). Example cases include **nuŋga** 'stink/smell' in Kinyakyusa [M31] (Lusekelo, 2013) and **xeera** 'like' in Lusaamia (Botne, 2006).

The foregoing discussion points out clearly that there are successful attempts to classify verbs semantically in Bantu languages. Thus, Table 1 provides the summary of the discourses on the semantic classifications of Bantu verbs across languages.

Table 1
Semantic Classification of Verbs in Selected Languages

Study	Types	Semantic Classification
Mreta (1998) [Chasu G22];	4	1. Activity verbs e.g. **ima** 'cultivate' 2. Inchoative verbs e.g. **nunga** 'stink' 3. Stative verbs e.g. **manya** 'know' 4.Terminative verbs e.g. **pasuka** 'explode'
Fleish (2000) [Lucazi K13]	3	1. Actions ▪ Motions e.g. **íza** 'come' ▪ Activities e.g. **tónga** 'sew' ▪ Communication e.g. **sána** 'call, shout' 2. Processes ▪ Perceptions e.g. **móna** 'see' ▪ Mental faculties and attitudes e.g. **táva** 'agree, allow' ▪ Physical conditions e.g. **kúla** 'age, grow old' 3. Situations e.g. **hókama** 'be thin'
Kershner (2002) [Chisukwa M301]	3	1. States [have undifferentiated period, i.e. onset, nucleus and coda are unanalizable] e.g. **manya** 'know', **beenga** 'hate' and **yaana** 'resemble'. 2. Punctive verbs [also known as Inchoatives, Achievements or Change-of-State; have a transitional pivot/point] ▪ Inceptive [have durative onset but no coda] e.g. **boota** 'defeat', **fika** 'arrive' ▪ Transitional [have durative onsetr and coda] e.g. **bola** 'rot', **cheba** 'be clever' ▪ Resultative [have durative coda and no onset] e.g. **howoka** 'be happy', **lita** 'be tired' ▪ Achievement [only encode punctual nucleus] e.g. **lemala** 'be lame', **songopa** 'be sharp'

		3. Durative verbs [made of one or more phases i.e. onset, nucleus or coda; mostly consist of durative nucleus and no identifiable onset]
		   ▪ Extended [take significantly longer period] e.g. **iimba** 'dance', **lya** 'eat'
		   ▪ Instanteneous [take significantly shorter period] e.g. **baya** 'kick', **koma** 'hit'
		   ▪ Periodic [denote regular circular events, situations] e.g. **tetema** 'shiver'

Botne (2006)
[Lusaamia JE34]
	3	1. Activity verbs e.g. **taaka** 'plant'
		2. Achievement verbs
		   ▪ Inceptive verbs e.g. **fwa** 'die'
		   ▪ Transitional verbs e.g. **aduxa** 'split'
		   ▪ Resultative verbs e.g. **deexa** 'become married'
		3. Stative verbs e.g. **xeera** 'like'

Lusekelo (2007) [Nyakyusa M31]	4	1. Activity verbs e.g. **lima** 'cultivate' 2. Inchoative verbs e.g. **nunga** 'stink/smell' 3. Stative verbs e.g. **manya** 'know' 4.Terminative verbs e.g. **pasuka** 'split/explode'

Seidel (2008) Yeyi [R41]	2	1. Durative verbs
		   ▪ Instantaneous and extended verbs e.g. **raha** 'kick'
		   ▪ Dynamisms e.g. **ywapa** 'fear'
		2. Change-of-state verbs
		   ▪ Punctive achievement verbs e.g. **ya** 'come'
		   ▪ Inceptive transitional verbs e.g. **bbwara** 'rot'
		   ▪ Terminative transitional verbs e.g. **pwara** 'heal'
		   ▪ Resultative verbs e.g. **suna** 'fall'

Lusekelo (2013)
Kinyakyusa [M31]
	3	1. Stative verbs e.g. **nyali** 'become dirty'
		2. Inchoative (or change-of-state, achievement, punctive) verbs
		   ▪ Inceptive verbs e.g. **ßuuka** 'go'
		   ▪ Transitional verbs **ßola** 'rot'
		   ▪ Resultative verbs e.g. **ɣaɣa** 'turn sour'
		3. Durative (activity) verbs e.g. **suka** 'wash, clean'

Information in Table 1 above indicates that, Mreta (1998) and Lusekelo (2007) identified four types of verbs while other studies classified verbs into three major groups (Botne, 2006; Fleish, 2000; Lusekelo, 2013). Seidel (2008) offers only two major categories. Further difference is apparent in the way sub-categorizations have dissimilar naming and contents of the verbs. This kind of differences emanate from theoretical orientations of scholars. For instance, Mreta (1998) employed an approach borrowed from Walter Breu (1994) which suggests that individual verbs fall into some semantic clusters available in languages. Fleish's (2000) perspective is housed in Simon Dik's approach of functional grammar which also recognizes some of the aspectual parameters. Kershner (2002) adopted the verbal semantics proposed by Zeno Vendler (1967), i.e., semantic classification of verbs as activity, accomplishments, achievements, and states. However she modifies the categories; for example, achievement verbs in Chisukwa divide into four types (Kershner, 2002). Seidel (2008) deals with the propositions put forward in works by Kershner (2002), Botne (2006) and Botne and Kershner (2008) who recognize the inherent semantics of dynamics of the verbs with onset, nucleus, and coda on the one hand and the change of state in the other. It becomes obvious now that different theoretical perspectives upon the same subject matter are usually bound to produce different results. Therefore, it is the purpose of this paper to synthesize these differences and then come up with a proposal which could cater for similar results on theory but differing outcomes on language specific factors.

Further differences also appear in works by the same authors. For example, while Botne and Kershner (2008) recognize and use the lexical verb **fwa** 'die' in Chisukwa [M301] as an inchoative verb, Kershner (2002) grouped it as transitional punctive. Also, they analyses the

verb **zinda** 'hate' in Lucazi [K13] as resultative (of change-of-state) (Botne & Kershner, 2008) but Kershner (2002) uses it as states. Previously, Lusekelo (2007) adopted Breu's (1994) model and came up with four clusters for Kinyakyusa. Later, he adopted the cognitive an approach proposed by Botne (2006) and Botne and Kershner (2008) and came up with three clusters. Since research results differ, this paper reports on the findings about various semantic groups that Kiswahili verbs demonstrate as their inherent property.

2.2. Verbal Semantics and TAM-Selections in Bantu

The review of literature provided in this section focuses on the connection between the verbal semantics and selection of formatives of TAM in Bantu languages. The rationale for this emanates from the previous findings which demonstrated that in some Bantu languages like Lucazi and Lusaamia, different meanings are obtained once the same TAM formative is applied to verbs of different types (Botne, 2006; Fleish, 2000). This means that, there are co-occurrence restrictions and semantic interpretation of verbs as lexical items with particular temporal markers. Therefore, in order to understand the scope of meaning and usage of TAM systems in Bantu languages, some thought have to be given to the verbal semantics of the various verbal stems (Seidel, 2008) and their relationship with the TAM system in any language need be examined (Botne, 2006; Botne & Kershner, 2008).

The co-occurrence constraints reveal that, activity (durative) verbs have freedom of occurrence with all TAM markings. Fleish (2000) and Botne (2006) found that durative (action) type verbs are relatively free as to their use with any of TAM forms. This perhaps is the reason that previous works deal with durative (activity) verbs such as **lima** 'cultivate', **teleká** 'cook', **kóma** 'tie', **gurá** 'buy' etc. (see Muzale, 1998; Nurse, 2008; Nurse & Muzale, 1999). This choice is fruitful for only formalistic analysis of the morphological elements used to analyse TAM types. However, the existing semantic-related constraints cannot be deciphered correctly once only durative verbs are engaged in analysis.

Achievement (change-of-state) verbs reveal a range of co-occurrence restrictions and interpretations thereafter. Fleish (2000) found that ordering of morphologically determined verbal tenses is fundamentally different with process verbs. For example, the anterior made of **-Ø-…-a** in Lucazi gives the present reading and a number of imperfective formatives cannot be used with process verbs in Lucazi. Notice also that Nurse (2007) found that anterior refers to a past situation with current relevance (mostly for dynamic verbs) or with a situation which started in the past and continues into the present (mostly for stative verbs). Botne (2006) found that transitional and resultative verbs in Lusaamia co-occur with the **-Ø-…iré** TAM formative in order to give the present or contemporary readings, and they give a stative readings once they co-occur with the **-Ø-…-a**. Botne (2006) found that transitional and resultative verbs do not co-occur with the **-á-…-a** TAM formative. Another case is given by Seidel (2008) who found that the anterior in combination with change-of-state verbs in Yeyi [R41] for hodiernal past (i.e. **-Ø-…-a**) interferes with continuative readings. The case of Chisukwa [M301] is also very informative. The **Ø-…ite** formative gives numerous readings depending on verbal semantics: present stative reading with resultative verbs, past stative reading with achievement verbs, past reading with inceptive verbs, present state reading with transitional verbs, past activity with instantaneous and extended durative verbs, and present state with punctives (Kershner, 2002). Botne (2003) explicitly states tense/aspect forms, like **-ite/-iile**, function differently in activity verbs, like **kama** 'milk' as opposed to achievement verbs, like **fwa** 'die' in Chindali [M301]. At this juncture, it is obvious that it will be very informative that the power of achievement (inchoative) verbs in the selection of TAM types is provided for Kiswahili.

Stative verbs appear to select the completive formatives in Bantu languages because they refer to the coda in most cases. Botne (2006) found that in Lusaamia, stative verbs co-occur with **x…iré** TAM formative in order to show that the subject entered into such a state hence completive. In addition, stative verbs in Lusaamia co-occur with the **-á-…-a** TAM formative to show present situation. But this is not the case in Lucazi because Fleish (2000)

found that situation type verbs cannot co-occur with the tenses marked with the **-ile** in the language. Again, this paper provides the power of stative verbs in the selection of TAM formatives in Kiswahili.

In addition, the literature shows that TAM formatives **a...ile (a...ire** or **a...ite)** and/or **Ø...ile (Ø ...ire** or **Ø...ite)**, which are numerous in several Bantu languages (Nurse & Philippson, 2006), have direct effect on verbal semantics and TAM interpretations. This paper shows mechanisms which Kiswahili, a Bantu language without -**ile** pattern (Beaudoin-Lietz, 1999; Hewson et al., 2000; Lindfors, 2003), uses to classify its verbs and effects TAM system. The intent is to indicate the way verbal semantics and completive TAM formatives are realized in the language.

3. Kiswahili Verbal Inherent Semantics and TAM-Selections

Semantic classification of the Kiswahili verbs are provided in part two of this section. For the paper to offer a proper analysis of verbal semantics in relation to TAM selections, the basic TAM system of Kiswahili is given in the following part.

3.1. Basic TAM Formatives and TAM Types in Kiswahili

In order to understand the selection of TAM formatives based on the inherent semantic conent of verbs, scholars suggest that, at least the basic picture of TAM system of the language be provided. Thus, this section paints just a rough portrait of the TAM system in the language (for detailed analyses, see Ashton, 1944; Contini-Morava, 1989; Beaudoin-Lietz, 1999; Lindfors, 2003; Rieger, 2011).

Basically, Kiswahili reveals three TAM formatives for tense (time frame of an event, action, or situation as denoted by the verb): -**li**- (pastiness), -**na**- (present references), and -**ta**- (futurity). Probably the following examples will help to illustrate this suggestion. (Abbreviations used in the glossing of these examples are provided at the end of the paper).

(1)
a. **Ni-li-soma   ki-tabu   jana**

SM1-PST-read   7-book   yesterday'I read the book yesterday'

b. **Ni-na-soma   ki-tabu   leo**
SM1-PRES-read   7-book   today
'I read the book today'

c. **Ni-ta-soma   ki-tabu   kesho**
SM1-FUT-read   7-book   tomorrow
'I will read the book tomorrow'

In example (1a-c) the formatives for tense are used to denote past tense (-**li**-), present tense (-**na**-), and future tense (-**ta**-). These examples demonstrate that Kiswahili does not use the verbal final element (-**ile**) rather it makes use of the pre-root TAM elements in realization of tenses.

Kiswahili provides a three-way aspectual distinction (level of completion of the event/situation embedded in the verb (Nurse, 2007)). The perfective (completive) aspect is marked by the formative -**me**- that indicates terminated actions (2a). Example (2b) demonstrates how the language permits progressive aspect formative -**na**- in the verbal complex. Likewise, (2c) shows **hu**- as a marker of habitual aspect. Thus, based on morphological realizations, Kiswahili reveals these formatives of aspect.

(2)
a. **Tu-me-soma   ki-tabu   asubuhi**
SM1- PERF-read   7-book   morning
'We have read the book in the morning.'

b. **Tu-na-soma   ki-tabu   sasa**
SM1-PROG-read   7-book   now
'We are reading the book now'

c. **(Sisi) hu-soma   ki-tabu   mara nyingi**
(We) HAB-read   7-book   several times
'We read the book several times'

The TAM system of Kiswahili permits three tense system and two aspectual divisions. In what follows, the selection of TAM types based on verbal semantics is provided.

3.2. Semantic Classifications of Verbs and TAM-Selections in Kiswahili

Semantic classification of verbs in Kiswahili is approached from an angle that holds on these

parameters. Firstly, the semantic classification is guided by inherent semantic content of the individual verb, as proposed by Mreta (1998), Fleish (2000), and Seidel (2008), the dynamism of the internal situation encoded by the verb, i.e., onset, nucleus, and coda, as suggested by Kershner (2002) and Botne (2006); and the selection of TAM formatives, as suggested by Kershner (2002), Botne (2003), and Seidel (2008).

3.2.1. Stative Verbs

Stative verbs in Kiswahili have undifferentiated period, i.e., their onset, nucleus and coda are unanalizable. This is revealed in stative verbs such as **jua** 'know', **fahamu** 'know', **chukia** 'hate', **elewa** 'understand', **fanana** 'resemble', **ona** 'see', **lala** 'sleep', **husudu** 'love, like', **penda** 'love, like' etc. The internal semantic structure of these verbs reveals the schemata for Kiswahili (Figure 1).
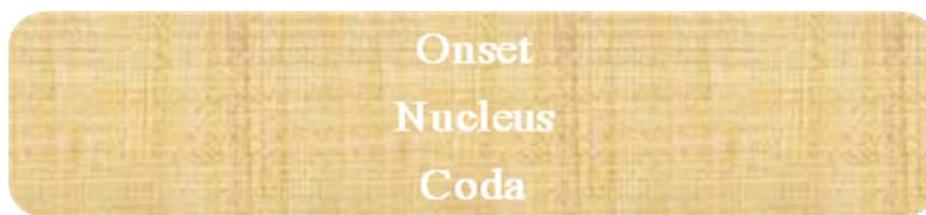
Figure 1
The Schemata for the Internal Structure of Stative Verbs

Based on Figure 1 above, the three important sections of the verbal situations tend to be unrealizable in stative verbs. It means that, all three sections (onset, nucleus, and coda) manifest in wholesome hence cannot be delineated.

On the issue of the selection of TAM formatives, stative verbs accommodate all three major clusters of tense formatives, as shown in (3a-c) which makes use of the stative verb **fahamu** 'know, understand'.

(3)
a. **Wa-li-fahamu kusoma**
they-PST-know to-read
'They knew to read'

b. **Wa-na-fahamu kusoma**
they-PRES-know to-read
'They know to read'

c. **Wa-ta-fahamu kusoma**
they-FUT-know to-read
'They will know to read'

In addition, stative verbs in Kiswahili permit all forms for aspects, as illustrated in (4a-c), using the stative verb lálá 'sleep'.

(4)
a. **Wa-toto wa-me-lala   sasa**
2-child   they- PERF-sleep   now
'Children have slept now'

b. **Wa-toto wa-na-lala   sasa**
2-child   they- PROG-sleep   now
'Children are sleeping now'

c. **Wa-toto hu-lala   sasa**
2-child   HAB.they- PROG-sleep this time
'Children sleep this time'

This has implications to the findings in other Bantu languages. It is stated in Section 2.2 above that stative verbs appear to select the completive formatives in Lusaamia because they refer to the coda in most cases (Botne, 2006) or do not co-occur with the completive formatives in Lucazi (Fleish, 2000). This is not the case for Kiswahili which permits all tense formatives to co-occur stative verbs.

3.2.2. Inchoatives (Achievement) Verbs

Inchoatives (achievements) verbs (also called change-of-state verbs) are characterized with transitional points that mark their divisions. Since there are about four sub-clusters which reveal dissimilar internal schema, representation is given for each cluster.

The first sub-group encompasses inceptive verbs whose inherent semantics reveal durative onset but no coda. For this sub-cluster, the following diagram shows the accentuation of onset and absence of the coda. This is eminent in motion verbs such as **fika** 'arrive', **rudi** 'return' **anza** 'start' etc. Other inceptive achievement verbs include **acha** 'stop', **shinda** 'defeat', **pona** 'heal' etc.

Figure 2

The Schemata for the Internal Structure of Inceptive Achievement Verbs

The second sub-groups encompasses resultative verbs which have durative coda and no onset. As opposed to inceptive verbs above, resultative verbs underscore the coda. This is apparent in verbs such as **badilisha** 'replace, change', **furahi** 'be happy', **choka** 'be tired' etc.

Figure 3

The Schemata for the Internal Structure of Resultative Achievement Verbs

The third sub-category involves transitional verbs whose internal semantic features reveal both durative onset and coda. Figure 4 below shows the denotation of both onset and coda in verbs such as **oza** 'become rotten', **iva** 'ripen', and **chukia** 'be angry'.

Figure 4

The Schemata for Internal Structure of Transitional Achievement Verbs

The last cluster of achievement verbs involve punctive verbs whose inherent semantic content encode punctual nucleus, e.g., **lemaa**

'be lame', **chongoka** 'be sharp', **zidisha** 'be ahead, surpass' etc.
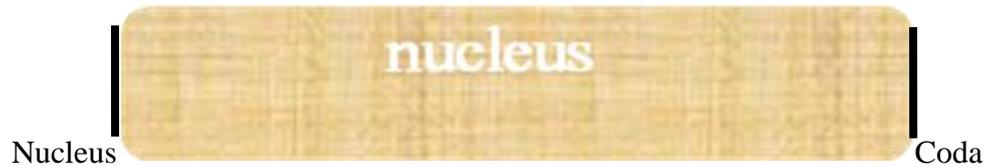
Figure 5
The Schemata for Internal Structure of Punctive Achievement Verbs

About three issues emanate from the semantic content of inchoative (achievement) verbs and the subsequent TAM types. Firstly, inchoatives (achievement) verbs of inceptive sub-category seem to permit co-occurrences with all major TAM formatives in Kiswahili, as shown by the motion verb **fika** 'arrive' in (5).

(5)
a. **Askari   wa-li-fika   jana**
2. soldier   SM3PL-PST- arrive   yesterday
'Soldiers arrived yesterday'

b. **Askari   wa-na-fika   sasa**
2. soldier   SM3PL-PST- arrive   now
'Soldiers arrive now'

c. **Askari   wa-ta-fika   kesho**
2. soldier   SM3PL-PROG-arrive   tomorrow
'Soldiers will arrive tomorrow'

Secondly, the difference is found for resultative verbs and transitional verbs which provide only two tense options. The option for present tense and progressive aspect is prohibited in some resultative and transitional verbs in Kiswahili. Perhaps a resultative verb **oza** 'rot' will help us have a better understanding of this suggestion. This verb gives only two tense readings, namely pastiness interpretations (6a) and futurity (6b). The present reading in (6c) is unacceptable.

(6)
a. **Samaki   wa-li-oza   jana**
fish   SM3PL-PST-rot   yesterday
'The fish rotted yesterday'

b. **Samaki   wa-ta-oza   kesho**
fish   SM3PL-FUT-rot   tomorrow
'The fish will rot tomorrow'

c. *****Samaki   wa-na-oza   leo**
fish   SM3PL-PRES-rot   today
'Intention: The fish will rot today'

The same is true for the transitional verb **choka** 'be tired'. It gives pastiness interpretations (7a) and futurity (7b). The present reading in (7c) is unacceptable.

(7)
a. **Vijana   wa-li-choka   jana**
2. youth   SM3PL-PST-get tired   yesterday
'Youngsters got tired yesterday'

b. **Vijana   wa-ta-choka   kesho**
2. youth   SM3PL-PST-get tired   tomorrow
'Youngsters will get tired yesterday'

c. *****Vijana   wa-na-choka   sasa**
2. youth   SM3PL-PST-get tired   now
'Intention: Youngsters get tired now'

Thirdly, punctive inchoative verbs demonstrate different patterns of the interpretations of aspects in Kiswahili. This case is well illustrated by the verb **lemaa** 'be lame' which gives only two readings, either perfective (completive) (8a) and regular event (habituality) (8b). This happens because inchoative verbs underline one of the main semantic contents, i.e., onset, coda, and nucleus.

(8)
a. **Wa-toto wa-changa wa-me-lemaa**

2-child 2-infant SM3PL-PERF-become lame
'Infant children had become lame'

b. **Wa-toto wa-changa hu-lemaa**
2-child 2-infant SM3PL.HAB-become lame
'Infant children become lame'

3.2.3. Activity (Durative) Verbs

Durative (activity) verbs are made of one or more phases, i.e., onset, nucleus, or coda; mostly consist of durative nucleus and no identifiable onset. Figure 6 offered below is for the entire cluster.

Nucleus
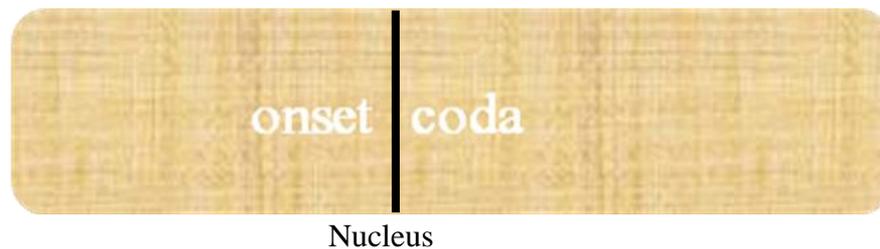
Figure 6
The General Schemata for Activity Verbs in Kiswahili

Three sub groupings exist for Kiswahili. The first one engages extended verbs which take significantly longer period, e.g. **soma** 'read', **imba** 'sing', **cheza** 'dance', **kula** 'eat', **kunywa** 'drink', **kimbia** 'run', **oga** 'bath', **ogelea** 'swim', **jenga** 'build', **shona** 'sew' etc. This sub-group is distinct from instantaneous verbs that take significantly shorter period e.g., **piga** 'hit', **ruka** 'jump', **bweka** 'bark', **gonga** 'bounce' etc. The third group is called periodic verbs because they denote regular circular events, situations, e.g., **tetema** 'sheever'.

With regard to the selectional power of TAM formatives, findings of this research show that activity verbs in Kiswahili permit co-occurrences with all formatives of TAM. This is shown by the verb **soma** 'read' repeated in (9) for exposition purposes.

(9)
a. **Ni-li-soma   ki-tabu   jana**
SM1-PST-read   7-book   yesterday
'I read the book yesterday'

b. **Ni-na-soma   ki-tabu   leo**
SM1-PRES-read 7-book   today
'I read the book today'

c. **Ni-ta-soma   ki-tab   kesho**
SM1-FUT-read   7-boo   tomorrow
'I will read the book tomorrow'

d. **Tu-me-soma   ki-tabu   asubuhi**
SM1- PERF-read 7-book   morning
'We have read the book in the morning.'

e. **Tu-na-soma   ki-tabu   sasa**
SM1-PROG-read   7-book   now
'We are reading the book now'

f. **(Sisi) hu-soma   ki-tabu   mara nyingi**
(We) HAB-read   7-book   several times
'We read the book several times'

4. Semantic Classification of Kiswahili Verbs in Narrative Discourses

It is the culture of the speakers of Bantu languages to utilize differently the semantics of given lexical categories in order to achieve a given goal (Lusekelo & Kapufi, 2014). Therefore, in order to underscore the interpretations obtained for the different patterns above, in what follows, we divide the classifications of verbs as revealed in narrative. The intuition of the native speakers as demonstrated in narratives which come from short stories available in Mwananchi newspaper and novels, and face-to-face discourses and usages as were elicited in Dar es Salaam in Tanzania. The semantic content of each verb and the process(es) involved around an individual verb within the narratives and discourses.

The main cultural assumption here is that narrative discourse represents the actual realizations of the language as depicted in fictional stories which are a replica of reality. Lusekelo and Kapufi (2013) found that speakers of Bantu languages present the reality through manoeuvring of existing units in a language so as to represent new facts.

In narrative discourses in Kiswahili, the various types of verbs select the collocative use of some of the expressions (10). It is argued in this paper that these verbal expressions mark the beginning (onset) (10a), continuation (nucleus) (10b), and termination (coda) (10c) of the event or situation described therein.

(10)
a. **-anza** 'start, begin, commence'
b. **-endelea** 'continue, go on'
 c. **-isha** 'finish, end, complete'

Perhaps the presentation of data should show the best example in (11) which has the selection of the expressions in (10a). In this example, the stative verbs **ona** 'see' selects verbal expression -**anza** 'start' so as to mark the onset of the situation/event contained in the verb.

(11)
Father Vitus a-li-anza ku-ona mwanya wa kutimiza ndoto zake.
father Vitus SM3SG-PST-start INF-see gap of fulfill dream his
'Lit: Father Vitus started seeing the possibility of accomplishing his mission' [Mwananchi 23.11.2010]

This kind of selection of the verbal expressions in **anza** 'begin' has close implications to the semantic classifications of verbs in Kiswahili in that different verbal semantics select different verbal expressions.
At a surface level, one finds two important patterns. On the one hand, inchoatives (achievement) verbs, e.g., **fariki** 'die' (as well as **fika** 'arrive' and **kufa** 'to die') and stative verbs such as **ona** 'see' (as well as **lala** 'sleep', **husudu** 'love) do co-occur with the verbal expression **-isha** 'finish, end, complete', as shown in (12). The interpretations for these sentences give past tense and perfective aspect hence marks coda.

(12)
a. **Wa-li-pofika a-li-kw-isha fariki**
SM3PL-PST-arrive 3SG-INF-finish die
'When they arrived, s/he had already passed away'

b. **Wa-li-pofika a-li-kw-isha ona**
SM3PL-PST-arrive 3SG-INF-finish see
'When they arrived, s/he had already seen (it)'

But inchoative and stative verbs never co-occur with **-endelea** 'continue, go on', as shown for **kufa** 'to die' in (13a) nor **-anza** 'start, begin, commence', as illustrated by in (13b). The fact here is that these achievement verbs encode the completion or coda of the event or situation that is the reason they match with the expression which mark the coda. On the case of stative verbs, the point is that we cannot separate the three important sections of the situations/events hence we cannot say when they began (13c).

(13)
 a. *Watakapofika ataendelea kufa**
Intention: When they arrive, s/he will continue to die (it)'

b. *Watakapofika ataanza kufa**
Intention: When they arrive, s/he will start to die

c. *Watakapofika ataanza kuona**
Intention: When they arrive, s/he will start to see (it)

On the other hand, durative or activity verbs like **lima** 'cultivate' co-occur with **-anza** 'start, begin, commence', **-endelea** 'continue, go on', and **-isha** 'finish, end, complete' verbal expression, as illustrated in (14). The fact here is that this durative verb encodes both onset and coda of the situation that is the reason it matches with both expressions.

(14)
a**. Wa-li-pofika a-li-kw-isha lima**
SM3PL-PST-arrive 3SG-INF-finish cultivate
'When they arrived, s/he had already cultivated'

b**. Wa-ta-kapo-fika a-ta-anza kulima**
SM3PL-FUT-COND-arrive 3SG-FUT-start to cultivate
'When they arrive, s/he will start to cultivate'

c. Wa-ki-fika a-ta-endelea kulima
SM3PL-COND-arrive 3SG-FUT-go on to cultivate
'When they arrive, s/he will continue to cultivate'

5. Concluding Remarks

The many previous studies on the semantic classification of Bantu verbs demonstrated distinct clusters across languages. These different clusters emanate from different theoretical orientations and language specific reasons. In this paper, therefore, three types of Kiswahili verbs, i.e. stative, inchoative (achievement), and durative verbs are shown. Based on eclectic theoretical orientation, these are the major types attested in the language. In addition, the many previous works on semantic classification of Bantu verbs used the parameter that makes use of the differing selection of TAM formatives for the stative, inchoative (achievement), and durative verbs. As for Kiswahili verbs, their TAM selection is revealed to depend on the kinds of verbs. It is argued that durative and stative verbs do occur with all TAM formatives in the language and offers the three interpretation of tenses, i.e., past-present-future. With regard to aspects, the paper showed that durative and stative verbs permit at least three kinds of aspects, namely completive (perfective), progressive and habituality. Furthermore, the paper showed that, inchoative (achievement) verbs give somehow different readings. First of all, achievement verbs mainly offer pastiness and futurity. The interpretations, thus, accentuate either the entering into the situation/process/event (pastiness) or expected beginning of the situation/process/event (futurity). Likewise, the pattern of tenses above resemble somehow with patterns of aspects in that inchoatives demonstrate two patterns of the interpretations of the aspects in Kiswahili. Inchoatives give only perfectivity and progressivity.

With regard to the culture of the speakers of Bantu languages, it is shown in this paper in narrative discourses in Kiswahili, the various types of verbs select the collocative use of these expressions: **anza** 'start, begin, commence', **endelea** 'continue, go on' and **isha** 'finish, end, complete'. Moreover, it is argued in this paper that these verbal expressions mark the following: an onset is marked by **anza**, the continuation of (nucleus) is indicated by **endelea**, and termination (coda) of the event or situation described by **isha**. This has implications to inchoatives (achievement) verbs, e.g., **fariki** 'die' (as well as **fika** 'arrive' and **kufa** 'to die') and stative verbs such as **ona** 'see' (as well as **lala** 'sleep', **husudu** 'love) which do co-occur with the verbal expression **-isha** 'finish, end, complete'. Furthermore, inchoative like **fa** 'die' and stative verbs such as **ona** 'see' neither co-occur with **endelea** 'continue, go on' nor **anza** 'start, begin, commence'. These findings underscore the fact that these achievement verbs encode the completion or coda of the event or situation that is the reason they match with the expression which mark the coda. Durative or activity verbs like **lima** 'cultivate' co-occur with **anza** 'start, begin, commence', **endelea** 'continue, go on', and **isha** 'finish, end, complete' verbal expression because durative verbs encode both onset and coda of the situation.

Acknowledgement

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Appendix 1

Abbreviatios: All Bantu languages whose verbs have been used in this paper receive Guthrie's codification such as G42 for Swahili, M31 for Nyakyusa etc. Other abbreviations used include the following: FUT: future marker, HAB: habitual aspect marker, PERF: perfective marker, PL: plural, SG: singular, SM: subject marker, PRES: present tense, PROG: progressive aspect marker, PST: past tense marker, TAM: tense-aspect-modality marker, 1, 2, 3: first, second and third person.