# Chapter 9

# Verb extensions and morphosyntactic variation in Bantu: The case of Sumbwa

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This study has two aims: (a) to describe verbal extensions in Sumbwa and their valence, and (b) to contribute to Bantu comparative data that may be used in research on Bantu morphosyntactic parametric variation as proposed in Guérois et al. (2017). The description covers all extensions that could be identified in the data at hand (e.g. Capus 1898, Kahigi 2008a,b), focusing on the forms and their various meanings, their valence possibilities, their productivity and co-occurrence constraints. The study reveals that most of the Proto-Bantu verb extensions reconstructed by Meeussen (1967) and Guthrie (1971) are still active in the language. Some extensions are found to be highly productive (applicative, passive, causative (also instrumental), associative, stative, and frequentative), others moderately or semi-productive (persistive, reversive, impositive and denominative) and quite a number may be regarded as being unproductive (associative/reciprocal *-an-*, reiterative, static, contactive and other minor extensions). The second aim of the study is to consider how Sumbwa compares to other Bantu languages by drawing on the parameters on verbal derivation identified in Guérois et al. (2017). Some of the findings agree with what is found in the majority of Eastern Bantu languages, e.g. the verb derivational strategies follow closely those mapped out by the PB reconstructions, except for a few innovations among the minor extensions (e.g. *-agan-*, *-agil-*). However, Sumbwa does not have *ba*-passives found in Bemba, nor does it have the CARP order as postulated by Hyman (2002) for Bantu. Some of the notable characteristics of Sumbwa verb extensions include the fact that (a) the causative and instrumental share extensions, (b) the associative markers include the post-verbal *-an-* and the pre-verbal *-i-*, which is homophonous with the reflexive; (c) the applicative conveys *benefactive, directive, location*, and *reason* meanings; (d) there is no systematic fixed order of extensions, except that in all co-occurrences, the passive comes last.

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# 1 Introduction

For the purposes of this study, we shall adopt Guthrie's (1962) use of the term "verb extension", which is interchangeable with "verb derivation" (cf. Katamba & Stonham 2006). As such, a verb extension is a suffix added to the verb root or base that changes the sense of the root/base.

Verb extensions are one of the most important features of Bantu languages and have been investigated and described since the inception of Bantu studies. A survey of descriptions of Bantu verb extensions across the years (e.g. Madan 1903, Ashton 1947, Johnson 1939, Guthrie 1962, Eastman 1967, Scotton 1967, Bokamba 1975, Khamis 1972, 1985, Rugemalira 1993, 2005, Schadeberg 2003) shows that verb extensions constitute one of the most important topics in Bantu linguistics. This is borne out by research on the topic, which has continued to produce valuable descriptive and theoretical contributions (cf. Baker 1985, Alsina 1999, Marten 2003, Hyman 2002, Katamba & Stonham 2006, Waweru 2005, Khumalo 2007, Chabata 2007, Kula & Marten 2010, Dom et al. 2018, etc.).

The focus of this study is on Sumbwa, a West Tanzania Bantu language, classified as F23[1] by Guthrie (1948, 1970: 11). Known as Sisuumbwa by its native speakers, this largely undescribed language is mainly spoken in Geita, Shinyanga, Tabora and Kagera regions. Other Sumbwa speakers, known as the Bayeke, are found in the DRC, in the current Yeke chiefdom, whose capital is Bunkeya, in Lualaba province (cf. Munongo & Grévisse 1967). The dialect addressed in this study is the Ushilombo/Lunzewe dialect spoken in Bukombe district, Geita region.

This study has two aims. The first aim is to describe verbal extensions in Sumbwa. I follow Guthrie's (1962) approach, which focuses on identifying the morphological shapes of the extensions, their meanings, and their syntactic effects (i.e. valence). In addition, a brief statement of the productivity of the extensions is provided. The concept of valence used here is the traditional one; it refers to the potential of the verb to take an argument (i.e. subject, direct object or indirect object) (cf. Humphreys 1999, Haspelmath & Müller-Bardey 2004). In most Bantu languages, some verb extensions trigger a change in valence by either adding or deducting an argument, while some extensions do not affect the basic valence of the verb. Thus, an extension may be referred to as valence-increasing, valence-decreasing or valence-maintaining (cf. Chabata 2007, Payne 1997, Hyman 2007). The concept of productivity is also used here in its traditional sense; a verb extension is viewed as being productive if it is used to coin new words (cf.

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[1]This is according to the widely used Guthrie (1948) classification for identifying individual Bantu languages. In this classification, the Bantu area is divided into zones and the zones are divided into groups. Sumbwa belongs to Zone F, Group F20 (Sukuma-Nyamwezi Group).

Plag 2006: 121). Regarding Bantu extensions, productivity is considered to be a scalar concept, that is on a scale "from totally unproductive expansions occurring in just a few verbs to fully productive suffixes" (Schadeberg 2003: 73). Thus, in Sumbwa we have what we may call highly or fully productive extensions (e.g. the passive extension); moderately or semi-productive extensions like the frequentative *-agul-* which is mainly restricted to disyllabic roots; and non-productive extensions such as the static *-am-* that can hardly be used in coining new words in the language. Besides valence and productivity, this study also briefly examines the co-occurrence restrictions of the extensions.

The more general aim of the study is to contribute to Bantu comparative data that may be used in research on Bantu parametric morphosyntactic variation (cf. Marten et al. 2007, Guérois et al. 2017). Guérois et al. (2017) is a master list of 141 parameters in 12 morphosyntactic areas. These include nouns and pronouns, noun modifiers, nominal derivation, lexicon, verbal derivation, verbal inflection, relative clauses, clefts and questions, verbless clauses, simple clauses, constituent order, complex sentences, and expression of focus. Each parameter begins with a question, followed by possible answers, e.g.

> *Parameter* **36**. Canonical Passive: Is the canonical passive productively expressed through a verbal extension?
>
> Possible answers:
>
> null = unknown,
>
> no = another strategy is used to express passivisation, e.g. an impersonal construction…,
>
> yes = specify whether there is one or several possible forms.

The possible answers vary depending on the nature of the parameter.

One of the goals of the project is to collect Bantu morphosyntactic data with a view to identifying variation at the micro level. Of the 12 areas in the master list, the focus of the present study will be on area 5: verbal derivation (parameters number 36 to 48).

The second aim of this study, consequently, addresses these parameters, responding to the possible answers given for each parameter. Due to space limitations, the discussion is mostly restricted to Sumbwa data, although, occasionally, other Bantu languages will be referred to for comparison. The focus here will be to observe *whether* and *how* the proposed parameters involving verb extensions occur in Sumbwa. The data used in this study is mainly from Capus (1898)

and Kahigi (2008a,b); the first source is an earlier grammar while the other two include data collected directly from the field between 1976 and 2004.

The rest of the paper is organized as follows. §2 deals with the salient aspects of the verb extensions in the language: the extensions and, their meanings, syntactic effects (i.e. valence) and productivity. The co-occurrence constraints of the verbal extensions are presented in §3. §4 focuses on the parameters of morphosyntactic variation (Guérois et al. 2017), and, lastly, §5 presents the conclusion.

## 2 Sumbwa verb extensions

To facilitate comparison, we will use Meeussen's (1967: 92, 1969) and Guthrie's (1971: 144) verb extension reconstructions. Table 1 shows the modern Sumbwa reflexes of these reconstructions. Some less well-known extensions, i.e. *-agil-*, *-agan-*, *-al-*, and *-l-*, are not shown in Table 1 but will be covered in the discussion below.

What follows is a presentation and discussion of the verb extensions in terms of their morphological shapes, their meanings, syntactic effects (i.e. change in valence) and productivity.

### 2.1 The applicative: *-il-*

The applicative extension denotes an action performed on behalf of, on, at, towards an entity, etc. (cf. Madan 1903, Ashton 1947: 218–220, Rugemalira 2005: 46). The surface forms of the applicative extension are *-il-* and *-el-*, which are distributed in accordance with vowel harmony. Examples are given in Table 2.

The examples in Table 2 illustrate the various functions of the applicative in Sumbwa. Examples a and b represent the sense of 'do sth on behalf of' or 'for the benefit of'; example c represents the sense of 'location'; example d the sense of 'reason'; and example e the 'directional' sense. The applicative extension is a valence-increasing extension, i.e. it adds an extra argument to the verb, cf. example b which without the applicative extension would be *a-la-tem-a* (SM1-PST-cut-FV), 'he cut'. Verbs of all types (transitive, intransitive) take the applicative extension; consequently, it is one of the most productive extensions in the language.

### 2.2 The passive: *-u-, -iβu-*

The passive construction is found in many languages around the world. In Bantu, the Proto-Bantu passive extension \*-*u*-/\*-*ibu*- is still directly reflected in many ex-

Table 1: Bantu verb extension reconstructions and reflexes in Sumbwa. These PB reconstructions and their reflexes in Sumbwa do not include "imbricated" forms that characterize perfective constructions. These imbricated forms, which are found in many Bantu languages, are characterized by mutations which do not occur in simple verbal constructions and non-perfective contexts (cf. Berger 1937–1938, Givón 1970, Mould 1972, Bastin 1983, Kahigi 1989, Hyman 1995, Kula 2001).

| Verb extension | Proto-Bantu form | Sumbwa form |
|---|---|---|
| Applicative[a] | *-id- | -il-[b] |
| Passive | *-u-, *-ibu- | -w-, iβw- |
| Causative | *-i, *ici- | -i-, -iisi- (also instrumental) |
| Impositive | *-ik- | -ik- |
| Stative | *-ik-/*-uk-/*-ad- | -ik-, -uk-, inkan- |
| Associative | *-an- | -an-, -i- |
| Reversive (active) | *-ud-, *-udud- | -ul-, -ulul |
| Reversive (stative) | *-uk- | -uk- |
| Persistive | *-idid | -ilil-, -ilizi- |
| Frequentative (tr.) | *-agud- | -agul- |
| Frequentative (intr.) | *-aguk- | -aguk- |
| Denominative | *-ap-, *-p-, *-apad- | -h-, -ahal- |
| Reiterative | *-udud- | -uul-, -ul- |
| Static | *-am- | -am- |
| Contactive | *-at- | -at- |

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[a]The terms used here to refer to the extensions are by no means universal. Alternative terms for applicative include e.g. applied, directive, prepositional, dative; for persistive e.g. intensive, double prepositional; and for frequentative e.g. augmentative (cf. Madan 1903, Johnson 1939, Ashton 1947, Guthrie 1962, Lodhi 2002, Schadeberg 2003).

[b]The extensions are represented in their basic form. The surface form is determined by vowel harmony, i.e. (i) the extension vowel /i/ is lowered to [e] in the environment of root vowels /ɛ/ or /ɔ/, e.g. /sɛk-il-a/ becomes [sɛkɛla] 'laugh for' and /βɔl-il-a/ becomes [βɔlɛla] 'rot for'; (ii) the extension vowel /u/ is lowered to [o] in the environment of root vowel /ɔ/, e.g. /dɔd-uulul-a/ becomes [dɔdɔɔlɔla] 'unsew'.

Table 2: Examples of the applicative extension

|     | Verb root | Gloss | Applicative stem | Examples |
|-----|-----------|-------|------------------|----------|
| a.  | *-nó-*    | drink | *-nó-il-a* [nwééla] | *a-la-mu-nó-il-a* *βusele* SM1-PST-OM1-drink-APPL-FV beer 'he drank beer for him' |
| b.  | *-tem-*   | cut   | *-tem-il-a* [temela] | *a-la-mu-tem-il-a* *muti* SM1-PST-OM1-cut-APPL-FV tree 'he cut a tree for him' |
| c.  | *-dod-*   | sew   | *-dod-il-a* [dodela] | *a-ø-dod-el-a* *kaaya* SM1-HAB-sew-APPL-FV home 'he sews wood at home' |
| d.  | *-huul-*  | whip  | *-huul-il-a* | *a-ø-mu-huul-il-a* *βuzoβe* SM1-HAB-OM1-whip-APPL-FV laziness 'he whips her for laziness' |
| e.  | *-iluk-*  | run   | *-iluk-il-a* | *a-li-iluk-il-a* *mu-numba* SM1-PST-run-APPL-FV 17-house 'he ran into the house' |

isting languages, although some of them (e.g. the A70 group) use other extensions for the passive due to innovations that occurred in those languages (Bostoen & Nzang-Bie 2010).

Sumbwa has retained the reconstructed extensions: *-u-/-iβu-*, with the vowel /u/ becoming the glide /w/, a diachronic process common in Bantu; thus *-u-/-iβu-* becomes *-w-/-iβw-*. The short extension *-w-* occurs in the environment after consonant-final roots, while *-iβw-* occurs after vowel-final roots or extended stems. Examples are given in Table 3.

The passive construction licenses an optional prepositional phrase, which indicates the logical agent. Examples in (1) illustrate this point:

(1)    a.   *mu-kiima a-la-léét-a*          *si-taβo*
            1-woman  SM1-PST-bring-FV 7-book
            'A woman brought a book.'

Table 3: Examples of the passive extension

|     | Verb   | Gloss                  | Passive                | Gloss                |
| --- | ------ | ---------------------- | ---------------------- | -------------------- |
| a.  | *-lim-* | cultivate; farm        | *-lim-u-a [limwa]*     | be cultivated        |
| b.  | *-tem-* | cut                    | *-tem-u-a [temwa]*     | be cut               |
| c.  | *-dul-* | bore                   | *-dul-u-a [dulwa]*     | be bored             |
| d.  | *-tah-* | draw (water)           | *-tah-u-a [tahwa]*     | be drawn             |
| e.  | *-li-*  | eat                    | *-li-iβu-a [lííβwa]*   | be eaten             |
| f.  | *-fil-* | take sb or sth somewhere | *-fil-u-a [filwa]*   | be taken somewhere   |

   b.  *si-taβo si-la-léét-w-a      ne mu-kiima*
        7-book SM7-PST-bring-PASS-FV by 1-woman
        'A book was brought by a woman.'

Apart from this standard construction, Sumbwa also has some other passive constructions that need to be noted. One of these is the 'passive form of infinitival nouns', usually placed in class 15 in the noun class system. Note the following examples in (2):

(2)   a.  *[kufwíílwa kwiinki kulalééta naku niinki]*
        ku-fu-il-u-a       ku-inki  ku-la-léét-a      naku     n-inki
        15-die-APPL-PASS-FV 15-much SM15-PST-bring-FV 10.misery 10-much
        'Being bereaved many times brought a lot of misery.'

     b.  *[kulekaniisiβwa mukazi waamwe kulamusaayiisja]*
        ku-lek-an-isi-iβu-a       mu-kazi wa-amwe
        15-leave-ASS-CAUS-PASS-FV 1-wife    1-his
        ku-la-mu-saay-isi-a
        SM15-PST-OM1-be.angry-CAUS-FV
        'Separating from his wife made him angry.'

In the data we have, constructions of this type do not occur with the "by phrase" noted above. Another construction to note is the "passive with the locative noun". This is illustrated in (3):

(3)   a.  *[malaβo galapaambwamo munúúmba]*
        ma-laβo ga-la-pamb-w-a-mo         mu-numba
        6-flower SM6-PST-decorate-PASS-FV-CL18 18-house
        'Flowers were decorated in the house.'

> b. *[munúúmba halapaambwamo malaβo]*
> mu-numba ha-la-pamb-w-a-mo         ma-laβo
> 18-house    sm16-pst-decorate-pass-fv-cl18 6-flower
> Lit.: 'In the house there was decorated flowers'

These two examples illustrate what is known as locative inversion. In the first example, the locative noun *munúúmba* occurs after the passivized verbal construction *galapaambwamo*; in the second example, the locative noun is in subject position. The final *-mo* is a locative enclitic. What needs to be noted is that in both sentences the passive construction does not need to, but can have a "by phrase", as illustrated in (4) below:

> (4)  a.  *[malaβo galapaambwamo munúúmba ne mukiima]*
> ma-laβo ga-la-pamb-w-a-mo       mu-numba ne mu-kiima
> 6-flower sm6-pst-decorate-pass-fv-cl18 18-house    by 1-woman
> 'Flowers were decorated in the house by a woman'
>
>      b.  *[munúúmba halapaambwamo malaβo ne mu-kiima]*
> mu-numba ha-la-pamb-w-a-mo         ma-laβo ne mu-kiima
> 18-house    sm16-pst-decorate-pass-fv-cl18 6-flower by 1-woman
> Lit.: 'In the house there was decorated flowers by a woman'

A final construction to note is the "passive with the past participle". This construction is illustrated in example (5) below:

> (5)  *mu-gunda gu-li    βu-lim-w-e*
> 3-farm    sm3-be pp-cultivate-pass-fv
> 'The farm is cultivated.'

As can be noticed here, the passive past participle in the language is characterized by the verb *-li* 'be' followed by main verb with the structure: *βu*-vrt-pass-*e*. In the data we have, this type of construction is also not followed by the "by phrase". It is used when one intends to imply a "state" of an entity.

The passive extension is a valence-decreasing extension, i.e. it deducts an argument from the verb as the examples in (1a) and (1b) show. In addition, all transitive verbs take the passive extension; it is thus a productive extension in the language.

## 2.3 The causative: *-i-/-iisi-*

The extension generally denotes 'causing someone to perform some action'. Historically, the extension *-i-* has caused what is known as spirantization in Bantu

(cf. Schadeberg 1995, Bostoen 2008). This has resulted in morphophonemic alternations in root-final position in all roots or bases ending in /p, b, l, t, d, k, g/. These change to [f, v, z, s, z, s, z] respectively. These changes are illustrated in Table 4 below. Root-final consonants which change are shown as well as consonants which do not change. Notice that all roots with final vowels take the *-iisi-* extension, while some roots (e.g. *-ßamb-* 'peg out') take both extensions. All instances of *i* and *u* occurring at morpheme boundaries change to the corresponding glides [j] and [w], respectively.

Table 4: Examples of the causative extension

| | Verb root | Causative *-i-* | | Causative *-iisi-* | Causative gloss |
| --- | --- | --- | --- | --- | --- |
| | | Change of root-final C | No change of root-final C | | |
| a. | *-ßamb-* | *-ßamv-i-a* | | *-ßamb-iisi-a* | cause to peg out |
| b. | *-puup-* | *-puuf-i-a* | | | cause to be light |
| c. | *-tem-* | | *-tem-i-a* | *-tem-iisi-a* [teméésja] | cause to cut |
| d. | *-lil-* | *-liz-i-a* | | | cause to cry |
| e. | *-sees-* | | | *-sees-iisi-a* [seeseesja] | cause to spill |
| f. | *-kan-* | | *-kan-i-a* | *-kan-iisi-a* | cause to groan or creak |
| g. | *-swiiz-* | | | *-swiiz-iisi-a* | cause to filter or strain |
| h. | *-dod-* | *-doz-i-a* | | *-dod-iisi-a* [dodéésja] | cause to sew |
| i. | *-hit-* | *-his-i-a* | | | cause to pass |
| j. | *-ak-* | *-as-i-a* | | | cause to burn |
| k. | *-og-* | *-oz-i-a* | | *-og-iisi-a* [ogéésja] | cause to bathe |
| l. | *-saay-* | | | *-saay-iisi-a* | cause to be angry |
| m. | *-oßah-* | | *-oßah-i-a* | | cause to fear |
| n. | *-no-* | | | *-no-iisi-a* [nwéésja] | cause to drink |
| o. | *-li-* | | | *-li-iisi-a* | cause to eat |
| p. | *-gu-* | | | *-gu-iisi-a* | cause to fall |

The only root-final consonants that do not change are *m, s, z, n,* y, and *h.* As can be seen in examples (Table 4a–p), an extra argument has been added to the basic valence of the respective verbs, e.g. *a-la-gu-a* (sm1-pst-fall-fv) 'she fell' with the causative extension becomes: *a-la-mu-gu-iisi-a* (sm1-pst-om1-fall-caus-fv) 'he caused her to fall'. As to productivity, the causative extension is highly productive; it applies to intransitive and transitive verbs.

## 2.4 The instrumental: *-i-, -iisi-*

In Sumbwa, the causative extensions *-i-/-iisi-* are also instrumental, as the following examples show:

(6)  a.  *[alamulíísja mwaana]*
        a-la-mu-li-iisi-a          mu-ana
        sm1-pst-om1-eat-caus-fv 1-child
        'She caused the child to eat.' (i.e. she fed the child)

    b.  *[alalíísja siliko]*
        a-la-li-iisi-a          si-liko
        sm1-pst-eat-caus-fv 7-spoon
        'She ate with a spoon.'

As can be seen here, there is a crucial difference between the first and the second sentence, despite the fact that both use the same extension *-iisi-*. In (6a), *-iisi-* is used in its causative sense, while in (6b) it is used in its instrumental sense. This is clearly a case of "causative-instrumental syncretism". This case is also found in other Bantu languages. For example, Jerro (2017) discusses a similar case in Kinyarwanda, and Wald (1998) argues for a split between Bantu languages that use the applicative and those that use the causative extension to mark instrumentals; he hypothesizes that the latter is an innovation.

In Sumbwa, the instrumental is a valence-increasing extension, as shown in Table 4b above. It is also quite productive.

## 2.5 The impositive: *-ik-*

In Bantu, *-ik-* is also the extension for the stative/neuter, which is described below. The impositive differs from the stative in that it has a 'causative' meaning. The action of the verb results in "causing something or somebody to be in some position or state". In Table 5 are some examples.

Table 5: Examples of the impositive extension

|     | Verb root | Gloss          | Impositive    | Gloss                     |
|-----|-----------|----------------|---------------|---------------------------|
| a.  | *-tumb-*  | increase (INTR) | *-tumb-ik-a*  | gather together in a heap |
| b.  | *-loβ-*   | get wet        | *-loβ-ik-a*   | soak                      |
| c.  | *-oβah-*  | be afraid      | *-oβah-ik-a*  | frighten                  |
| d.  | *-om-*    | dry (INTR)      | *-om-ik-a*    | dry sth over fire         |
| e.  | *-hengam-* | tilt (INTR)     | *-hengam-ik-a* | cause to tilt sideways    |

Since it is causative in meaning, the impositive extension is valence-increasing. However, it is not as pervasive as the normal causative *-i-/-isi-*; it may be characterized as slightly productive.

## 2.6 The stative: *-ik-*

The stative is also referred to as "neuter" (Schadeberg 2003). This extension denotes a state already completed or still going on. It also denotes "potentiality", depending on the context. Most verbs use *-ik-*, but a few use *-inkan-*. It is the *-ik-* extension that is still productive.

Table 6: Examples of the stative extension

|     | Verb root | Gloss           | Stative        | Gloss         |
|-----|-----------|-----------------|----------------|---------------|
| a.  | *-lim-*   | cultivate; farm | *-lim-ik-a*    | be cultivated |
| b.  | *-tem-*   | cut             | *-tem-ek-a*    | be cut        |
| c.  | *-nó-*    | drink           | *-nó-ik-a*     | be drinkable  |
| d.  | *-dul-*   | bore            | *-dul-ik-a*    | be bored      |
| e.  | *-bhon-*  | see             | *-bhon-inkan-a* | be seen       |
| f.  | *-mani-*  | know            | *-mani-inkan-a* | be known      |
| g.  | *-suh-*   | forget          | *-suh-inkan-a*  | be forgotten  |

Note that the Sumbwa *-ik-/-inkan-* extension is also found in other Bantu languages such as Swahili (e.g. *-pik-* 'cook'; *-pik-ik-a* [pikika] 'be cooked'; *-on-* 'see'; *-on-ikan-a* [onekana] 'be visible'). The stative is valence-decreasing, e.g. *a-la-dul-a lubaβo* (SM1-PST-bore-FV a plank) 'he made holes into a plank' becomes *lubaβo lu-la-dul-ik-a* 'a/the plank was bored'. It is a characteristic of the Bantu stative that the agent is never expressed.

## 2.7 The associative: *-i-/-an-*

We use the term "associative" following Ashton (1947) and Maganga & Schade-berg (1992: 164). Ashton states:

> The term "Associative" is used instead of the more generally accepted term "Reciprocal" as found in the *Standard Swahili-English Dictionary*, for in ad-dition to reciprocity -NA expresses other aspects of association such as con-certed action, interaction and interdependence (and in some cases disasso-ciation) (1947: 240).

In Sumbwa, there are two affixes that denote action performed mutually or associatively, *-i-* and *-an-*. The first, *-i-*, is a pre-verb root affix that is also used as a reflexive marker. Thus, it is polysemous and highly productive. Examples for the associative *-i-* are in Table 7.

Table 7: Examples of the associative *-i-*

|     | Verb | Gloss | Associative *-i-* | Gloss |
| --- | --- | --- | --- | --- |
| a. | *ku-huul-a* | to hit | *ku-i-huul-a* | to hit each other |
| b. | *ku-taahi-a* | say farewell | *ku-i-taahi-a* | to say farewell to each other |
| c. | *ku-gú-a* | to fall | *ku-i-gú-il-a* | to fall on each other |
| d. | *ku-li-a* | to eat | *ku-i-li-a* | to eat each other |

Due to the ambiguity of the *-i-* affix, the above associative constructions could also be glossed as 'to hit oneself', 'to bid farewell to oneself', 'to fall on oneself', and 'to eat oneself', respectively. It is important to note that the meaning of the construction with the *-i-* affix will depend on the linguistic context. A reflexive meaning will always imply that the subject NP and the object NP are identical, as illustrated in (7) below:

(7)  a.  *mu-ana$_i$ a-la-huul-a  mu-ana$_i$* (Subject NP = Object NP)
          1-child$_i$  SM-PST-hit-FV 1-child$_i$

  b.  *mu-ana$_i$ a-la-i$_i$-huul-a*
          1-child$_i$  SM-PST-REF$_i$-hit-FV
          'the child hit him/herself'

As can be seen here, while the reflexive in (7b) allows a singular subject (i.e. an agent which is at the same time a patient), the reciprocal in (8) below can only allow a plural subject, which is consistent with reciprocity or associativeness (i.e. two or more individuals doing the same thing to each other).

(8)  *βa-ana$_i$ βa-la-i-huul-a*
     2-child$_i$ SM-PST-REF$_i$-hit-FV
     'the children hit each other'

A further point to note here is that Sisumbwa is not the only language in zone F to express associativeness using the pre-verbal *-i-*. Expression of associativeness using *-i-* has also been found in Rimi (Olson 1964: 172–174), Rangi (Stegen 2002: 144) and Sukuma (Batibo 1985: 172–173). The extent to which this phenomenon is widespread in Bantu awaits investigation.

The second affix, *-an-*, competes with *-i-* as an associative marker. Our analysis shows that it is unproductive; reciprocity/associativeness in Sumbwa is more frequently expressed by the pre-verbal *-i-*. Some examples illustrating *-an-* are given in Table 8.

Table 8: Examples of the associative *-an-*

|    | Verb root | Gloss | Associative *-an-* | Gloss |
|----|-----------|-------|--------------------|-------|
| a. | *-taag-*  | throw away | *-taag-an-a* | leave or abandon each other |
| b. | *-las-*   | shoot using a bow | *-las-an-a* | shoot at each other; fight using bows and arrows |
| c. | *-som-*   | stab | *-som-an-a* | stab each other |
| d. | *-bhut-*  | give birth | *-bhut-an-a* | give birth in great numbers |
| e. | *-tol-*   | backbite | *-tol-an-a* | backbite each other |

An inspection of the "*-an-* associative" in actual speech and in Kahigi (2008a) shows that the verb roots targeted are either -CV(V)C- (many) or -CV(V)CVC- (fewer). There are, in addition, a few verbs that form their associative forms with *-aan-* instead of *-an-*. Examples of these are given in Table 9.

There are also a few examples which appear to have an associative meaning but are not related to any corresponding verb roots. These are shown in Table 10.

Table 9: Examples of the associative *-aan-*

|    | Verb root | Gloss  | Associative *-aan-* | Gloss             |
|----|-----------|--------|---------------------|-------------------|
| a. | *-lek-*   | leave  | *-lekaana*          | leave each other  |
| b. | *-sang-*  | find   | *-sangaana*         | meet              |
| c. | *-gabh-*  | divide | *-gabhaana*         | share             |

Table 10: Examples of the associative *-aan-/-an-*

|    | Verb root | Gloss                      | Associative  | Gloss                          |
|----|-----------|----------------------------|--------------|--------------------------------|
| a. | *-fu-*    | die                        | *-fw-aan-a*  | quarrel                        |
| b. | *-nó-*    | drink                      | *nw-aan-a*   | become friends or well-mixed   |
| c. | *-lag-*   | say goodbye to king        | *lag-an-a*   | promise                        |
| d. | *-sas-*   | make bed                   | *sas-an-a*   | take from each other by force  |
| e. | *-tong-*  | claim for payment of debt  | *tong-an-a*  | quarrel                        |

Although the forms *-fu-, -nó-, -lag-, -sas-,* and *-tong-* by themselves are found in the language, their current meanings have nothing to do with the associative forms.

As examples in (9) below show, the associative *-i-/-an-* is valence-decreasing; the affixes can only license an external argument.

(9)  a.  *ßa-la-i-las-a*
         SM2-PAST-REC-shoot.with.arrows-FV
         'They shot each other with arrows.'

     b.  *ßa-la-las-an-a*
         SM2-PAST-REC-shoot.with.arrows-FV
         'They shot each other with arrows.'

## 2.8 The reversive: *-ul-/-uk-~-uul-/-uuk-~-ulul-/-uluk-*

Although there is variation in the form of the reversive extension, the overall meaning is the same: it denotes the opposite of the meaning of the verb root.

The reversive involves both the active and stative/neuter forms.[2] Examples are given in Table 11 and Table 12.

Table 11: Examples of the reversive active *-ulul-*

|     | Verb root | Gloss | Reversive active | Gloss |
| --- | --- | --- | --- | --- |
| a. | *-anz-* | spread e.g. bedclothes | *-anz-ulul-a* | take off sth spread |
| b. | *-ßamb-* | peg out | *-ßamb-ulul-a* | unpeg |
| c. | *-tung-* | thread | *-tung-ulul-a* | unthread |
| d. | *-fung-* | close | *-fung-ulul-a* | open |
| e. | *-gongom-* | bend; stoop | *-gongom-ul-a* | raise |
| f. | *-semb-* | tie with rope/ bandage | *-semb-ul-a* | unwrap; untie |

Table 12: Examples of the reversive stative *-uluk-*

|     | Verb root | Gloss | Reversive stative | Gloss |
| --- | --- | --- | --- | --- |
| a. | *-anz-* | spread e.g. bedclothes | *-anz-uluk-a* | (of bed) have bedclothes taken off |
| b. | *-ßamb-* | peg out | *-ßamb-uluk-a* | become unpegged |
| c. | *-tung-* | thread | *-tung-uluk-a* | be become unthreaded |
| d. | *-fung-* | close | *-fung-uluk-a* | be opened |
| e. | *-gongom-* | bend; stoop | *-gongom-uk-a* | be raised |
| f. | *-semb-* | tie with rope/ bandage | *-semb-uk-a* | become unwrapped or untied |

All the above cases show that the reversive extension is suffixed directly to the verb root. There are some cases, however, where the basic verb root does not exist in its simple form. Here we have what we may call "complex verb roots"; but

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[2]The *-ulul-* extension may also be considered to be a "double reversive" *-ul-ul-* (an intensive reversive), while *-uluk-* may be regarded as a combination of the reversive extension *-ul-* followed by the reversive stative *-uk-*.

the reversive suffix is never attached to them directly. The examples in Table 13 illustrate this point.

Table 13: Examples of the reversive *-ul-*

|     | Verb root | Gloss | Reversive | Gloss |
| --- | --- | --- | --- | --- |
| a. | *-anikil-* | spread out to dry | *-an-ul-a* | take in sth spread out to dry |
| b. | *-hanik-* | hang up | *-han-uul-a* | take down sth suspended |
| c. | *-higik-* | arrange cooking stones | *-hig-ul-a* | move (e.g. cooking stones) |
| d. | *-siβik-* | tether | *-siβ-ul-a* | untether |

In Table 13, comparison of the reversive forms with the complex verb roots shows that the "complex verb roots" have been reanalyzed; they have been shortened to *-an-, -han-, -hig-,* and *-siβ-,* respectively, before the attaching of the reversive extension. The "shortened" roots in the reversive are probably older forms which are no longer used. Swahili has a similar pattern, e.g. *-anik-* 'spread out to dry', *-an-u-a* 'take in sth spread out to dry'; *-angik-* 'hang up; suspend', *-ang-u-a* 'pick; knock down'.

Regarding valence, the active reversive *-ul-* is valence-maintaining, while the stative *-uk-* is valance-decreasing. Overall, the extension is slightly productive.

## 2.9 The persistive *-ilil-, -ilizi-*

Guthrie (1971: 144) uses the term "persistive" for *\*-idid-*, which is reflected in Sumbwa as *-ilil-*. The form is literally the doubling of the applicative *-il-* which is why Johnson (1939) called it "double-prepositional". The extension, however, does not have any applicative meaning; rather, it denotes action performed persistently or continuously but intensively. This is probably why Ashton (1947: 214, 243–245) uses the term "augmentative".

The second extension, *-ilizi-*, is assumed to be a direct outcome of the spirantization that occurred from a combination of *\*-idid-* + *-i-* (causative).

Both of these extensions occur in many Eastern Bantu languages, although only slightly productively. For instance, in Swahili, where the *\*-idid-* extension is no longer very productive, we have: *-end-* 'go' > *-end-ele-a* 'progress', *-shik-* 'hold'> *-shik-ili-a* 'hold on tightly or insist', *-pend-* 'like' > *-pend-ele-a* 'favour';

and for *\*-idid- + -i-* we have: *-end-* 'go' > *-end-elez-a* 'cause to progress', etc. (Ashton 1947: 214, 243–245).

In Sumbwa, *-ilil-* occurs mostly with the meaning of 'persistence, continuity or intensity', while *-ilizi-* occurs with two meanings: 1) doing sth persistently, continuously or intensively, and 2) doing sth persistently, continuously or intensively for payment. Given these meanings, the extension does not trigger any change in the basic valence of the verb. We exemplify each of these below.

### 2.9.1 The persistive *-ilil-*

This extension is illustrated in the examples in Table 14.

Table 14: Examples of the persistive *-ilil-*

|     | Verb root | Gloss | *-ilil-* | Gloss |
|-----|-----------|-------|----------|-------|
| a.  | *-ling-*  | look  | *-ling-ilil-a* | look at for a long time |
| b.  | *-lind-*  | await | *-lind-ilil-a* | await for a long time |
| c.  | *-lond-*  | follow | *-lond-elel-a* | follow for a long time |
| d.  | *-sek-*   | laugh | *-sek-elel-a* | laugh for a long time |
| e.  | *-kwáát-* | hold, seize | *-kwáát-ilil-a* | hold firmly for a long time |

We also note probable instances of lexicalization in the two examples in Table 15.

Table 15: Examples of lexicalized persistive *-ilil-*

|     | Verb root | Gloss | persistive *-ilil-* | Gloss |
|-----|-----------|-------|---------------------|-------|
| a.  | *-mani-*  | know  | *-mani-ilil-a* | get accustomed to |
| b.  | *-fuk-*   | pour (water) | *-fuk-ilil-a* | irrigate |

It should be noted that the meanings of the extended verb bases *-mani-ilil-* and *-fuk-ilil-*, though relatable to the meaning 'doing sth persistently, continuously or intensively', may be argued to be qualitatively different from the meanings of the verb roots *-mani-* and *-fuk-*.

### 2.9.2 The persistive: *-ilizi-*[1]

The extension *-ilizi-*[1] retains much of the meaning 'doing sth persistently, continuously or intensively', as the examples in Table 16 show.

Table 16: Examples of persistive *-iliz-₁*

|   | Verb root | Gloss | *-ilizi-¹* | Gloss |
|---|---|---|---|---|
| a. | *-an-* | groan | *-an-ilizi-a* | groan for a long time; yell |
| b. | *-anguh-* | hasten | *-anguh-ilizi-a* | hasten overmuch |
| c. | *-gum-* | harden | *-gum-ilizi-a* | persevere |
| d. | *-gelek-* | put sth on top of another | *-gelek-elezi-a* | pile up to the top |
| e. | *-kooβ-* | look for | *- kooβ-elezi-a* | search for a long time |

### 2.9.3 The persistive: *-ilizi-²*

The extension *-ilizi-²*, besides the meaning 'doing sth persistently, continuously or intensively', has the meaning 'doing some work continuously for payment'. Examples are given below:

Table 17: Examples of persistive *-iliz-₂*

|   | Verb root | Gloss | *-ilizi-²* | Gloss |
|---|---|---|---|---|
| a. | *-diim-* | herd | *-diim-ilizi-a* | herd for payment |
| b. | *-hakul-* | harvest honey from beehive | *-hakul-ilizi-a* | harvest honey for payment |
| c. | *-tumam-* | work | *-tumam-ilizi-a* | work for payment |
| d. | *-fufúúl-* | clear farm ready for planting | *-fufúúl-ilizi-a* | clear farm for payment |
| e. | *-lim-* | cultivate | *-lim-ilizi-a* | cultivate for payment |

The use of this extension for the meaning 'doing some work continuously for payment' is still moderately productive, i.e. it can be used with any verb describing work that one does for payment.

## 2.10 Frequentative *-agul, -aguk-*

These are moderately productive extensions, not only in Sumbwa but also in related languages, e.g. Sukuma (Richardson & Mann 1966) and Nyamwezi (Mag-

anga & Schadeberg 1992). I follow Guthrie (1971: 144) in using the term "frequentative" for these extensions. Other terms have also been used: for example, augmentative (Lodhi 2002) and iterative-separative (Maganga & Schadeberg 1992: 167).

I take *-agud-* to be present in Proto-Bantu as reconstructed by Guthrie (1971: 144). I also assume that the stative form *-aguk-* was also present.[3] In Sumbwa, these extensions are reflected as *-agul-* and *-aguk-*.

The usual meaning for these extensions is 'doing something quickly or hurriedly, excessively or clumsily, and repeatedly'; *-agul-* has an active meaning, and does not add any argument to the basic valence of a verb, while *-aguk-* has a stative meaning, and deducts an argument from the basic valence of a verb. The various contexts in which these extensions occur are spelt out below.

### 2.10.1 Examples involving both extensions

These examples include verbs which are transitive when used with *-agul-* but become intransitive when used with *-aguk-*. Consider Table 18:

Table 18: Examples involving frequentative *-agul-*, *-aguk-*

| | Verb root | Gloss | Frequentative active | Gloss | Frequentative stative | Gloss |
|---|---|---|---|---|---|---|
| a. | *-simb-* | dig | *-simb-agul-a* | dig intensively | *-simb-aguk-a* | become dug up intensively |
| b. | *-bel-* | break | *-bel-agul-a* | break into small pieces | *-bel-aguk-a* | be broken into small pieces |
| c. | *-kat-* | cut | *-kat-agul-a* | cut into small pieces | *-kat-aguk-a* | be cut into small pieces |
| d. | *-kuul-* | extract; uproot | *-kuul-agul-a* | extract/ uproot repeatedly | *-kuul-aguk-a* | become extracted/ uprooted intensively |
| e. | *-dul-* | bore | *-dul-agul-a* | pierce with many holes | *-dul-aguk-a* | be riddled with many holes |

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[3]Another possibility would be to assume *-agul-* and *-aguk-* to have evolved as a combination of *-ag-* (frequentative) and *-ul-* (intensive, active) and *-uk-* (intensive, stative). The extension *-ag-/-ang-* is glossed as "repetitive" and noted to behave "tonally as an extension" but functions also as an inflectional suffix with the meaning "durative/habitual" (Schadeberg 2003: 72).

### 2.10.2  Examples involving *-agul-* only

There are many verbs which take the *-agul-* extension, but not *-aguk-*. In Table 19 are a few examples. As can be noted here, the verbs involved are all transitive verbs which do not allow the *-aguk-* extension.

Table 19: Examples involving *-agul-* only

|  | Verb root | Gloss | Frequentative active | Gloss |
|---|---|---|---|---|
| a. | *-βoh-* | tie | *-βoh-agul-a* | tie clumsily and quickly |
| b. | *-βeez-* | carve | *-βeez-agul-a* | carve clumsily |
| c. | *-tuk-* | insult | *-tuk-agul-a* | insult excessively |
| d. | *-tah-* | draw (water, etc.) | *-tah-agul-a* | draw (water, etc.) excessively or quickly |
| e. | *-moog-* | shave | *-moog-agul-a* | shave clumsily |

### 2.10.3  Examples involving *-aguk-* only

Notice that all the verbs involved here are intransitive, and the suffixing of *-aguk-* to the verb root results in some sort of 'state' or 'condition'.

Table 20: Examples involving *-aguk-* only

|  | Verb root | Gloss | Frequentative stative | Gloss |
|---|---|---|---|---|
| a. | *-lul-* | be bitter | *-lul-aguk-a* | become excessively bitter |
| b. | *-gin-* | be fat | *-gin-aguk-a* | become excessively fat |
| c. | *-duuh-* | be blunt | *-duuh-aguk-a* | become blunt quickly |
| d. | *-nunk-* | smell | *-nunk-aguk-a* | stink |

### 2.10.4  Cases involving -CVCVC- verb roots

All the above examples involve -CVC- verb roots, which represent the overwhelming majority of verbs targeted by these extensions. Occurrence of these

Table 21: Cases involving -CVCVC- verb roots

|     | Verb root | Gloss | Frequentative active | Gloss |
|-----|-----------|-------|---------------------|-------|
| a.  | *-tafun-* | chew  | *-tafun-agul-a*     | chew intensively or clumsily |
| b.  | *-heken-* | chew  | *-heken-agul-a*     | chew excessively |

extensions with -CVCVC- verb roots is not commonly observed, although the examples in Table 21 have been attested.

It should be noted that the majority of -CVCVC- verb roots may take any of the extensions after the elision of the final VC. In Tables 22 and 23 are some examples.

Table 22: Examples of frequentative *-agul-* in -CVCVC- verb roots

|     | Verb root | Gloss | Frequentative active | Gloss |
|-----|-----------|-------|---------------------|-------|
| a.  | *-hepul-*  | cause to be hungry | *-hep-agul-a* | cause to be excessively hungry |
| b.  | *-hogol-*  | break sth off | *-hog-agul-a* | break sth off quickly |
| c.  | *-gangul-* | crack sth | *-gang-agul-a* | crack sth quickly |
| d.  | *-tandul-* | tear | *-tand-agul-a* | tear quickly or excessively |

As can be noted here, the verb roots *-hepul-, -hogol-, -gangul-, -tandul-, -sambul-*, and *-konyol-* are not used with the extensions;[4] instead, the truncated forms, i.e. *-hep-, hog-,* etc. are used.

**2.10.5 Cases of lexicalization of *-agul-, -aguk-***

Cases of lexicalization include words whose verb roots do not have any meaning connection with the extended form. These words include the examples in Table 24. The asterisk (*) in the verb-root column indicates that these are not attested verb roots but "reconstructed" ones.

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[4]It is possible that the *-ul-* in *-hep-ul-, -hog-ol-, -tand-ul-,* etc. was once used as an extension in prehistory.

Table 23: Examples of frequentative *-aguk-* in -CVCVC- verb roots

|    | Verb root | Gloss | Frequentative stative | Gloss |
|----|-----------|-------|-----------------------|-------|
| a. | *-hepul-* | cause to be hungry | *-hep-aguk-a* | become excessively hungry |
| b. | *-hogol-* | break sth off | *-hog-aguk-a* | become broken off quickly |
| c. | *-gangul-* | crack sth | *-gang-aguk-a* | become cracked quickly or excessively |
| d. | *-tandul-* | tear | *-tand-aguk-a* | become torn quickly or excessively |

Table 24: Cases of lexicalization of *-agul-* and *-aguk-*

|    | Verb root | Frequentative active | Gloss | Frequentative stative | *Gloss* |
|----|-----------|----------------------|-------|-----------------------|---------|
| a. | *\*-ken-* | *-ken-agul-a* | destroy; spoil | *-ken-aguk-a* | become destroyed/ spoiled |
| b. | *\*-pos-* | *-pos-agul-a* | break into many pieces | *-pos-aguk-a* | become broken into many pieces |
| c. | *\*-tamp-* | *-tamp-agul-a* | pierce repeatedly with pointed weapon | *-tamp-aguk-a* | become riddled with piercings |
| d. | *\*-hunz-* | *-hunz-agul-a* | exhaust | *-hunz-aguk-a* | be exhausted |

The asterisk (*) in the verb-root column indicates that these are not attested verb roots but "reconstructed" ones.

## 2.11 The denominative *-h-*, *-ahal-*

These extensions are used in the derivation of verbs from nouns or adjectives. In Table 25 are examples.

There are many more examples. The above derived examples may in turn accept other extensions, such as causative, applicative and passive.

Table 25: Examples of the denominative *-h-* and *-ahal-*

|  | Adjective or nominal base | Gloss | Derived verb | Gloss |
|---|---|---|---|---|
| a. | *-angu* | quick | *angu-h-a* | hurry |
| b. | *-gazi* | wide | *gazi-h-a* | become wide |
| c. | *-ganzi* | favourite | *ganzi-h-a* | become favourite |
| d. | *-bhanz* | brave | *bhanzi-h-a* | become brave |
| e. | *-ingi* | many | *ingi-h-a* | become many |
| f. | *-daasa* | sterile (of animals) | *daas-ahal-a* | become sterile |
| g. | *-guzu* | strength | *-guzu-ahal-a* [guzuhala] | become strong |

## 2.12 The reiterative: *-ul-, uul-*

This term is Guthrie's (1971: 144), and the implication is one of "added quantity or quality or intense effort". The actual meaning will depend on the meaning of the root. In Sumbwa, there appears to be two forms of this extension: *-uul-* and *-ul-*. Examples for the first one are in Table 26.

Table 26: Examples of the reiterative *-uul-*

|  | Verb root | Gloss | Reiterative *-uul-* | Gloss |
|---|---|---|---|---|
| a. | *-kam-* | squeeze (as when milking cow) | *-kam-uul-a* | squeeze tightly (as when preparing juice with hands) |
| b. | *-kemb-* | trim; pare | *-kemb-uul-a* | trim evenly |
| c. | *-tah-* | draw (e.g. water) | *-tah-uul-a* | scoop or draw in large quantities |
| d. | *-han-* | admonish | *-han-uul-a* | advise strongly |
| e. | *-sem-* | bevel | *-sem-uul-a* | cut evenly a large portion of |

As can be seen, the meanings include 'squeeze tightly', 'trim evenly', 'draw in large quantities', 'advise strongly', and 'cut a large portion of'. There are also a few items where the *-ul-* instead of *-uul-* is used, as in Table 27.

Table 27: Examples of the reiterative *-ul-*

|     | Verb root | Gloss | Reiterative *-ul-* | Gloss |
|-----|-----------|-------|---------------------|-------|
| a.  | *-simb-*  | dig   | *-simb-ul-a*        | uproot |
| b.  | *-hel-*   | grind coarsely | *-hel-ul-a* | grind excessively coarsely |
| c.  | *-seng-*  | cut   | *-seng-ul-a*        | cut trees for building |

The reiterative *-ul-* and *-uul-* extension is only slightly productive and does not affect the basic valence of the verb.

## 2.13 The static *-am-*

The general meaning for this extension is 'assume or be in a position or state'. Consider the examples in Table 28.

Table 28: Examples of the static *-am-*

|     | Verb/nominal root | Gloss | Static *-am-* | Gloss |
|-----|-------------------|-------|---------------|-------|
| a.  | *-fuk-*   | kneel | *-fuk-am-a*   | kneel obediently; menstruate |
| b.  | *i-papa*  | wing  | *-pap-am-a*   | beat (of bird's wing); palpitate |
| c.  | *-gazi*   | wide  | *-gaz-am-a*   | widen |
| d.  | *-gond-*  | bend  | *-gond-am-a*  | bend |
| e.  | *-hanga*  | alive | *-hang-am-a*  | live for a long time |

In Table 28, examples a and d involve verb roots; example b involves a noun, and c and e involve adjectival roots. The static meaning of the derived verb is quite clear.

There are also some examples involving verb roots whose meanings have been lost but may be recoverable through connection with related static and impositive derived forms. In Table 29 are examples.

All the static forms in Table 28 and Table 29 may take the applicative and causative extensions. As can be noted, the extension is only slightly productive.

Table 29: Examples of the static *-am-* involving verb roots whose meanings have been lost

|     | Verb root | Gloss | Static *-am-* | Gloss | Impositive forms |
|-----|-----------|-------|---------------|-------|------------------|
| a.  | *-gol-*   | *     | *-gol-am-a*   | INTR bend | *-go-lek-a* (TR bend) |
| b.  | *-heng-*  | *     | *-heng-am-a*  | INTR tilt | *-heng-ek-a* (TR tilt) |
| c.  | *-send-*  | *     | *-send-am-a*  | be leaning | *-send-ek-a* (TR lean sth against sth else) |
| d.  | *-in-*    | *     | *-in-am-a*    | bend, stoop | *-in-ik-a* (TR lay over on one side) |

## 2.14 The contactive: *-at-*

This extension is not productive. The original meaning of the extension implies some contact by an agent on a beneficiary or patient. In Table 30 are the few examples available in our data.

Table 30: Examples of contactive *-at-*

|     | Verb root | Gloss | Contactive *-at-* | Gloss |
|-----|-----------|-------|-------------------|-------|
| a.  | *-kwa-*   | ---   | *-kwa-at-a*       | hold |
| b.  | *-kumb-*  | cover | *-kumb-at-a*      | embrace |
| c.  | *-fumb-*  | close | *-fumb-at-a*      | embrace |
| d.  | *-lam-*   | ---   | *-lam-at-a*       | stick firmly; adhere |

In these examples, only *-fumb-* and *-kumb-* have meanings that may be grasped by a native speaker. The other verb roots have no meaning that may be related to the meaning of the extended bases. The extension does not change the basic valence of the verb.

## 2.15 Other less-known verb extensions

In the data we have, there are four non-productive extensions, *-agil-*, *-agan-*, *-al-* and *-l-*.

### 2.15.1 *-agil-*

This is probably a combination of *-ag-* (a repetitive extension, cf. Schadeberg 2003: 96) and the applicative *-id-*. In Sumbwa, it appears to have a 'persistive meaning', as the examples in Table 31 show.

Table 31: Examples involving *-agil-*

| | | | | |
|---|---|---|---|---|
| a. | *-sunt-* | limp | *sunt-agil-a* | limp along |
| b. | *-yomb-* | speak | *yomb-agil-a* | talk too much |
| c. | *-kand-* | step on | *kand-agil-a* | walk fast in hot sun |
| d. | *-kump-* | stumble | *kump-agil-a* | stumble along |
| e. | *-don- ?* | ? | *don-agil-a* | start to walk (infant) |
| f. | *-met- ?* | shine | *met-agil-a* | strut about |
| g. | *-kum- ?* | gather | *kum-agil-a* | move |
| h. | *-zwi-* | ideophone | *zwi-agil-a [zwiigila]* | squack (like a baby) |

Notice that the only examples where there is a close relation between the basic root and the extended base are the first four. The last example *-zwi-* is ideophonic: it imitates the cry of an infant. In the data we have, there are only about ten words with the *-agil-* extension.

### 2.15.2 *-agan-*

This also appears to be a persistive extension. There are not many examples (Table 32).

Table 32: Examples involving *-agan-*

| | | | | |
|---|---|---|---|---|
| a. | *ßumb-* | mould (with clay) | *ßumb-agan-a* | stick together (soil) |
| b. | *-om- (intr)* | harden; dry | *om-agan-a* | harden from drying; solidify |
| c. | *-vimb-* | swell | *vimb-agan-a* | swell very much |
| d. | *-tab-* | confuse | *tab-agan-a* | get quite confused |
| e. | *-tonto(lok)-* | weaken | *tonto-gan-a* | weaken further |

As can be observed here, the examples show a clear meaning relationship between the root and the extended base. There is, however, one example where the *-agan-* extension functions as a denominative extension:

(10)  *ma-paβa*       mischief       *-paβ-agan-a*       be mischievous

In this example, *-paβa* 'mischief' is a nominal stem; when suffixed with *-agan-* it changes into a verb.

### 2.15.3  *-al-*

The *\*-ad- > -al-* extension was recognized by Meeussen (1967: 90), but he notes that it 'appears partly as an expansion, partly as a suffix with ill-defined meaning'. Examples given include: *\*-dúad-* 'be ill', *\*-démad-* 'be crippled', *\*-ikal-* 'sit' whose Sumbwa reflexes are*: -lúal-, -lémal-, -ikal-,* respectively. Schadeberg (2003: 72) calls it "extensive", by which he means 'to be in a spread-out position'. This meaning is probably borne out by such Sumbwa words as *-samb-aal-a* 'spread', but there are not many. However, inspection of the various examples in Sumbwa shows that there is no single meaning that may be attributed to this extension. For some of the examples, the meaning of this extension is 'change into a state', as illustrated in Table 33 below:

Table 33: Examples involving *-al-* 'change into a state'

|  | Verb/nominal root/ stem | Gloss | *-al-* | Gloss |
|---|---|---|---|---|
| a. | *syaha* (n) | anger | *syah-al-a* [syaahala] | be angry |
| b. | *-humb-* | be stupid | *-humba-al-a* [humbaala] | lose one's mind |
| c. | *-lema* (n) | lame | *-lem-al-a [lemala]* | become lame |

For the remaining few examples, there are different senses attached to the extension. For instance, the extension has an intensive meaning in the examples in Table 34.

Table 34: Examples involving *-al-* 'intensive'

|  |  |  |  |  |
|---|---|---|---|---|
| a. | *-sees-* | pour out, e.g. water | *seesek-al-a [seesekala]* | pour out completely |
| b. | *-siis-* | spoil (TR) | *siisik-al-a [siisikala]* | spoil completely |

In our last example, *-al-* acts as a denominative suffix, creating a verb which indicates action:

(11)  *i-suβa*      urine container      *-suβa-al-a* [suβaala]      urinate

In this example, *–suβa* 'urine container' is a nominal stem; if suffixed with *-al-* it changes into the verb *-suβa-al-a.*

### 2.15.4  *-l-*

This extension is also noted by Meeussen (1967: 91), and he gives examples such as *\*-ganud-* 'narrate' < *\*-ganú* 'tale', *-púmúd-* 'breathe', *\*-púmu* 'breath, rest', *\*-pokud-* 'make blind' < *\*-poku* 'blind', etc. In Sumbwa, examples showing the *-l-* extension are presented in Table 35.

Table 35: Further examples involving *-l-* (with various meanings)

| | | | | |
|---|---|---|---|---|
| a. | *-hofu* | 'blind' | *-hofu-l-a* → *[hofula]* | 'be blind' |
| b. | *-panti* | 'deaf' | *-panti-l-a* → *[pantila]* | 'become deaf' |
| c. | *-sefu* | 'nausea' | *-sefu-l-a* → *[sefula]* | 'nauseate' |

As can be seen in Table 35, the meaning of the examples a and b is 'change into a state', but the meaning of example c *-sefu-l-a* 'to nauseate' is causative.

## 3  Co-occurrence constraints

Co-occurrence constraints, otherwise referred to as "suffix ordering" constraints in the literature, have been the subject of intense discussion in Bantu linguistics studies for quite some time (cf. e.g. Baker 1985, Alsina 1999, Hyman 2002). The main debate is whether there are Pan-Bantu constraints that govern multiple affixation. Three main approaches may be identified: a semantic or compositional approach (whereby affix order is based on 'relevance' – the most relevant is closer to the verb root, and the least farthest from the verb root – cf. Bybee (1985)); a syntactic approach (whereby affix ordering reflects syntactic derivation, cf. Baker's (1985) "mirror principle") and the strictly morphological approach (whereby suffix ordering is strictly governed by morphological criteria in the majority of cases, while exceptions are handled in reference to semantic or syntactic criteria cf. Hyman 2002). For our purposes, we consider Hyman's (2002) morphocentric approach to be germane as a point of departure. We summarize

the main ideas, and consider whether the proposed orderings are supported by the Sumbwa data.

Hyman (2002), using the Optimality Theory framework, assumes that Bantu suffix ordering is determined by the ranking of two licensors:

1. CARP (CAUS – APPL – RECP – PASS) Template – which licenses suffix ordering in most Bantu languages; quite general and highly ranked;

2. Non-templatic constraints (i.e. semantic compositionality or MIRROR constraints which deal with all cases which do not follow the CARP template).

To formulate these postulates, Hyman used data from Chichewa, Kinande, Chibemba, Chimwiini, Luganda, Ciyao, Emakua, Nyakyusa, Tonga and other Bantu languages. Table 36 shows some examples of suffix orders licensed by the two proposed licensors: the CARP template and the non-templatic constraints. The suffix order examples are from Chichewa: *-mang-* = 'tie', *-its-* = CAUS, *-ir-* = APPL, *-an-* = RECP.

Table 36: Examples of suffix ordering in Bantu

| Suffix orders governed by the CARP template | Suffix orders governed by non-templatic constraints |
|---|---|
| CAR *mang-its-ir-an*<br>'cause to tie for each other' | CRA *mang-its-an-ir-an-*<br>'cause to tie for each other' |
| CA *mang-its-ir*<br>'cause to tie for' | |
| AR *mang-ir-an*<br>'tie for each other' | |

Now, what is the situation like in Sumbwa? One important difference which sets Sumbwa (and other similar languages) apart from languages like Chichewa is that the former does not have a productive reciprocal/associative extension *-an-*; instead, reciprocity is expressed by the pre-verb root *-i-*, which is also a reflexive marker (cf. §2.7). Due to its pre-verb root position, the reciprocal *-i-* cannot participate in suffix ordering. We have to keep this in mind as we present the suffix ordering facts as they pertain to Sumbwa.

The first attempt to state Sumbwa suffix ordering constraints was in Kahigi (2008b: 71). Below I present a modified statement of these constraints:

1. An affix type cannot be repeated in the same verb stem (as Table 36 shows, there is repetition of *-an-* in Chichewa *-mang-its-an-ir-an-*; this does not occur in Sumbwa). The only exception observed has to do with one verb, *-zi-* 'go', and the applicative extension, as shown below:

(12)   a.  *a-la-zi-a*
           SM1-PST-go-FV
           'he went'

       b.  *a-la-zi-il-a*       *si-ntu*
           SM1-PST-go-APPL-FV 7-thing
           'he went for sth'

       c.  *a-la-mu-zi-il-il-a*       *si-ntu*
           SM1-PST-OM1-go-APPL-APPL-FV 7-thing
           'he went for sth for him'

2. The maximum number of affixes that can co-occur in a verb stem is four. Example:

(13)  REV + FRE + PERS + PASS
      dod-ool-agul-iliz-ibhw-a   > [dodoólagulizibwa]
      sew-REV-FRE-PERS-PASS-FV
      'be caused to sew quickly for pay'

3. The Passive may follow the Bare Verb Root, applicative, instrumental, persistive, frequentative and causative.

(14)   a.  *-kat-u-a* → *[katwa]* 'be cut'                  VR+PASS

       b.  *-kat-il-u-a* → *[katilwa]* 'be cut for'          APPL+PASS

       c.  *-kat-iisi-iβu-a* → *[katiisiβwa]* 'be cut with'     INST+PASS

       d.  *-vig-ilizi-iβu-a* → *[vigiliziβwa]* 'be squeezed tightly'  PERS+PASS

       e.  *-kat-agul-u-a* → *[katagulwa]* 'be cut repeatedly'   FRE+PASS

       f.  *-kat-iisi-iβu-a* → *[katiisiβwa]* 'be caused to cut'   CAUS+PASS

4. The associative/reciprocal *-i-* may occur with the following: Bare Base, APPL, FRE, PERS. It never occurs with PASS and ST/NEU. As noted earlier (cf. §2.7), this associative marker is also the reflexive marker; hence, all such constructions are ambiguous.

(15)   a.   *-i-kat-a → [ikata]* 'cut each other'/'cut oneself'

     b.   *-i-kat-il-a → [ikatila]* 'cut for each other'/'cut for oneself'

     c.   *-i-kat-agul-a → [ikatagula]* 'cut each other repeatedly'/'cut oneself...'

     d.   *-i-kwat-ilil-a → [ikwaatilila]* 'hold each other tightly'/'hold oneself ...'

The associative *-an-* is predominantly restricted to -CVC- verb roots. In the data we have, there are only a few examples that show co-occurrence with other extensions:

(16)   a.   *-lek-an-iisi-iβu-a*      → [lekaniisiβwa]
      leave-RECP-CAUS-PASS-FV
      'be separated from each other'

     b.   *-βi-h-il-an-a*      → [βiihilana]
      bad-DEC-APPL-RECP-FV
      'be bad for each other' (i.e. 'be angry with each other')

     c.   *-li-iisi-an-a*   → [liisjana]
      eat-CAUS-RECP-FV
      'feed each other'

The meaning in (16b) suggests that the example *-βiihilana* ('be angry with each other') appears to be lexicalized.

5. In all co-occurrence cases, the Passive occurs last before the final element, FV.

The statements in 1 – 5 may be summarized as follows:

  1.   APPL + APPL

  2.   REV + FRE + PERS + PASS

  3.     a)   BB + PASS

      b)   APPL + PASS

      c)   INST + PASS

      d)   FRE + PASS

      e)   CAUS + PASS

  4.   Constructions with *-i-* (RECP) may allow APPL, FRE, PERS, but not PASS, ST/ NEU. On the other hand, constructions with *-an-* may allow the following orderings:

a) RECP + CAUS + PASS

b) DEN + APPL + RECP

c) CAUS + RECP

Considerations in this section lead to the following conclusions:

1. Sumbwa does not have a single example illustrating a complete CARP ordering.

2. The only examples that could be taken to partially follow the CARP template are: *-βi-h-il-an-a* (APPL + RECP), *-li-iisi-an-a* (CAUS + RECP) and PASS, which occurs last in the ordering.

3. The remaining examples do not fit in the CARP template.

## 4 Sumbwa verb extensions and parameters of Bantu morphosyntactic variation

Having presented the verb extensions in Sumbwa in §2 and the co-occurrence constraints in §3, we are now in a position to deal with the parameters of Bantu morphosyntactic variation as presented in Guérois et al. (2017). As pointed out in the introduction (§1), the relevant parameters are in §5 of the master list, i.e. parameters 36-48 which deal with verbal derivation. The parameters have to do with the canonical passive, the 'impersonal' passive, agent noun phrase, bare agent, reciprocal, other functions of *-an-*, causative, instrumental causative, applicative, applicative functions, multiple applicative extensions, neuter/stative, and the order of suffixes. The objective of the exercise is to provide data that may be used in identifying micro-variation among Bantu languages with respect to the proposed parameters. Some of the questions have already been answered in §2. In this section, we summarize the relevant points and provide further discussion of any points not covered in previous sections.

### 4.1 Canonical passive (Parameter 36)

A canonical passive is taken to be a normal passive which is a "construction by which the subject of an active clause is demoted to an oblique or remains unexpressed, while the object is promoted to subject status" (cf. Kula & Marten 2010: 2). It is thus a result of classical passivization, which involves a transitive verb, and which can be expressed in a rule format as $NP_1 + V + NP_2 \rightarrow NP_2 +$

V-*w-a* (*na* + NP₁), describing the canonical Swahili passive, where *-w-* represents the passive extension (with its allomorphs), *-a* the FV (with its allomorphs), and *na* the preposition that is the head of the optional oblique NP.

In Sumbwa, as in most Bantu languages, the canonical passive is expressed through a verbal extension. As shown in §2, passives in Sumbwa are marked by *-u-* (occurring after consonantal-final verb roots) and *-iβu-* (occurring after vowel-final verb-roots). Examples shown in §2.2 summarize the facts on Sumbwa passivization.

## 4.2 "Impersonal" passives (Parameter 37)

The so-called impersonal passives are non-canonical. A case in point is the *ba*-passive construction in Bemba, a language of Zambia, where "… the active clause subject, as in typical passives, is demoted to an oblique position introduced by a preposition or remains unexpressed. The preferred preposition to introduce agents is *ku-*/*kuli-* 'by', while *na* 'by/with' is more frequent with instruments" (Kula & Marten 2010: 118). An example of the *ba*-passive is given in (17) below, where (17a) is active while (17b) is passive:

(17)  Kula & Marten (2010: 119)

    a. *umw-áàna bá-alí-mu-ít-a    ku mu-mbúlu*
       1-child     SM2-PAST-OM1-call-FV by 3-wild.dog
       'The child was called by the wild dog.'

    b. *bá-alí-it-a     umw-áàna ku mu-mbúlu*
       SM2-PAST-call-FV 1-child     by 3-wild.dog
       'The child was called by the wild dog.'

A characteristic of the passive in (17b) is that "the theme argument is not clearly promoted to subject position: It remains in situ in post-verbal position" (Kula & Marten 2010: 119). This construction does not occur in Sumbwa.

## 4.3 Agent noun phrase (Parameter 38)

The agent noun phrase in Sumbwa is introduced by the preposition *ne*.

(18)  a. *mu-ana a-la-tem-a    mu-ti*
       1-child  SM1-PST-cut-FV 3-tree
       'the child cut a tree'

b.   *mu-ti gu-la-tem-w-a      ne mu-ana*
      3-tree SM1-PST-cut-PASS-FV by 1-child
      'a tree was cut by the child'

It is important to note that the agent noun phrase may be dropped if the focus is on the patient that is the new subject:

(19)   *mu-ti* GU-LA-TEM-W-A
       3-tree SM1-PST-cut-PASS-FV
       'a tree was cut'

There are also other constructions where the agent noun phrase is not needed, as noted in §2.2.

## 4.4  Bare agent (Parameter 39)

Can the preposition *ne* be omitted and the passive construction remain grammatical? In Sumbwa, such omission will always result in ungrammatical sentences, and is not allowed, as the following examples shows:

(20)   a.   *mu-ti gu-la-tem-w-a      ne mu-ana*
            3-tree SM1-PST-cut-PASS-FV by 1-child
            'a tree was cut by the child'
       b.   * *mu-ti gu-la-tem-w-a mu-ana*
            3-tree SM1-PST-cut-PASS-FV 1-child
            'a tree was cut by the child'

As can be noted here, (20a) with *ne* is grammatical, while (20b) without is not.

## 4.5  Reciprocal (Parameter 40)

As shown in §2.7, there are two reciprocal/associative markers in Sumbwa, *-i-* and *-an-*, the former occurring in pre-verbal position and the latter in post-verbal position. It should be noted that the marker *-i-* is the more frequent one. There are a few examples which use the extension *-aan-* instead of *-an-*. As already noted, *-i-* is also a reflexive marker, making it ambiguous. Examples are:

(21)   a.   *βa-la-li-il-an-a*
            SM2-PST-eat-APPL-REC-FV
            'they ate at each other's home'

b. * *βa-la-i-li-a*            [*βalíílja*]
    SM2-PST-PAST-REC-eat-FV
    'they ate each other'

As can be noted here, which of the two reciprocal/associative marker is used is not a free choice. The choice depends on several factors, some of which are:

1. The meaning of the verb involved; if the meaning is incongruous as in (21b) above the polysemous *-i-* is avoided

2. is restricted to shorter verb roots, usually -CVC-, and occasionally -CVCVC-

## 4.6 Other functions of the associative (Parameter 41)

In addition to the reciprocal function of the associative *-i-* and *-an-*, there are some examples which indicate the comitative function, as follows:

(22)    a.  *βa-la-gaβ-aan-a*
            SM2-PST-divide-ASS-FV
            'they shared'

        b.  *βa-la-lek-aan-a*
            SM2-PST-leave-ASS-FV
            'they separated'

There is also one example which does not indicate either reciprocal or comitative function:

(23)    *a-la-zí-an-a*     *i-kóóti*
       SM2-PST-go-ASS-FV 5-coat
       's/he took a coat with her/him' (literally: 's/he went with a coat')

## 4.7 Causative (Parameter 42)

The causative extensions are *-i-* and *-iisi-* (cf. §2.3). Briefly, these forms are distributed as follows: *-i-* occurs in verb roots with final consonants. It is accompanied by spirantization of /p, b, t, d, l, k, g/ into [f, v, s, z, z, s, z], respectively. *-iisi-* occurs in verb roots with final vowels or consonants. In the examples in Table 37, *a-* is the class 1 subject marker, and *-la-* is the past tense marker.

As can be seen in Table 37, the causative *-i-* in a–c involves two rules: spirantization (/b/ → [v], /d, g/ → [z] and gliding /i/→[j].

Table 37: Examples of the causative *-i-* and *-iisi-*

|  | Verb root | Causative *-i-* | Causative *-iisi-* |
|---|---|---|---|
| a. | *-ɓáámb-* 'peg out' | *a-la-ɓáámb-i-a* → *[álaɓáámvja]* 'he caused (sth) to be pegged out' | *a-la-ɓáámb-iisi-a]* →*[alaɓáámbíisja]* 'he caused (sth) to be pegged out' |
| b. | *-dod-* 'sew' | *a-la-dod-i-a* → *[aladozja]* 'he caused (sth) to be sewn' | *a-la-dod-iisi-a* → *[aladodeesja]* 'he caused (sth) to be sewn' |
| c. | *-og-* 'take a bath' | *a-la-og-i-a* → *[aloozja]* 'he bathed (sb)' | *a-la-og-iisi-a* → *[aloogeesja]* 'he bathed (sb)' |

## 4.8 Instrumental causative (Parameter 43)

As already noted in §2.4, the extensions *-i-* and *-iisi-* are used for the causative and instrumental. Consider the following example, which was given in §2.4 and is repeated here as (24).

(24) a. *[alamulíísja mwaana]*
       *a-la-mu-li-iisi-a*          *mu-ana*
       SM1-PST-OM1-eatCAUS-FV 1-child
       'She caused the child to eat.' (i.e. she fed the child)

   b. *[alalíísja siliko]*
      *a-la-li-iisi-a*          *si-liko*
      SM1-PST-eat-CAUS-FV 7-spoon
      'She ate with a spoon.'

   The first sentence is a causative construction while the second is an instrumental.

## 4.9 Applicative (Parameter 44)

Applicative constructions are formed by using the extension *-il-*, as was noted in §2.1.

## 4.10 Applicative functions (Parameter 45)

Of the five functions noted by Ashton (1947: 218–221) for the Swahili applicative, at least four may be recognized for Sumbwa, as exemplified in the examples given in §2.1, some of which are repeated in Table 38 for convenience.

Table 38: Examples of functions of the applicative

|    | Verb root | Applicative | Example |
|----|-----------|-------------|---------|
| a. | *-tem-a* 'cut' | *-tem-il-a [temela]* | *a-la-mu-tem-il-a          muti*<br>SM1-PST-OM1-cut-APPL-FV tree<br><br>'he cut a tree for her'<br>(Benefactive) |
| b. | *-iluk-a* 'run' | *-iluk-il-a* | *a-la-iluk-il-a          mu-numba*<br>SM1-PST-run-APPL-FV 17-house<br><br>'he ran into the house'<br>(Directional) |
| c. | *-húúl-a* 'whip' | *-húúl-il-a* | *a-ø-mu-húúl-il-a*<br>SM1-HAB-OM1-whip-for-FV<br>*βuzoβe*<br>laziness<br><br>'he whips her for laziness'<br>(Reason) |
| d. | *-dod-a* 'sew' | *-dod-il-a [dodela]* | *a-Ø–dod-il-a          kaaya*<br>SM1-HAB-sew-APPL-FV home<br><br>'he sews at home'<br>(Location) |

The 'reason' meaning expressed in c in Table 38 is also found in found in 'why' questions such as *a-Ø-mu-húúl-il-a si?* 'Why does he whip her?'. The location meaning in d agrees with the corresponding question *a-Ø-dod-il-a hi?* 'Where does he sew?'.

This multiplicity of functions of the applicative extension, recognized quite early by Bantuists (cf. Madan 1903: xii, Ashton 1947: 218–221), is true of many Eastern Bantu languages.

## 4.11 Multiple applicative extensions (Parameter 46)

In Sumbwa, as in other Bantu languages, there is what appears to be a "multiple applicative" extension due to the fact that it is a reduplication of the usual applicative extension, *-il-*. In this study, following Guthrie (1971: 144), we have called it the persistive *-ilil-* (cf. §2.9.1). In the Swahili-English Dictionary of 1939, Johnson called it "double prepositional".

Its function is to express intensity, repetition or completeness. It does not allow addition of an argument other than the one licensed by the verb root. This is shown in the following examples:

(25)  a.  *a-la-kwáát-a     si-ntu*
          SM1-PST-hold-FV 7-thing
          'he held a thing'

   b.  *a-la-mu-kwáát-il-a      si-ntu*
          SM1-PST-OM1-hold-APPL-FV 7-thing
          'he held a thing for him'

   c.  *a-la-kwáát-ilil-a      si-ntu*
          SM1-PST-hold-PERS-FV 7-thing
          'he held the thing tightly'

In (25a), the verb root *-kwáát-* allows an argument *sintu* (thing). In (25b), the applicative extension *-il-* allows an extra argument, marked as *-mu-* i.e. the object marker, while in (25c) the persistive *-ilil-* does not allow any extra argument other than the one allowed by the verb root *-kwáát-*. So, in general, the persistive does not allow addition of an argument.

In Sumbwa, however, we find one exception, which was given in (12) and is repeated as (26) below:

(26)  a.  *a-la-zi-a*
          SM1-PST-go-FV
          'he went'

   b.  *a-la-zi-il-a        si-ntu*
          SM1-PST-go-APPL-FV 7-thing
          'he went for sth'

   c.  *a-la-mu-zi-il-il-a          si-ntu*
          SM1-PST-OM1-go-APPL-APPL-FV 7-thing
          'he went for sth for him'

In (26a), the verb root *-zi-* 'go' does not allow an extra argument because it is intransitive. But the example in (26b), which is applicative, allows addition of one argument. In (26c), there is an addition of the applicative extension which is accompanied by the addition of an argument, *-mu-*, as beneficiary.

## 4.12 Neuter/stative (Parameter 47)

Bantuists have attributed two functions to the stative extension: to express state without implying agency, and to express "potentiality" (cf. Ashton 1947: 227–228).

In this study, we have covered the following extensions which express stative meanings in Sumbwa:

1. The usual stative marker *-ik-* (cf. §2.6)

2. The reversive stative *-uk-/-uuk-/-uuluk-* (cf. §2.8)

3. The frequentative stative *-aguk-* (cf. §2.10).

Since these extensions have been dealt with at length in the foregoing, reference should be made to the respective sections.

## 4.13 Order of suffixes (Parameter 48)

Co-occurrence constraints have been stated in §3. Here we shall be brief. Is there a specific order for Sumbwa productive verbal extensions? Does Sumbwa have the causative-applicative-reciprocal-passive (CARP) order postulated by Hyman (2002) for Bantu?

It is important to note, first, that, of the four extensions involved, i.e. causative, applicative, reciprocal, and passive, only three (causative, applicative and passive) enjoy very high productivity. The fourth, the associative/reciprocal, is expressed by two separate forms, *-i-* and *-an-*, of which the former is a pre-verb-root affix (and highly productive) and the latter is an unproductive extension. Given the fact that *-an-* is restricted mostly to -CVC- verb roots, and is currently unproductive, it becomes evident that *-an-* cannot have the freedom to combine freely with the other extensions.

Now, what are the orders that are allowed? These orders were spelt out in §3 above, but for convenience we present a few grammatical and ungrammatical examples here to show the orders allowed and not allowed:

(27)   a.   *-li-il-an-a*
           eat-APPL-REC-FV
           'eat at each other's home'                          APPL-REC

    b.   *-li-iisi-an-a*
         eat-CAUS-REC-FV
         'feed each other'                            CAUS-REC

    c.  * *-li-iisi-il-an-iβu-a*
         eat-CAUS-APPL-REC-PASS-FV
         'be caused to feed each other'        CAUS-APPL-REC-PASS (CARP)

    d.   *-lek-an-iisi-iβu-a*
         leave-REC-CAUS-PASS-FV
         'be caused to leave each other'            REC-CAUS-PASS

    e.   *-dod-ool-agul-iliz-ibhu-a*
         sew-REV-FRE-APPL-CAUS-PASS-FV
         'be caused to sew clumsily and quickly'    REV-FRE-PERS-PASS

    f.  * *-dod-iisi-il-an-ibhu-a*
         sew-CAUS-APPL-REC-PASS-FV
         'be caused to sew each other'       CAUS-APPL-REC-PASS (CARP)

The orders that are allowed are those in (27a, 27b, 27d, 27e). The orders in (27c) and (27f), based on the CARP hypothesis, are ungrammatical. Whether the orders above reflect non-templatic constraints as spelt out in Hyman (2002) is an issue for further study.

## 5 Conclusion

This study has revealed the following important facts about verb extensions in Sumbwa: their productivity, co-occurrence constraints, their valence possibilities, and their behavior in relation to the parameters of morphosyntactic variation proposed by Guérois et al. (2017).

The study reveals that most of the Proto-Bantu verb extensions reconstructed by Guthrie and Meeussen are still active in the language. The extensions may *roughly* be categorized into three groups: highly productive, moderately productive and least productive. The highly productive extensions are the applicative, passive, causative (also instrumental), stative, and frequentative. The pre-verbal associative *-i-* is also highly productive, while the status of the associative *-an-* needs further investigation. The moderately productive extensions are the persistive, reversive, impositive and denominative. The least productive are reiterative, static, contactive and other minor extensions. Overall, the productivity ranking

is similar to that in other Bantu languages (cf. Maganga & Schadeberg 1992, Ruge-malira 1993, 2005, Schadeberg 2003, Stegen 2002, Waweru 2005, Chabata 2007).

The study also shows that Sumbwa verb extensions may be categorized as either valence-increasing, valence-decreasing or valence-maintaining, as in Table 39.

Table 39: Extensions categorized in terms of valence

| Valence-increasing | Valence-decreasing | Valence-maintaining |
|---|---|---|
| Applicative | Passive | Reversive active |
| Causative | Stative/Neuter | Persistive |
| Instrumental | Associative | Reiterative |
| Impositive | Frequentative Stative | Frequentative active |
| | Reversive Stative | |

The categorization in Table 39 generally reflects the valence possibilities for most Bantu languages.

Furthermore, in the answer to the questions in the Master List of the Parameters of Morphosyntactic Variation, the study has revealed some interesting facts that may be useful in Bantu comparative morphosyntax. These are summarized in Table 40.

Most of the characteristics listed in Table 40 are found in the majority of Bantu languages. There are, however, characteristics that are peculiar to Sumbwa (and other languages similar to it). These include:

1. The reflexive-reciprocal syncretism marked by the pre-verb root affix *-i-*. Reciprocity is expressed in a productive way by *-i-*, while the Proto-Bantu reciprocal extension *-an-* occurs only in restricted contexts. This characteristic is not restricted to Sumbwa; it has been reported in Rimi (F.32; Olson 1964) and Rangi (F.33; Stegen 2002). Other zone F languages should be investigated in connection with this feature to find out whether it is a characteristic for the zone.

2. The causative-instrument syncretism marked by the causative extensions *-i-* and *-iisi-*. This syncretism has been discussed in the literature (cf. Wald 1998). In this case, Sumbwa belongs to Bantu languages which no longer uses *-il-* to mark the instrumental role.

Table 40: Characteristics of the Parameters manifested in Sumbwa

| No. | Topic | Important characteristics |
|---|---|---|
| 36 | Canonical Passive | 1. It is expressed through a verbal extension *-u-/-iβu-* <br> 2. There is no other strategy to express passivization. |
| 37 | "Impersonal" passive | There are no *ba*-passives |
| 38 | Agent Noun Phrase | The Agent NP in a passive construction is introduced by the preposition *ne* |
| 39 | Bare agent | The preposition which introduces the agent cannot be omitted. |
| 40 | Reciprocal | Through the use of the pre-verbal *-i-* (which is also the reflexive marker) and the suffix *-an-* |
| 41 | Other functions for *-an-* | Yes, it has the comitative function |
| 42 | Causative | It is expressed through suffixes *-i-* and *-iisi-* |
| 43 | Instrumental Causative | Yes, the causative extension is also used to introduce prototypical instruments |
| 44 | Applicative | Applicative constructions are formed through the use of the suffix *-il-* |
| 45 | Applicative functions | In addition to benefactive meaning, applicative constructions convey the following meanings: directional, location, reason. |
| 46 | Multiple applicative extensions | 1. What appears to be a case of multiple applicative extension (i.e. *-ilil-*), is in fact a persistive extension. <br> 2. The only possible case of multiple applicative extension is *-zi-il-il-a* 'go for (sth) for (sb) |
| 47 | Neuter/Stative | In addition to the stative *-ik-*, the language has the reversive stative and the frequentative stative. |
| 48 | Order of suffixes | 1. CARP is not possible in the language <br> 2. There is no systematic fixed order <br> 3. The Passive always occurs last. |

3. Sumbwa data do not support the CARP template as formulated in Hyman (2002). This is probably because the productive affix for reciprocity/associativeness is no longer *-an-* but *-i-* which occurs in pre-verb-root position and is not a suffix.

As a final remark, we need to stress the limited nature of this study and that all the above issues (and others listed in the above table) are of interest to Bantu comparative linguistics and require further in-depth investigation.

## Acknowledgements

## Abbreviations

| | | | |
|---|---|---|---|
| ACT | active | INTR | intransitive |
| AM | agreement marker | OM | object marker |
| APPL | applicative | PASS | passive |
| ASS | associative | PERS | persistive |
| BB | bare base | PST | past |
| CAUS | causative | RECP | reciprocal |
| CLI | clitic | REIT | reiterative |
| DEN | denominative | REV | reversive |
| FRE | frequentative | SM | subject marker |
| FRE-ACT | frequentative-active | ST | stative |
| FRE-ST | frequentative stative | TAM | tense-aspect-modal |
| FV | final vowel | | marker |
| HAB | habitual | TR | transitive |
| IMP | impositive | TRV | transitive verb |
| INST | instrumental | VR | verb root |

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