The metamorphosis of predicate extensions: A morpholexical study of verb extensions in the Shona language

***Francis Matambirofa*[1]**

Abstract

This article explores the behaviour of verb extensions in the Shona language from historical linguistics and empirical points of view. Its main thrust is based on two related arguments. The first is that not every extension can pair with every other verb in the language. I refer to the ability or otherwise of a given extension to couple and derive a meaningful construction with a verb as its semantic compatibility. The corollary is that there are semantic compatibility constraints that need to be accounted for, which impede a free-for-all co-occurrence of verbs and extensions in the language. The second related argument is that different extensions exhibit varying levels of semantic compatibility with verbs, a phenomenon that I refer to as productivity. The main argument of this article is therefore that the interfacing of semantic compatibility and productivity provides clues to groups of extensions' relative morpholexical evolution in the language.

Keywords: Shona language, verb extensions, semantic compatibility, verb productivity, metamorphosis, serial verb constructions, transitive verb, intransitive verb.

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1. Senior Lecturer, African Languages and Literature, University of Zimbabwe, Email: fmatambirofa@gmail.com

Introduction

In Bantu, when a verb participates in a morphosyntactic structure, it is often semantically modified by means of verb extensions[1] (cf. Guthrie 1970; Duranti and Byarushengo 1977; Trithart 1977; Baker 1988; Katamba 1983; Harford 1991; Rugemalira 1991, 1993; Matambirofa 2010). Extensions are bound verbal morphemes which have a semantic baggage of their own, separate and different from that of the host verb. A host verb to which such a morpheme is appended is traditionally known as a derived or extended verb. The most basic change subsequent to the attachment of an extension is morpho-semantic. The extended verb is morphologically longer in comparison to its base.

The central discussion of this article is built on two related observations, the elaboration of which forms the anchor of this exposition. The first observation is that not every extension can pair up with every other verb in the Shona language. I refer to the (in)ability of a predicate and an extension to couple and derive a meaningful construction as *semantic compatibility*. The corollary is that there are semantic compatibility constraints that impede a free coupling of lexical verbs with verb extensions in the language. The second observation is that different extensions are associated with varying levels of semantic compatibility with predicates, a characteristic which I refer to as *productivity*. The higher the number of verbs that a given extension is compatible with, the more productive it is said to be, and vice versa. Closely linked to these observations is the claim that a given extension's productivity is mainly a function of its relative age in the language[2]. It is the main object of this paper to demonstrate and/or account for the variation in semantic compatibility and productivity of verb extensions from both the empirical and qualitative points of view.

Relevant to the main point of this research is the fact that verb extensions alter the valence of the predicates to which they are attached in three fundamental ways. Extensions such as the *applicative* or the *causative* alter the grid of the verb by licensing one additional semantic argument. Extensions such as the *reciprocal* and the *passive* reduce or suppress by one the number of arguments that the non-derived verb carries. The last category comprises valence-neutral extensions such as the *intensive* and the *neuter/potential* which do not alter a verb's valence grid. Most important for the current discussion is the high variation with which different extensions semantically co-occur with various verbs. This partly dovetails with the theory that views the variations as sectorial[3] evidence of language change.

Related to the notion of language change, the paper argues that predicate extensions, in conformity with the imperceptible language change, give both synchronic as well as diachronic evidence of their individual evolution. Here, I broadly and loosely conceive of verb extensions as operating through a life-cycle that *symbolically* starts with birth and undergoes stages of youth, maturity, old age and, finally, death. This fits in with Croft's (1990:230) observation that "grammatical morphemes originate from lexical items, disappear through loss and reappear when new words become grammatical morphemes." In this scheme of analysis, these stages are not perceived as rules, but they act as analogies of different verb extensions' levels of participation in verb morphology[4]. The said stages, therefore, only act as a loose guide and mechanism through which I will argue for the age-range of categories of verb extensions. With reference to categories, the proposal is that productive extensions such as the *applicative* and the *passive* are broadly categorised as youthful. The mature category is that of extensions that are relatively stable but which, nonetheless, associate with numerically[5] fewer verbs *vis-à-vis* the youthful and/or active category. To this mature category belong such extensions as the *perfective*, *potential* and *reciprocal*. Extensions comprising the *reversive, impositive* and the *contactiv*e, most of which are non-argument changing, belong to the old-age category. Such extensions are practically spent forces, and are either totally or near-defunct. The final set comprises what I have referred to as the dead extensions. As may be expected, these are not overtly evident. I will demonstrate their diachronic existence through a deconstruction and/or resurrection method.

Methodology

This study of verb extensions, may be broadly described as straddling two schools of thought, viz; 1) the empirical, quantitative, and 2) the rationalistic, qualitative analytical approaches. It is partly quantitative to the extent that it examines and draws most of its conclusions and generalizations from a corpus of 200 randomly selected Shona predicates. It is partly rationalistic and qualitative because it is on the basis of this sample that the study arrives at particular deductions and generalizations relating to verb affixation in Shona. There is nothing special about the figure of 200. However, from a statistical point of view, and in linguistics, a sample of 200 may be safely used to extrapolate certain generalizations as it is considered big enough not to distort the subject of inquiry.

In terms of the predicates' sub-categorisation frames, the sample represents a mix of both transitive and intransitive verbs. No precautions were taken to balance the two categories as it was felt that this was unnecessary. Although I did not go into any details, among the intransitive verbs there are both accusative and non-accusative subtypes. Haegeman (1994: 323) describes accusative verbs as predicates that are 'associated with the properties of one-place intransitive verbs'. In elaboration of this point, Matambirofa (2010: 192) indicates that in Shona a verb like *svika* (arrive) is an accusative predicate that has an eternal argument which is agentive while a verb like *rara* (sleep) is a non-accusative predicate that has an internal argument which is patient-like. Again, no special precaution was taken to balance verbs from these subcategories as I felt that it was unnecessary to do so. I am currently unaware of the extent, if at all, to which these sub-categorisation frames may distort the results. Taking a detour to investigate this phenomenon is quite interesting; unfortunately it falls outside the scope of this article.

It is also important to point out that the sample that I worked with was randomly generated from my own observations. This approach fits in with what Newmeyer (1983: 48) describes as the practice of 'generativists' who 'use themselves as informants in collecting data…'[6] After the two hundred verbs had been listed, a total of thirteen different verb extensions in Shona were used to test verb-extensions' semantic compatibility. Table 1 below demonstrates the different extensions and how they combine with different verbs.

Table 1: Verb extensions in Shona

Verb Extension	Shape	Example	Gloss
i) Applicative	-ir- /-er-	bik-**ir**-a	cook for
ii) Causative	-is- /-es- /-y-	bik-**is**-a	make cook
iii) Passive	-iw-/-ew- /-w-	bik-**w**-a	be cooked
iv) Intensive	-is- / -es-	bik-**is**-a	cook much
v) Potential	-ik- / -ek-	bik-**ik**-a	be 'cookable'
vi) Reciprocal	-an-	bik-**an**-a	cook each other
vii) Perfective	-irir- /-erer-	bik-**irir**-a[7]	cook nicely
viii) Reversive	-inur-/-enur-/-onor-	pet-**enur**-a	Unfold
ix) Associative	-an-	umb-**an**-a	Coagulate
x) Extensive	-arar- /-ar-	tamb-**arar**-a	stretch out
xi) Impositive	-ik-	gadz-**ik**-a	place on X
xii) Repetitive	-erer-/-oror-/-urur-	dzok-**oror**-a	do again
xiii) Contactive	-at-	pfumb-**at**-a	clasp

The thirteen extensions above were each tested for their semantic compatibility with each of the 200 verbs in the sample. Three native speakers of Shona participated and agreed in determining the semantic compatibility or otherwise of all the verb extensions. The mother tongue participants involved in this initial exercise were two student research assistants[8] who at the time were attached to the African Languages Research Institute (ALRI[9]) where the author was stationed. The imperative form of the verb is the one that was selected to test for semantic compatibility. The imperative mood was used because it is straightforward in terms of its application[10]. If an extension was found to be semantically compatible with a verb, a tick (√) was inserted in the appropriate intersection and if it was not compatible, an ***x*** was inserted instead as indicated in the illustrative excerpt given in Table 2 below:

Table 2: An illustrative sample of verb extensions

VERB	Con	Rev	Rep	Pot	Aso	Imp	Rec	Ext	Int	Per	Cau	App	Pas[11]
Seka	x	x	x	√	x	x	√	x	√	√	√	x	√
Sika	x	x	x	√	x	x	x	x	√	√	√	√	√
Rova	x	x	x	√	x	x	√	x	√	√	√	√	√
Bata	x	x	x	√	√	x	√	x	√	√	√	√	√
Baka	x	x	x	x	x	x	x	x	√	√	√	x	x
Bika	x	x	x	√	x	x	√	x	√	x	√	√	√
Rima	x	x	x	√	x	x	x	x	√	√	√	√	√
Timba	x	x	x	√	x	x	x	x	√	√	√	√	√
Geza	x	x	x	√	x	x	√	x	√	x	√	√	√
Ona	x	x	x	√	x	x	√	x	√	√	√	√	√
Tiza	x	x	x	√	x	x	√	x	√	√	√	√	√
Tema	x	x	x	√	x	x	√	x	√	√	√	√	√
Tarisa	x	x	x	√	x	x	√	x	√	x	√	√	√
Idya	x	x	x	√	x	x	√	x	√	√	√	√	√
Rira	x	x	x	x	x	x	x	x	√	√	√	x	x
Rara	x	x	x	√	x	x	√	x	√	√	√	√	√
Rera	x	x	x	√	x	x	√	x	x	x	√	√	√
Redza	x	x	x	√	x	x	√	x	√	x	√	√	√
Raura	x	x	x	√	x	x	√	x	x	x	√	√	√
Vaka	x	x	x	√	x	x	x	x	√	√	√	√	√

Following the above exercise, the results for each verb extension were recorded and the results for all the extensions were tabulated in a manner identical to what is shown in Table 2 above. Table 3 below shows the scores in both numerical value and in percentages.

Table 3: Illustrative values of verb extensions

Extension	Score	% Score
Contactive	0/20	0%
Reversive	0/20	0%
Repetitive	0/20	0%
Potential	18/20	90%
Associative	1/20	5%
Impositive	0/20	0%
Reciprocal	14/20	70%
Extensive	0/20	0%
Intensive	18/20	90%
Perfective	14/20	70%
Causative	20/20	100%
Applicative	18/20	90%
Passive	18/20	90%

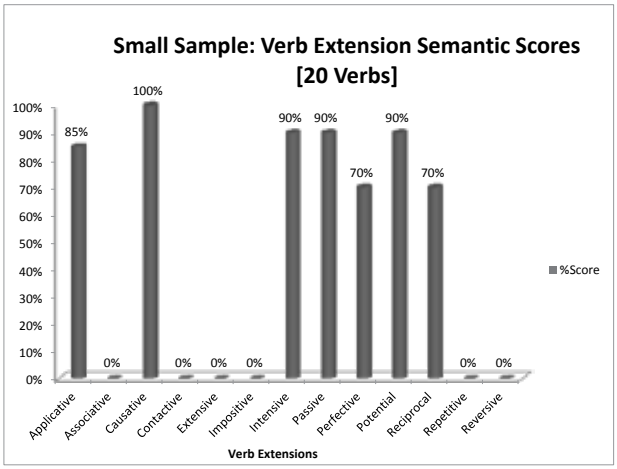
The highest possible score, awarded to the units and/or verbs in the illustrative sample is 20. Because of limited space available, I am unable to tabulate here the actual 200-verb sample that I worked with in the study. For this reason, Table 3 serves only to capture and illustrate the procedure that was followed with the actual sample of 200 verbs the results of which are shown in Figure 2 below.

Following the above procedure, the results were then converted into a bar graph in order to make the necessary inferences regarding the activity or none thereof of individual verb extensions. The bar graph was preferred for its effect as it provides visual graphics of how different verbs and extensions in a sample interface. Figure 1 has been included here only to demonstrate how, from a statistical point of view, the data in Table 1 looks after it has been converted into a bar graph. It will not however form the basis of our interpretations regarding the subject at hand. It is made from a very tiny sample of the entire corpus of the verbs that exist in the Shona language and the results that it contains are a statistical insignificant because of the huge margin of error the results exhibit.

The sample that I worked with is the one in which the results of the interaction between verbs and the thirteen extensions are shown in Figure 2 below. Although the methodology adopted here is quantitative, I would like to indicate that I have not followed strict statistical methods relating to how to determine the size of a sample, though the statistical convention of how samples sizes are determined remains

contentious even for statisticians. In most cases, the size of the sample may be determined by the quantum of units from which inferences are to be made. However, generally speaking, 110 units are believed to be sufficient for the purposes of a study such as this one. Given that the sample comprises 200 units (or verbs), I have a sufficient confidence margin in terms of the interpretation and interpolation of results to the entire verbal cosmos of the Shona language.

Figure 1: Illustrative sample of verb extensions



The historical, non-empirical approach

This section lays the foundation for the classification of extensions as operating in age-groups in terms of their *productivity* and *semantic compatibility* properties. To achieve this, I provide a historical background to verb extensions as a grammatical category in Bantu. I shall rely on the observations of Givón (1971), Heine *at el*. (1991), Mchombo (1999), Mberi (2002) and others who subscribe to an evolutionary view of the origins of verb extensions in Bantu.

Givon (1971), supported by Mchombo (1999) and Matambirofa (2010) regard verb extensions as morphemes that were initially fully fledged lexical verbs. In elaboration of this view, Givon (1971: 149-150) indicates that derivational verb extensions add semantic material that is contained in aspectual and modal verbs comprising such predicates as 'continue', 'complete', 'repeat', 'do intensively' and 'terminate'[12] and many others. He asserts that "many, if not all the Bantu verb-deriving suffixes have also arisen historically from verbs" (ibid.). In general terms, this is the same process that Heine *at el*. (1991:8) refer to when

they say that "what-today-are-affixes-were-once-independent-words". Mchombo (1999: 64) subscribes to this same view when he writes that "verbal affixes in Bantu originated as separate predicates, participating with the main verbs in serial verb constructions (henceforth SVC) characteristic of the Kwa languages of West Africa". Schachter (1974: 254) defines serial verb constructions as syntactic structures that consist of "a subject noun phrase followed by a series of two or more verb phrases, each containing a finite verb plus, possibly, the complement(s) of that verb". The morphological pattern in which verb extensions couple with lexical verbs to yield derived verbs in Bantu somewhat miniaturizes the same principle that the phenomenon of serial verbs follows at the syntactic level.

Going back to Givon (1971), the diachronic metamorphosis through which current predicate extensions denuded to become bound synchronic morphemes is generally referred to as grammaticalisation. Heine *et al*. (1991: 3) quote Kuryłowicz (1975) who defined grammaticalisation as:

> ....the increase of the range of a morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status, e.g. from a derivative format to an inflectional one.

In addition to the definition above, Croft (1990: 230) further indicates that grammaticalisation is "unidirectional and cyclic". To elaborate this point, Croft (*ibid.*) theorises that "grammatical morphemes originate from lexical items, disappear through loss and reappear when new words become grammatical morphemes." Regarding the origins of verb extensions, this theory is premised on the assumption that from the synchronic state of Shona, and perhaps of other Bantu languages, over many centuries, a list of diachronically separate predicates were shed off and transformed into the synchronic verb extensions that the language now exhibits. Givon (1971: 146) asserts that in some cases what have become synchronic verb extensions started off as "main verbs dominating sentential complements". Thus, instead of being separate lexical items participating in syntactic structure, they lost their syntactic autonomy and synchronically became bound morphemes in verbal morphology, and now perform a grammatical function.

Although this article focuses on verb extensions which, from a morphological point of view, are suffixal while the auxiliary to which I want to draw a parallel may be said to be 'pre-verbal', evidence

from Northern Sotho documented by Louwrens (1991) as quoted by Mpofu-Hamadziripi *et al*. (2013: 232), shows that "[…] what are synchronically referred to as auxiliary verbs in Northern Sotho have historically developed from proper main verbs." This is a development that is conceptually related to what has happened in respect of verb extensions that have undergone both lexical erosion and subsequent grammaticalisation. To underline this critical change in function, I shall once more refer to Heine's *et al*. (1991:8) very significant observation that "what-today-are affixes-were-once-independent-words".

Regarding grammaticalisation, the hypothesis is that the grammaticalisation of diachronic lexical verbs provides evidence of language change in terms of two closely related phenomena: 1) language change in its entirety, and, more importantly for our present purposes, 2) change in relation to the functions and productivity of individual predicate extensions themselves. It is to this dimension of the discussion that I presently turn my attention with the aid of the bar graph that was constructed using procedures that have already been described above. The objective is to account for variability in terms of *productivity* and *semantic compatibility* that exist between verbs and verb extensions.

The motivation for a partly empirical study of this nature was the observation that in different Shona grammar books, (for example, Chakamba *et al*. 1987; Chigidi 1988, 2002; Chimhundu *et al*. 1996; Chimhundu and Chabata 2007; Mashiri and Warinda 1999; Mpofu-Hamadziripi *at el*. 2013), there is a recalcitrant body of extensions that 'notoriously' does not allow the grammarian to illustrate their coupling with any other verbs except for a tiny group that have become clichés. This set of 'notorious' verb extensions comprises the following: reversive, repetitive, contactive, associative, stative and the extensive[13]. As will be shown below, such morphemes are becoming or have become spent forces and are on their way to eventual retirement hence their 'specialized and selective' co-occurrence with certain verbs. Because of this, I predict that they will eventually die following their complete lexicalization and fossilization.

If one were to make a random selection of any quantity of Shona grammar texts, one can state, with a fair amount of accuracy, the likely examples of verbs that can be deployed for the set of extensions referred to above. While one way of looking at the phenomenon might be to attribute it to the semantics of individual verbs, the *other extensions* then come in as a control group to the extent that they show high semantic compatibility with the same set of verbs. This demonstrates that the

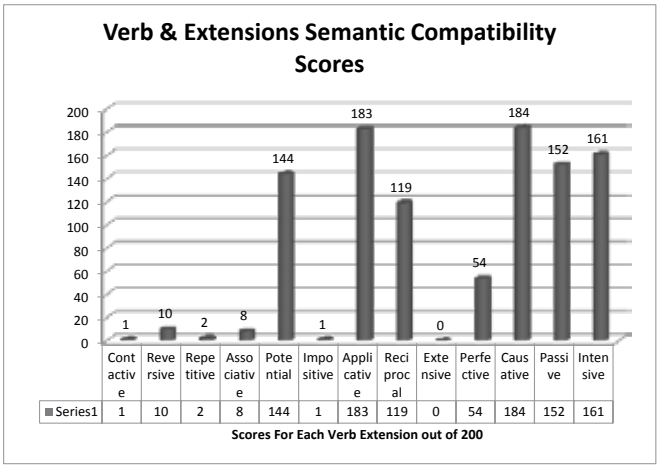
challenge does not lie with base predicates, but with the extensions that have, over time, developed the tendency to co-occur with a special stock of verbs. This is unlike how other extensions such as *causative*, *reciprocal*, *applicative* and *intensive,* among others, behave.

Results of the 'experiment' and description

Earlier, when describing the methodology, I detailed the manner in which the study proceeded. I demonstrated with a miniature sample how the actual 200 verb sample was manipulated in order to arrive at certain conclusions regarding the semantic compatibility of 13 verb extensions in Shona. It must also be recalled that the conclusion that I arrived at has enabled me to make qualitatively corroborated deductions regarding the relative ages of verb extensions as well as language change in general.

Below is a bar graph which shows how individual extensions fared in the *extensions experiment*.

Figure 2: Verb extension scores



From the score in Figure 2 above, I can infer that there are about three patterns that emerge when the results are presented in the form of a bar graph. First, there are a number of extensions that have very low scores ranging from 0/200 to 54/200 which are as follows: *perfective*, *extensive*, *reversive*, *repetitive*, *associative* and *impositive*. Of this group, the lowest is the *extensive* with a score of 0/200 and the highest is the *perfective* with a score of 54/200. In percentage terms, this represents a range of 0% to 27% of the sample. The *perfective* somewhat distorts the low performance and/or productivity picture especially given that the closest, that is, the *reversive,* lags behind by 44 points. I have, however,

classified it as representing the upper reaches of this unproductive and poor-performing category of verb extensions.

Second is the group of extensions that I classify as high performing owing to the extensions' high semantic compatibility with different Shona verbs. Such extensions comprise the following: *potential* 144/200, *reciprocal* 119/200, *passive* 152/200 and *intensive* at 161/200. This group shows a higher semantic compatibility with (with slight variations) when compared to the earlier group. Among these verbs, the *reciprocal* has the lowest score while the *intensive* has the highest. In percentage terms, the cluster has a range of 59.5% to 80.5%. From a cursory observation, one can infer that this category of verb extensions is very active and/or productive.

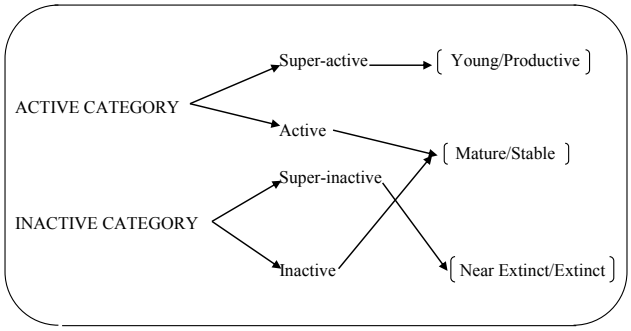
In the last group, the *applicatives* and *causatives* are almost neck and neck with scores of 183/200 and 184/200 respectively. In percentage terms, the two verb extensions both score above 91%. This category belongs to what I call the super-active or prolific cluster. In terms of productivity, this cluster is the most productive because of its high semantic compatibility with different lexical verbs in Shona.

Further interpretation of results

The results from the section above can be presented in terms of age and/or productivity of individual extensions, although I assume that it is more accurate to cluster than to individuate them. As indicated earlier in the introduction, productive verb extensions are those that display a high semantic compatibility with lexical verbs and such extensions comprise the *applicative*, *causative*, *intensive* and *potential,* among others. The unproductive verb extensions are the ones with a low level of semantic compatibility such as the *reversive*, *impositive*, *contactive*, *repetitive* and others discussed above. In terms of (un)productivity and/or (in)activity, these extensions fall into two broad categories, namely, the active and the inactive extensions. The two broad categories can each also be further subdivided in terms of *relative activity* or *relative inactivity.*

Figure 3 below shows the subdivisions that have been suggested above. The active category is further split into the active and super-active subcategories, while the Inactive category is subdivided into inactive and super-inactive (for want of better terms).

Figure 3: Extensions' age by productivity



Reference was made earlier to and a link suggested between the productivity of extensions and their relative ages. This analysis tallies with the age representation that is suggested in Figure 3 above and is here demonstrated in Table 4 below.

Table 4: Relative productivity of verb extensions

Active				Inactive			
Young		Mature		Old		Dead/Fossilised	
App	-ir- /-er-						
Cau	-is-/-es-/-y-						
Int	-is- /-es-						
		Pass	-iw-/-ew-				
		Pot	-ek- /-ik-				
		Rec	-an-				
				Cont	-at-		
				Rev	-inur-/-onor-		
				Rep	-erer-/-oror-		
						Imp	-ik-
						Sta	-arar-
						Ass	-an-

Evidently, three age-groups of verb extensions according to the theory developed in this discussion are demonstrable. The three groups are: *young*, *mature* and *old*. The fourth group that remains somewhat hazy is that of dead extensions. The closest I have of such a group of verb extensions are those that seem to be undergoing lexical fossilization. Lexical fossilization is a process where, in this case, a given verb extension's semantic compatibility with lexical verbs has become highly limited and/or specialized as is the case with the reversive

extension *–urur-* that occurs with the verb *ka*urur*a* 're-sow/replant). A given extension thus becomes exclusive to a small range of verbs in the language through the process of grammaticalisation. To refresh the reader's memory, grammaticalisation was defined earlier by Heine *at el*. (*op cit*.:4) who quote Traugott and König as follows:

> Grammaticalisation … refers primarily to the dynamic, unidirectional historical process whereby lexical items in the course of time acquire a status as grammatical, morphosyntactic forms, and in the process come to code relations that either were not coded before or were coded differently.

With the above in mind, the founding hypothesis, which follows Givon (1971), Mchombo (1999), Mberi (2002) and Matambirofa (2010), subscribes to the view that all verb extensions in Shona originated as lexical verbs, and, through the process of grammaticalisation, have become morphosyntactic forms that were coded differently during an earlier period. More importantly for this article, I have further taken the notion of gramaticalisation as an on-going process which is driven by the inevitable phenomenon of language change. Closely linked to language change, is my assertion that different verb extensions, are at various stages of (in)activity and (un)productivity. Table 4 above demonstrates the suggested stages in an iconic form, starting with the more active extensions further up and drifting down, as pointed by the downward facing arrows, and ending with those that are on their way out of the morphosyntactic grammatical function spectrum.

Conclusion

This article is based on the assumption that verb extensions' activity or lack thereof, in tandem with the well-known phenomenon of language change, can be viewed as an illustration of the same phenomenon in two parallel ways. The first one is that the extensions have, through the process of grammaticalisation, undergone historical change starting as fully fledged lexical items and getting slowly denuded and morphosyntacticised as derivational morphemes, and 'ending up'[14] where they are today. By the same token, the second is that the same extensions are also still undergoing change to the extent that some of them are at an advanced stage of dereliction. In the above analysis, extensions show their relative ages by their degree of semantic compatibility with lexical verbs in Shona. This was demonstrated through a simple experiment which coupled lexical verbs with verb

extensions using a random sample of 200 Shona verbs.

In the 'experiment' described above, it was found that highly productive extensions such as *causatives, applicatives* and *passives* can 'team up' with a large stock of lexical verbs while extensions such as *perfectives, impositives, contactives* and *reversives* have a very low semantic compatibility with lexical verbs (cf. Figure 2). The interpretation of this behaviour of verb extensions is that the active and/or productive extensions such as the *causatives, applicatives, passivea* and *intensives* are comparatively late entrants to the extension phenomenon, while inactive and less productive extensions such as the *reversives, contactives, impositives* and *statives* represent some of the earliest verbal lexemes to have been morphosytacticised through the process of language change and/or more specifically, grammaticalisation. Diagrammatically represented in Table 4, the arrow indicates and/or predicts the flow of extensions in the language where its upper reaches are the abode of new and/or young extensions while its lower reaches show extensions that are now on their way out. The old and inactive extensions all exhibit the same characteristic of associating with a small and predictable stock of verbs in Shona. My prediction is that in time, they will become completely lexicalized and locked into these specific lexical verbs, at which stage they will altogether cease to be extensions but lexical, base verbs which may in fact require verb extensions in order for them express new derivational meanings.

This hypothesis may well need to be further investigated by expanding the number of verbs that are tested against it. Further, it would be interesting to see what the pattern would be like if applied to other Bantu languages. It would also be interesting to look at how the other levels of language analysis such as phonology and syntax may be used to corroborate or to refute this hypothesis. For instance, if one were to be given, at random, a Shona text such as a novel, it would be interesting to observe the frequency with which different verb extensions are deployed. Results accruing thereof would be critical as they would be independently motivated. Pending further research, it is my suspicion that the pattern demonstrated in this article would be corroborated with just slight variations.

Notes

1. The first version of this article was a paper presented at the Linguistic Association of SADC Universities (LASU) that was held in Zambia from 9-11 May 2011. I would like to acknowledge with deep gratitude all the comments, constructive criticisms and suggestions that I got from the participants at the

end of my presentation. I got support and further stimulation from all that was discussed. The present article assumes its current tenor in part from the suggestions made, some of which I have been very happy to incorporate. I also wish to express my gratitude to two anonymous reviewers of this article for the valuable comments and suggestions which they made, most of which I have grafted into this current version. I however take personal responsibility for any conceptual, grammatical or any other analytic errors that may be present in this article. I got funding to attend the important Conference from the NUFU-funded CROBOL Project and I am grateful to the University of Zimbabwe for granting me duty leave

2. The argument is that verb extensions, depending on their productivity, in a manner analogous to animal reproduction, can loosely be described as young and productive or old and unproductive.

3. I use the term partial or sectorial due the fact that the behaviour of verb extensions alone cannot be given as adequate evidence of language change in Shona. There are many other indices that are required to give a more accurate and complete picture.

4. In relation to this point, I can still examine the participation of these extensions using variables such as the following: active, stable and inactive, which I think would still be valid as conceptual frameworks with which to study the same.

5. The notion of numeracy is tied to the fact I use a quantitative sample to substantiate certain conclusions.

6. I am aware that non-generativists are methodologically wary of such an approach, preferring that people other than the researcher(s) be the sources of information.

7. Much as I would have wanted to continue to illustrate the behaviour of verb extensions using the same verb, from now on, the verb bika 'cook' can semantically no longer serve that purpose as required.

8. At the time of doing the research the two students doing their internship at ALRI were from Midlands State University (MSU). They have since completed the Bachelor of Arts in African Languages and Culture degree.

9. ALRI is the acronym for a lexicography Institute that was inaugurated in 2000 at the University of Zimbabwe whose full name is African Languages Research Institute.

10. Reference to the imperative being straightforward should not be misconstrued to mean that the other moods are all unsuited for the task - it is not necessary to try them all out since that is unlikely to alter the fundamental truths of the investigation.

11. The abbreviations used in this table are as follows: Con = Contactive, Rev = Reversive, Pass = Passive, App = Applicative, Per = Perfective, Aso = Associative, Cau = Causative, Int = Intensive, Rec = Reciprocal, Ext = Extensive, Imp = Impositive, Pot = Potential and Rep = Repetitive.

12. Heine *et al*. (1984: 13) refer to Givon (1971) as summarising this whole process in the following words 'today's morphology is yesterday's syntax'

13. This set of extensions is often illustrated with an almost rigid stock of verbs across different grammar books and schools texts: **Reversive** – roy-*onor*-a, pet-*enur*-a, nam-*anur*-a; **Repetitive** – ka-*urur*-a, dzok-*oror*-a, dzok-*erer*-a; **Contactive** – pfumb-*at*-a, gumb-*at*-a, sung-*at*-a; **Associative** – ung-*an*-a, kat-*an*-a, sving-*an*-a; **Extensive** – tamb-*arar*-a, zvamb-*arar*-a, tash-*arar*-a; **Stative** – komb-*am*-a, pfug-*am*-a, ter-*am*-a. Kindly note that I have, for each of these 'choosey' extensions, only provided three illustrations; but this does not mean that there are no other verbs to which they can attach much as it is equally true to say that for almost all of them.

14. It is indeed a misnomer to describe the present stage of verb extensions' evolution as 'ending up' because, as has been argued in the analysis, this process is on-going, even in their synchronic state.

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