

THE UNIVERSITY OF CALGARY

Serialization Patterns in Shona Verbal Morphology

by

David Christian Bellusci

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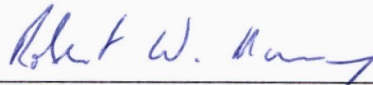
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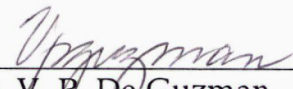
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled, "Serialization Patterns in Shona Verbal Morphology" submitted by David Christian Bellusci in partial fulfillment of the requirements for the degree of Master of Arts.

  
\_\_\_\_\_  
Supervisor, Dr. R. W. Murray  
Department of Linguistics

  
\_\_\_\_\_  
Dr. V. P. DeGuzman  
Department of Linguistics

  
\_\_\_\_\_  
Dr. D. C. Walker  
Department of French, Italian & Spanish

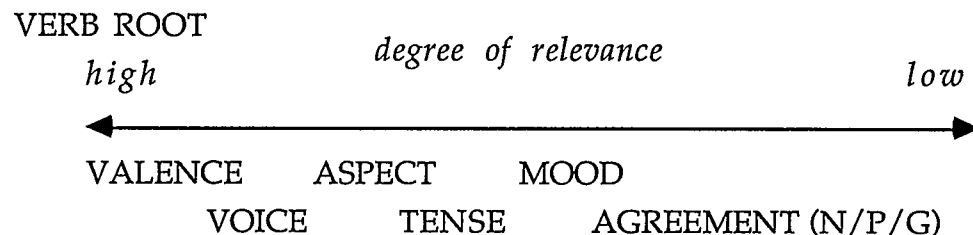
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## ABSTRACT

Shona, a Central Bantu language, has the typical word order patterns of an SVO language and has been classified as such by Comrie (1981). However, as in the case of other Bantu languages, Shona has many SOV characteristics reflected in its morphology. This is not surprising given that Proto-Bantu syntax has been reconstructed as SOV (Givón 1978). Since morphemes can arise through the morphologization of lexical items in common syntactic patterns due to univerbation, earlier word order patterns can become frozen in a language's morphology.

In this paper I focus on the morphologization process - serialization and the degree of morpho-semantic fusion (univerbation) - in Shona verbal morphology involving valence, aspect and tense in light of the semantic hierarchy introduced by Bybee (1985). The semantic hierarchy is represented by verbal categories among which valence is expected to have the closest position to the verb root, while agreement is expected to show the most distant position from the verb root as shown below:

### Semantic Hierarchy



The mirror image of the above hierarchy is also possible in which the verbal categories occur as prefixes.

An examination of Shona data reveals that the serialization of [aspect] [tense] [verb root] appears to violate Bybee's predictions since aspect occurs further from the verb root than tense - the reverse of the predictions.

Moreover, the interrelated question arises as to why valence appears as suffix but [aspect-tense], as a single-fused morph, appears prefixal.

In my analysis, the synchronic situation in Shona is seen as the result of a five-stage diachronic change: stage 1 begins with Proto-Bantu SOV syntactic type with the expected morphological serialization of [verb root] [valence] [aspect] [tense]. At this stage the verb root and valence, as well as aspect and tense each undergo morphologization: in the case of [verb root+valence] the lexical unit develops into a single word, while [aspect-tense] fuse into an auxiliary clitic; in stage 2 the aspect-tense auxiliary clitic shifts into second position of the sentence - AUX-Clitic Movement as a result of the Principle of Clitic Placement (Hock 1986); stage 3 involves reinterpretation in which position 2 is extended to modals and finite verbs; in stage 4 main verbs occupy position 3 immediately following AUX according to Behaghel's Law; and finally stage 5 leads to a total shift in word order patterns as a result of the Principle of Natural Serialization producing Modern Shona word order SVO.

To conclude, the apparent contradictions of Bybee's predictions in the Shona data are ultimately interpreted as offering support for the semantic hierarchy. The serialization of categories in stage 1, in accordance with the hierarchy, provides an appropriate starting point for the analysis. Furthermore, the univerbation of the [verb root+valence] but not of the verb root and [aspect-tense] is also represented by the hierarchy since univerbation reflects the closer relation of the valence to the verb root relative to [aspect-tense] reflected in the semantic hierarchy. Finally, the unexpected serialization of [aspect][tense] in Modern Shona is accounted for by the assumption that univerbation predated AUX-Clitic Movement. Consequently, a "metathesis" of aspect-tense in accordance with the semantic hierarchy was precluded.

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*Fiat mihi secundum verbum  
tuum. (Sancte Luca1:38)*

*Ai miei carissimi mamma e papà,  
che mi hanno dato vita, amore e fede*



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## ABBREVIATIONS

1SG	1st singular	1PL	1st plural
2SG	2nd singular	2PL	2nd plural/polite
3SG	3rd singular	3PL	3rd plural
ADJ	Adjective	NPH	Nominal Phrase
ADP	Adposition	NRT	Noun Root
ADV	Adverb	OBJ	Object
AGR	Agreement	PAT	Patient
AGT	Agent	POB	Pronominal Object
ART	Adjective Root	POS	Possessive
ASP	Aspect	PRF	Perfect
AUX	Auxiliary	PRG	Progressive
BSV	Base Vowel	PRS	Present
CPA	Comparative Adjective	PRT	Participial
DOB	Direct Object	PST	Past
DRT	Demonstrative Root	QLF	Qualificative
EIA	Early Iron Age	QNT	Quantifier
ENU	Enumerative	QOT	Quote
ERT	Enumerative Root	REL	Relative
GEN	Genitive	SCP	Standard of Comparison
HAB	Habitual	SFX	Suffix
IOB	Indirect Object	SUB	Subject
LIA	Late Iron Age	TNS	Tense
MDD	Mood	VDS	Verbal Derivative Suffix
MNV	Main Verb	VOC	Voice
NCL	Noun Class	VRT	Verb Root

## *Chapter 1*

### INTRODUCTION

This thesis presents an analysis of serialization patterns in Shona verbal morphology. A diachronic study of Shona brings to light the changes in word order and morphology that have taken place, as well as their conflict with the semantic hierarchy proposed by Bybee (1985). The three questions on which this paper focusses are as follows: (a) if Shona is an SVO language, why does it manifest OV morphology specifically with regards to the different valencies occurring as postverbal affixes?; (b) if aspect is expected to be closer to the verb root than tense, according to Bybee's semantic hierarchy, why is it found further from the verb root in Shona?; (c) what accounts for the shift in SOV Proto-Bantu to Shona SVO?

This paper approaches the topic from a typological perspective as presented in Chapter 2. Essential background on Shona nominal and verbal morphology is provided in Chapters 4 and 5 to show the morphological structure and to highlight implications for this study. The analysis of word order and morphological patterns is provided in Chapter 7. The discussion of the development of Proto-Bantu to Shona in Chapter 3 provides a geographical, archaeological and historical framework for the argument posited in section 7.5; namely, that Proto-Bantu was a prespecifying language. The problems are reviewed in section 7.6, dealing principally with the discrepancy between word order, morphology and the semantic hierarchy.

Chapter 8 provides a study of various phonological and morphological processes, Laws and Principles in addition to referring to crosslinguistic data to provide further support for my own claims. The analysis ultimately answers the three questions I put forth: five stages are presented to account

for the changes in Shona, which lead to the present stage of Shona word order and morphology.

Chapter 9 provides a summary of the analysis which is presented in five stages. The final chapter, Chapter 10, raises questions for Shona and Bantu data that have not been examined in this paper, and for the possibility of future study: the position of aspect-tense in other Bantu languages; the verbal categories voice, mood and agreement as they are found in Shona and other Bantu languages; how these categories relate to the semantic hierarchy, and the implications of diachronic change. The possibility of examining other languages related to Bantu, as well as other language families in the Niger-Congo phylum is also presented. This discussion represents a contribution to a further understanding of the historical changes that took place in Bantu languages, through morphological considerations, as well as tracing such changes to the linguistic sources.

## *Chapter 2*

### TYPOLOGICAL APPROACH

The typological framework (Greenberg 1966; Vennemann 1974; Comrie 1981; Hawkins 1983; Bybee 1985) of linguistic analysis involves the collection of data from a wide body of languages. In order to formulate linguistic universals empirical evidence is used; such evidence entails the examination of data based primarily on surface structure. The objective of typologists, therefore, is to state language universals on the basis of surface structure. To limit the investigation of language universals to the linguistic data from one language can easily lead to incorrect generalizations. Take Welsh, for example, which is a VSO language and prepositional. On the basis of this data an implicational universal of the type "the presence of 'p' implies the presence of 'q'" could be proposed; i.e., if  $p = \text{prepositional}$  then  $q = \text{VSO}$ . A study of other languages, however, shows that such an implicational universal is untrue. For example, English has prepositions but it is SVO. A representative analysis of language therefore requires data examined from a wide range of languages, rather than from one language or a limited number of languages, since a crosslinguistic analysis can reveal a variety of linguistic patterns.

The use of one language, such as English, or limited language data to formulate theoretical claims, can overlook less common word order patterns such as OVS word order found in the Amazon basin. The consequences of an analysis based on a limited sample of languages is noted by Comrie (1984). For example, Lightfoot (1981) observes that English permits the syntactic process of preposition stranding, e.g. "The salesclerk he bought it from.",



though English shows no morphological opposition between accusative and dative (Ibid.). French, however, which does not permit preposition stranding, does have the morphological opposition between accusative and dative. Lightfoot concludes that the English and French syntactic processes differ because of the morphological opposition of the accusative/dative.<sup>1</sup> However, Comrie points out violations of Lightfoot's hypothesis with data from a variety of languages. Evidence from Old English shows preposition stranding even before the loss of accusative/dative morphological distinction (Allen 1980); and Icelandic also has both preposition stranding and accusative/dative distinctions (Einarsson 1949). Haitian Creole does not permit preposition stranding nor does it show accusative/dative morphological opposition. The above examples show the importance of considering crosslinguistic data.

Three important points are considered in the typological framework (Comrie 1981:9-10): (i) not only do typologists base their work on groups of languages spoken today, but documented languages that are presently extinct are also examined; (ii) languages are studied with the assumption that all human languages spoken today represent the same degree of evolution; and (iii) typological data show that the world's languages today have sufficient variety to include "examples of virtually all the kinds of structure that are possible in human language." (Ibid.). To be free of bias in data-selection, languages chosen by typologists are ideally selected from a range of genetic language families. It has been noted by Bell (1978) that each set of genetically related languages separated from a common ancestor by a time span of 3,500 years should be given equal representation.

---

<sup>1</sup> Douglas C. Walker (personal communication) has pointed out that preposition stranding does take place "minimally" in a variety of French dialects.

In my view the typological framework provides an appropriate theoretical basis for an analysis of changes in Shona, which in turn has implications for the Bantu family of languages. The following research does not only consider a wide body of languages, but a wide body of language phyla as well. Let us begin by examining Bantu, and its development into Shona: the geographic source, the expansion of the speakers, and the evolution of their Proto-language.

### *Chapter 3*

## PROTO-BANTU TO SHONA

### 3.0 Source of Bantu

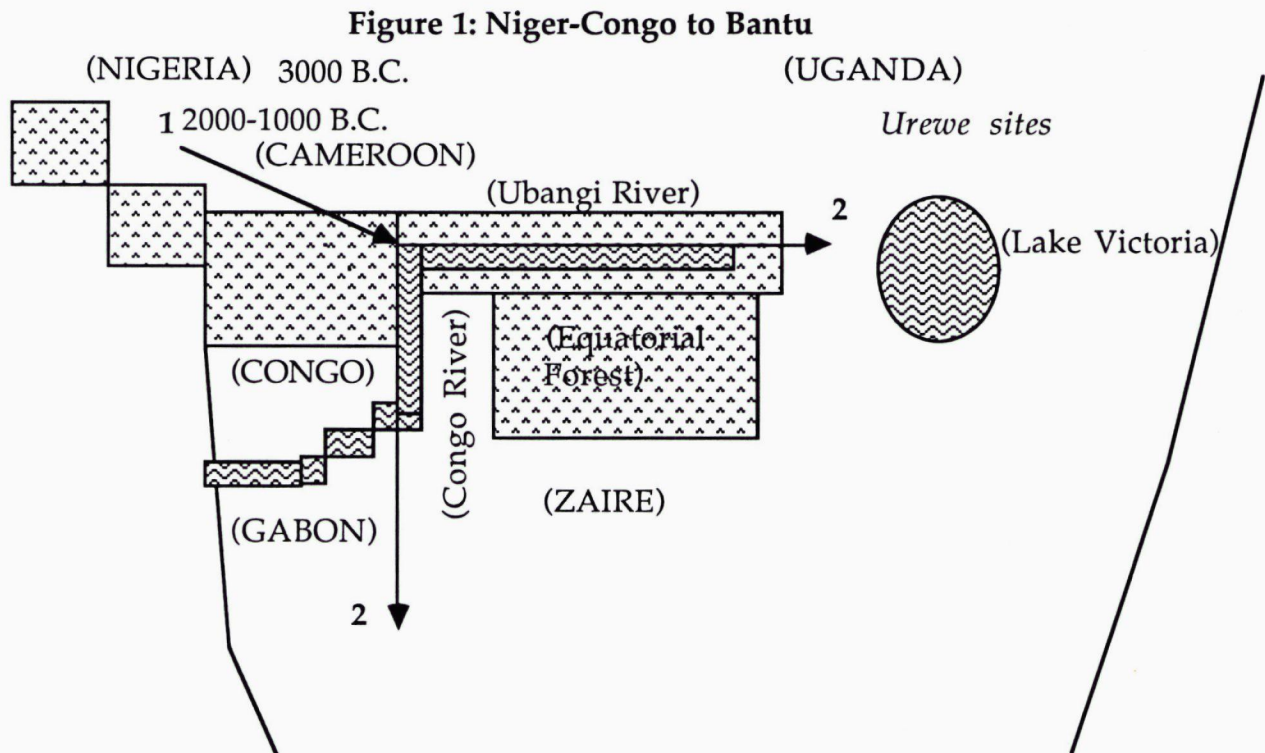
Before considering changes in Shona morphology and word order, an examination of the Bantu family of languages is needed. This chapter examines the migration patterns of Bantu-speaking peoples based on archaeological research. Migration leads to language contact either within the same family, as in the case of Bantu, or between language families, as in Germanic and Romance (e.g., Anglo-Norman): through prolonged contact "languages may converge" (Hock 1986:6). The interrelationship between language contact and language change can be shown by the conservative features of languages which have had limited contact (as in Tunen and Bandem explained in section 7.5), as opposed to those languages which have changed their word order as a result of language contact (all of the Bantu languages with the exception noted above).<sup>2</sup> The study of Bantu sources and movement demonstrates the relationship between Bantu and non-Bantu languages of the same phylum, as well as the relationship with other Bantu languages. Finally, such an examination is required if we are to claim that the word order of Proto-Bantu differs from present Bantu word order.

Bantu belongs to the South Central Niger-Congo family, which in turn belongs to the larger Niger-Kordofanian phylum. Linguistic evidence suggests a homeland for South Central Niger-Congo speakers dating 3000

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<sup>2</sup> Robert Murray (personal communication) gave a parallel example between Tunen and Bandem (Bantu) languages, and Icelandic (Germanic); in all three instances because of geographical factors, these languages experienced limited language contact, if any, unlike other Bantu and Germanic languages which show greater change as a result of language contact.

years before the Christian era in central Nigeria (Ehret 1982). As a result of a southward shift in vegetation belts, starting about this time food production spread rapidly through southern Nigeria, which brought the speakers of Bantoid to the southeastern Nigerian-southwestern Cameroonian border (David 1982).<sup>3</sup>



The map shows central Nigeria as the original homeland for the speakers of the family of Niger-Congo phylum 3000 to 4000 B.C. (Ehret 1982). As a result of a shift in vegetation belts a southward movement of peoples began: the southeastern Nigerian-southwestern Cameroonian borders, and into the forests of the Congo Republic, Gabon and Zaïre (1) became the homeland for the Neolithic Bantu-speakers around 2000 to 1000 B.C. (Phillipson 1985). Access to river routes and the use of iron facilitated a movement across the Congo River (2), as well as to the Lake Victoria region (2) where the Early Iron Age Urewe sites have been discovered (David 1980).

<sup>3</sup>Linguistic reclassification (Bennett and Sterk 1977) places Benue-Congo and Kwa languages all within the South Central Niger-Congo linguistic family (with the exception of Kru); this implies, in line with the observations made by Ehret, that Kwa speakers would have the same geographic origin as the Benue-Congo. (Ehret's claim includes only Benue-Congo.) The studies of both Ehret (1982) and David (1982) refer to Benue-Congo peoples.

With the exception of Bantu, nearly all the members of the Niger-Congo family are spoken in West Africa (Greenberg 1955), while people speaking Bantu languages have their origins near the far northwest corner of Northwest province of present day Cameroon (Greenberg 1963). Bantu languages show an enormous degree of relatedness indicative of a dispersal from a common localised ancestral language within the last 3000 to 4000 years (Guthrie 1962; Greenberg 1963; Dalby 1975;). From the Cameroon and eastern Nigeria point of origin, linguists maintain that the Bantu dispersal proceeded from the Cameroon through the equatorial forest or along the edges of the forest.<sup>4</sup> The equatorial forest route ultimately led to the interlacustrine region from the area around the mouth of the Congo-Ubangi confluence. The northwest Bantu zone also shows evidence of cultural connections and probable contemporaneity with the appearance of iron in East Africa, and the early East African Iron Age: the diffusion of iron was facilitated through natural communications routes of lakes, waterways and rivers. David (1980:636) points out that "...iron was transmitted from Nigeria through the forest and along the forest rivers *by* Bantu *to* the Bantu who occupied, or were shortly to occupy, the Lake Victoria region." An approximation of this movement is represented in Figure 1 above.<sup>5</sup>

Ehret (1982) maintains that Neolithic Eastern Bantu-speakers probably inhabited the equatorial rainforest well before Iron Age Eastern Bantu-speakers spread into the savanna of eastern and southern Africa. Bantu

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<sup>4</sup> The significance of this point of origin is shown in reconstructing Proto-Bantu (section 7.5).

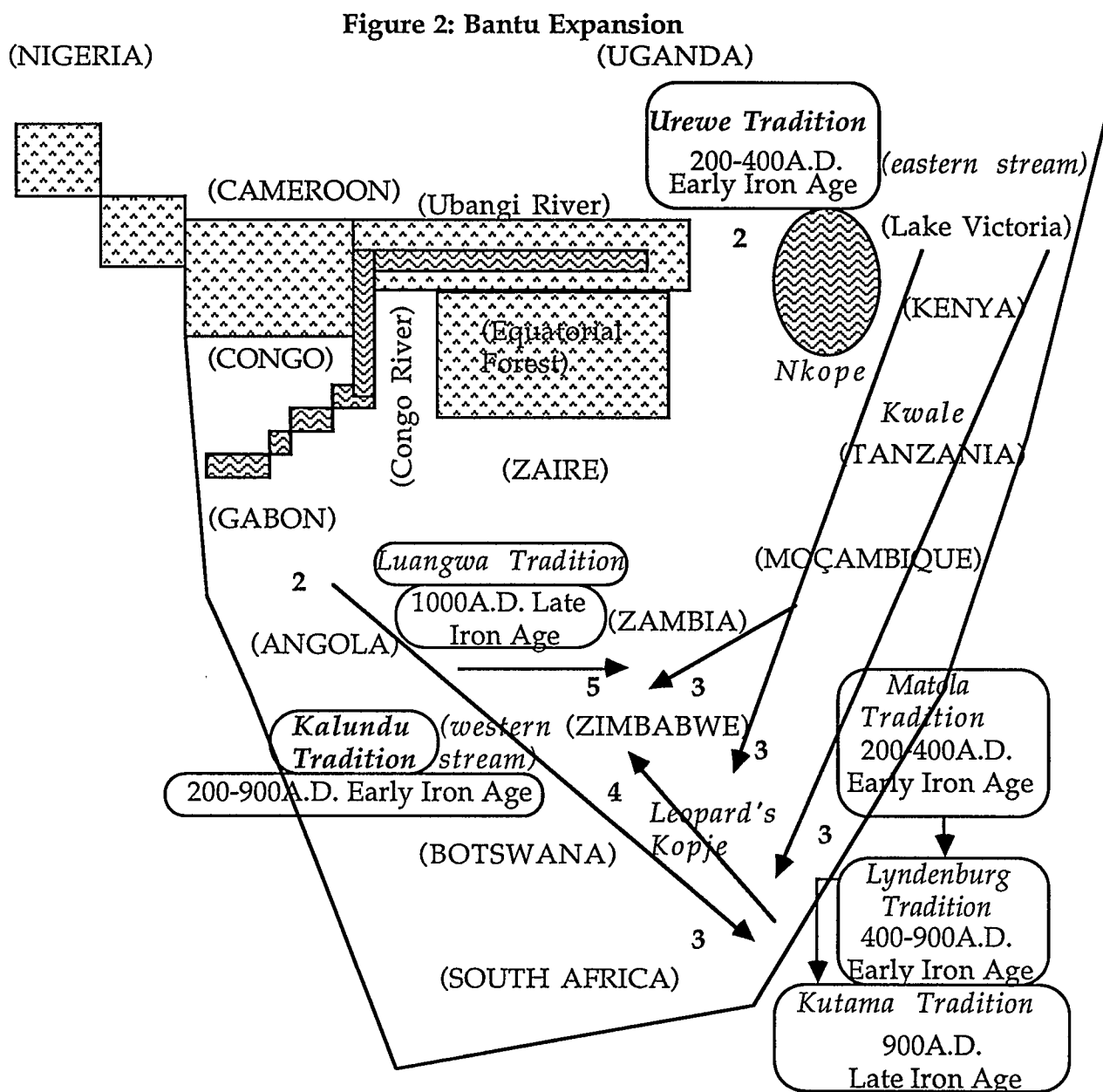
<sup>5</sup> Figures 1 to 3 provide a geographic approximation of distances between forest, river and lake in relation to the movement of peoples; and in 3 in relation to the dialects spoken. However, no metrical equivalent is claimed.

linguists have observed a difference between Eastern Bantu, spoken in larger parts of eastern and southern Africa, and Western Bantu, spoken in central Africa.

### 3.1 Archaeological Data

Archaeologists such as Phillipson (1977) and Huffman (1989) identify two distinct ceramic traditions: Kalundu in the West, and Urewe in the East both moving towards southeastern Africa. The research among archaeologists has documented the settlement of Iron Age communities in the southern African regions of southern Moçambique, Transvaal and north of Durban since at least A.D. 200 (Hall and Vogel 1980; Huffman 1979, 1982). One interpretation of the pottery, to account for variation within Early Iron Age ceramics, is offered by Huffman (1989) who maintains that the radiocarbon date of 200-400 A.D., is connected to an eastern stream of migrants designated as "Urewe" and divided into two facies: "Nkope" and "Kwale". South of the Limpopo the ceramic units of the eastern stream show local continuity and belong to the "Matola" tradition. The Early Iron Age pottery in southern Africa has been reassigned to the "Kalundu" style ceramics with the exception of the Matola tradition (Ibid.). The spread of the western Kalundu stream, producers of the Luangwa tradition, began around 1000 of the present Christian era with a movement of this western stream out of Zaïre's Shaba region into southern Africa (p.160).

The Early Iron Age producers of the Leopard's Kopje ceramics in the Transvaal are connected to the speakers of eastern Bantu - an early form of Shona (Huffman 1984). Zimbabwe ceramics, showing similarities across the Limpopo River, the Transvaal lowveld, the Natal and Zululand river valleys and coastland regions and Transkei along the Indian Ocean Coast, belong to



The map is based on a proposed reassignment (Huffman 1989) of ceramic traditions in southeastern Africa. The two-stream hypothesis brings from 200-900 A.D. the EIA Kalundu Tradition in the west (2) and the EIA Urewe Tradition in the east (2) with two facies. Both ceramic traditions are evident in southern Africa (3); however, only the Matola is connected to Urewe. The EIA Lydenburg ceramic of 400-900 A.D. have their origin in southeastern Africa, and develop into the LIA Kutama Tradition 900 A.D. whose speakers were Shona, and moved north to Zimbabwe (4) producing the ceramic culture at Leopard's Kopje. The LIA Luangwa ceramics of 1000 A.D (5) reveals a dispersal of peoples from Zambia into both Zaïre and Zimbabwe.

the “Lydenburg” tradition. Huffman maintains that a population buildup in this southeastern region led to recolonisation north of the Limpopo River: the Zimbabwe plateau. Evidence of pottery left behind by the colonisers of the plateau Huffman named the “Kutama” tradition which developed from Matola (see Figure 2 above). Huffman argues that the people who made Kutama pottery were the descendants of the Lydenburg tradition and also spoke the Shona language.<sup>6</sup> With the sudden change in pottery style on the Zimbabwe plateau, the presence of a Later Iron Age people can be dated to the Christian era: c.900 A.D. in the south, and c.1100 A.D. in the north (Beach 1984). The various ceramic traditions probably demonstrate movements of peoples as shown in Figure 2.

### 3.2 Speakers of Shona

“Shona” refers to the language spoken by the modern and Later Iron Age people of the Zimbabwe plateau in southern Africa comprising a great number of dialects belonging to the Bantu family.<sup>7</sup> As indicated in 3.1, Huffman claims that the people of the Kutama tradition were speakers of Shona. The Kutama peoples developed from the Early Iron Age settlement originally inhabiting the mountainous Drakensberg region south of the Limpopo (Ibid.). Eventually, these people crossed the Limpopo and settled on the Zimbabwe plateau where the rich land contributed to productive agriculture and cattlekeeping. The similarity between the pottery of the Later

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<sup>6</sup> Phillipson (1985) does not share Huffman's view; instead, Phillipson asserts that the population movement into Zimbabwe came from the north and rejects the argument of a southern origin for the Kutama tradition such as Leopard's Kopje.

<sup>7</sup> The name 'Shona' had been probably first used by the Ndebele and others in the south in the early nineteenth century to describe the people of the southwest of the Zimbabwean plateau - especially the Rozvi (Beach 1984). See Beach for an archaeological and historical account of the inhabitants occupying the Zimbabwe plateau.



Iron Age inhabitants of the plateau and the modern Shona people confirms the Late Iron Age people spoke Shona.

### 3.2.1 Modern Shona

Advances made by the Shona migrants involved absorbing existing cultures from the seventeenth to nineteenth centuries in the northwest (middle Zambesi valley), north (Urungwe plateau) and east (Inyanga plateau). In each case, Shona became the dominant language, not, however, without acquiring some of the linguistic features of the languages it replaced.

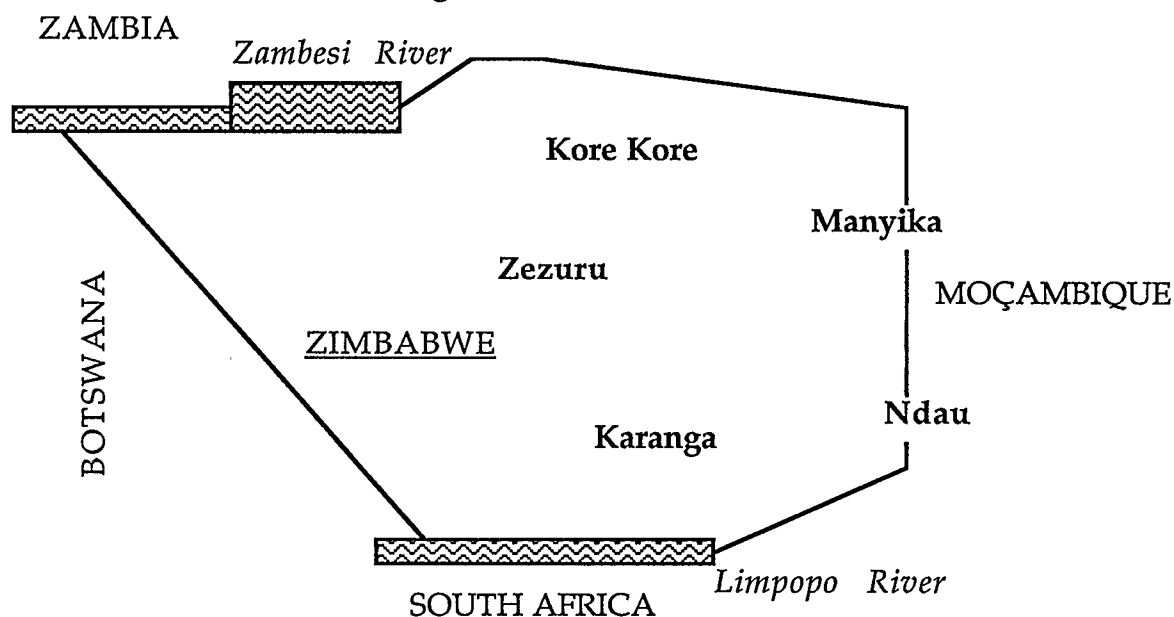
Linguists studying the Shona dialects grouped the dialects on the basis of phonetics, syntax, lexicon and lexical expression. From such considerations the Shona dialects were thought to originally represent six groups: Karanga, Zezuru, KoreKore, Manyika, Ndau and Kalanga.<sup>8</sup> The three-fold division of the language includes: Western Shona, Central Shona and Eastern Shona. Ndau and its dialects presented problems as a result of phonetic phenomena quite distinct from those occurring in Karanga and Zezuru. As for Ndebele, its linguistic centre was at Bulawayo and spread out: the linguistic presence and influence of the Ndebele people and their language on the speakers of Shona had in particular a phonological influence; and in some areas Ndebele replaced the older Shona dialects altogether.<sup>9</sup> The Shona dialects comprising what is today the Modern Shona language appear according to the geographic distribution represented by the following figure:

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<sup>8</sup> Kalanga's inclusion in Shona was reconsidered and ultimately rejected given that Kalanga was so far removed from the other dialects (Doke 1931: 3).

<sup>9</sup> Ndebele is a dialect of Zulu, a member of the Nguni family to which Shona does not belong. The Zulu influence is extended to Ndau in the east coming from the east and the south of the Sabi River and noticeable in the phonetics of Eastern Shona.

Figure 3: Shona Dialects



Chapter 3 has presented an archaeological analysis from Niger-Congo to Shona to demonstrate the historical movement of the people and language family to which Shona belongs. We have seen that Bantu belongs to the larger Niger-Kordofanian phylum of languages, one of the four phyla of languages in Africa. With the phylum originating in central Nigeria, Modern Shona has developed from the Bantu family which covers an extensive region of central and southern Africa, while Bantu languages themselves have their origins in the Cameroon from which a dispersal east and south took place. In spite of similarities with western Bantu ceramics, archaeological and linguistic evidence show that the speakers of Modern Shona are related to the eastern Bantu speakers who reached the southeastern region of Africa. After contact with western Bantu ceramic traditions, as a result of a population build-up and land pressure in the south, the Late Iron Age speakers of Shona returned to the northern plateau between the Limpopo and Zambesi Rivers.

The linguistic commonality among the Bantu languages which identifies their interrelatedness includes sentence structure, word order and morphology. We shall observe in the next chapter one of the main features of Bantu languages: the Noun Class system. The Noun Class is evident in the nominal morphology of Bantu, and this includes the nominal morphology of Shona.

## *Chapter 4*

### NOMINAL MORPHOLOGY

#### 4.0 The Noun

This section presents an outline of Shona nominal morphology. The importance of nominal morphology in Bantu for this thesis is that any agreement that follows is determined by the noun prefix - the Noun Class. The position of these morphemes of agreement reveals present morphological patterns, and as we shall see later, has implications for earlier word order patterns, namely, that of SOV.<sup>10</sup>

The noun in Shona, as with other Bantu languages, normally consists of two elements: the noun prefix and the noun root.<sup>11</sup> In order to classify nouns it is usually the prefix which is significant; however, since not all classes have prefixes, class is not determined by prefix alone. The Noun Class system in Shona can be exemplified by the following singular and plural nominals:

(1) **mwana** 'child' Class I

(2) **vana** 'children' Class II

The two nouns, while closely linked, constitute two Noun Classes: the **mu-** class and the **va-** class. Denny and Creider (1986) argue that most of the noun prefixes in Bantu were associated with configurational or shape meanings (p.217).<sup>12</sup>

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<sup>10</sup> The descriptive Shona material in this chapter is based on Fortune (1955, 1967); and Dale (1972). However, I have reorganised the presentation of the nominal morphology to provide a more systematic analysis, and modified the terminology to correspond to that which I have used throughout this paper.

<sup>11</sup> Fortune 1955:50ff.

<sup>12</sup> Such a hypothesis counter-argues Richardson who maintains that "...it is impossible to prove conclusively by any reputable methodology that nominal classification in Proto-Bantu was indeed widely based on conceptual implication..." (1967:378).

Table 1: Noun Classes

Class	prefix	noun	gloss
I	mu-	mukadzi	'woman'
II	va-	vakadzi	'women'
III	mu-	muti	'tree'
IV	mi	miti	'trees'
V	[ri]	banga	'knife'
VI	ma-	mapanga	'knives'
VII	chi-	chinhu	'thing'
VIII	zvi-	zvinhu	'things'
IX	N-	mhou	'cow'
X	N-	mhou	'cows'
XI	ru-	rugare	'peace'
XII	ka- <sup>13</sup>	kamunhu	'small person'
XIII	tu- <sup>13</sup>	tuvanhu	'small people'
XIV	hu-	hwahwa	'beer'
XV	ku-	kuda	'loving'
XVI	pa-	panhu	'spot'
XVII	ku-	kunhu	'direction'
XVIII	mu-	mukati	'middle'
XIX	svi-	svimbudzi	'small goat'
XXI	zi-	zana	'big child'

<sup>13</sup> Classes XII and XIII appear here as they have been renumbered by many Bantuists: XIII is the plural of XII. In the body of Shona descriptive literature, however, ka- appears as Class XIII and tu- as Class XII.

In addition to the prefix having a classificatory function, the prefix is also the basis for prefixal formatives found in agreement.<sup>14</sup> Table 1 provides a list of Noun Classes found in Shona morphology. Two main kinds of agreement occur in Shona: qualificative and verbal.<sup>15</sup> The nominal prefix serves to identify the syntactic relationship between the qualificative and/or verbal and the nominal as shown in the example:

- (3) **chigaro changu chinorema**  
       chair    my       is-heavy  
       ‘my chair is heavy’

The possessive qualifier **changu** agrees with the noun **chigaro** ‘chair’ which is phonologically evident by the agreement **chi-**, as well as by the **chi-** prefix being present in the verbal morphology.<sup>16</sup> In all, Shona has twenty Noun Classes, and each class not only has class-related nominals, but also shows morphophonological changes after affixation - often the result of the diachronic development.<sup>17</sup>

#### 4.1 Qualificative Agreement

Qualificative agreement is employed in Shona to assign prefixes to specific syntactic categories: (i) adjective; (ii) demonstrative; (iii) enumerative; (iv) possessive; and (v) quantitative. The agreement with these syntactic categories is determined by the Noun Class of the nominal.

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<sup>14</sup> [ri] never appears as a prefixal morpheme, but was historically present, which accounts for the voice initial stem that follows.

<sup>15</sup> In Classes IX and X the original forms are believed to be **ni** and **li-ni**, respectively. The influence of the nasal consonant upon the initial phones or stems is evident by the nouns belonging to these classes (Doke 1931:62-71).

<sup>16</sup> Verbal morphology is discussed in detail in the next chapter.

<sup>17</sup> Although the Noun Classes include Class XXI, the Classes themselves total 20. The descriptive and historical literature that I have examined does not make any reference to Noun Class XX or the diachronic development of such a Noun Class.

#### 4.1.1 Adjectives

The Shona adjective consists of two parts (i) agreement; and (ii) root. The agreement itself is based on the twenty classes of Shona nouns, each class having its own agreement category:

- (4) **va-rume va-kuru** vanoda kudya sadza nekunwa hwahwa.  
 NCL-NRTAGR-ART want to-eat porridge and-to-drink beer  
 men big  
 'the big men want to eat (thick) porridge and to drink beer'

The adjective **vakuru** 'big' is composed of both adjectival agreement (AGR) of the Noun Class (NCL) and the adjectival root (ART): **va + kuru = vakuru**.

#### 4.1.2 Demonstratives

In Shona demonstrative agreement employs two means of construction. One demonstrative construction in Shona employs the demonstrative agreement itself which means simply 'this' or 'these'; 'that' or 'those': this demonstrative agreement is constructed using the base vowel (BSV) of the Noun Class in word initial position, or as "prefix", followed by the demonstrative agreement, and then again by the base vowel in word final position:

- (5) **ru-kova u-rw-u** runoyera kuMoçambique  
 NCL-NRT BSV-AGR-BSV flow to-Moçambique  
 river this  
 'this river flows into Moçambique'

To form 'that', 'those' in Shona, the same construction is used as in the first demonstrative, only rather than the base vowel being present, the demonstrative vowel (DMV) -o is employed:

- (6) **chi-garo i-ch-o** chakapunzika  
 NCL-NRT BSV-AGR-DMV broken  
 chair that  
 'that chair is broken'

The second demonstrative construction has the demonstrative affixed to the Noun Class to produce demonstrative agreement (AGR) which employs the demonstrative root (DRT) **-no** meaning 'this/these here'; and **-ye** meaning 'that/those there':

- (7)    **mw-ana**    **u-no**            anorara  
          NCL-NRT AGR-DRT sleep  
          child        **this here**  
          'this child here sleeps'
- (8)    **va-kadzi**    **va-ye**            vanotaura  
          NCL-NRT AGR-DRT talk  
          women       **those there**  
          'those women there talk'

The demonstrative agreement in (7) is identical in construction with adjectival agreement: the demonstrative agreement **u-** is based on the vocalic quality of the Noun Class, then followed by the demonstrative **-no**. In (8) to express 'those' the demonstrative root **-ye** is affixed to the demonstrative agreement **va-** in both cases suggesting a post-agreement "suffix". We shall see later how these morphophonological positions among demonstratives have implications for earlier word order and word order change.

#### 4.1.3 Enumeratives

Shona has four enumerative roots (ERT) with which nominal agreement is required. The enumeratives are: (i) **-mwè** (falling tone) 'some', 'another'; (ii) **-mwé** (rising tone) 'one', 'the same'; (iii) **-i** 'what', 'of what kind'; and (iv) **-pi** 'which'.

- (9)    **va-mwe**    vakadii?  
          NCL-ERT do-what  
          **others**  
          'how are the others?'



Example (9) shows the enumerative **-mwe** preceded by the Noun Class **va-** = 'others' with the Noun Class reappearing on the question marker.

#### 4.1.4 Possessives

The Shona possessive agreement (POS) consists of agreement with the Noun Class, and the possessive root. The possessive agreement is with the noun being possessed, while the possessive root is indicative of the possessor:

- (10) **va-na**      **vo-musha**    vakafunda kuSilveira  
       NCL-NRT POS-village studied    at-Silveira  
       children    of-village  
       'the children of the village studied at Silveira'

The possessive adjective is **vo**, which can be decomposed as follows: **v-** refers to the Noun Class II, in this case **va-**; and **-o** is the possessive root which refers to **u**-Class for **musha** 'village' in this case Noun Class III. When the possessed refers to a person in the singular the possessive agreement does not apply. Instead, **wa-** is employed, and followed by the possessive pronominal:

- (11) Ignasiyo munin'ina      **wa-ngu**  
       NOM    NOM                POS-me  
       Ignatius younger brother of- me  
       'Ignatius is my younger brother'

#### 4.1.5 Quantitatives

Quantitatives such as **-se** 'all' and **-ga** 'only' occur as suffixal quantitative roots (QRT) following the quantitative agreement whose base vowel is **-o**:

- (12) **va-fundi**    **vo-se**      vanoenda    kuchikoro  
       NCL-NRT    AGR-QRT go            to-school  
       pupils      all  
       'all the pupils go to school'

As with possessive agreement, evidence of the Noun Class is indicated in demonstrative agreement, whereby **v-** from Noun Class II is present; and the **-o** marks the quantitative, thus producing **vo-** which is affixed to the quantitative root.

Like other quantitatives, numerical quantitatives immediately follow the noun they qualify as shown by the following pattern:

- (13)    **vafundi**    **vatatu**    vakaenda    kuzvikoro    **zviviri**  
           NOM        QNT        went            to- NOM        QNT  
           students    three                    schools        two  
           'three students went to two schools'

The quantifiers in example (13) follow the nominals: **vafundi** 'students' is followed by **vatatu** 'three', and **zvikoro** 'schools' is followed by **zviviri** 'two'.

In cases where several qualifiers occur, such as adjective, demonstrative, enumerative and quantitative, they would appear in the order as follows:

- (14)    vakavaka    imba        **nhatu**    **idzva**  
           they-built    NOM        ENU        ADJ  
                           houses    three    new  
           'they built three new houses'
- (15)    Ndakaona    avo        vacheche    **vose**    **vatema**    **vaduku**  
           I-saw        DEM        NOM        QNT        ADJ        ADJ  
                           those    babies    all        black        little  
           'I saw all those little black babies'
- (16)    mukadzi    akatenga    idzo        mango    **shanu**    **zose**    **dzakatsuka**  
           women    bought        DEM        NOM        ENU        QNT        ADJ  
   those    mangos    five        all        reddish  
           'the woman bought all those five orange (reddish) mangos'

The Shona sentences (14) to (16) exemplify word order patterns with respect to qualificative order: demonstratives are placed before the nominal (15) and (16); but when demonstratives co-occur with enumeratives, quantifiers and

adjectives, the three latter qualifiers all follow the nominal respectively.<sup>18</sup> Adjectives that are built on verbal constructions (15) and (16) follow adjectives that have only nominal agreement.

We have seen the importance of the Noun Class in Shona nominal morphology, where the Noun Class reappears in various qualificative constructions. We can conclude that Noun Class and Noun Class agreement are crucial in Shona nominal constructions. We have also noted a particular order when several qualificatives co-occur.

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<sup>18</sup> The Shona word order for sentences (14) to (16) was provided by Karikoga Bamhare, a native speaker of the KoreKore dialect. The informant felt that the demonstrative did not necessarily have a fixed position, and could occur before or after the nominal; however, because of all the qualifiers following the nominal, it appeared to the speaker that the demonstrative belonged in a position preceding the nominal.

## *Chapter 5*

### VERBAL MORPHOLOGY

#### 5.0 The Verb

The Shona verb is of two types: (i) the simple verb which includes the verb root and terminative; and (ii) the derivative verb which is made up of the verb root, derivative and terminative.<sup>19</sup> Verbal arguments include the subject and the object. Derivative verb forms which manifest various morphological processes are of three types: affixation, voicing and reduplication:<sup>20</sup>

- |      |                |              |                           |
|------|----------------|--------------|---------------------------|
| (17) | Affixation:    | -tora 'take' | -toresā 'cause to take'   |
| (18) | Voicing:       | -kwiza 'rub' | -gwiza 'rub against'      |
| (19) | Reduplication: | -bata 'hold' | -batabata 'feel all over' |

#### 5.1 Valence

Since the role of valence is significant in Shona morpho-semantics and morpho-syntax, as well as being a central part of this paper, I shall introduce valence in Shona verbal morphology by defining the valence category. Valence can be analysed in both semantic and syntactic terms.<sup>21</sup> Semantically, a verb is modified according to the affix attached; for example, the meaning of the simple verb changes to causative with the suffix *-esa ~ -tsa ~ -dza* expressing causation. Syntactically, valence has implications for the

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<sup>19</sup> Erickson (1988:32) refers to the terminative (including the final vowel of the derivative terminative) as a "default suffix" found throughout all of Bantu.

<sup>20</sup> This section will focus on derivatives of the affixation type; the other two, voicing and reduplication, are of a limited number - only morphological voicing will be discussed in section 7.4.3 since voicing has morphological implications presented in this paper.

<sup>21</sup> Videā P. DeGuzman (personal communication) brought this to my attention.

arguments that the verb takes; for example the applied suffix **-ira ~ -era** produces a ditransitive verb, which means the applied valence has two arguments. The semantic and syntactic characteristics of valence are shown by the causative in (20):

- (20) seka 'laugh'; setsa 'amuse'
- |                              |           |        |
|------------------------------|-----------|--------|
| vana                         | vanosetsa | varume |
| children                     | amuse     | men    |
| 'the children amuse the men' |           |        |

The verb **seka** 'laugh' - a vocal response to an amusing or humorous matter - does not require an object, e.g., 'the children laughed'; however, when the causative valence **-tsa** is attached to the verb root the meaning of the verb root has been modified to express 'amuse' - 'to cause someone to laugh' which requires an object, e.g., 'the children amused the men.' The application of the causative, therefore, produces both semantic changes (forced laughter) and syntactic changes (required object).<sup>22</sup> In other instances, suffixes in Shona can detransitivize, such as the neuter valence **-ika ~ -eka**, reducing the arguments to one.<sup>23</sup>

Shona has twelve valences categories, and as in (20), valence categories can change the simple verb to a causative; or valence can change a verb from transitive to intransitive, and other valences through suffixation.<sup>24</sup> This is comparable to English which also shows related verbs with distinct valences:

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<sup>22</sup>Some valence categories can also co-occur; for the combination of valences see Erickson (1987) who provides a lexical analysis of Shona "verbal extensions".

<sup>23</sup> Lyons (1977:486ff.) points out that predication in terms of arguments suggests that a predicator with one argument has a valency of 1 (intransitive verb); a predicator with two arguments has a valency of 2 (transitive verb); and a predicator with three arguments has a valency of 3 (ditransitive verb).

<sup>24</sup> The term valence will further be discussed in Chapter 7 where the category is presented in a semantic hierarchy.

(21) Transitive: He **laid** the body on the floor.

(22) Intransitive: He **lay** motionless.

The syntactic implications of the valence category varies from valence to valence; however, the morphological and morpho-semantic processes are the same for all twelve valence categories. Such derivational processes are significant in morphological terms, as the morphology can reveal earlier word order characteristics (Givón 1975). Moreover, these derivational suffixes have implications for Bantu languages in general, since these processes are not limited to Modern Shona. As a result of the morphological similarity among valences, I shall be using the causative (CAU) valence to show how the position of valence is related to the semantic modification of the verbal root, and thus exemplifying valence in Shona and other Bantu languages.<sup>25</sup>

### 5.1.1 Causative

The causative valence **-i/-esa** expresses direct or indirect causation: direct involves a subject acting upon an object, while indirect involves one subject acting upon another subject resulting in the latter acting or entering a state; e.g., buy + Causative = 'to sell':

(22) tenga 'buy'; tengesa 'sell'

vakadzi vanotengesa miriwo  
 women sell vegetables  
 'the women sell vegetables'

As well as the previous example (20) which transitivizes an intransitive verb (repeated from p. 24):

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<sup>25</sup>For further examples of valence refer to appendix.

(20) seka 'laugh'; setsa 'amuse'

vana        vanosetsa varume  
 children amuse        men  
 'the children amuse the men'

The change of the verb root can be from intransitive to transitive or to ditransitive.

All twelve valences in Shona reveal the same characteristics: in each case the verb root shows a modification in meaning once the valence is attached. The application of the valence affixes also has syntactic implications, whereby changes in transitivity take place, from intransitive to transitive, such as the applied and causative valences; transitive to intransitive, as in the associative, neuter, reciprocal, reversive and stative valences; and transitive to ditransitive, such as the applied and causative valences. Such semantic and syntactic changes suggest a close morphological relationship between the verb root and valence since the application of the valence is responsible for the change in meaning of the verb root. The morphological application is the same throughout the twelve valences: the valence follows the verb root. (For more details on valence in Shona see the appendix.)

## 5.2 Voice

The distinctions found in voice are specifically in relationship to the verb: in the active the agent, the doer of the action is in subject position, and the patient, the recipient of the action, is in object position as shown in (24):

(24) Robert akandi-batsira  
 SUB OBJ-help  
 AGT PAT  
 'Robert helped me'

In the passive a reversal of positions occurs: the agent is in object position, while the patient is in subject position (SUB and OBJ positions in the example below are noted by the parentheses). Thus, voice can have either active expression or passive expression as in (25):

(25) batsira 'help'; batsirwa 'be helped'

nda-batsir-wa	na-Robert
(SUB)-help-VOC	by-(OBJ)
PAT	AGT
'I was helped by Robert'	

The category of voice is relevant not only to the verb, but to the arguments of the verb as well. Barber (1975) points out that voice signals a "deviant function" of the passive subject; since the roles of the NPs can be modified by the voice, as well as the perspective from which the action is being viewed, the NPs or the verb, or both may be morphologically coded (Bybee 1985:20). In Shona, verbs in the active are unmarked, but the passive is marked by -wa which is attached to the verb in suffixal position:<sup>26</sup>

(26) da 'want'; diwa 'be wanted'

unodiwa	naIgnaciyo
you-wanted	by-Ignatius
'you are wanted by Ignatius'	

As with other affixes, the suffix has allomorphs depending on the phonological structure of the verb root: -wa ~ -iwa ~ -ewa.

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<sup>26</sup> The Shona texts to which I have referred place the passive voice under "verbal extensions": these extensions I refer to as "valence". Though the meaning of the verb does not change in the passive, the perspective from which the action described by the verb is viewed, does change which gives the passive a derivative analysis in descriptive texts (Fortune 1955, 1967; Dale 1972, 1981). It should be pointed out that the passive voice in Shona always follows the valence category.



### 5.3 Aspect

Aspect represents different ways of viewing the internal temporal constituency of a situation (Comrie 1976:5). Rather than being concerned with situation-external time, aspect focusses on situation-internal time (Ibid.). Crosslinguistic studies show that three oppositions of aspect exist: perfective vs. imperfective; habitual vs. continuous; non-progressive vs. progressive (Ibid.). We shall examine each of these as they appear in Shona. In Shona various ways of distinguishing aspect are possible through the verbal morphology. The aspects that are differentiated are the perfective, habitual and progressive.<sup>27</sup>

#### 5.3.1 Perfective

The perfect refers to an action having taken place at a particular point in time. Comrie (p.18) refers to “point” in time metaphorically as “blob” because though the perfective reduces the situation, the situation still has “internal complexity”. Furthermore, reference should be made to the entire situation and not just to its completion, therefore, perfective should be thought of as “complete” rather than “completed” (Ibid.).

#### 5.3.2 Present Perfect

The present perfect is the combination of the present tense and perfect aspect: this aspect in Shona expresses recent completion. The action indicates that the present relevance of the past situation referred to is simply that of temporal closeness (Comrie 1976:60). In Shona recentness of an action is

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<sup>27</sup> The aspectual constructions presented in this section are those relevant to my study. For other constructions refer to the appendix.

expressed by employing the morphological marker **a-** which is attached to the subject pronoun and verb:

- (27) nd-a-uya      nhasi  
       I-ASP-come    today  
       'I have come today'

The verbal root is preceded by the aspect **a-** which is also attached to the subject pronoun **nd-**.

### 5.3.3 Habitual

The habitual expresses the imperfective or non-punctual concept of an action, and therefore, differing from the perfective. Habituality describes a situation which is characteristic of an extended period of time, rather than an incidental property of the moment (Comrie 1976:28). Unlike the continuous, which is durative in meaning, the habitual focusses on the extended period of the action.

### 5.3.4 Past Habitual

To express an action taking place over a period of time in the past, the past form of the habitual is used. In Shona this form is constructed through use of the marker **i-**. The presence of this morpheme serves to convey the equivalent to the English 'used to' as in the following example:

- (28) Ignasiyo naDavidhi va-i-enda      kuMasvingo  
       Ignatius and David AGR-ASP-go to-Masvingo  
       'Ignatius and David used to go to Masvingo'

Example (28) expresses the aspectual nature of the boundless activity taking place in the past tense: 'used to go'. An equally acceptable form of the past habitual, but less common is the following regional variant:

- (29) Ignasiyo naDavidhi va-i-ka-enda kuMasvingo  
 Ignatius and-David AGR-ASP-TNS-go to-Masvingo  
 'Ignatius and David used to go to Masvingo'

The meaning expressed in (28) is equivalent to that of (29); however, the tense is made clear in (29) with the presence of the past tense marker **ka-**.

#### 5.3.4 Progressive

The progressive aspect marker differs from the habitual in that the progressive tends to suggest durative, continuing, and in some cases progressive activity. As with habitual, progressive aspect still expresses an action as being imperfective, that is non-punctual, but the progressive differs from continuative in that the progressive refers to a durative action which involves non-stative verbs, while continuative refers to both progressiveness and stativity.

#### 5.3.5 Present Progressive

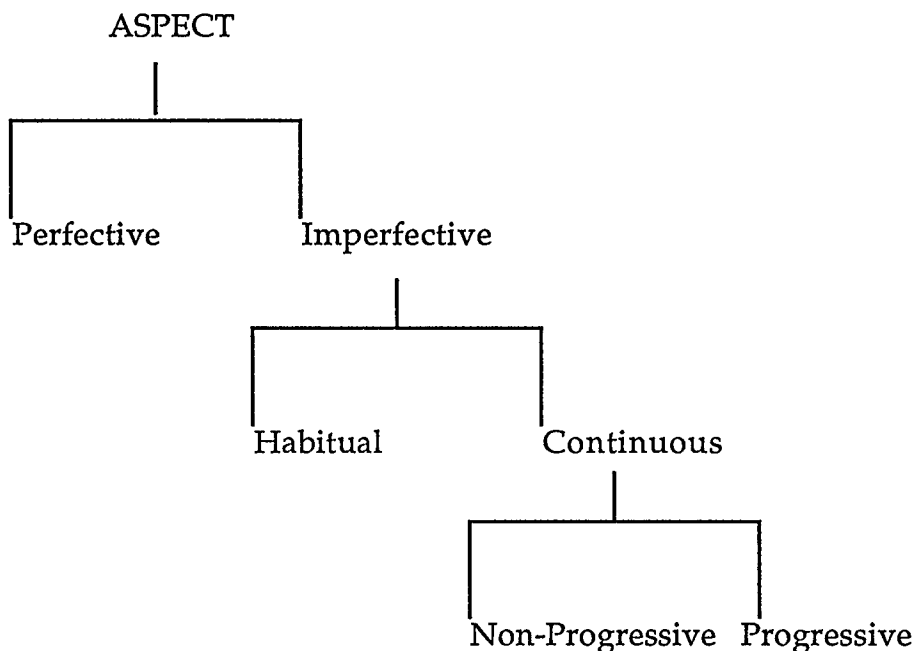
In Shona the progressive aspect is found in the present, past and future. Shona indicates that an action is progressive in the present tense through the use of the prefix **ri-**:

- (30) vafundi va-ri-ku-funda pachikoro  
 pupils AGR-ASP-to-study at-school  
 'the pupils are studying at school'

The use of the aspect **ri-**, however, is limited to the present tense; with this aspectual marker, in the position of tense, we find the infinitival morpheme **ku-** 'to'. In the past and future tense complex participial constructions express the progressive with the morpheme **chi-** (see appendix). A phonological pattern is evident with the habitual/progressive, whereby the high front

vowel is employed to signify imperfective. We can summarize Shona aspect according to Comrie's classification of aspectual opposition (1976:25):

**Table 2: Aspectual Opposition**



#### 5.4 Tense

Tense is a deictic category: situations are located in time with reference to the present moment. In other words, tense is viewed from the perspective of the speaker as situation-external. The verb is normally that which is marked for tense in language; however, tense distinctions have no effect on the meaning of the verb. Shona, as with most languages, has three tenses, marked as follows: (i) **no-** for the present tense; (ii) **ka-** for the past tense; and (iii) **cha-** for the future tense.

### 5.4.1 Present

The present tense in Shona employs the same marker that can have an aspectual function **no-**. When neither immediacy nor habituality are being expressed, then **no-** simply indicates an action of the indefinite present tense:

- (31) Ndi-**no**-verenga *Moto* mubhazi  
 I-TNS-read *Moto* in-bus  
 'I read *Moto* on the bus'

It is imperative to point out here the position of the tense marker in relation to the verb: like aspect, tense is closely tied to the verb root.

### 5.4.2 Past

The past tense expresses that an action took place at some earlier point in time. However, the past time reference does not attach to it any aspectual implications. The morpheme marking the past tense is **ka-** and is generally referred to as the remote past, simple past or indefinite past to differentiate it from the aspectual recent past. It should be observed, however, that Shona always includes in the construction of the past tense the aspectual marker **a-** which is attached to the subject pronoun, as in the following:<sup>28</sup>

- (32) Nd-a-ka-verenga *Moto* mubhazi  
 I- (ASP)-TNS-read *Moto* in-bus  
 'I read *Moto* on the bus'

The morphological difference with the 1SG in (32) is that the pronoun has attached to it the aspectual marker **a-**, unlike the present (31) and the future (33), where the 1SG has the **i-** vowel attached to it.<sup>29</sup>

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<sup>28</sup>An explanation on **a-/ka-** is provided in the Chapter 8 "Analysis".

<sup>29</sup> Erickson (1988:56-58) offers a different analysis: he maintains that **aka-** as a unit is a tense marker. However, Erickson's analysis does not adequately explain the presence of **a-** as an aspectual morpheme; moreover, his analysis violates the semantic hierarchy Bybee (1985) proposes. Bybee's hierarchy is discussed in Chapter 7 of this thesis, and a further analysis of

### 5.4.3 Future

The future tense in Shona expresses an action that has yet to take place, or is about to take place. In languages such as English, a periphrastic construction conveys the future; in Shona the future tense is expressed through the use of the future marker **cha-** which is placed after the subject pronoun:

- (33) Ndi-cha-verenga *Moto* mubhazi  
 I -TNS-read *Moto* in-bus  
 'I will read *Moto* on the bus'

As with the present and past tense the verb root is immediately preceded by the future tense marker. From the above data in sections 5.3 and 5.4 on aspect and tense markers we have the following morphology:

(34)

TENSE		ASPECT	
present	no-	perfect	a-
past	ka-	habitual	i-
future	cha-	progressive	ri-

(35) ASPECT-TENSE

$$\left\{ \begin{array}{l} \text{a-} \\ \text{i-} \end{array} \right\} \text{ ka-}$$

In (35) the aspects **a-** for perfect and **i-** for habitual both combine with the Shona tense **ka-** producing aspect-tense constructions.

Shona aspect and tense have two significant characteristics: (i) both aspect and tense are in preverbal position, and in a position of the verbal

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aspect-tense is provided in Chapter 8 based on the hierarchy and the studies in aspect-tense (Bybee and Dahl 1989).

morphology closely connected to the verb root; and (ii) both aspect and tense are morphologically marked.

## 5.5 Mood

Mood expresses the intent of the speaker in discourse. Such intent in discourse includes: (i) expressing assertion by employing the indicative; (ii) expressing non-assertion by the use of subjunctive; (iii) expressing possibility, suggestion or doubt by employing the potential; (iv) expressing the hypothetical through the use of the conditional; (v) expressing a command by the use of imperative; and (vi) expressing exhortation by the use of the hortative. Central to mood is that it reflects the speaker's feelings, therefore, the entire proposition becomes modified. At the same time, while mood reflects the speaker's feelings, it has no direct effect on what is being described by the verb. Bybee (1985) maintains that since the entire proposition is modified, though the situation is not affected, the situation described "makes mood less relevant to the verb than either aspect or tense". Shona makes use of seven moods: (i) indicative; (ii) subjunctive; (iii) potential; (iv) conditional; (v) exclusive; (vi) imperative; and (vii) hortative; of these seven only the indicative is unmarked.

### 5.5.1 Indicative

The indicative mood in Shona is not marked; therefore, the indicative is evident by the absence of the markers. In other words, whatever remains after non-indicative application can be referred to as the indicative mood in Shona

### 5.5.2 Subjunctive

Generally speaking the subjunctive mood is used to express non-assertion; however, a more defined use of the subjunctive becomes apparent in the context of the given language. The subjunctive is commonly found as complements of some main verbs, or they may be found after conjunctions. In Shona the subjunctive mood is normally found after a main clause to express a desire or a wish with the subordinate clause led by the conjunction **kuti**... 'in order to' or 'that':

- (36) vafundi va-no-da                      kuti ndi-vereng-e-i?  
       pupils    AGR-TNS-want    that I-read-MDD -what?  
       'What do the pupils want me to read?'

The example above (36) shows that the verb **-da** 'want' expresses a desire followed by the conjunction **kuti** which introduces the subordinate and subjunctive clause. The verb in the second clause **vereng-e** has an **-e** suffix which marks it as the subjunctive mood (MDD).

### 5.5.3 Potential

The epistemic nature of the potential mood is that this mood is concerned with the truth of the proposition. The potential is associated with propositions expressing possibility, supposition and doubt which can be rendered by the English auxiliary modals 'may, might, can, could, should' and other similar modal expressions. In Shona the potential mood is formed by affixing **nga-** to the verb root followed by **-e** modal (MDD):

- (37) a-nga-end-e                      kuChivhu  
       AGR-AUX-VRT-MDD    to-Chivhu  
       's/he might go to Chivhu'

As with the subjunctive, this non-indicative mood is marked with an **-e** which immediately follows the verb root. In addition to this modal marker, the potential mood also employs **nga-**, here used as an auxiliary, which



immediately precedes the verb root, placing the verb root between the auxiliary and modal marker. The potential mood is often signalled by a conjunction, as in the following example:

- (38) **kanapo** Sr. Teresa **a-chi-fundisa,** **a-nga-end-e** Chivhu  
**although** Sr. Teresa AGR-PRT-teach AGR-AUX-go-MDD Chivhu  
 'although Sr. Teresa is teaching, she might go to Chivhu'

The conjunctive construction also employs a participial construction in which **chi-** participial in **chi-fundisa** 'teach-ing' is found in the verbal construction of the subordinate clause; the auxiliary, as well as the potential mood marker, is incorporated in the main clause.

#### 5.5.4 Conditional

The conditional mood expresses a hypothetical situation often requiring two clauses: the if-clause (subordinate) and the then-clause (main) typify the conditional mood in English. In Shona, conditional clauses are introduced by the conjunctive **dai** followed by a participial construction. The main clause, or clause of consequence, is introduced by the verb **-dai** in the form of **ndi-nga-dai** followed by the complement of the participial. The present conditional employs the conjunctive **dai** in initial position of the sentence with the participial **chi-** in the subordinate clause. The main clause has the verb **dai-** preceded by the auxiliary **nga-**:

- (39) **dai** vanhu **va-chi-verenga,** **va-nga-dai** va-nzwisisa  
**if** people AGR-PRT-read AGR-AUX-would AGR-understand  
 'if the people read, they would understand'

The basis of the conditional mood, therefore, is the use of the verb **-dai** 'would', which is distinct from the use of **nga-**, which can be found in other moods. The signal of the potential mood is the conjunction **dai**. The past

tense is distinguished from the present by the use of the past tense marker *ka*, but without the participial construction in the subordinate clause:

- (40) *dai* Ignasiyo *a-ka-nyora*                      *tsampa* Davhiti *a-nga-dai*  
       if Ignatius (ASP)-TNS-write letter David AGR-AUX-would  
  
       *a-ka-i-verenga*  
       (ASP)-TNS-it-read

‘if Ignatius wrote a letter, David would read it’

We can conclude from the section on mood that in Shona mood in the non-indicative is a marked category: either the suffix *-e* is employed, e.g., the subjunctive, or the auxiliary *nga-*, e.g., the conditional (as well as *dai*), or both, e.g., potential and hortative to express some form of modality. While the imperative does not employ either of these morphemes, a tonal distinction is made in command constructions.

### 5.5.5 Exclusive

The exclusive mood indicates that the origin of an action is at a particular point in time and not before. The exclusive agreement is marked by an *-o* suffix attached to the pronoun:

- (41) *kana* *nd-a-wana* *mabhuku* *angu*, *nd-o-funda*  
       when I-ASP-find books my I-MDD-study  
       ‘when I have found my books, I shall study’

The exclusive mood in Shona is similar to the Spanish subjunctive that anticipates an event, but because the action has not yet been realised the subjunctive is used:

- (42) *cuando* *yo* *encuentr-a* *mis* *libros*, *estudiar-é*  
       when I find-MDD my books study-TNS  
       ‘when I find my books, I shall study’

The difference between the Spanish subjunctive and the Shona exclusive is the presence of the mood marker: in Spanish it occurs in the subordinate clause, while in Shona it is found in the main clause.

### 5.5.6 Imperative

The imperative mood is used to make a direct command or order. In Shona the imperative has seven possible constructions which are the result of semantic, morphological and phonological factors. The most common use of the imperative is found with single imperative which is used for a single command: the singular/informal has a rising tone on the final vowel of the stem (43), while the plural/polite is constructed through the addition of an **-i** to the verb (44):

(43) daidza' vakadzi  
call-MDD women  
'Call (2SG) the women!'

(44) daidza-i vakadzi  
call-MDD women  
'Call (2PL) the women!'

### 5.5.7 Hortative

The hortative is the same sort of mood as the imperative mood only that semantically the former represents exhortation, rather than a direct command; this exhortation is comparable to English clauses beginning with 'let us....' Morphologically, the hortative employs the **-e** suffix as well as the auxiliary **nga-** to mark the mood:

(45) nga-ndi-end-e kumba  
AUX-I-go-MDD to-house  
'let me go home'

- (46) **nga-ti-end-e-i**                      kumba  
       AUX-we-go-MDD-1PL to-house  
       ‘let’s go home’

The hortative, as with other non-indicative moods, employs the **-e** to express its subjunctive mode. The two examples illustrate not only the use of the auxiliary and mood marker, but also contrast the singular (45) from the plural (46). In the case of the plural, the copulative **ti-** ‘we’ is used with the **-i** for the 1PL which marks the first person plural following the mood.

## 5.6 Verbal Agreement

Agreement refers to participants in a situation described by the verb; agreement categories often show markers for number, person and gender. As we observed in Chapter 4, the basis of agreement in Shona is the Noun Class: each class is represented by a prefix attached to the nominal root. The verb always begins with a subject pronoun that shows agreement with Noun Class. Shona, does not have any agreement for gender, and the number/person agreement employs the same morpheme.

### 5.6.1 Number

The verbal morphology is marked for number only in the objective case of the second person plural/polite (2PL) **-i**. The object **ku-** ‘you’ and the plural/polite agreement are in fact separated by the verb root:

- (47) **ndi-cha-ku-ona-i**    mangwana  
       I-shall-you-see-2PL tomorrow  
       ‘I shall see you tomorrow’

When the **-e** mood marker is affixed to the verb root, the plural indicator follows the mood marker which is evident once again in the verbal morphology:

- (48) nga-ti-end-e-i  
 AUX-we-go-MDD-1PL  
 'Let's go!'

### 5.6.2 Object

If an object is required in the construction of a sentence, the object must also agree with the Noun Class to which it refers. The object is part of the verbal morphology when it is found as an affix: "The object concord is always placed immediately in front of the verb stem. Nothing can dislodge it from this place." (Fortune 1967:53).

- (49) ndi-cha-mu-ona  
 SUB-TNS-OBJ-see  
 'I shall see you'

The agreement in (49) shows Noun Class I with first person singular subject agreement **ndi-** followed by the same Noun Class I, but with object agreement of the second person singular **mu-**. The object is placed immediately before the verb.

### 5.7 Adverbs

In Shona the adverb may appear as part of the verbal morphology, and in such cases the adverb is an affix. A limited number of affixal adverbs are found in the language and occur in the verbal morphology as follows:

- (50) ndi-no-swero-funda  
 SUB-TNS-ADV-study  
 I-TNS-all day long-study  
 'I study all day long'

The adverb **swero** 'all day long' is found attached to both the tense marker that precedes and the verb that follows.

The above examination of Shona verbal morphology reveals morphological patterns which will be considered in detail in Chapters 7 and 8. We can now begin to contrast the morphology with the present word order in Shona.

## 5.8 Morphology and Word Order

The position of the verbal morphemes in Shona, as presented in section 5.7, has implications for earlier Shona word order; but while morphology may be indicative of earlier word order, Shona morphology and word order may not always reveal the same patterns: words (free lexical items) and morphemes (in this case, affixes) can reveal different word order typologies. Such differences in patterns have significant implications for the historical development of Shona and other Bantu languages (discussed in section 7.5). An analysis of Shona word order will show the dominant order of the language which contrasts, in some respects, with the morphology.

### 5.8.1 Subject-Verb-Object

Shona has a Subject-Verb-Object word order, and has been classified as an SVO language (Comrie 1981):

- (51) **mwana anodya muchoero**  
 SUB      VRB      OBJ  
 child    eats      fruit  
 'the child eats fruit'

When two nominal objects follow the verb, the order of objects is determined by the verb itself. When a verb is not modified by valence categories, the order is normally direct object-indirect object:

- (52) **mukadzi anopa muchoero mwana**  
 SUB      VRB      DOB      IOB  
 woman   gives   fruit      child  
 'the woman gives the fruit to the child'

In example (52) 'child' corresponds to the dative. When the object is a pronominal, the pronominal precedes the verb, and in cases where two pronominal objects are present, the indirect object is simply implied, while the direct object is overtly marked:

- (53) mukadzi a-no-u-pa  
 SUB AGR-TNS-DOB-give  
 woman them-give  
 'the woman gives them (to him/her)'

The object pronominal in (53) is found immediately before the verb root. The pronominal indirect object comes after the direct object if the latter is a nominal and the indirect object is a pronominal:

- (54) mukadzi anopa muchero iye  
 SUB VRB DOB IOB  
 woman give fruit to him/her  
 'the woman gives the fruit to him/her'

In (54) the indirect object follows the object as in (52), but unlike (53), the dative is marked by an overt pronominal.

### 5.8.2 Adverbs

When adverbs occur as independent lexical items, they are found in a position following the verb:

- (55) mwana anotaura zvakachenjera  
 SUB VRB ADV  
 child speak cleverly  
 'the child speaks cleverly'

Unlike the adverb which appears as an affix in preverbal position, the adverb as a free lexical item (55) follows the verb as an independent verbal constituent. Normally, these adverbs following the verb are constructed from separate verbs; however, adverbs constructed on verbs never appear as affixes.

### 5.8.3 Differences in Shona Morphology and Word Order

Word order in Shona shows three dominant characteristics for subject and object, qualificatives, pronouns and adverbs: (i) the subject is always followed by the verb with qualificatives following the nominal; (ii) the object follows the tense marker and precedes the verb if the object is a pronominal; however, a nominal object follows the verb; (iii) an adverb immediately follows the tense marker when the adverb is an affix; but adverbs as free lexical items follow the verb. If both object pronouns and affixed verbs are present, the object is always closest to the verbal root. The word order and morphological patterns can be expressed by the following:

(56)

$$\begin{array}{lcl}
 \text{Morphology} & S & \left\{ \begin{array}{c} \text{ADV} \\ \text{OBJ} \end{array} \right\} V \\
 & & \text{QLF-NOM} \\
 \text{Word Order} & S & V \left\{ \begin{array}{c} \text{ADV} \\ \text{OBJ} \end{array} \right\} \\
 & & \text{NOM QLF}
 \end{array}$$

The order of constituents in (56), that is specifically nominals, pronominals and adverbs in relation to the verb, is as follows: the subject occurs in first position as a nominal, and this is followed by qualificatives; the verbal morphology has the adverb as an affix precede the verb as well as the object as a pronoun. In word order objects occur as nominals and follow the verb, while adverbs appearing as free lexical items are found after the object nominal. It should also be noted that the Noun Class prefixes (Chapter 4) arose out of the univerbation of the Class and Nominal. This is discussed in detail in section 7.4.1.



The examples in section 5.8 provide a contrast between the position of words as free lexical items, and the morphological position of affixes presented in other sections of Chapter 5. The differences are evident with object pronominals and adverb affixes occurring in preverbal position; however, when nominals and adverbs are independent words, they follow the verb. Clearly word order and morphology suggest two different developments.

## *Chapter 6*

### PROBLEM

#### 6.0 Problems Arising from the Shona Data

Though Shona has been classified as an SVO language, along with other Bantu languages, SOV characteristics are reflected in the Shona morphology as presented in Chapter 5. The SOV pattern in morphology is not surprising, since morphology often reflects earlier word order patterns and Proto-Bantu has been reconstructed as SOV (see Givón 1975). In addition to the differences in word order and morphology, the Shona data reveal the presence of the aspect and tense in preverbal position, while valence categories, as well as voice, mood and number agreement are found postverbally.<sup>30</sup>

#### 6.1 Aspect, Tense and Valence

We have seen from Chapter 5, that in Shona, the verb is preceded by the tense marker, and in cases where both aspect and tense occur, tense is located closest to the verb root in preverbal position.<sup>31</sup> The valence category, causative, is found in postverbal position immediately following the verb root:

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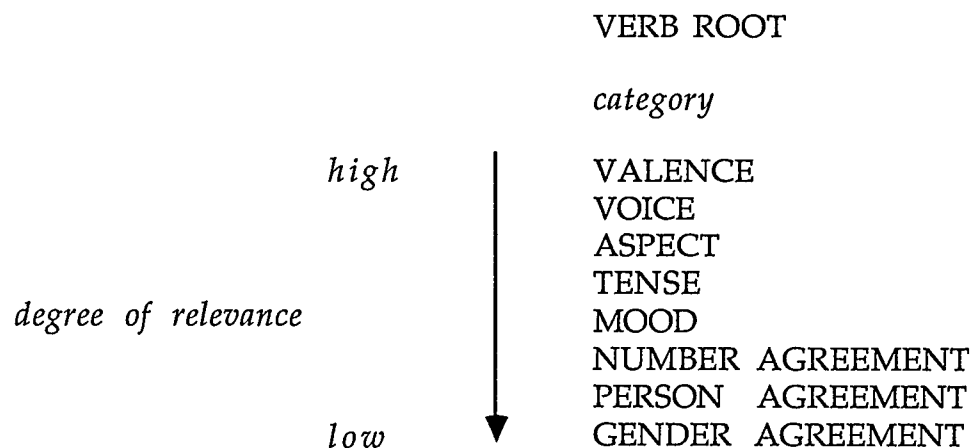
<sup>30</sup> This paper will focus on the verbal morphology of aspect, tense and valence, while the other categories will be briefly discussed in Chapter 10.

<sup>31</sup> In the examples where both the nominal subject and verbal agreement are present (as in (157) to (159) following), AGR refers to the Noun Class of the subject nominal. Where subject nominals are not present the AGR serves as a subject pronominal, since it still shows verbal agreement with the Noun Class. The AGR/SUB patterns in Shona are comparable to those of Breton as analysed by Anderson (1982).

- (57) vana      va-no-teng-esa      miriwo  
 SUB      AGR-TNS-VRT-CAU OBJ  
 children sell      vegetables  
 'the children sell vegetables'
- (58) vana      va-i-ka-teng-esa      miriwo  
 SUB      AGR-ASP-TNS-VRT-CAU OBJ  
 children used-to-sell      vegetables  
 'the children used to sell vegetables'
- (59) vana      v-a-ka-teng-esa      miriwo  
 SUB      AGR-(ASP)-TNS-VRT-CAU OBJ  
 children sold      vegetables  
 'the children sold vegetables'

The Shona data can be considered in light of Bybee's proposed universals (1985:24). The serialization of [aspect-tense][verb root] in (58) and (59) appears to contradict Bybee's universals based on the following semantic hierarchy:<sup>32</sup>

(60) Semantic Hierarchy



According to Bybee, this hierarchy will be directly manifested through the serialization of morphological markers as follows:

(61)

i (VERB ROOT) VALENCE VOICE ASPECT TENSE MOOD AGREEMENT (N/P/G)

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<sup>32</sup> Square brackets are used to show serialization among free lexical items as well as univerbation.

or

ii AGREEMENT (N/P/G) MOOD TENSE ASPECT VOICE VALENCE (VERB ROOT)

As evident in (60) and (61), however, Shona departs from Bybee's categorial serialization with respect to aspect-tense. Rather than postverbal, Shona shows the aspect-tense categories in preverbal position, while valence remains postverbal according to the hierarchy. We face two possibilities: (a) Bybee's hierarchy is inadequate and should be rejected; or (b) an explanation of the discrepancy must be provided which is coherent with the hierarchy. Before turning to our problem in detail, I would like to briefly discuss the basis of Bybee's semantic hierarchy.

## 6.2 Semantic Hierarchy

Bybee (1985:24) maintains that if linguistic expression is iconic, it should be evident by the proximity of the verbal categories in relation to the verb root; moreover, it can be predicted that categories with higher relevance will have greater morphophonemic impact on the verb root than categories that are less relevant. In addition to the inflexional categories, lexical and syntactic expression are predicted: at one end of the scale greater semantic independence leads to lexicalization, while at the other end of the scale, the categories, less relevant to the verb, show a tendency towards syntactic expression:

Agreement categories in verbal inflexion refer...to the participants in the situation...we expect subject and object agreement categories to be less frequent than categories that more directly affect the verb.... (Bybee 1985:23).

When the verb root appears to have fused with its affix, the two represent a corelationship in terms of the degree of semantic relevance.<sup>33</sup> This relevance is made evident by the degree of modification which the verb root undergoes in terms of semantic interpretation produced by the affix. The verbal categories of valence, voice, aspect, tense, mood and agreement reflect their relevance as they appear in this particular order. This ranking is indicative of (i) lexical, derivational or inflexional expression; (ii) the ordering of affixes; and (iii) the morphophonemic effect upon one another (Ibid.).<sup>34</sup>

### 6.2.1 Lexical-Syntactic Continuum

The verbal categories shown in Table 3 (following page) represent a hierarchy expressing a semantic continuum: inflexions will show full generality because they are not semantic; and as a result, inflexions have few restrictions in verbal applications. However, when affixes produce a semantic change after they have been applied to the verb root, a derivational function is attached to the affix (Anderson 1982). Lexical expression occurs when two or more semantic elements are expressed in one lexical unit, comparable to single monomorphemic lexical items; e.g., the lexical item 'sell' can be analyzed as 'Causative' + buy'. Inflexional expression has individual units representing semantic elements; these semantic elements are bound together forming a single word. Inflexions are formed through either affixation or

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<sup>33</sup> Apart from the semantic hierarchy, the quantification of relevance is not part of this thesis.

<sup>34</sup> Bybee's 1985 hierarchy is based on the crosslinguistic testing of 50 languages taken from the Perkins 1980 sample.

modification, as in the past of 'jump-ed' (affixation), as opposed to 'sang' (modification):

**Table 3: Expression Type**

<i>category</i>	<i>inflexional</i>	<i>lexical</i>
VALENCE	X	X
VOICE	X	X
ASPECT	X	X
TENSE	X	
MOOD	X	
NUMBER AGREEMENT	X	(X)
PERSON AGREEMENT	X	
GENDER AGREEMENT	X	

In syntactic expression different semantic elements are expressed by separate words; e.g., 'get to know' is the syntactic expression of 'acquaint'. These expression types are shown in Table 3; however, the categories do not represent exclusively the types represented in the table, but include the types represented in the continuum shown in (62). Bybee points out that free grammatical morphemes found between inflexional and syntactic expression belong to a closed class and are in fixed position, but since these morphemes do not show generality, they are not inflexions. Such morphemes include clitics, particles and auxiliaries (clitics are treated in section 8.1.1). Thus, the expression types - lexical, derivational, inflexional, free grammatical and syntactic - form one continuum. This continuum manifests highly fused forms at one end of expression, while the other end of the continuum shows completely independent words:



(1978) observed that at an early stage children are capable of making semantic distinctions between state and action verbs, and correctly apply the progressive inflexion rules; as a result, the progressive does not show overgeneralization. The tense inflexion, first of irregular past, and then of the regular past tense of verbs are acquired after the progressive aspect. Irregular past verbs occurring with high frequency are acquired as early as the single-word level at 27-30 months (Brown 1973:236). The regular past form in English, *-ed*, which is acquired later, is often added to the irregular forms. The third person singular in English is marked by the suffix *-s*: the child does not fully acquire the agreement of person and number until 41-46 months (Ibid.). This may be explained by the superfluous function of the marker, whose meaning is already clear.

In another study, morphological categories reflecting the semantic hierarchy proposed by Bybee are illustrated in Brazilian Portuguese. In Brazilian Portuguese the child uses the 3SG present at first to express all functions, and then acquires the 3SG preterite which is extended to all persons (Bybee 1985:59-60). The 1SG present and 1SG preterite are built from the 3SG with the present being acquired before the preterite. This indicates that tense/aspectual distinctions are made first, with agreement distinctions following, and the same process of acquisition applies to the imperfect:

(63) Brazilian Portuguese

ASPECT	3SG > 1SG	
present	1SG	abro
	2/3SG	abre
preterite	1SG	abri
	2/3SG	abriu



Evidence from language acquisition studies, therefore, supports the hierarchy proposed by Bybee: the acquisition of verbal categories reflects a semantic hierarchy as shown in the sequences aspect, tense and agreement.

We have observed that Bybee's proposed semantic hierarchy is based on a crosslinguistic study, and is supported by studies in language acquisition. We have examined the semantic hierarchy in relation to the Shona data, from which several problems arise with regards to inconsistency in word order and morphological predictions - the verb shows both preverbal and postverbal affixes (Chapter 5). Two questions related to Bybee's proposals and the Shona data arise: (a) why does valence and other verbal categories appear in postverbal position, while the [aspect-tense] categories are in preverbal position?; and (b) why does the serialization of the [aspect][tense] categories appear to violate Bybee's predictions, given that aspect is further from the verb root than tense? We shall continue then with a further analysis of Shona.

## *Chapter 7*

### SPECIFICATION

#### 7.0 Specification Patterns: Pre- and Post-

I have noted in Chapter 6 the conflict between serialization of verbal categories expected on the basis of the semantic hierarchy, and the serialization evident in Shona. Such discrepancies should be considered in the light of pre- and postspecification. Claims relating to specification have been largely influenced by the research of Vennemann (1974); Givón (1975); Lehmann (1978); Comrie (1981); and Hawkins (1983). Characteristics of word order associated with specification were noted as early as 1782 by Adelung. He observed that German syntax of that period placed specifying elements before the specified. Specification patterns had also been recorded by Voretzsch and Rohlf's in 1901 who maintain that in Vulgar Latin "the governing word tended to precede the governed one" ([1901] 1966:139). Regula, in 1966, observed that Modern French had the *déterminant*, the determining word, follow the *déterminé*, the determined one. Vennemann expresses this relationship as operand-operator in the case of verb-object (VO) languages, and operator-operand in the case of object-verb (OV) languages (Vennemann 1974; Comrie 1981). The operator-operand relationship is also referred to as specifier-specified. In specifier-specified relationships Vennemann gives the assignment shown in Table 4. Each specifier in column A precedes the respective item in column B. In Table 5 the two columns of Table 4 appear in reverse order in which the syntactic items of column B, that is the specified, precede the specifiers of column A, as shown in the tables:

Table 4: Specifier-Specified

column A	column B
<i>specifier</i>	<i>specified</i>
OBJECT	VERB
ADJECTIVE	NOMINAL
GENITIVE	NOMINAL
RELATIVE CLAUSE	NOMINAL
NOMINAL PHRASE	ADPOSITION
STANDARD OF COMPARISON	COMPARATIVE ADJECTIVE
MAIN VERB	AUXILIARY
ADVERB	VERB

Table 5: Specified-Specifier

column B	column A
<i>specified</i>	<i>specifier</i>
VERB	OBJECT
NOMINAL	ADJECTIVE
NOMINAL	GENITIVE
NOMINAL	RELATIVE CLAUSE
ADPOSITION	NOMINAL PHRASE
COMPARATIVE ADJECTIVE	STANDARD OF COMPARISON
AUXILIARY	MAIN VERB
VERB	ADVERB

## 7.1 Natural Serialization

Vennemann distinguishes two extreme word order types: consistently prespecifying languages where the specification is always specifier-specified, and consistently postspecifying where the specification is always specified-specifier. The OV or VO word order appears to be primary, while other word order patterns are secondary, in which the following is subsumed (1974:347):

### (64) Principle of Natural Serialization

The preference for a unidirectional word order in which either a specifier - specified or specified - specifier relationship is maintained.

The specification of VO or OV is seen as basic: VO produces a pattern of postspecification, and OV shows a pattern of prespecification. The more consistent the order of specification, the more the pre- or postspecification word order is preferred. The basis of the specifier-specified relationship as indicated in the above relationships is "category constancy". Category constancy refers to the constituent structure [AB], whereby A is the specifier and B is the specified, but only if the construction [AB] is in the same syntactic category as B.<sup>35</sup>

According to Greenberg (1966:77), the dominant word order types of the world's languages are SOV, SVO and VSO with VSO representing an exceptionally limited number. Given the premise that languages become more consistent in their specification over time, as in the case of English, one would expect greater consistency in word order among the world's languages.

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<sup>35</sup> Vennemann refers to the relationship as operand-operator (where I have used specified-specifier). This includes the terminology for the formula devised by Bartsch and Vennemann, in which I use O (object) where they have used X (complement). It should be noted that operator-operand replaces earlier terms expressing the same relationship, that is, function-argument. The function-argument relationship is fundamentally different from the syntactic concept of coordinate constituent structures.

The explanation for inconsistency in word order can be understood by the fact that languages are in constant change.<sup>36</sup> Phonological reduction results in morphologization processes (discussed in 8.1) which ultimately have implications for the syntax of the language. Changes in one language can also induce or facilitate change in neighbouring languages as a result of language contact (as suggested in Chapter 3). Nevertheless, languages do show dominant and consistent patterns in word order reflecting the Principle of Natural Serialization.

## 7.2 Serialization in Hindi, Thai and Shona

We can examine languages from three different phyla for evidence of specification patterns which support the Principle of Natural Serialization. While languages may not always be consistent in an OV or VO word order either by revealing other word order characteristics, or perhaps by permitting specification suggestive of other word order patterns, the point of the matter is that a dominant pattern is evident, and strikingly enough, in the specification of numerous syntactic categories. From Indo-European we shall look at prespecification in Hindi; in the Austric phylum we shall consider postspecification in Thai; and in the Niger-Kordofanian phylum we shall be returning to postspecification (section 7.3).

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<sup>36</sup> In this regard Vennemann and Lehmann put forth two views to account for language change. The basis of Lehmann's argument is language contact which instigates change, an argument Vennemann rejects. Vennemann maintains that morphophonological reduction in OV (XV) languages is the basis for the change since disambiguation in topicalization can only be achieved through the verbal position once reduction takes place. Finally, Vennemann maintains that the natural position for the verb in language is final position as a result of topicalization and verbal categories (aspect, tense mood) as operands of the main verb, found postverbally in OV languages, which suggests that OV word order is optimal.

### 7.2.1 Hindi

Hindi, an OV language, shows dominant characteristics of prespecification in its word order. An examination of the various syntactic categories makes this pattern quite evident:

- (65) OBJ-VRB    aurat    sabji            banati hai  
                   SUB        OBJ                VRB  
                   woman vegetables    cook  
                   'the woman cooks vegetables'
- (66) ADJ-NOM    bada    adami            sharab            peeta hai  
                   ADJ    NOM (SUB)    NOM (OBJ)    VRB  
                   big    man                    alcohol        drink  
                   'the big man drinks beer'
- (67) GEN-NOM    bachon    ki                    kitaben  
                   NOM    VRB (POS)    NOM  
                   children belong            books  
                   'the childrens' books'
- (68) REL-NOM    khelti    hui    ladkiyon ko dekho  
                   VRB    REL    NOM    VRB  
                   playing girls                    look  
                   'look at those girls who are playing'
- (69) ADP-NPH    ghar    me    rahte hua    ladke  
                   NOM    ADP    VRB            NPH  
                   house    in    staying        boys  
                   'the boys are staying in the house'
- (70) SCP-CPA    Yamini    Valsamma se choti hai  
                   NOM    SCP                    CPA  
                   Yamini    Valsamma is small  
                   'Yamini is smaller than Valsamma'
- (71) MNV-AUX    log    nach-enge  
                   NOM    MNV-AUX  
                   people dance will  
                   'the people will dance'

Beginning with the Hindi example (65), it is apparent that the verb **banati hai** 'cooks' is in clause final position; immediately preceding the verb is the object **sabji** 'vegetables'. This is comparable to German which also has verbs in final

position in either subordinate clauses or periphrastic constructions. The example shows quite clearly OV word order in a declarative clause with the object prespecifying the verb. In example (66) the adjective **bada** 'big' precedes the nominal **adami** 'man' showing the adjective as the prespecifier of the noun. The English gloss shows the same pattern occurring in English, in which the adjective precedes the noun. The genitive construction of (67) shows the nominal possessor **bachon** 'children' preceding the possessed **kitabon** 'books'. Hindi uses a verb expressing possessive to indicate that 'the books belong to the children' or simply 'the childrens' books'. The genitive prespecification construction shows an identical pattern in English, which is the same construction used in German. The relative construction of (68) shows the relative marker **hui** as well as the specifier **khelti** 'playing' preceding the specified nominal **ladkiyon** 'girls'.<sup>37</sup> The adposition in (69), **me** 'in', prespecifies the nominal **ladke** 'boys'; thus, the adpositional phrase functions as a prespecifier, as would be expected in an SOV language. In example (70) the standard of comparison, **Valsamma**, precedes the comparative adjective **choti** 'small' with prespecification once again being evident. Finally, in (71) the auxiliary **enge** 'will' is specified by the preceding main verb **nach** 'dance'. Each of the seven examples clearly illustrate the OV word order in which prespecification takes place; and in the case of the last example, the morphology itself also shows an OV morphology with the main verb in the position of prespecification.

The Hindi pattern is in sharp contrast with languages showing VO word order patterns such as Thai.

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<sup>37</sup> It should also be pointed out that the relative specifier can also follow the nominal producing a VO word order such as the following: *un ladkiyon ko dekho jo khel rahi hain*. Literally: 'those girls look who are playing.'

## 7.2.2 Thai

- (72) VRB-OBJ    phuuyin    phat    phak  
                   SUB            VRB    OBJ  
                   woman    fry    vegetables  
                   'the woman fries vegetables'
- (73) NOM-ADJ    phuuchaay    khon    yay    däm    bia  
                   SUB (NOM)    CLS    ADJ    VRB    OBJ (NOM)  
                   man                            big    drink    beer  
                   'the big man drinks beer'
- (74) NOM-GEN    naŋsii    khoo    nakrian  
                   NOM    GEN    NOM  
                   books    of    students  
                   'the books of the students'
- (75) NOM-REL    duu    dekyin    khonŋ    nan    thii    len  
                   VRB    NOM    CLS    DEM    REL    VRB  
                   look    girl(s)                    that    who    play  
                   'look at those girls who are playing'
- (76) NPH-ADP    dekchaay    yuu    nay    baan  
                   NPH            VRB    ADP    NPH  
                   boy(s)    stay    in    house  
                   'the boys are staying in the house'
- (77) CPA-SCP    Sawat    lek    kwaa    Charun  
                   NOM    CPA    than    SCP  
                   Sawat    small    than    Charun  
                   'Sawat is smaller than Charun'
- (78) AUX-MNV    khon    ca    ram    thii    ŋaan  
                   NOM    AUX    MNV    PRE    NOM  
                   people    will    dance    at    dance  
                   'the people will dance'

The Thai examples (72) to (78) show the specifiers in each of the seven examples following the specified items.<sup>38</sup> The object in (72) **phak** 'vegetables', follows the verb, **phat** 'fry'; thus, the object postspecifies the verb. The same word order is found in English in which the object follows the verb. In

<sup>38</sup> In the Thai data ch = palatal affricate, unvoiced and aspirated (74), (77) and (78); and c = palatal affricate unvoiced and unaspirated (79). Tone is not indicated on the Thai data.



example (73) the adjective **yay** 'big' is in the position following the nominal it specifies **phuuchaay** 'man' - once again showing postspecification. This word order is also evident in the Romance languages, such as French, Italian and Spanish in which the adjective normally follows the noun it specifies. The genitive construction of (74) has the possessor **nakrian** 'students' following the possessed nominal **nansii** 'books' evidence of possessed-possessor order of postspecification. An identical construction can be found with English possessor relationships in which the possessor follows, as indicated by the English gloss of (74).<sup>39</sup> The relative construction of (75) has the relative **thii** 'who' follow the nominal **dekyin** 'girl' which it specifies in the relative clause. In (76) the adpositional construction, the adposition **nay** 'in' follows the nominal phrase **dekchaay** 'boy'. In (77) it is the standard of comparison **Charoon**, that follows the comparative adjective **lek** 'smaller'; and in (78) we find the main verb **pay** 'go' following the auxiliary that it specifies **ca** 'will'.

The Thai examples provide a consistent pattern of postspecification in each of the syntactic categories. Thai, therefore, shows evidence that it is a language which has developed into a consistent word order, namely that of VO.

### 7.2.3 Specification Continuum

The Hindi and Thai specification should be seen in the light of a prespecifying-postspecifying continuum. This continuum of specification is evident in the Germanic and Romance languages which occur at different areas of the continuum. We saw in the Hindi data that each example

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<sup>39</sup> English, of course, also allows the reverse construction in which the specifier precedes, that is, a possessor-possessed relationship: 'the students' books'.

provided a consistent pattern of OV word order, and in some cases comparable to English and German.

(79) I like to drink sweet coffee.

The English example has characteristics of both word order types since the adjective 'sweet' prespecifies the noun 'coffee' (OV), while the object, 'coffee' follows the verb 'like' (VO). This pattern is in contrast to the German one:

(80) er sagt, daß er süßen Kaffee trinken mag  
 he says that he sweet coffee to drink like  
 'he says that he likes to drink sweet coffee'

In the German subordinate construction the verbs are found in final position, and with the prespecification of 'coffee' an OV pattern is evident; however, in main clauses, the main verb remains in second position:

(81) ich mag süßen Kaffee zu trinken;  
 I like sweet coffee to drink  
 'I like to drink sweet coffee'

(82) ich mag süßen Kaffee  
 I like sweet coffe  
 'I like sweet coffee'

In other words, German, like English, shows both prespecification and postspecification but in contrast to English it has additional prespecification patterns such as OV serialization in subordinate clauses.

With the Thai data, clear patterns of VO word order were apparent in each of the examples, showing similar constructions with the Romance languages, such as Italian:

(83) Io bevo il café dolce  
 I drink the coffee sweet  
 'I drink sweet coffee'

In the Italian example the specifier of the 'coffee' follows, unlike the English and German, where it precedes; thus, the Italian shows evidence of VO word



- (88) NOM-REL    tarisa **vasikana**    avo    **va-ri**    kutamba  
                   VRB    NOM                DEM    REL-COP    VRB  
                   look   girls                those who-are   to-play  
                   ‘look at those girls who are playing’
- (89) NPH-ADP    **vakomana**    va-ri                kugara    **mu-mba**  
                   NPH                AGR-ASP    VRB        ADP-NOM  
                   boys                are                to-stay    in-house  
                   ‘the boys are staying in the house’
- (90) CPA-SCP    Ignaciyo    a-ri                **duku**    kuna    **Davhiti**  
                   NOM        AGR-COP    CPA                SCP  
                   Ignatius    is                small        David  
                   ‘Ignatius is smaller than David’
- (91) AUX-MNV    vanhu    va-cha-tamba  
                   NOM        AGR-AUX-MNV  
                   people    AGR-will-dance  
                   ‘the people will dance’

In (85) to (91) of the Shona data, patterns comparable to Thai (and Romance languages) are evident. The object **miriwo** ‘vegetables’ follows the verb **bika** ‘cook’ in (85); the adjective **mukuru** ‘big’, follows the noun **murume** ‘man’ that it specifies in (86); the genitive construction of (87) shows the possessive **a-** following the nominal **bhuku** ‘books’; the relative **vari** ‘who’ follows the nominal **vasikana** ‘girls’ in (88) showing postspecification in relative constructions; the adpositional construction of (89) has the adposition **mu-** follow the nominal phrase **vakomana** ‘boys’; the standard of comparison **Davhiti** in (90) follows the comparative adjective **muduku** ‘small’; and in (91) we find the main verb **-tamba** ‘dance’ following the auxiliary **cha-**. Shona word order shows quite clearly that VO word order is dominant, and that the Principle of Natural Serialization has been realised in the language. This is not surprising as Hawkin’s research (1983:277) indicates that almost all Bantu languages have the following basic word order:

- (92) SVO / PRE / NOM-ADJ / NOM-GEN / NOM-REL

The basic word order of (93) reflects a postspecifying word order, and one would expect serialization patterns to follow a postspecifying word order. This, however, is not necessarily the case with morphological patterns.

#### 7.4 Shona Morphology as Prespecifying

While SVO word order is clearly evident in Shona, as with other Bantu languages, Shona's morphology shows quite a different pattern of serialization. We have seen in Chapter 5 morphological characteristics of Shona, and that not all of them represent a VO serialization pattern. Take the following examples (93) and (94):

- (93) OBJ-VRB    mufundisi    a-no-va-batsira  
                      SUB                    AGR-TNS-OBJ-VRB  
                      teacher            them-help  
                      'the teacher helps them'

Example (93) shows the verb **-batsira** with the object pronominal immediately preceding the verb. At the periphery of the verbal morphology we find the agreement category **a-** which is Noun Class agreement (see Chapter 4), followed by the tense marker **no-**. One would not expect to find an OV morphology in a VO language, as this gives evidence for prespecification, rather than postspecification. Two points need to be borne in mind here: (a) the object is not a nominal, but a pronominal; and (b) the object is an affix - the tense marker immediately precedes the pronoun, and the verb which immediately follows the pronoun in this case is not a free lexical item.

In addition to the object pronominals, adverbs, as well, show an SOV morphology in which the adverb precedes the verb it specifies as in (94):

- (94) ADV-VRB    nd-a-ka-swero-funda  
                      SUB-(ASP)-TNS-ADV-VRB  
                      I-TNS-all-day-long-study  
                      'I studied all day long'

The adverb in example (94) precedes the verb that it specifies in an OV specification pattern. In addition to the prespecification pattern found in the verbal morphology of the adverb, another interesting feature of the adverb is that it is a clitic: certain adverbs in Shona are in preverbal position, and are always affixed to the verb. As in example (94), one particular point needs to be borne in mind: the adverb is an affix - the verb immediately follows, and the tense marker precedes. The adverb, however, cannot stand on its own as a free lexical item.

#### 7.4.1 Shona OV Nominal Morphology

Let us now examine the nature of the nominal morphology of Shona, which can be applied to Bantu nominals in general. Givón maintains that inflexional and derivational bound morphemes derive from historically free lexical morphemes. With the syntax of the language determining the order of these free lexical items, the syntax also determines the morphotactics of the evolving affixal morphology (Givón 1971:409). If we now apply this to Shona we can consider how it relates to the nominal morphology in terms of the Noun Classes (see Chapter 4 for details on Shona Noun Classes). The morphemic nature of the Noun Classes in the Bantu languages may be a reinterpretation of what had been at an earlier stage free lexical items, as the following Shona examples illustrate:

(95) **mu-kadzi**  
NCL-NRT  
'woman'

(96)	<b>*mu</b>	<b>*kadzi</b>
	QLF	NOM
	one human	female

**Mukadzi** 'woman' is composed of a the singular morpheme **mu-** used only for humans, and the noun root **-kadzi** producing 'wife' or 'married woman'. The plural is expressed by replacing **mu-** with **va-**: the Noun Class employed for more than one human. It has been hypothesized that Noun Classes given by Bantu prefixes have characteristic semantic content; moreover, evidence to support claims that Proto-Bantu noun prefixes maintained a semantic system whereby each prefix was associated with a particular meaning is provided by Denny and Creider (1986:217). Example (95) represents Modern Shona nominal morphology; however, a reconstruction based on Givón's claims produces (96) in which the Noun Class develops from a qualifier preceding the noun root-nominal. The position of the qualifier as preceding the noun producing QLF-NOM suggests a frozen morphology of an OV syntax, since prespecification is expected in OV languages. If we contrast this to the present VO word order evident in the postspecification patterns from Chapter 4, the Noun Classes represent the earlier morphology of Bantu, which implies an earlier OV word order. Such word constructions are supported by both Greenberg (1966) and Givón (1971, 1975) in which OV word order in SOV languages show QLF-NOM nominalization. We can now compare this to other patterns found in the qualificative morphology of Shona.

#### 7.4.2 Internal Construction of Demonstrative

In section 4.1.2 we noticed various demonstrative constructions in Shona. The two demonstratives, 'this' and 'that', occurred in several deictic expressions: **urwu** 'this', **icho** 'that', **uno** 'this here', and **vaye** 'those there' (see 4.1.2 for details on Noun Class and construction). In each case nominal agreement is required (**i-**, **u-**, **va-** above), but with a difference in the demonstrative root (**-no** and **-ye**), base vowel, (**u-**/**-u**) and demonstrative

vowel (-o). The less deictic forms, 'this/these' and 'that/those', simply require morphophonological changes before and after the agreement morpheme (see section 4.1.2 examples (5) and (6)) to differentiate deictic expressions, rather than the demonstrative root -no and -ye (examples (7) and (8) in section 4.1.2). However, when the demonstrative became enriched by referring specifically to an object near 'here', or an object far 'there' the deictic marker followed the agreement morpheme, rather than preceding it. I refer to these markers as "suffixes" in 4.1.2, and suggest that with the development of the language and more precise deictic expression, the demonstrative underwent further morpho-semantic development, eventually acquiring a post-agreement "suffix" marker (7) and (8) - not a pre-agreement "prefix" marker (5) and (6). In other words, the later demonstrative morphology showed postspecifying characteristics, implying the earlier demonstrative reflects an OV morphophonological pattern. Having examined the patterns of the nominal and qualificative morphology in Shona, we can compare this to the verbal morphology.

### 7.4.3 Shona OV Verbal Morphology

A feature of Shona verbal morphology is the rich application of affixes giving the verbs new meanings. We have seen in Chapter 5 (and the appendix) that Shona employs twelve valence categories, each modifying the verbal root. We have also noted that Givón refers to such suffixes as verbal derivational suffixes or VDS. McCawley (1968) postulates that the lexicalization of causative-transitive verbs, illustrated by the derivation of causative affixes, may historically have arisen from a main verb [CAUSE]. Taking the causative valence I presented in section 5.1.3, we can analyse the suffixal morphemes as follows:



- (97)    fara 'happy'    fa-dza    [happy]    +    [CAUSE]    'excite'
- (98)    seka 'laugh'    se-tsa    [laugh]    +    [CAUSE]    'amuse'
- (99)    tenga 'buy'    teng-esa    [buy]    +    [CAUSE]    'sell'
- (100)    [CAUSE] --->                      [AUX] --->                      [SFX]  
           kuita                                \*ita                                -tsa  
           'to make'                      'make'                      [CAUSE]
- (101)    [CAUSE] --->                      [AUX] --->                      [SFX]

The causative suffix in examples (97) to (99) reveals the same phonological process of assibilation. The verb in Modern Shona **kuita** 'to make' is a good candidate for the present causative suffix with its various allomorphs: the high front vowel followed by the alveolar palatalized into /s/ ~ /dz/ ~ /ts/. The diachronic process is shown in (100). The position of the verbal causative led to the development of an auxiliary (101) and eventually a suffix (SFX). With the derivation developing in postverbal position, the verbal specifier, that is the verb root reflected the unidirectional pattern expected in natural serialization. In the case of Proto-Bantu the object preceded the main verb and thus, the main verb preceded the auxiliary. In Modern Bantu languages, the presence of modality suffixes is manifested through a vowel; this vocalic morpheme is reconstructible to Proto-Bantu, and due to the modal's final position, support for Proto-Bantu as SOV is maintained.

In Chapter 5 the three ways in which verbs can be formed in Shona were introduced. In addition to the postverbal affixes modifying the verb to produce a change of meaning, another means of producing such derivatives is through verb initial voicing. Such verb initial changes add an adverbial meaning to the verb such as the following:

- (102) kwiza 'rub'                      --->                      gwiza 'rub against'
- (103) tepuka 'sway'                      --->                      depuka 'great sway'

The verbs in (102) and (103) have an adverbial meaning with verb initial voicing. The position of sound change suggests a development from prefixal modification; in other words, the qualificative meaning preceding a verb supports a pattern of prespecification.<sup>40</sup> Since adverbs prespecify the verb in OV languages, the voicing of Shona verbs producing an adverbial meaning implies the remnants of a frozen SOV morphology. The examples presented above, as we noted in Chapter 5, serve to illustrate how Shona is postspecifying in word order, whereas its morphology betrays traces of prespecification. This is not surprising since Proto-Bantu has been reconstructed as SOV.

## 7.5 Proto-Bantu as Prespecifying

An analysis of the morphological pattern of prespecification in Shona requires an examination of Proto-Bantu. Such an examination will reveal Shona's morphological origins in Proto-Bantu syntax. Scholars, such as Givón (1971, 1975) and Hyman (1975) have provided evidence to support the SOV structure of Proto-Bantu and its diachronic development into SVO Bantu languages. Givón (1971:394) postulates that the normal syntactic order of the verb phrase in most Bantu languages is VO:

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<sup>40</sup> I am indebted to Robert Murray for this observation.

(104) AGR-ATM-POB-VDS<sup>41</sup>

Givón claims that ATM and VDS 'have historically arisen from main verbs dominating sentential complements' (Ibid.). He also argues that main modals operating as modal prefixes is a recent process in Bantu, while the modal suffixes were reduced from modal verbs at a much earlier Proto-Proto-Bantu stage. At the time when the suffixal position of the verbal derivative developed from main verbs, Givón hypothesizes that the syntactic order in Bantu must have been OV.

## 7.5.1 Evidence from Swahili

Evidence of OV morphology in contrast to VO word order in Shona has been shown in Chapters 5 and 6. Patterns of VO word order and OV morphology are currently evident in other Bantu languages, such as Swahili:

(105)        **ni-li-ona**                **kitabu**  
               SUB-TNS-VRB    **OBJ (NOM)**  
               I-TNS-see        book  
               'I saw the book'

(106)        **ni-li-ki-ona**  
               SUB-TNS-POB-see  
               I-TNS-it-see  
               'I saw it'

The Swahili examples, as with the previous Shona examples, show the object as a nominal follows the verb (105), while the object as a pronominal is in preverbal position (106). The difference between the position of these two

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<sup>41</sup> Note: (i) where Givón uses COMP I use OBJ; (ii) Givón's M, in this case ATM, includes all three: aspect, tense and modal morphemes; (however, while a modal auxiliary may occur in this position, some Bantu moods are expressed only through a suffix, as in Shona -e, on the verb root with no modal auxiliary, (see Chapter 5 for details on modal morphemes and auxiliaries in Shona); Givón's M position can be reanalysed as ASP-TNS/MDD; (iii) the POB (Givón uses OP) refers to an anaphoric object pronoun; (iv) VDS is a verbal derivative suffix. I have modified Givón's abbreviations to correspond with those which I have used throughout this thesis.

objects in both Swahili and Shona (and other Bantu languages) relates to the historical development of Bantu, as Givón points out: Bantu had at some earlier stage an OV word order which later developed into VO. This change is evident by the presence of postverbal and preverbal ATM and VDS affixes, as well as the POB.

In addition to the OV morphology of object pronominals, Swahili shows an interesting case of relativization. While an “attraction principle” causes the relative pronoun to gravitate towards the position adjacent to the head noun (because the relative pronoun qualifies the head noun) this is not always the case with Swahili (Ibid).<sup>42</sup> In Swahili the verb **amba** ‘say’ adjacent to the head noun introduces the relative which is then suffixed to **amba**:

- (107)        mwanamke a-me-pika        mboga  
               woman        AGR-ASP-cook   vegetables  
               ‘the woman has cooked vegetables’
- (108)        mwanamke amba-ye a-me-pika        mboga  
               woman        \*say-REL AGR-ASP-cook   vegetables  
               ‘the woman who has cooked vegetables’

In the relative construction of (108) we find the relative pronoun **-ye** ‘who’ suffixed to the verb introducing the relative, but also separating the relative from the head noun. This is in contrast to the “attraction principle” expected from relative pronouns. In instances where tense markers are present, the relative pronoun is suffixed to the tense marker:

- (109)        mwanamke a-li-pika        mboga  
               woman        AGR-TNS-cook   vegetables  
               ‘the woman cooked vegetables’

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<sup>42</sup> Givón provides examples from Bambara, a Mande language of Niger-Congo (data based on Karen Courtenay’s work), as well as Bemba, a language closely related to Shona, to explain this “attraction principle”.

- (110)        mwanamke   a-li-ye-pika        mboga  
               woman        AGR-TNS-REL-cook   vegetables  
               'the woman who cooked vegetables'

In example (110) where the past tense is expressed **amba-** is not used; instead, **-ye** follows both the agreement morpheme and the tense marker. The relative pronoun in this case is attached to a tense marker having been historically derived from verbs (Ibid.). Once again, the separation between head noun and the relative pronoun is not expected given the "attraction principle". Givón (1971:399) accounts for relativization in Swahili by three hypotheses: (i) Swahili had at an earlier stage of its syntax REL-NOM word order, that is OV; (ii) the relative pronoun arose at a time when it appeared as a verb suffix, which kept it next to the head noun; and (iii) the word order changed to NOM-REL, that is VO, while the OV relative pronoun morphology remained frozen. The OV morphology of Proto-Bantu can further be supported by an areal study.

### 7.5.2 Tunen and Bandem SOV: a Case of Geography

Findings in support of an SOV word order for Proto-Bantu have also been provided by Hyman who brings evidence from two Bantu languages, Tunen and Bandem - both languages are still SOV (Hyman in communication to Hawkins 1983). Tunen and Bandem are languages spoken in isolated communities of the Cameroon grasslands. We observed in Chapter 3 the origins and expansion of Bantu speakers: the core from which the Bantu-speaking people penetrated into equatorial and subequatorial Africa between southeastern Nigeria and northwestern Cameroon. Accordingly, Tunen and Bandem would have remained conservative Bantu languages maintaining earlier SOV word order patterns (Hawkins 1983). The

SOV characteristics expressed in the morphology of Shona, Swahili, Tunen and Bandem are representations not only of Proto-Bantu word order, evident by the morphological relics present in these languages, but also suggest an SOV word order of other languages in the Niger-Congo phylum.

Further northwest on the African continent, between Nigeria and Senegal, an analysis of other languages in the Niger-Congo phylum reveals an earlier SOV word order. An analysis of Niger-Congo SOV shows the reanalysis to SVO with the demise of SOV.

### 7.5.3 Niger-Kordofanian Phylum

Mande, West Atlantic, Gur and South Central Niger-Congo are all language families in the Niger-Kordofanian phylum.<sup>43</sup> A study conducted by Givón (1975) supports the claim that Proto-Niger-Congo was historically SOV. In an analysis of the Mande language family, Givón points out that the verbal morphology of Kpelle has some characteristics associated with SOV languages. Though in Kpelle the more recent development of verb prefixes indicate an SVO morphology, the suffixes have an SOV origin. The OV pattern is also evident with the word order, in the case of accusative objects:<sup>44</sup>

- (111)            è     kâli kaa  
                   SUB OBJ VRB  
                   he   hoe saw  
                   'he saw the hoe'

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<sup>43</sup> In Givón's study, Igbo is classified as Benue-Kwa. My reference for classification is Ruhlen (1987); Niger-Kordofanian languages have undergone numerous reclassifications: while Mande, West Atlantic and Gur are families in Niger-Kordofanian, Lower-Niger is a sub-family of Eastern South Central Niger-Congo (see pp. 95-107 for details on historical development of classification).

<sup>44</sup> Examples from Mande, West Atlantic, Gur and Benue-Kwa languages are taken from Givón (1975).

In (111) the object *kâli* 'hoe' precedes the verb it specifies, *kaa* 'saw' indicating a pattern of prespecification in some areas of Kpelle word order. Another observation made by Givón (1975:50-51) is that case markings in Kpelle are postpositional; and in addition to postpositions, modality markers are all indicated through suffixes. Another indicator of an earlier OV word order is the presence of postverbal auxiliaries which led to the development of modal suffixes. Givón (p.58) notes that while the syntax of Mande languages is consistently SVO, the bound morphology of both the nominal and verbal systems is SOV.

Diola, a West Atlantic language, though a dominant VO language, shows an extensive system of verbal derivatives as suffixes - suggestive of a previous SOV syntax. Semantically and morphologically Diola shows a remarkable similarity with Shona derivational suffixes such as applied, causative, reciprocal and recursive. However, in addition to valence as a postverbal category, Diola also has aspectual markers in a postverbal position, including the perfect and habitual, as well as the negative (54-55). Again, these auxiliaries specify the verb root, indicating an OV morphology of prespecification. This contrasts with the noun phrase in which all modifiers, including the genitive, follow the noun showing an SVO word order. The Diola pattern is comparable to Shona, whereby both reveal OV postverbal morphology, but VO word order with the postnominal qualifiers.

More, a Gur language, shows an earlier SOV syntax by the following: (i) the locative postposition; (ii) pronominal genitival modifiers; (iii) tense-aspect markers being phonologically reduced to a single vowel-suffix (Givón 1971:59). The morphological and syntactic characteristics of the More language suggest an earlier SOV syntax which developed towards SVO.

Among the South Central Niger-Congo, the Lower-Niger language of Igbo shows modality and derivational suffixes that suggest a main verb origin, not unlike Bantu. Such verbal origins are evident through semantic content of the suffix (Welmers 1970).

Proto-Bantu had, at a very early stage, SOV syntax - an argument supported by Givón, (1975:64-65). The morpho-semantic nature of Bantu verb arguments have a verbal origin and position that can be accounted for by an earlier SOV syntax (Ibid.). Givón (p.65) has also noted that recent modality markers in Bantu are all prefixed with the verb-prefixal position reflected in present VO syntax in the verb phrase. Before the Bantu split into Broad Bantu, e.g., Bamileke, and Narrow Bantu, e.g., Shona, already SVO dialects had already emerged. Therefore, the presence of modality suffixes reconstructible to Proto-Bantu must have been at an SOV stage when these suffixes were present as free lexical items. Hyman points out (in personal communication to Givón) that Igbo has a floating high tone suffixed to the verb to indicate relativization, while Bamileke (Grassfields Bantu) employs a floating low tone as a pronominal relative marker. The suffixal markers may be a remnant of Proto-Niger-Congo syntax. Shona, similarly employs tone for relativization, except that it in Shona the tonal contrast occurs in prefixal position.

According to Greenberg's universals, SOV languages largely show auxiliaries following the verb with the largest number preceding the verb in SVO languages. This is expressed in Greenberg's (1966:85) universals:

(112) Universal 16

. . . In languages with dominant SOV, an inflected auxiliary always follows the main verb.



This suggests that not only the verbal categories aspect, tense and mood (auxiliaries) appear in postverbal position, but verbal categories in general since it is the OV/VO word order that determines the position of the verbal categories. This is supported by the Shona data in Chapter 5 (and the appendix), whereby all twelve valence categories (as well as voice and mood) appear in postverbal position. The preverbal position of aspect-tense can be explained in diachronic terms (see following chapter). The post- and preverbal positions of the affixes are connected to the degree of relevance and fusion between the verb root and verbal category (see Chapter 6), as well as the process of morphologization (section 8.1).

It can be concluded that a word order shift took place at some point in Proto-Bantu in which the dominant SOV pattern was developing towards SVO. The characteristics of Modern Shona, other Bantu languages, as well as other families in the Niger-Kordofanian phylum, show that the present word order supports such a diachronic change. Moreover, the present morphology of these languages reveals a system of affixation employing both suffixes and prefixes - characteristics of SOV to SVO languages.

#### 7.5.4 Statistical Data

The postverbal categories of Proto-Bantu are further supported by the findings of Hawkins and Gilligan (1988) who postulate language universals with regards to affixes. In Universal 12 (p.224) it is observed that when a language is SOV, mood affixes on V (if any) are suffixed with greater than chance frequency. Perkins-Bybee (see Hawkins and Gilligan 1988 for sample analysis) show 88% of SOV languages with mood affixes as suffixing, and Gilligan's sample show 93% of SOV languages with mood affixes as suffixing.

In conclusion, both internal reconstruction, comparative evidence and statistical studies support the assumption that Proto-Bantu was SOV.

## 7.6 Review of Problems

As shown in Chapters 6 and 7, Modern Shona has the dominant word order SVO; i.e., the language is consistently postspecifying. The postspecification pattern includes some characteristics of the verbal morphology which in several categories is preverbal as shown in sections 5.3, 5.4 and 5.6. In Chapter 7 support for Proto-Bantu SOV was presented with data from Shona, Swahili and non-Bantu languages in the Niger-Kordofanian phylum, as well as geographical and statistical arguments.

Relics of the SOV Proto-Bantu word order in Modern Shona are evident in preverbal pronominals and preverbally affixed adverbs because these pronominals and adverbs do not permit any morphological item to be inserted between them and the verb root. These fixed positions suggest a frozen morphological form. Furthermore, the presence of both preverbal and postverbal categories in Modern Shona implies a shift in the verbal morphology. The consistent postverbal affixal position of the valence categories indicated in section 5.1 does not reflect SVO morphology because verbal categories are expected in a preverbal position in VO languages. Instead, the twelve valencies in section 5.1 (and the appendix), voice (section 5.2), mood (with the exception of the indicative) as indicated through section 5.5, as well as number agreement (section 5.6.1) reveal an OV morphology.

Given the claims made by Bybee, Comrie and Lehmann observed in Chapters 6 and 7, the verbal categories in postverbal position must represent relics of an earlier SOV word order. If Proto-Bantu is reconstructed as SOV and Modern Shona is presently SVO, some explanation must account for the

transition in word order and changes in morphology. Such a transition must have taken place at some stage in the linguistic evolution of Proto-Bantu, as indicated in section 7.5. This leads to our problem regarding Shona, which is threefold: (a) why do valence and other verbal categories appear in postverbal position, while [aspect-tense] are in preverbal position?; (b) why does the serialization of [aspect][tense][verb root] appear to violate Bybee's predictions, given that aspect is further from the verb root than tense?; and (c) how did the SOV to SVO shift occur?

## *Chapter 8*

### Analysis

#### 8.0 Postverbal Categories

In section 7.5 evidence was provided reconstructing Proto-Bantu as a prespecifying SOV language. As explained in Chapter 7 on specification, verbal categories such as valence, tense and aspect are expected to appear in postverbal position in SOV languages where prespecification patterns occur, as in the following:

- (113) SOV    VALENCE  
             ASPECT  
             TENSE

In the above word order valence, aspect and tense are specified by the preceding verb root reflecting the specification patterns outlined in Chapter 7, as well as in Tables 4 and 5. As the language evolves, the aspect and tense categories may undergo a process of auxiliarization and morphologization.

#### 8.1 Morphologization

In sections 5.1 through 5.1.12 and 7.1 it was observed that valence categories are closely linked to the meaning of the verb root in such a way that valence semantically modifies the verb root giving the categories a derivational function. In sections 5.3, 5.4 and 7.1 it was noted that tense and aspect were deictic and temporal categories, respectively. Ramat (1987:16) sets out four conditions for identifying auxiliaries: (i) the auxiliary and uninflected dependent verb must share the same subject; or (ii) the V[+fin] and V[-fin] have the same predicate frame; (iii) the auxiliary does not impose any semantic restrictions on the main verb; and (iv) the purpose of the auxiliary

is to express tense, aspect or mood relations “syncategorematically”, that is, “predicated” to another verb. Given the criteria provided by Ramat, we can identify the aspect and tense categories as auxiliaries, while the valence category does not qualify as an auxiliary.

Furthermore, Ramat maintains that auxiliarization involves the grammaticalization of lexical items and must be capable of expressing tense, aspect and mood (Ibid.:7-9). Auxiliarization involves three stages which can be exemplified by a study conducted by Stolz (1987) on Portuguese-based creoles and pidgins (Papua Kristang, Ilha do Principe, Sri Lanka) with the verb *acabar* ‘to finish’. Stage one begins with a lexical verb which has full semantic meaning:<sup>45</sup>

(114) Papua Kristang

Yo ja kabá kumí  
SUB TNS ASP VRB  
‘I have finished eating’

In the above example we find that the verb *kabá* ‘finished’ has lexical content: the verb expresses that the process of consumption has been completed. We can contrast this with stage two, predicative construction, in which predication of the main verb is needed, (otherwise the meaning is unclear, awkward or there is no meaning at all) as in:

(115) yo ja kabá  
‘I have finished’

In the Papua Kristang of (115) the meaning is simply ‘I have finished’, but unclear since the construction has no verb to provide the lexical content. This is similar to the following constructions:

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<sup>45</sup> The Portuguese examples are taken from Stolz’ study in Harris and Ramat (1987).

(116) Italian

tengo gli occhi aperti  
'my eyes are opened'

(117)

tengo gli occhi  
'I have my eyes'

The constructions show that the presence of the participial predicate in (116) *aperti* 'opened' provides a clear meaning, while the absence of the predicate in (117) leads to an awkward meaning. As a result, by stage two, predication has taken place between the semi-auxiliary and the predicate. The third stage, periphrastic construction, where both auxiliary and main verb are present, as in the following (Stolz 1987):

(118) Ilha do Principe

E kabá falá  
3SG PRF VRB  
'he finished talking'

The periphrastic construction of (118) shows the perfect with the main verb - a new form, whereby the finite verb has 'no autonomous semantic meaning' (Ibid.). In stage four, an agglutinating stage is evident by the Portuguese-based Sri Lankan in (119):

(119) Sri Lanka

E:li ja:-fəla e:w ja:-ka:-fəla: fəla:-tu  
3SG PST-VRB 3SG PST-PRF-VRB QOT-ASP  
'he said he (had) told (you)'

The example of Portuguese Sri Lankan shows how each verb has become attached to the preceding aspect or tense category: both *ja*, past, and *ka*, perfect, are attached to the verb *-fəla* 'tell'. This stage indicates the process in which the auxiliary and main verb become agglutinated through univerbation.<sup>46</sup>

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<sup>46</sup> The process of "agglutination" in the Portuguese Sri Lankan indicates that morphological transparency still exists.



The verbal categories of valence, aspect and tense would have serialized in a postverbal position, as we expect in SOV languages. Let us assume this as stage one for Proto-Bantu with each category expressed lexically before the grammaticalization of the aspect and tense categories. Lexical items, particularly auxiliaries, can be subject to morphologization over time.

Auxiliaries are regularly found in postverbal position in SOV languages resulting in a suffix when the auxiliaries become morphologically bound, as in the development from Latin:

(123) Latin

possidēre habet > pussideravit

The Latin example (123) shows the main verb **possidēre** 'to possess' or 'to occupy' becoming fused into one word with the auxiliary **habet** 's/he has', or that which Ramat refers to as agglutinated, producing the word **pussideravit** 's/he will possess' or 's/he will occupy'. The development into the Romance languages can be shown by the same word and tense:

(124) Modern French

possédera  
's/he will possess' or 's/he will own'

The Modern French example shows the future construction based on the univerbation that took place in Latin yielding **possédera**. Within this univerbation a morphological pattern is observed where the future marker is preceded by the main verb as in the following construction:

(125) Spanish

amar-é  
MNV-TNS  
'I shall love'

In Spanish the future **amaré** 'I shall love' is a construction built on the infinitival main verb **amar**, and the auxiliary **hé** 'have'. The univerbation of



the two shows the auxiliary having fused with the verb in the position preceding it. The Romance examples above show the fossilized position of the auxiliaries, and thus, reveal a morphology representing an earlier word order, namely that of SOV.

### 8.1.1 Cliticization

In the linguistic evolution of Proto-Bantu to Bantu to Shona, postverbal categories undergo a process of auxiliarization followed by morphologization reducing the lexical items eventually to affixes. We noted in section 7.2.1 that in the lexical-syntactic continuum, the stage that follows the inflexional is the free grammatical which includes particles, auxiliaries and clitics. We should differentiate at this point between a clitic, which is a “free grammatical” on Bybee’s continuum, from an affix, which is a further stage in the morphologization process; thus, a clitic is not an inflexional category. Linguistic research shows two kinds of bound morphemes attached to free lexical items - clitics and affixes. Take for example the English auxiliaries, ‘is’, ‘has’ and ‘have’ - these are cliticized to the preceding pronoun:

- (126)        he’s bought a jeep  
              ‘he has bought a jeep’
- (127)        she’s watching the zebra  
              ‘she is watching the zebra’
- (128)        we’ve heard the lion  
              ‘we have heard the lion’

In example (126) ‘s ‘has’, in (127) ‘s ‘is’ and in (128) ‘ve ‘have’ we find the auxiliaries reduced, and cliticized, in each case, to the pronoun which immediately precedes them. These clitics are “optional variants of full forms” (Zwicky 1977): the clitics are found in the same positions as the full forms. Thus, one condition of word-clitic combinability is that the word can

occur with the corresponding full form in syntactic structures (Zwicky and Pullum 1983). Two other points Zwicky and Pullum make with regards to clitics is that syntactic rules do not affect clitics, as shown in (131):

- (129)            July's gone by  
                  'July has gone by'

Example (129) shows the clitic 'has' not attached to a verb, but to a noun. There are numerous syntactic categories to which clitics can attach themselves; moreover, clitics can attach themselves to items already containing clitics (Ibid:504).<sup>48</sup>

- (130)            I'd've been in Zimbabwe by now  
                  'I would have been in Zimbabwe by now'

We see in (130) the clitics 'd 'would' and 've 'have attached to each other, with 'have' preceded by 'would' and 'would' preceded by the subject pronominal, 'I'.

The above data shows us that the process of morphologization often involves the intermediate clitic stage before an inflexional affix is present. The intermediary clitic stage can be illustrated by Germanic:

- (131) Runic (pre-600 A.D.)  
                  flag da faikinaz ist  
                                MNV    AUX  
                  'is menaced by evil spirits'

- (132) Old English (post-600 A.D.)  
                  ni s                    solu    sot,    ni    s                    Akse stAin    skorin  
                  AUX-CLITIC            MNV            AUX-CLITIC            MNV  
                  'is not hit by the sun, the stone is not cut with a sharp stone'

The Runic example of pre-600 shows the auxiliary element in (131) ist 'is' as having been reduced by the Post-Beowulfian period in Old English to s,

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<sup>48</sup> In all, Zwicky and Pullum (1983) provide a list of five criteria for identifying clitics and affixes. For further detail on this subject see pp.502-13.

shown in example (132), where in both clauses the auxiliary has been reduced to the AUX-clitic *s*, rather than showing the fully inflected auxiliary *ist*.

Romance languages show a similar clitic development as illustrated by the present day French, Italian and Spanish:

(133) /a/ < habet (Latin) 'has'

The Latin **habet** has been reduced to the phonemic /a/ in the Romance languages. The erosion of the auxiliary results in simply a morphological sign; thus, not only desemanticization - auxiliarization - has taken place, but reduction - cliticization - as well, making /a/ a clitic. From the free grammatical stage of clitics, the process of change can further lead to an inflexional stage of affixation.

### 8.1.2 Affixation

The clitics shown above can be seen as an intermediate step in a continuous process of language change - from free forms to affixes. Clitics may still be spelled as separate lexemes, but if these clitics satisfy the given criteria for inflexional morphemes (Zwicky and Pullum 1983), then the possibility of affixation must be seriously weighed. This evolution of morphologization is common in Slavic languages and support for this process can be found in Old Polish (Andersen 1987).

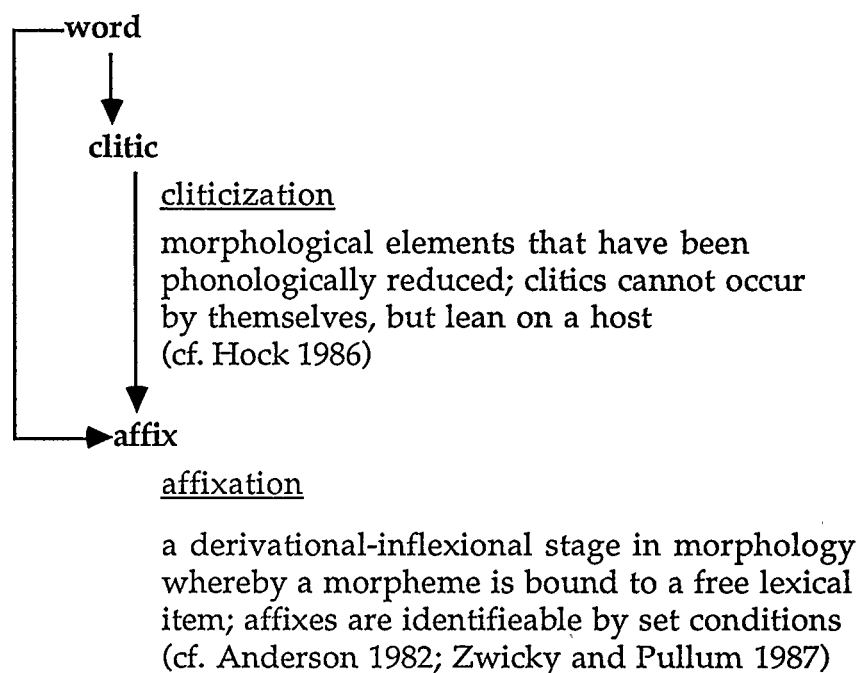
To exemplify the stage of affixation, Old Polish to Modern Polish data can be presented. Old Polish verbs expressing existence and the verb 'to be' employed two paradigms in the present tense: orthotonic and enclitic (Dcaux 1955). The present tense forms were reinterpreted as markers for both person and number. By 1500s the original orthotonic 1SG and 2SG were no longer in use (Ibid.:133), but the 3SG, which was also reinterpreted and predicated as a non-specific person, continued into Modern Polish as verbs expressing 'to be'

and existence (Andersen 1987:36). The predicators **jest** and **sa** show a pattern of generalization in Modern Polish; both in the standard and the dialect: person and number markers are affixed to the predicators resulting in the following paradigm (Ibid.:37):

(134)	Old Polish	Modern Polish	
	tmesis	dialects	standard
	1SG -(e)m jest	jestem	j'estem
	2SG -(e)s jest	jestes	j'esteś
	3SG        jest	jest	j'est
	1PL -(e)smy jest/sa	saśmy	jest'eśmy
	2PL -(e)ście jest/sa	saście	jest'eście
	3PL    sa	sa	s'a

The paradigm of (134) shows the process of affixation by the Modern Polish period, evident in both the dialects and standard Polish: the tmesis shown in the Old Polish data is replaced with the affixation of person and number to the copula in both the dialect and the standard of Modern Polish. Therefore, the copula **jest** (singular) and **sa** (plural) have inflexions to indicate the corresponding person and number, based on the Old Polish tmesis (cf. Andersen 1987:21-37 for a detailed study of the morphologization process in Polish).

We have seen in the sections above, 8.2.1 and 8.2.2, an ongoing morphological process involving cliticization and affixation. The stages of morphologization in which clitics and affixes develop from free words can be summarized as follows:

(135) Morphologization

The evolution of the word in (135) shows the process of morphologization once phonological reduction begins: the clitic stage is an intermediate stage between the word and affix. Let us now apply this interpretation to Bantu: if morphologization occurred at the Proto-Bantu stage, we would expect only postverbal affixes:<sup>49</sup>

## (136) VERB + VALENCE + ASPECT + TENSE

In sections 5.1 (and appendix) we noted the close semantic relationship between the twelve valencies and the verb root; this semantic relationship was expressed in Bybee's semantic hierarchy outlined in section 6.2. Such a reconstruction of Shona verbal categories is supported by the 50-language sampling (Perkins 1980; and Bybee 1985) in which aspect appeared closer to the verb root than tense in all but one of the fifty languages. The process of

<sup>49</sup> The + sign is used to indicate affixation; and the - sign indicates a clitic.

morphologization of the postverbal category, valence, is followed by univibration between the valence category and the verb root.

### 8.1.3 Univibration

Univibration is a process which occurs between elements that results in a single lexical unit and the lexical unit becomes a single word (Hock 1986:338). This process can be exemplified by Vedic Sanskrit and post-Vedic Sanskrit:<sup>50</sup>

(137) Sanskrit

(i)	Vedic	post-Vedic
	prá praḍáyā ḍāyēya	praḍayaḥ prajayēya
	ADV VRB	
	may I spring off	
(ii)	prá ḍāyasva prajḍáyā	prajḍāyasva prajḍáyā
	ADV VRB	
	spring off	

The Vedic and post-Vedic texts (137)(i) show a similarity in syllabicity; however, the post-Vedic represents a univibration in which two lexical entries appear in the text with *pra* preceding each lexical item. In (137)(ii) a similar pattern is evident with equal syllabicity among the two texts; however, the post-Vedic appears with two lexical entries, and again, each preceded by *pra*: the univibration between the earlier and later texts is apparent between the adverbial and the verb. Now let us examine univibration in the context of Canadian English and Modern Shona.

The verbal categories aspect-tense underwent morphologization at the SOV stage; but rather than univibration occurring between these two

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<sup>50</sup> The Sanskrit data is taken from Hock (1986:338).

categories and the verb root to produce a postverbal affix, they fused onto each other, as commonly found in some English dialects:

(138) Canadian English

coulda; shoulda  
'could have'; 'should have'

in

I coulda gone to Vancouver and you shoulda stayed in Calgary

'I could have gone to Vancouver, and you should have stayed in Calgary'

The English example in (138) illustrates the univerbation that has taken place between the categories of mood and aspect - these two lexical units have become one item: **coulda** and **shoulda** are both made up of two verbal categories, but as a result of univerbation they are expressed as one lexical unit. Morphologization, then, does seem to answer one of our questions; namely, valence appears as a postverbal affix because of the univerbation that took place between the verb root and the valence category. I assume, then, that valence as a postverbal affix resulted from morphologization at the earlier SOV stage of Proto-Bantu.

We are then left with the question of aspect-tense. To account for the preverbal position of aspect-tense in Modern Shona from the earlier postverbal position as shown in section 8.1.2, in addition to univerbation, another process requires consideration, namely, the Principle of Clitic Placement:

## (139) Principle of Clitic Placement

The preferred position for sentence clitics is position 2 of the phrase (cf. Hock 1986). (The shift that follows I refer to as AUX-Clitic Movement.)

The Principle of Clitic Placement which involves a shift of the AUX-clitic is also supported by Wackernagel's Law.

Wackernagel's Law holds that historically enclitics occupied the second position of a sentence. This is an exceptional Law in that it is one of the few syntactic statements of Indo-European generally maintained (Watkins 1964:1036). Indo-Iranian, Latin, Germanic and Celtic appear to have linguistic traces of the clitic gravitating towards second position; and it has been claimed that in Proto-Indo-European accentless main finite verbs may shift into second position producing an SVO word order (Collinge 1985:217). This attraction to second position is also supported by Comrie's findings in Serbo-Croatian (1981:21-22). Comrie indicates that various languages show a rule in which clitics (which he refers to as a "constituent that has no stress of its own, but pronounced as part of the adjacent word") are found in second position of the sentence as example (140) below shows:

(140) Serbo-Croatian<sup>51</sup>

Petar čita knjigu danas  
'Peter reads the book today'

The above example allows the four words of Serbo-Croatian a possible 24 permutations, since Serbo-Croatian word order is relatively free. However, the unstressed 1SG dative pronoun *mi* 'to me' must follow the first word of the sentence. Therefore, when the clitic is inserted into any of the 24

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<sup>51</sup> The Serbo-Croatian data is taken from Comrie 1981:212-22.



combinations, it must always come after the first word, as in the Serbo-Croatian example below:

- (141)        Petar mi čita knjigu danas  
              ‘Peter reads the book to me today’

This clitic rule, first discovered by Delbrück, was applied to early Indic prose: Delbrück observed that the position immediately following the opening word of the sentence was usually an enclitic (from Collinge 1985).

Similar evidence in support of AUX-cliticization is presented by Cowan (1984) which shows Nuer, a Sudanic language in the Nilo-Saharan phylum, in transition from SOV to SVO word order. Nuer has prepositions, post-nominal specifiers; possessed nouns preceding the possessor nouns; and in comparative constructions the comparative adjective is placed in front of the noun which represents the standard of comparison - patterns of SVO order. However, SOV order is also evident: in some constructions the verb appears in final position, as well as relative clauses showing left-branching. Cowan accounts for the change in Nuer by hypothesizing that at an earlier stage the past, future and narrative aspectual particles were placed in final position of the sentence, but these particles were not attached to the verb, unlike the modern language that has the present / progressive / habitual clitics attached to the verb. Cowan argues that the free-standing particles then shifted to second position by AUX-cliticization (Ibid.:38). The linguistic pattern of Nuer supporting the AUX-Cliticization Hypothesis appears as follows:<sup>52</sup>

- (142) Nuer

yan	čə	je	ŋəč	
I	ASP-1SG	it	know	
‘I know it’				(PST)

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<sup>52</sup> Nuer data taken from Cowan (1984:40).



aspect-tense auxiliaries also underwent phonological reduction such that they both became fused onto each other, and then became clitics, as in the following example (repeated from p.85)

- (130) I'd've been in Zimbabwe by now  
           'I would have been in Zimbabwe by now'

The modal 'would' 'd and the aspect 'have' 've are followed by the phonological reduction and cliticization of the two auxiliaries shown in example (130). We can also account for the Shona auxiliaries in the same manner:

- (146) Shona

[ASPECT TENSE]	--->	[ASPECT-TENSE]
univerbation		cliticization
		<b>i-ka</b>
		<b>a-ka</b>

As shown above, stage 1 involves the univerbation and cliticization of the aspect-tense categories.

At the AUX-clitic stage (146) the auxiliary clitics shifted into postsubject position which takes us to stage 2. This shift is based on the Principle of Clitic Placement which is supported by Wackernagel's Law and data from Indo-European and Nilo-Saharan languages, as in the following (repeated from p.85):

- (131) Runic (pre-600 A.D.)

flag da faikinaz ist  
                   MNV  AUX  
           'is menaced by evil spirits'

- (132) Old English (post-600 A.D.)

ni s	solu sot,	ni s	Akse stAin	skorin
AUX-CLITIC	MNV	AUX-CLITIC	MNV	
'is not hit by the sun, the stone is not cut with a sharp stone'				

AUX-Clitic-Movement occurs and places the AUX-clitic in postsubject position, as shown in (132). Shona underwent a parallel development as the Germanic data:

(147) Shona

[VRT]+[ASP-TNS]	--->	[ASP-TNS]+[VRT]
AUX-clitics		AUX-clitics

Aspect-tense, as with the verb root and valence, underwent univerbation in their serialized positions. The processes of univerbation and agglutination reveal morphological differences: [VRT+VAL] show univerbation of the agglutinating type where the semantic units maintain morphological transparency. However, [ASP-TNS] undergo univerbation of the fusional type where the two shift as one morphological unit, though the [ASP-TNS] categories maintain semantic independence. The aspect-tense auxiliaries became phonologically reduced and reached a clitic stage. The process of AUX-cliticization moved aspect-tense to postsubject position leaving verb root + valence behind. It should be noted that the movement of the [aspect-tense] clitic to the position following the subject occurred as a unit after they had morphologically serialized, and therefore, aspect is farther from the verb root than tense.<sup>53</sup> This is not uncommon in Bantu. Bybee and Dahl (1989:74) refer to the Swahili past tense marker *li-* which developed from a perfect periphrastic construction:

(148) Swahili

a-li-kwenda  
SUB-TNS-go  
'he went'

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<sup>53</sup> In Shona, only the subject appears in initial position of the verbal morphology. When the subject is a nominal, then the agreement marker which refers to the Noun Class of the subject, is found in initial position of the verbal morphology.

Chewewa, a language closely related to Shona, requires the presence of both aspect and tense to express the habitual aspect. Similarly, Nyora, a Bantu language spoken in Uganda requires the presence of both aspect and tense to express the perfect.<sup>54</sup>

Through the processes of univerbation and the Principle of Clitic Placement we can answer another question; namely, the preverbal position of aspect-tense plus the unexpected serialization of these two categories in Modern Shona.

## 8.2 Reinterpretation

Now we can consider question three: the SOV to SVO shift. Hock (1986) maintains that the change of position 2 to a verbal position is brought about by a process to which he refers as “reinterpretation” which can be summed up as follows:

### (149) Reinterpretation

The new AUX-clitic position is then extended to include other auxiliaries, modals and any finite verb.

Evidence for reinterpretation can be shown with examples from Old English.<sup>55</sup> If we compare the previous post-Runic example (132) of inscriptions dated to the period after 600 in the Christian era, to the Early Old English of the Beowulfian period, we can observe notable verbal differences (repeated from p.85):

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<sup>54</sup> Grammatical information on Chewewa and Nyora were provided by Malawian and Ugandan native speakers: Titus Misi was my Chewewa informant, and Frederick and Hariette Tinka were my informants for Nyora. The three speakers also helped me with my grammatical analysis.

<sup>55</sup> The Old English data is taken from Hock (1986:333-334).

(132) post-Runic (600 A.D.+)

ni s                      solu sot,    ni s                      Akse stAin skorin  
                                  AUX-CLITIC                      MNV                      AUX-CLITIC                      MNV  
 'is not hit by the sun, the stone is not cut with a sharp stone'

(150) Early Old English (Beowulfian)

Bēowulfe wearð / gūðhrēð / gyfeðe  
                                  AUX                      MNV  
 'to Beowulf glory in battle was given'

In (132) clitics are evident in postsubject position of the post-Runic, but by the Beowulfian period, rather than a clitic, in second position we find that a full inflected aspectual auxiliary is present, as shown in (150). The verb pattern of position 2 continues to extend such that by the post-Beowulfian period of Old English, position 2 has extended from an auxiliary to include modals and finite verbs, as shown by the following example:

(151) Old English (post-Beowulf)

we witan oðer igland hēr be eāstan  
                                  MNV<sub>[+fin]</sub>  
 'we know another island east from here'

In (151) the finite verb is in second position, but rather than an auxiliary, by the post-Beowulfian period, a fully lexical verb occupies this position.

The examples from the post-Runic, Beowulfian and post-Beowulfian periods of Old English show the gradual pattern of verbal change in position 2: from clitic to auxiliary to main verb. The verbal change of position 2 can be illustrated as follows:

(152) Reinterpretation

S AUX-Clitic O V-

1        2    ← auxiliaries / modals / finite verbs

Reinterpretation thus leads to position 2 as being interpreted as a verbal position. This brings us to stage 4 involving Behaghel's Law.

### 8.3 Behaghel's Law

Once the process of reinterpretation, that is stage 3, brings auxiliaries, modals and finite verbs into position 2, the shift of the main verb[-fin] to position 3 is triggered by Behaghel's Law producing stage 4:

(153) Behaghel's Law (Collinge 1985:241-42)

Languages are inclined towards continuous rather  
than discontinuous constituents.

This crosslinguistic preference for continuous rather than discontinuous constituents is exemplified by the following Old English:

(154) Old English

Dryhten **wæs** **sprecende** **ðās** **word** **tō** **Moyse**  
AUX MNV  
'The Lord was speaking these words to Moses'

Compare the Old English of (154) to the Early Old English shown in the earlier example (repeated from p.96)

(150) Early Old English (Beowulfian)

Bēowulfe **wearð** / **gūðhrēð** / **gyfeðe**  
AUX MNV  
'to Beowulf glory in battle was given'

Example (154) shows the verbal position 2 occupied by the auxiliary, and the following position 3, occupied by the main verb; this is in marked contrast to the earlier construction where the auxiliary is in second position and the main verb is in final position. In other words, the main verb has shifted to the position adjacent to the auxiliary. This is also supported by data from Romance Languages such as French:

(155) Old French

vertet est de terre nee  
 AUX MNV  
 'truth is born from the earth'

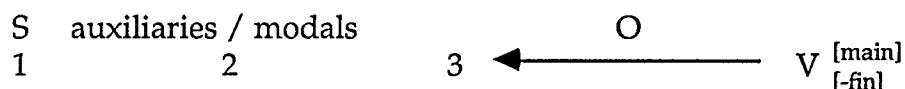
(156) Modern French

la verité est née de la terre  
 AUX MNV

The Old French example of (155) shows the auxiliary in second position with the main verb in final position; however, Modern French has both auxiliary and main verb adjacent to each other, positions 2 and 3, respectively, as maintained by Behaghel's Law.

The fourth stage, therefore, can be summed up by saying that the main verb in clause final position, forming a discontinuous constituent, shifts to position 3, immediately following that of auxiliaries and modals developing into a continuous verbal constituent, as the following example illustrates:

(157) Main Verb Shift



Behaghel's Law expresses the preference for continuous constituents. As a result, SAUXOV is possible only when object is a pronoun. Old English testifies to the possibility of SAUXOV. In sentences where the main clause is a declarative, the finite verb is in second position but pronouns and adverbs may precede the verb, as shown by the following (taken from Vennemann 1974a:360):



## (158) Old English

se papa **hine** neht Petrus  
**POB**  
 'this Pope him called Peter'

The example above shows the object pronoun **hine** immediately followed by the verb, thus permitting an SAUXOV word order. Similar patterns can be found in Romance languages where unstressed adverbs and object pronouns still occur before the verb as shown by the following example:

## (159) Modern Italian

Francesco **me** **lo** da  
 Francis **IOB** **DOB** gives  
 'Francis gives it to me'

The Modern Italian example shows the pronominal clitics, **me** 'to me' and **lo** 'it' in preverbal position. This shows that the verb is preceded by objects only when such objects are clitics, preventing the shift of the verb to second position, and allowing the SAUXOV word order.

With clitics, auxiliaries and finite verbs in position 2, Behaghel's Law serves to bring the main verb into position 3. At this point it can be concluded that a total verbal shift has taken place from SOV to SVO.

#### 8.4 SVO Serialization

Finally, once SVO word order is established, other word order patterns follow according to the Principle of Natural Serialization since a unidirectional word order is favoured (section 7.1). We have seen in Chapter 8 specification patterns, and evidence supporting Shona word order as having serialized as SVO. The serialization of word order begins once the verbal position is interpreted as position 2 / 3, in which specifiers follow accordingly. We can now also provide an account of the complete SOV to SVO shift,

which can be explained by the following: (a) reinterpretation; (b) Behaghel's Law; and (c) the Principle of Natural Serialization.

## 8.5 Conclusion

Let us now return to Bybee's predictions. Bybee predicts that aspect would be found closer to the verb root than tense, and at first, the Shona data appear to be a deviation from Bybee's claims, given the position of the aspect-tense categories in relation to the verb root. However, such a deviation can be interpreted as the result of diachronic change, and in fact, the starting point of the analysis provides support for Bybee's position vis-à-vis verb root aspect-tense at the SOV stage. Accordingly, we can provide a coherent account of all the pertinent aspects of the development into Shona. The processes appear in the following stages: stage 1 occurring at SOV with the univertation of verb root-valence and aspect-tense. This is also in accordance with Bybee's semantic hierarchy since it shows the closer morpho-semantic relation between the verb root and valence, but not the verb root and aspect-tense; stage 2 produces SOV > SAUX-[clitic]OV as a result of the AUX-cliticization and AUX-Clitic Movement; stage 3 reinterprets the AUX-clitic position 2 as a verbal position for other auxiliaries, modals and finite verbs. Stage 3 is followed by Behaghel's Law -stage 4: this stage brings the main verb[-fin] to position 3. Finally, in stage 5, the Principle of Natural Serialization produces a complete shift in word order. These stages can be illustrated by the processes on the page following:



## *Chapter 9*

### SUMMARY AND CONCLUSION

This paper has shown how characteristics in Modern Shona word order and morphology suggest a transition in word order between the stage of Proto-Bantu and Bantu. Details on Shona nominal and verbal morphology were provided in Chapters 4 and 5, respectively, (and appendix) to give a thorough basis for the investigation of word order and morphological patterns in this language. Serialization patterns were presented (Chapter 7), exemplified by Hindi and Thai, showing characteristics of languages with a dominant OV and VO word order and morphology, respectively. Evidence supporting Proto-Bantu as SOV, from which Shona word order evolved, has been presented, taking into account a comparative study, internal reconstruction, areal findings and, as well, statistical data.

The development of postspecification patterns in Shona reflects a total change in word order, and to a degree, in morphology, while frozen postverbal and preverbal positions reveal an SOV morphology. The morphological shift in Shona involved analysing and comparing the morphological serialization in Shona with Bybee's claims and predictions (Chapter 7).

My answers to the three questions posed are as follows: (a) stage 1, in accordance with the semantic hierarchy, shows valence, aspect and tense in postverbal position as free lexical items. The process of univerbation leads to the [verb root] and [valence], but not the [verb root] and [aspect] [tense], to form one lexical unit; the [verb root+valence] univerbation is also in accordance with Bybee's semantic hierarchy since stage 1 reflects the closer relation of the valence to the verbal root, relative to [aspect] and [tense]; (b)

stage 2 reveals the unexpected serialization of [aspect][tense] in Modern Shona; the serialization at this stage is explained by the assumption that univertation predated AUX-movement; as a result of cliticization, the [aspect-tense] serialization activated the shift to postsubject position which I referred to as AUX-Clitic-Movement; such a movement is based on the Principle of Clitic Placement, and is supported by Wackernagel's Law; (c) stage 3 involves the reinterpretation of position 2 as a verbal position which is extended to include auxiliaries, modals and finite verbs; (d) the basis of support for stage 4 is Behaghel's Law which maintains that languages are inclined towards continuous constituents, thus, bringing the main verb in Shona to position 3, immediately following the auxiliaries of position 2; and (e) the final stage 5: as a result of the Principle of Natural Serialization, the VO positions activate a word order that is extended to other constructions producing patterns of postspecification, and ultimately establishing a complete shift to SVO word order.

## *Chapter 10*

### QUESTIONS FOR FUTURE STUDY

The analysis presented in this paper has focussed on the verbal categories of valence, aspect and tense. An analysis of the serialization of the voice, mood and agreement categories has not been presented, but this is an area which requires close examination since they can further tell us about diachronic change in Shona, and other Bantu languages.

A further examination of aspect-tense in other Bantu languages would serve to support the claims made in this thesis; or, perhaps new findings in the aspect category would indicate that further changes have taken place in some other Bantu languages. Since Bantu languages are structurally interrelated, a consistency in the position of aspect would be expected; however, if such a consistency is lacking, how can it be explained? Can the discrepancies be the outcome of language-independent phonological changes affecting the morphology? Does the semantic nature of aspect allow movement that cannot be predicted? Or can we still expect to find support for Bybee's claims?<sup>56</sup>

The voice category in Bybee's semantic hierarchy is found in the position immediately following valence; this is the same position where voice is found in Shona. In fact, Shona grammarians, such as Dale (1972, 1981), have traditionally placed voice, that is passivization, with other valence categories - processes leading to semantic modification of the verb root, allowing a change not only in meaning, but transitivity as well (see sections 5.1 and 5.2 of the thesis). We also saw from Chapter 5 (and appendix)

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<sup>56</sup> J. Bybee (personal communication) pointed out that the various forms of constructing aspect are due to the variety of aspectual expressions in language and their different stages of development.

that several valences may co-occur, and when this happens, voice is found in final position - the position immediately following the last valence.

When mood occurs it follows voice in Shona, while in Bybee's hierarchy mood is predicted to occur immediately after tense. As we have seen, a shift took place in which aspect-tense moved to preverbal position as a unit, and the next category, mood, occupied the position immediately next to voice. Mood is significant in revealing earlier word order patterns since it is this category that represents a frozen morphology: the category valence is found in postverbal position, and indicative of earlier word order in Shona as well as Bantu.

The interesting question about mood is why it may or may not occur with the auxiliaries **nga-** ~ **nge-**; and **nga-** ~ **nge-** may occur without the mood suffix. I have referred to **nga-** ~ **nge-** as an auxiliary throughout this paper, but what kind of auxiliary is it? Hannan (1984) refers to it as a "formative" when used with the hortative mood, and a tense sign when used with the potential mood. The fact that **nga-** ~ **nge-** occurs in tense position suggests a relationship between this auxiliary and tense: **nga-** ~ **nge-** never occurs with any of the tense markers **no-**, **ka-** or **cha-**.

What about the relationship between mood and interrogative and negative? In both cases Shona employs an **-e** suffix. Erickson (1988) refers to **-a** as a "default suffix", since **-e** appears in only two moods, the subjunctive and the hortative (Ibid.:39); but he does not consider potential, as mood, which also has an **-e** suffix, and instead, includes infinitive, participial and relative in the mood category. If we consider interrogatives as well as non-indicative moods, it would appear that **-a** occurs with positive declaratives (except 2PL). Even the imperative mood, which uses **-a** is still marked by a

high tone. We are still left with the question of the agreement category in relationship to Bybee's scale.

Agreement is expected to occur at the periphery of the verbal morphology, and we find just that in Shona. When nominal agreement is present, it is the category that is in initial position of the verbal morphology. But agreement is expected to be found after the mood category, which would place agreement in final postverbal position; instead, we find agreement in Shona (section 5.6) in initial preverbal position. Again, we have an OV vs. VO conflict: OV-VO differences and development in Shona have already been dealt with in this paper, and agreement relates to this same issue of word order and morphological change. The subject pronoun is the same as the subject pronominal that agrees with the nominal subject. If a historical shift took place with the aspect-tense categories, could we conclude that Behaghel's Law was also at work with nominal-pronominal agreement?

To what extent can developments in Shona apply to diachronic change in other Bantu languages? How can our study of other languages in the Niger-Kordofanian phylum help us better understand the development of Bantu? Of particular significance is that Bantu has split into Broad and Narrow Bantu: what is the relationship between serial verbs as in Bamileke and Tiv in Broad Bantu and non-serial verbs as found in Shona and other Narrow Bantu languages?

A study of the languages spoken in the Nigeria-Cameroonian region from where Bantu movements began could further contribute to Bantu studies. The languages spoken in this area most probably reflect an earlier word order and perhaps have a conservative morphology that could provide explanations for diachronic change in Bantu.



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## APPENDIX

This appendix is intended to provide greater detail on Shona verbal morphology. Although other complex verbal constructions appear in Shona, I have presented those which particularly relate to this paper, valence and aspect.

### 1.0 Valence

Valence has been presented as an extension of section 5.1; the causative valence has provided the focus of the analysis, but eleven other valence categories appear in Shona - each with its own morpho-semantic and morpho-syntactic implications as shown below.

### 1.1 Applied

The applied valence *-i/-era* is employed when an action is completed with reference to a person, object or place; e.g., stand + Applied = 'wait for':<sup>1</sup>

- (1) mira (intransitive) 'stand'; mirira (transitive) 'wait for'

vafundi vanomirira mufundisi  
students wait-for teacher  
'the students wait for the teacher'

- (2) chengeta 'keep'; chengetera 'keep for'

vakadzi vanochengetera mari varume vavo  
women keep-for money husbands their  
'the women keep the money for their husbands'

---

<sup>1</sup> The i ~ e alternation is phonologically motivated: i occurs with non-mid-vowels, while e occurs only with mid vowels.



The applied valence can change an intransitive verb **mira** to a transitive verb **mirira**; or it can produce a change from transitive **chengeta** to ditransitive **chengetera**.

## 1.2 Associative

The associative valence **-ana** indicates that two or more subjects are joined together by an action or state expressed by the simple verb; e.g., collect + Associative = 'assemble together':

- (3) unga (transitive) 'collect'; ungana (intransitive) 'assemble together'
- vafundi vanoungana  
students assemble-together  
'the students assemble together'

The associative valence leads to a change in transitivity of the verb: from transitive the verb becomes intransitive. Example (3) shows no verbal argument, instead, the argument is included in the meaning of the suffix.

## 1.3 Completive<sup>2</sup>

The completive valence **-irira/-erera** expresses that an action has been completely realised; e.g., to pass + Completive = 'to pass right through':

- (4) pinda 'pass'; pindirira 'to pass right through'
- mbudzi inopindirira kagoni  
goat pass-right-through little gate  
'the goat passes right through the little gate'
- (5) cheka 'cut'; chekerera 'cut up small'
- bhucha rinoichekerera  
butcher it-cut-up-small  
'the butcher cuts it up small'

---

<sup>2</sup> The completive valence has been traditionally referred to as "perfective"; however, to avoid confusion with the aspectual category, I have used this alternative term.

#### 1.4 Contactive

The contactive valence **-ata** suggests that the action expressed by the simple verb involves contact with an object as a result of the contactive suffix; e.g., soften + Contactive = 'soak into':

- (6) nyanga 'soften'; nyangata 'soak into'

nyangata zvinhu mvura  
soak-into things water  
'soak the things in the water'

#### 1.5 Extensive

The extensive valence employs two types of suffixes conveying two different meanings: (i) **-i/-eka** refers to an action in which a spatial aspect is conveyed; e.g., face (direction) + Extensive = 'point to':

- (7) tonda 'face' (direction); tondeka 'point to'

vafundi vanotondeka mukomana  
students point-to boy  
'the students point to the boy'

- (8) sima 'plant'; simika 'plant out'

varume vanosimika chibahwe  
men plant-out maize  
'the men plant out the maize'

(ii) the extensive valence which employs the suffix **-ura** is employed to express a spatial action in terms of spreading over an area; e.g., throw down + Extensive = 'cut down here and there':

- (9) riga 'cut'; rigaura 'cut down here and there'

murume anorigaura miti  
man cut-down-here-and-there trees  
'the man cuts down the trees here and there'

## 1.6 Intensive

The intensive valence **-i/-esa** expresses a heightened degree of the action indicated by the simple verb, thereby serving to give the verb more emphasis; e.g., speak + Intensive = 'speak up'. To further intensify the simple root which can produce superlative meaning, a reduplication of the Intensive is then employed **-isisa/-esesa**:<sup>3</sup>

- (10) **taura** 'speak'; **taurisa** 'speak up'

"taurisa," mukadzi akaudza mwana  
 speak-up woman told child  
 "speak up," the woman told the child

- (11) **rema** 'heavy'; **remesesa** 'very heavy'

huni dzinoremesesa  
 wood very-heavy  
 'the wood is very heavy'

- (12) **bvunza** 'ask'; **bvunzisisa** 'examine'

**bunzisisa** mwoyo wenyu  
 examine conscience your (2PL)  
 'examine your conscience'

## 1.7 Neuter

The neuter valence **-i/-eka** functions to express (i) intransitivity or a condition that does not have an agentive referent; e.g., see + Neuter = 'to be visible'; in addition to the intransitivity, neuter serves to indicate (ii) an action is 'easy', corresponding to English *ible/able* (with no agentive referent); and (iii) the process of being done or becoming done (normally an inchoative verb):

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<sup>3</sup> In the case of monosyllabic roots the suffix is triplicated; e.g., da + Intensive = **disisisa** 'love very very much'.

- (13) ona 'see'; oneka 'be visible'

mapfeni anoneka  
'baboons are-visible'

- (14) bata 'hold'; batiki 'grasp'/'catch'

mucheche anobatika  
baby hold-can  
'the baby can be held'

- (15) rasa 'lose'; rasika 'get lost'

hwai dzakarasika  
sheep lost-get  
'the sheep got lost'

## 1.8 Reciprocal

The reciprocal valence **-ana** indicates that the action performed involves two or more agents affecting each other; e.g., love + Reciprocal = 'love one another':<sup>4</sup>

- (16) da 'love'; dana 'love one another'

vaKristo vanodana  
Christians love each other  
'Christians love each other'

## 1.9 Repetitive

The repetitive valence **-urura/-orora** expresses an action being repeated for the second time or more; e.g., plant + Repetitive = 'replant':

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<sup>4</sup> V. P. De Guzman (personal communication) suggested that this represents a form of incorporation, where the verbal argument is included in the verb itself; in other words, superficially the verb is intransitive, but at the deep level the verb is transitive. This would then apply to other valence suffixes, such as the associative (1.1.2).

- (17) dyara 'plant'; dyarurura 'replant'

vanhu vakadyarurura nzungu  
 people plant-again groundnuts  
 'the people replanted the groundnuts'

In addition to repeating an action, the repetitive can also have a completive meaning:

- (18) reva 'say'; revurura 'confess'

murume akarevurura zvitema  
 man confessed sins  
 'the man confessed his sins'

### 1.10 Reversive

The reversive valence appears in two forms: (i) the short form of the reversive **-ura** which expresses that the action indicated by the simple verb is undone, comparable to the English prefix *un-*; e.g., tie + Reversive = 'untie', as shown in the example following:

- (19) sunga 'tie'; sunungura 'untie'

mwana achasunungura mhuru  
 child will-untie calf  
 'the child will untie the calf'

and (ii). the long form of the reversive valence **-i/-u/-e/-o/-anura** which is employed to express the same meaning as above, but the long form is the more commonly used:<sup>5</sup>

- (20) pfupa 'propitiate a spirit'; pfupunura 'call back a spirit'

madzibaba anopfupunura  
 ancestors spirit-call-back  
 'the ancestors call back the spirit'

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<sup>5</sup> The morphophonological alternation is determined by the final root vowel in the verb root: the final root vowel has the same vowel on the suffix.

The reversive valence can undergo further semantic modification by changing the transitive into an intransitive neuter by adding *-ka* to the reversive suffix:<sup>6</sup>

- (21) nama 'seal'; namura 'unseal'; namuka 'to become unsealed'

hamvuropu yanamuka  
 envelope became-unsealed  
 'the envelope became unsealed'

### 1.11 Stative

The stative valence occurs in two forms: (i) the suffix *-ama* is used to express a posture or position; e.g., surround + Stative = 'bowed' or 'bent':

- (22) komba 'surround'; kombama 'be bowed', 'bent'

vaKristo vakanombama mukirike  
 Christians bow in-Church  
 'the Christians bow in Church'

- (23) dzika 'be deep'; 'dzikama 'be still'

nyanza yakadzikama  
 lake was still  
 'the lake was still'

(ii) the stative valence *-ara/-arara* is employed for *-ama* and *-ara* suffixes, respectively. Once again the derivative suffix expresses position or posture, as well as having an ideophonic nature:

- (24) chachama 'bulge'; chachamara 'project'

mutandamhuno wake wakachachamara  
 nosebridge his projects  
 'he has a projecting nosebridge'

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<sup>6</sup> For details on valence combinations in terms of arguments see Erickson (1987) who provides a lexical analysis.

- (25) nyara 'be ashamed'; nyarara 'be silent'

vafundi vakanyarara  
students silent  
'the students were silent'

## 2.0 Aspect

In addition to the aspectual combinations found in section 5.3, other constructions are provided here. The aspect constructions in this appendix are of a complex nature, employing auxiliaries and/or participles.

### 2.1 Perfect

#### 2.1.1 Past Perfect

The perfect relates some state to a preceding situation: the perfect aspect expresses a bound or punctual action, and in this case, the action is in the past. In Shona, to construct the past perfect, the participial form is employed, making use of the **nga-** auxiliary. This is combined with past tense **ka-** and the past aspect **a-** to give the past perfect aspect as in the following example:

- (26) nd-a-ka-nga      nd-a-funda  
I-ASP-TNS-AUX I-ASP-study  
'I had studied'

#### 2.1.2 Future Perfect

Like the past perfect, the future perfect indicates that an action takes place within a bound or specified period. Once again, this is expressed through the use of a complex construction in Shona:

- (27) ndi-ne-nge      nd-a-funda  
I-TNS-AUX I-ASP-study  
'I shall have studied'

The future aspectual marker **ne-**, the auxiliary **-nge** and the past aspect **a-** are employed to express perfective futurity.

## 2.2 Habitual

### 2.2.1 Past Habitual

The past habitual can also be found in constructions with subordinate clauses. When such constructions are present, the marker for the past habitual is found in the main clause, while the verb in the subordinate clause requires the use of the participial **chi-**:

- (28) **va-i-tamba**    **va-chi-famba**    **kuSilveira**  
       they-ASP-play    AGR-PRT-walk    to-Silveira  
       ‘they used to play while walking to Silveira’

## 2.3 Progressive

### 2.3.1 Past Progressive

The progressive aspect of the past tense refers to an action of the past that is continuative or durative, but non-stative. The difference between the present progressive and the past progressive is that while the former expresses an ongoing action at the moment of speech, the latter refers to an action having already taken place, but ongoing. To distinguish between the two, an overt morphological distinction is made: the past progressive aspect employs a participial construction :

- (29) **nd-a-nga**    **ndi-chi-funda**  
       I-ASP-AUX    I-PRT-study  
       ‘I was studying’

The construction of (29) can be parsed as follows: the aspectual marker is **a-** which immediately follows the subject pronoun; the **-nga** auxiliary has a similar function as the auxiliary ‘be’, and when adjoined to **a-** can be



rendered as the English 'was'. In the participial clause **chi-funda** 'studying' provides a progressive interpretation for the action.

### 2.3.2 Future Progressive: Past

The progressive future of the past tense refers to a durative or progressive action having taken place in the past, but in reference to a future event.

- (30) **nd-a-nga ndi-cha-funda**  
 I-ASP-AUX I-TNS-study  
 'I was going to study'

Example (30) differs from (29) significantly in that the participial construction is not used in (30); instead of a participial clause a future construction is employed, while **a-** and **nga-** still serve to express both the past aspect and progressive, respectively.

### 2.3.3 Future Progressive

To express the futurity of an action that is also progressive or durative, a future participial construction is used in Shona. In this future aspect the **nga- ~ nge-** auxiliaries serve as aspectual markers performing the function as 'be' in English. To express the tense within the progressive aspect, the aspectual future marker verb **na- ~ ne-** is employed. The participial construction in which **chi-** is applied expresses a present participle similar to the English '-ing':

- (31) **ndi-ne-nge ndi-chi-funda**  
 I-TNS-AUX I-PRT-study  
 'I shall be studying'

This detailed provision of valence illustrates the wide use of postverbal affixes in Shona. The aspectual combinations present complex constructions in the Shona verbal morphology; these constructions employ, in addition to aspect and tense, auxiliaries and participles, to convey varying degrees of internal temporal settings.