METAPHORICAL EXTENSIONS AS A BASIS FOR GRAMMATICALIZATION

WITH SPECIAL REFERENCE TO ZULU AUXILIARY VERBS

by

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C O N T E N T S

DECLARATION

I declare that METAPHORICAL EXTENSIONS AS A BASIS FOR GRAMMATICALIZATION WITH SPECIAL REFERENCE TO ZULU AUXILIARY VERBS is my own work and that all the sources I have used or quoted have been indicated and acknowledged by means of complete references.

S.N.L. MKHATSHWA.

SUMMARY

This study focuses on the development and the nature of Zulu auxiliary verbs. The syntactic category auxiliary has in the past received attention from various scholars. However, its origin and its etymology have not yet been attended to.

In this thesis certain notions such as grammaticalization, metaphors, semantic field analysis, categorization, prototype theory and topology are used in order to explore the nature and the development of the auxiliaries in Zulu. The view that Zulu auxiliaries derive from full verbs is specifically and systematically examined.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Auxiliaries in many languages of the world have been shown
to originate from verbs. This derivational relationship
between verbs and auxiliaries also seems to obtain in Bantu
languages as grammarians such as Jacottet (1927), Cole
(1955), Ziervogel (1969), Doke (1981) and Slattery (1981)
have observed. The exact nature of this derivational
relationship has, however, never been fully explored with
respect to any Bantu language and questions such as the
following remain to a large degree unanswered:

- If auxiliaries derive from verbs, are these cate-
  gories to be treated as one category or two separate
  categories?
- Given that auxiliaries derive from verbs, can any
  verb become an auxiliary?
- What are the factors underlying the development of
  auxiliaries from full verbs?
- Is the nature of this development arbitrary or not?
- If the development of the auxiliaries from full
  verbs is not arbitrary, what determines the
  selection?
- To what extent do the selected verbs retain their
  structure and meaning when they become auxiliaries?

In this thesis we will hypothesize that auxiliaries derive
from a certain definable subset of verbs by means of the
process of grammaticalization which is motivated by a
specific metaphorical construal of temporal significances in
terms of certain spatial significances. This hypothesis,

when broken down into various specific hypotheses, I should like to claim, provides an adequate answer to the questions raised above. Thus, I should like to claim that:
- Auxiliaries are a different category but not independent from verbs.
- Auxiliaries are not arbitrary selected but there are factors determining their selection.

In order to explicate these factors, I shall invoke certain theoretical notions such as grammaticalization, metaphors, semantic field analysis, categorization and prototype theory.

1.2 The Organization of the thesis

The answers to the questions raised above will be explored in various chapters. In Chapter 2 we will outline the general theoretical framework from which the identified problems will be explored. The process of grammaticalization as a means whereby auxiliaries develop will be discussed in depth in this chapter. When auxiliaries undergo the process of grammaticalization, two pathways are followed, namely orphaning and budding and a full discussion of these pathways is undertaken in this chapter.

Finally, in this chapter I shall outline the various factors underlying the process of grammaticalization, viz., metaphorical extesions, semantic field analysis, categorization and prototype theory.

In Chapter 3 I shall examine facets of the category auxiliary in general. As such this chapter forms a general background to the study of Zulu auxiliaries. This chapter deals only with a selected subset of categories of the category auxiliary namely tense and aspect. The approach that is used in the investigation of these two subcategories of Aux, is the more comparative/typological approach of Comrie

(1985) and Dahl (1985) where the general parameters of the subcategories of Aux are outlined.

In this chapter I shall also discuss the various types of tenses and aspects distinguished in languages. A metaphorical interpretation of both the categories aspect and tense will be outlined in this chapter. Finally, I shall discuss topology as a useful tool for representing grammatical categories. Some basic and elementary aspects of topology will be discussed in this chapter and some topological schemas that will be used in representing some aspectual notions will also be provided in this chapter.

In Chapter 4 I shall specifically discuss tense and aspect auxiliaries in Zulu. In this discussion the categorial status and the nature of tense and aspect auxiliaries in Zulu will be explicated.

The nature of the relationship between tense and aspect auxiliaries, on the one hand, and the category verb in Zulu, on the other hand, will also be explicated.

In an attempt to explicate the categorial status of Zulu auxiliaries, I shall in this chapter consider the traditional Bantu grammarians' views on this aspect of auxiliaries. Given the hypothesis that auxiliaries derive from full verbs, one would expect auxiliaries to relate to verbs in one way or the other. Even though this is so, data-based evidence will show that auxiliaries are at the same time different from full verbs. In the explication of this fact, I shall contrast the structure and form of these categories. The typical morphological structure, inflectional properties, derivational properties and the syntactic properties of both Zulu auxiliaries and verbs will be discussed as parameters for the differential relationship that exists between these categories.

It will be noted that when verbs grammaticalize as auxiliaries they suffer structural and meaning reduction. A full discussion of this type of reduction will also be undertaken in this chapter. On the basis of this discussion a better classification of Zulu auxiliaries than the traditional one will be proposed in this chapter.

In Chapter 5 we will discuss the metaphorical motivation for the development of tense and aspect auxiliaries from specific verbs in Zulu. In this chapter we invoke the notion metaphor as the basis for grammaticalization of certain verbs as auxiliaries. The question as to which verbs become auxiliaries will be answered in this chapter. Topological representations are shown to be an adequate means of graphically representing the metaphorical notions underlying the development of tense and aspect auxiliaries from verbs.

Chapter 6 is the last chapter of the thesis and it summarises the most salient points and significant findings and observations of this investigation.

CHAPTER TWO

THEORETICAL NATURE OF GRAMMATICALIZATION

2.1 Introduction

Change in the linguistic structure of language is a perva-
sive phenomenon. All languages of the world are continuous-
ly in a flux of change which may not be readily perceptible
in any particular synchronic dissection.   The change in
languages is effected by various ways or processes. One of
the internal processes of change is grammaticalization.   In
this chapter I shall make a brief survey of various views on
the nature of grammaticalization held by different lin-
guists.   Metaphorical extensions, semantic   clustering,
conceptual categorization, as well as prototypicality as the
motivating forces underlying grammaticalization, will also
be examined in more detail.

2.2 The nature of grammaticalization

Traugott (1988: 406) defines grammaticalization as follows:

> "Grammaticalization, [...] refers to the dynamic,
> unidirectional historical process whereby lexical
> items in the course of time acquire a new status
> as grammatical, morphosyntactic forms. The study
> of grammaticalization takes as central the concept
> of continuum of bondedness from independent units
> occurring in syntactically relatively free con-
> structions at one end of the continuum to less
> dependent units such as clitics, particles, or
> auxiliaries, to fused agglutinative constructions,
> inflections and lexical fusion (for example the
> lexicalization of inchoative in _realize_ as against

know), and finally to zero".

Given the definition of Traugott above, the following important points may be observed:
- Grammaticalization is unidirectional (i.e. lexical items become morphosyntactic items).
- Grammaticalization is a diachronic process.
- Grammaticalization leads to greater morphological dependence.

That a linguistic unit becomes more dependent through grammaticalization is supported by scholars like Lehmann (1985), Matsumoto (1988) and others.

"In the literature of diachronic grammaticalization, it has been claimed that when a morpheme moves from one level to another, the direction of change is toward an increasing dependence of a morpheme on other words, or from word to clitic to affix, and finally to zero" (Matsumoto 1988: 340).

Givón (1971), for example, voices this view in his slogan "Today's morphology is yesterday's syntax." That is, grammatical markers develop from lexical items. According to Matsumoto (1988) the unidirectionality of change toward increasing boundedness has been supported by data from many languages including African Languages.

Lehmann (1985) also assumes that an increasing degree of boundedness of a morpheme in the process of grammaticalization is the general direction of change. Heine and Reh (1984) also explore this phenomenon of unidirectionality of change toward increasing boundedness. However, the view of the unidirectionality of grammaticalization involving increased boundedness has not gone unchallenged. Matsumoto (1988: 340) notes that,

"Jeffers and Zwicky (1980), for example, have pointed out that clitic particles in Proto-Indo-European developed into the roots of relative/indefinite/interrogative words in descendent languages. That is, they claim that the opposite process, a change toward increasing freeness of morphemes, does occur in language change."

In view of this claim made by Jeffers and Zwicky (1980), it seems that the process of grammaticalization is not always unidirectional but can also move in the opposite direction, that is towards lexicalization where bounded forms are turned into free forms. Heine and Reh (1984: 15) define grammaticalization as follows:

"An evolution whereby linguistic units lose in semantic complexity, pragmatic significance, syntactic freedom, and phonetic substance, respectively."

From this point of view, grammaticalization is a kind of impoverishment, or "deficit" as Lehmann (1985: 307) puts it; a process whereby signs lose their integrity or qualities. From the definitions of grammaticalization given above a number of unanswered questions arise which need to be explored. Questions such as the following raised, amongst others, by Meillet (1921), as quoted by Mathews (1978), appear to be important for a better understanding of the notion grammaticalization:

- Are senses of lexical items lost or weakened in grammaticalization or what in fact happens to them?
- To what extent are the directions of such semantic developments regular or predictable?

With regard to the first question, Meillet (1921), according to Mathews (1978), thought that there was little semantic connection between prior lexical and later grammatical

senses of a morpheme, although he himself quite insightfully discussed some of the semantic origins of negation - reinforcers in French.

Myhill (1988: 352) supports the idea of the existing connectedness between the lexical item and the grammaticalized one when he says:

> "Typically, a grammatical morpheme is shown to be related to a word from which it has diachronically developed. Studies of this type have given us an idea of what types of words are likely to develop into what types of grammatical morphemes. However, the details of this process and the factors motivating it are still fairly obscure; this is because studies have focused on the beginning and end point of this process, when the morpheme in question may clearly be categorized as (respectively) lexical and grammatical. In between, the morpheme may be either lexical or grammatical, and the alternation between the lexical and grammatical uses represents a synchronic process of grammaticalization. Grammaticalization as a synchronic process has not been subjected to the sort of systematic study that grammaticalization as a diachronic process has and so we know relatively little about it; however, the two processes represent two sides of the same coin, and we cannot understand grammaticalization without understanding both of them."

The second question, that is, to what extent the directions of such semantic developments are regular or predictable, has recently received attention from numerous scholars. Givón (1971) and Bybee (1985), among others, have mapped out the directions of semantic shifts in grammaticalization.

2.3 Grammaticalization and the origin and development of auxiliaries

The specific phenomenon under study in this thesis is the origin and development of auxiliaries with specific reference to auxiliaries in Zulu. In his study of the grammaticalization of auxiliaries in Spanish, Myhill (1988: 353) observes that,

> "The change from verb to auxiliary has been shown to be one stage in a diachronic grammaticalization process; in this process, the auxiliary eventually develops into a marker of tense, aspect, or modality. Diachronic changes of this type are well documented in a variety of languages (Heine & Reh 1984, Traugott 1972), and there have been a number of studies examining typical changes of this type; for example, the words forming the Aux class, in English have all developed diachronically from main verbs (Traugott 1972), and they are now fairly far along the path to developing into markers of tense, aspect and modality."

Mathews (1978) hypothesizes that the English auxiliaries like will, can, shall, have, and others have all developed diachronically from main verbs. He further points out that most verbs tend to become what he calls "half-way" verbs and some, through the process of evolution, become fully fledged grammatical morphemes. The process of grammaticalization of auxiliaries can be represented as a continuum:

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Lexical                                      Grammatical
 ┬──────────────────────┬──────────────┬──────────→
Verb            Halfway verb        Auxiliary
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                                or

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Grammatical                                  Lexical
 ←──────┬───────────────┬──────────────┬──────────
   Auxiliary       Halfway verb            Verb
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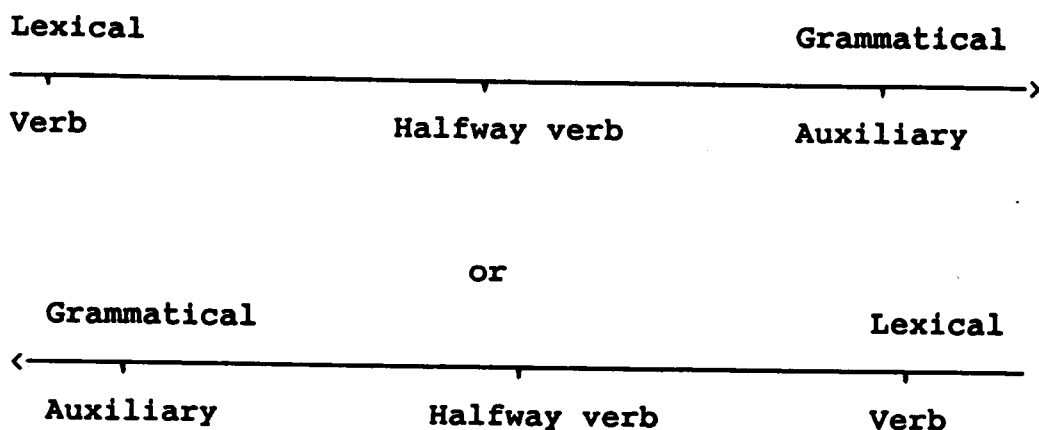
We postulate that all the lexical items involved in the process of grammaticalization move from the lexical point of the continuum to the grammatical point of the continuum. It may, at this point, be worth stating that the now "half-way" verbs may become fully grammatical morphemes as time goes on. In fact, there is evidence in many languages of the world that some auxiliaries have shifted completely to the extreme pole of grammatical morphemes while others are still in the "half-way" category/position. Naturally, one would like to know why some shifted all the way and some only half-way.

Mathews (1978), in his study of verbal grammaticalization, takes as his reference point Meillet's definition of grammaticalization:

"[...] grammaticalization [...] consiste dans le passage d'un mot autonome au role d'element grammatical."

According to Mathews (1978) this definition constitutes a very succinct description of the process of grammaticalization and any further description of the process, no matter how elaborate, must ultimately be based on the seminal concepts laid down by Meillet.

Mathews (1978: 1) defines grammaticalization as,

> [...] a process through which a lexical item used
> at one point in time in a context usually other
> than its most basic one trades some of its se-
> mantic value for a specific syntactic function
> with which it begins to be associated."

He further makes a clear distinction between a lexical item
and the corresponding grammatical one. He defines a lexical
item as a word with full semantic content which is as-
sociated with certain references or concepts. According to
him a lexical item is equivalent to Meillet's "mot autonome"
(autonomous word) and this item is to be the polar opposite
of the result of grammaticalization. The grammatical marker
or functor, as opposed to its corresponding lexical item,
has only vestiges of the original semantic content or no
semantic content at all.

In our discussion of auxiliaries in Zulu, we assume that the
Zulu auxiliaries were once autonomous lexical items, but,
through the process of grammaticalization, became delexical-
ized. These lexical items gradually lost their basic
semantic features and became auxiliaries, that is, gram-
matical items. In the subsequent chapters these issues will
be further explored.

Poulos (1986) refers to this change or shift of meaning as
"semantic bleaching." Traugott (1988: 407) supports the
view of "semantic bleaching" in the process of grammaticali-
zation when she says:

> "Certainly bleaching does occur, but only in the
> later stages of grammaticalization, for example in
> the development of the main verb do into a dummy
> auxiliary in Standard English."

As an illustration of the nature of semantic bleaching
consider the following analysis presented by Poulos (1986).

Poulos proposes that the Bantu grammatical morpheme -ana which is a diminutive formative has evolved via bleaching from the Proto-Bantu noun stem -yana meaning "child."

Consider the following examples:

Venda

thavha (cl. 9)	'mountain'
thavha + ana (cl. 9)	'small mountain'
kutavha (cl. 20)	'small mountain'

Tsonga

muti (cl. 3)	'village'
ximuti + ana (cl. 7)	'small village'
swimuti + ana (cl. 8)	'small villages'

Northern Sotho

taba (cl. 9)	'matter'
taba + ana (cl. 9)	'small matter'

Zulu

intaba (cl. 9)	'mountain
intaba + ana > intatshana (cl. 9)	'small mountain'

From the examples above, we note that many Bantu languages form diminutives by suffixing the diminutive suffix -ana. However, languages like Venda, have in addition to this morpheme, special prefixes which denote diminution, as in the example kutavha (cl. 20) 'small mountain'.

Scholars like Khumalo (1987) maintain that the diminutive suffix in Zulu is -yana rather than -ana. His claim is clearly borne out by the palatalization of bilabial stops when diminutives are formed. He argues that palatalization only occurs when there is a palatal glide that triggers it, otherwise there is no satisfactorily account of palatalization where there is no palatal, as like in the example

intaba (cl. 9) 'mountain'. But, maintaining that the diminutive suffix is -yana, the rule called Diminutive Resyllabification supplies the missing palatal glide that in turn triggers palatalization. Yana as a diminutive suffix can also be observed in an old form of the diminutive derived from the noun indoda 'man', viz. indojeyana 'man (dim).' Given the claim that the diminutive suffix -ana has developed from the noun stem -yana, the nature of semantic bleaching can be characterized as follows:

The noun stem -yana can have the following feature matrices:

$$\begin{bmatrix} + & \text{human} \\ + & \text{young} \\ + & \text{small} \end{bmatrix}$$

When bleaching occurs, the [+ human] and [+ young] features drop and only the feature [+ small] remains. In its evolvement as a suffix, (that is, a grammatical morpheme), the most specific feature or significance of human has been eliminated. Then the next specific significance of physical immaturity has, to a large extent, been lost. However, the most general significance of smallness in size of yana has been retained in the grammaticalization process which involves diminution. Thus, it seems that semantic bleaching involves the reduction or attrition of specific significance(s) with the retention of the most general significance(s).

It is important to note here that not all grammaticalized morphemes like -ana above can be etymologically or diachronically traced. As an example, consider the tense suffix -ile in Zulu in forms such as:

| Uhambile | 'He has gone' |
| Udlile | 'He has eaten' |

It is difficult to trace the etymology of -ile.

Mathews (1978) proposes two sources of grammaticalization, viz., budding and orphaning.

1. Budding

The Collins Cobuild English Language Dictionary (1987) defines a bud as follows:

> "A bud is a small pointed lump that appears on a branch or stem of a plant and develops into a leaf or flower."

Thus, when a plant develops new buds, growth points appear on branches or stems, and these become leaves or flowers. The term 'budding' in linguistics is applied to lexical extensions which ultimately break off and lose their association with the semantic value of the parent lexical items, gaining autonomy as syntactic functors/markers. The fully grammaticalized morphemes are the buds, and the existing lexical items from which these morphemes developed, are the parents. Mathews (1978) regards these so-called cases of budding as very valuable in the study of grammaticalization. This is so because, if the parent lexical item still exists at the end of the process, insights into the origin and pathway of the development of the grammaticalized item are readily traceable as is the case with the diminutive suffix -ana in Bantu, in the examples above.

2. Orphaning

Mathews (1978: 3) states:

"Although budding is an important and frequently recurring pathway of grammaticalization throughout natural languages, it is clearly not the case that all examples or even all of the most important examples of grammaticalization involve only budding. There are many definite cases of grammaticalization involving the complete loss of the source lexical item and the persistence of only the grammaticalized syntactic function."

This is what Mathews refers to as "orphaning". There are no cut and dried boundaries between budding and orphaning. The distinction between budding and orphaning hinges on the scope of one's reconstruction. Orphans can at times be buds and at other times not. One may only call an item an orphan when one cannot directly relate it to its parents but once the parent has been identified the item becomes a bud. A most notable example of orphaning in the Zulu auxiliary system is the suffix -ile.

2.4 Factors underlying grammaticalization

2.4.1 Metaphors

In the preceding discussions the nature of the process of grammaticalization has been explored. Yet we still need to know what motivates grammaticalization. That is, we need to know why grammaticalization happens.

Traugott (1988: 407) observes that:

"Semantic change in the course of grammaticaliza-tion is also strongly motivated by metaphoric processes."

Claudi and Heine (1986: 328), in support of this view, say:

"[...] the vehicle of a metaphor and the lexeme undergoing desemanticization [...] are governed by an arrangement of conceptualization [...] which is unidirectional and proceeds from concepts which are close to human experience to those that are more difficult to define in terms of human cognition."

In the following sub-sections the relationship between grammaticalization and metaphors as the motivating force underlying grammaticalization will be examined in more detail.

Plato and Aristotle's views about metaphors

The term 'metaphor' is as old as the Greek philosophers Plato (428-345 B.C.) and Aristotle (384-322 B.C.). According to Johnson (1981a) Plato is regarded as the master of metaphors. In his introduction Johnson (1981a: 3) notes the pervasiveness of metaphor in our lives,

"[...] metaphor is no longer confined to the realm of aesthetics narrowly conceived - it is now coming to be recognized as central to any adequate account of language and has been seen by some to play a central role in epistemology and even metaphysics."

Aristotle (in his Poetics) as quoted by Johnson (1981a) also argues the merits of poetic metaphor. Likewise, in his Rhetoric (1405a), according to Johnson, (1981a) Aristotle stresses that metaphor is of great value in prose, too, as long as it is properly employed.

"Metaphor, moreover, gives style, clearness, charm, and distinction as nothing else can: and it is not a thing whose use can be taught by one man

to another. Metaphors, like epithets, must be fitting, which means they must fairly correspond to the thing signified: failing this, their inappropriateness will be conspicuous."

Aristotle, in his treatment of metaphors from the philosophical point of view, is mainly concerned with the inappropriate use of metaphors. Johnson (1981a: 7) points out that Aristotle encourages the appropriate use of metaphors in his Rhetoric,

"[...] a good metaphor places things in a new light, so that we can see them in a way we have never seen them before. Thus it ought to 'set the scene before our eyes' with a vividness that induces an alteration of perspective that lets us 'get hold of new ideas'" (Rhetoric, 1410b).

Even though metaphors were highly valued by Plato and Aristotle, there were also philosophers who believed that metaphors were not necessary. They criticized the idea of using figurative language in philosophy. In his Flowers of Rhetoric, a treatise on the art of letter writing, Alberic of Monte Cassino, as quoted by Johnson (1981a: 10), warns that, since figures "are not of themselves necessary at all", but are able to add a degree of nobility and good style to a work, one must be constantly on guard against metaphors which seem to have a certain apparent dignity:

"For the method of speaking in metaphors has this characteristic: it turns one's attention from the particular qualities of the object (being described); somehow, by this distraction of attention, it makes the object seem something different; by making it seem different, it clothes it, so to speak, in a fresh new wedding garment; by so clothing it, it sells us on the idea that there is

some new nobility bestowed [...]. If a meal were served up in this way, it would disgust us, would nauseate us, would be thrown out. [...] take care that in your eagerness to please with some novel delight, you do not start serving 'poppy cock'. Be careful, I say, that when you invite someone to enjoy himself you don't afflict him with boredom to the point of vomiting." (Flowers of Rhetoric, 146-147).

Johnson (1981a) points out that, during the rise of empiricist epistemologies in the sixteenth and seventeenth centuries, metaphors suffered one beating after another at the hands of "scientific-minded" philosophers. Philosophers like Thomas Hobbes (1588-1679), according to Johnson (1981a: 11), provide the most complete and clear example of the epistemological basis for the empiricist attack on metaphor when he says:

"One of the chief reasons for expressing our thoughts is to communicate our knowledge. This function is frustrated and impeded whenever we 'use words' metaphorically; that is, in other sense than that they are ordained for; and thereby deceive others."

Bishop Berkeley as quoted by Johnson (1981a: 13) concludes as follows: "A philosopher should abstain from metaphor." Consequently, mention of metaphor in philosophical writings diminished considerably toward the end of the eighteenth century.

In spite of all these attacks on the metaphor, it started gaining repute in poetry and philosophy during the Romantic period. Scholars like Nietzsche (1844-1900) refuse to separate metaphor from "proper words" and see metaphoric understanding as pervasive in human thought and speech, that

is, as essential to all knowledge. He describes the "creator of language" as one who designated the relations of things to men by the use of daring metaphors. Metaphor, for him, is not merely a linguistic entity, but rather a process by which we encounter our world.

Contemporary scholars' view of metaphor

Contemporary linguists like Lakoff and Johnson (1981a: 287) characterize the notion metaphor as follows:

> "Metaphor is for most people a device of the poetic imagination and the rhetorical flourish - a matter of extraordinary rather than ordinary language. Moreover, metaphor is typically viewed as characteristic of language alone, a matter of words rather than thought or action. For this reason, most people think they can get along perfectly well without metaphor. We have found, on the contrary, that metaphor is pervasive in everyday life, not just in language, but in thought and action. Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature."

Although most speakers of any language are not aware that they use metaphors in their daily speech it is important to note how figures of speech like metaphors dominate our daily talk.

According to Claudi and Heine (1985: 18),

> "An expression is considered to be a metaphor when it actually designates something different from what it originally meant."

This means that a metaphor is used when one tries to explain

something abstract by referring to a concrete thing. Simpson (1972) uses the terms 'tenor' and 'vehicle' to characterize the process of metaphor. In Simpson's views, if we take as an example the sentence "my love is a rose", the principal subject "my love" would be called the tenor (because it is what we are "holding on to" or talking about) and the secondary subject "rose" would be called the vehicle (because it carries the weight of the comparison).

Claudi and Heine (1985: 19) distinguish between three types of metaphors in terms of their respective motivations:

Type 1: those which enrich the expressiveness of an
         utterance.
Type 2: those which conceal and obscure reality.
Type 3: those which describe conceptually complex phenomena
         in terms of less complex ones.

This thesis is exclusively concerned with type 3 metaphors, that is, those which describe conceptually complex phenomena in terms of less complex ones. Claudi and Heine (1985: 20) note that,

> "Metaphors of types 1 and 2 are not likely to
> affect the rise of grammatical morphology. Type 3
> metaphors, on the other hand, are grammatical
> notions like tense/aspect, case, or subordination
> are non-physical and conceptually complex, and it
> would therefore seem plausible that type 3 meta-
> phors may be used for them."

Thus, when we explore the role of metaphor in the grammaticalization of Zulu auxiliaries, only type 3 will be considered.

Different kinds of conventional metaphors

Lakoff and Johnson (1980b) also distinguish three kinds of metaphors, viz.,

(i)   structural metaphors.
(ii)   orientational metaphors.
(iii)   physical or ontological metaphors.

(i)   Structural metaphors

In such metaphors one concept is metaphorically structured in terms of another. Consider the following expressions listed by Lakoff and Johnson (1980b):

> Your claims are indefensible.
> He attacked every weak point in my argument.
> I demolished his argument.
> I've never won an argument with him.
> You disagree? Okay, shoot!
> If you use that strategy, he'll wipe you out.
> He shot down all my arguments.

The expressions above can be regarded as reflecting the conceptual metaphor: ARGUMENT is WAR. That is, structural metaphors often involve using a concept from one domain (WAR as a physical or cultural phenomenon) to structure a concept from another domain (ARGUMENT as primarily an intellectual concept, but with cultural content).

(ii) Physical or ontological metaphors

This type of metaphor, according to Lakoff and Johnson (1980b), involves the projection of the status of being an entity or substance upon something that does not have that status inherently. Such conventional metaphors, they claim, allow us to view events, activities, emotions, ideas, etc., as entities for various purposes (e.g. in order to refer to them, categorize them, group them, or quantify them). For

example,

My fear of insects is driving my wife crazy (referring).
You've got too much hostility in you (quantifying).
The brutality of war dehumanizes us all (identifying aspects).
The pressures of his responsibilities caused his breakdown (identifying causes).
Here's what to do to ensure fame and fortune (setting goals and motivating actions).

Thus, by means of ontological metaphors, a complex phenomenon like inflation can be reasoned about by laymen. For example, "inflation is eating up our profits" (Lakoff and Johnson, (1980b: 33).

(iii)   Orientational metaphors

This type of metaphor, according to Lakoff and Johnson (1980b: 14), "does not structure one concept in terms of another, but instead organizes a whole system of concepts with respect to one another." They call these "orientational" metaphors because most of them have to do with spatial orientation, UP-DOWN, FRONT-BACK, IN-OUT, ON-OFF, DEEP-SHALLOW, CENTRAL-PERIPHERAL. Orientational metaphors give a concept a spatial orientation, for example, HAPPY is UP. The fact that the concept HAPPY is oriented UP leads to English expressions like:

"I'm feeling up today."

Lakoff and Johnson (1980b) further state that this kind of metaphor can vary from culture to culture. For example, some cultures orient reference to the future in front; others orient reference to the future at the back. The following are examples of UP-DOWN spatialization metaphors taken from Lakoff and Johnson (1980b: 15) with brief hints

of how each metaphorical concept might have arisen from our physical and cultural experience:

1. **HAPPY is UP; SAD is DOWN**

    I'm feeling up.
    That boosted my spirits.
    My spirits rose.
    You're in high spirits.
    Thinking about her always gives me a lift.
    I'm feeling down.
    He's really low these days.
    I fell into a depression.
    My spirits sank.

Physical basis: Drooping posture typically goes along with sadness and depression, erect posture with a positive emotional state. If a person "walks tall", his walking is associated with happiness whereas falling on one's knees is associated with sadness.

2. **MORE is UP; LESS is DOWN**

    The number of books printed each year keeps going up.
    You make a high number of mistakes.
    My income rose last year.
    There is an over abundance of food in this country.
    My knowledge keeps increasing.
    The amount of artistic activity in this state has gone down in the past year.
    His number of errors is incredibly low.
    His income fell last year.
    He is underage.
    If you're too hot, turn the heat down.

Physical basis: If you add more of a substance or physical objects to a container or pile, the level goes up. If we

measure the increase of a substance by making use of a scale, the more the increase the higher the reading is on the scale, hence more is UP on the scale and less goes DOWN on the scale.

3. **FORESEEABLE FUTURE EVENTS are UP (and AHEAD)**

The up-and-coming events are listed in the paper.
What's coming up this week?
I'm afraid of what's up ahead of us.
What's up?

Physical basis: Normally our eyes are in the direction in which we typically move (ahead, forward). As an object approaches a person (or the person approaches the object), the object appears larger. Since the ground is perceived as being fixed, the top of the object appears to be moving upward in the person's field of vision.

In our discussion of the process of grammaticalization in this thesis, we postulate that certain auxiliary verbs in Zulu are metaphorically related to lexical verbs. This notion of metaphorically motivated verbal grammaticalization will be further explored in the subsequent chapters.

2.4.2 Semantic fields and its relevance to grammaticalization

In the preceding sections we discussed the views of different scholars on the process of grammaticalization. We also proposed that auxiliaries in Zulu developed from full verbs through the process of grammaticalization. The question that may now arise from this discussion is: can all verbs in Zulu be grammaticalized? We maintain that not all verbs can be grammaticalized, but rather only a subset which shows certain characteristic features. In this section we shall explore some of these characteristics in

general. Verbs, like other word categories, seem to fall into various subcategories according to certain semantic, syntactic and other linguistic properties. In the section immediately following we shall explore one such approach to the establishing of subcategories of lexical items, namely semantic fields.

Semantic fields:

Lehrer (1974: 1) defines the notion semantic field as follows:

> "[...] a semantic field is 'a group of words closely related in meaning, often subsumed under a general term'. For example, the words in the field of color in English fall under the general term color and include <u>red</u>, <u>blue</u>, <u>green</u>, <u>white</u>, <u>aqua</u>, <u>scarlet</u>, and dozens of others." (My emphasis - S.N.L.M.)

According to Lehrer (1974) the object of the analysis of semantic fields is to collect all the words that belong to a field and to show the relationship of each of them to one another and to the field as a whole. As an illustration of this phenomenon, she takes the word <u>glass</u> as 'a container' which could be studied along with <u>cup</u>, <u>bowl</u>, <u>mug</u>, <u>vase</u> and other container words, to see how these items contrast. <u>Glass</u>, on the other hand, as 'the material', contrasts with other materials such as <u>brick</u>, <u>concrete</u>, <u>plastic</u>, <u>wood</u>, etc., and the relationship between the different senses of glass is left unspecified.

Lehrer (1974: 17) further suggests that:

> "[...] the smaller and more specific the field, the more agreement there is among speakers on what words belong to the set. There is also agreement

on the basic items in a field, whereas the dis-
agreement is greater with respect to peripheral
items - in fact many speakers may not be familiar
with the peripheral items. For example, in the
field of cooking words we have _bake_, _boil_, _fry_,
etc., but _scald_, _carmelize_, _render_ and _clarify_ are
peripheral." (My emphasis - S.N.L.M.)

Thus in the field of cooking terms, the members of a seman-
tic field are arranged in a form of hierarchy. Starting at
the top of the hierarchy, _cook_ and _bake_, are the most
general terms, and they differ from the rest in that they
refer to human activities - in one case the preparation of a
number of items commonly called 'bakery'products - _bread_,
pastry, _cookies_, etc. Only _cook_, or _bake_, freely occur
intransitively with human subjects.

> _I cook, or he bakes_, is better than.
> * _John simmered yesterday or_
> ? _Helen is frying_.

Katz (1968), proposes semantic markers in terms of which he
determines which words belong to a semantic field. Markers
are assigned to elements, partly in order to group words
together which belong to the same fields and separate those
that do not, as well as to contrast between elements within
the same field. Lehrer (1974: 53, 54) quotes Katz (1968:
168) as saying:

> "The semantic marker (activity) distinguishes
> '_chase_(in the intended sense from state verbs,
> such as _sleep_, _wait_, _suffer_, _believe_, etc., and
> from process verbs, such as _grow_, _freeze_, _dress_,
> _dry_, etc., and classifies it together with other
> activity verbs, such as _eat_, _speak_, _walk_, _remem-_
> _ber_, etc. (Activity) is qualified as to nature by
> the semantic marker (physical). This indicates

that chasing is a physical activity and distin-
guishes 'chase' from verbs like 'think' and
'remember' which are appropriately qualified in
their lexical readings to indicate that thinking
and remembering are mental activities." Katz
(1968: 168). (My emphasis - S.N.L.M.)

Thus, the words within a semantic field share certain
features that determine their inclusion in a semantic field.
Assembling the words in a field could be done by simply
finding all the words with the same semantic feature. Thus
eat, sleep, feel, together with several hundred other words,
would form a field because they share the feature [activi-
ty].

Lehrer (1974: 66) in interpreting Katz's suggestions about
componential analysis notes:

"Lexical items belong to the same semantic field,
provided the same general formal structure of the
readings remains, although the number or content
of the markers may differ or the selection re-
strictions may differ. For example trade, ex-
change, swap, give, receive, lend, borrow,
inherit, lease, hire, rent, etc. All have the
same formal structure in that an object is in the
possession of different people at different times.
However, whether a sufficiently clear analysis of
"some general formal structure" can be given
remains to be seen, especially in the case of
lexical items with relatively simple formal
structure." (My emphasis - S.N.L.M.)

A point that needs to be emphasized here, is that some
members of the semantic field are more general in that they
exhibit the least unique or idiosyncratic features. Such
members could be called "generic members". The nongeneric

members show unique features, that is, features not shared by any other member. The semantic field approach is based on feature analysis. The features can be either common features or contrastive features. The semantic field approach is deficient in that some members of a category need not share the same features in order to belong to a certain semantic domain. However, it does still have some value because it distinguishes between generic and non-generic elements in a certain domain. Turning now to grammaticalization and the relevance of the semantic field approach for the understanding of this process I make the following claim: Only the generic items in a specific semantic field are likely to be grammaticalized. This claim will be pursued further on when we consider the grammaticalization of Zulu auxiliaries. In order to understand the deficiencies in the semantic field approach we need to take a closer look at the nature of categorization.

2.4.3 The nature of categorization

In his preface, Taylor (1989) defines categorization as follows:

"[...] 'categorization' refers to the process by which people, in using language, necessarily categorize the world around them. Whenever we use the word _dog_ to refer to two different animals, or describe two different colour sensations by the same word, e.g. _red_, we are undertaking acts of categorization. Although different, the two entities are regarded in each case as the same."
(My emphasis - S.N.L.M.)

According to Taylor, human beings are obsessive categorizers. Categorization dominates every aspect of our lives. Teachers categorize students' essays as passes and failures; judges categorize indicted persons as guilty and not-guilty;

bureaucrats categorize people as citizens and aliens. South African citizens find themselves categorized as black, white, coloured and Asian.

Lakoff (1987: 6) remarks as follows about the importance of categorization in our lives:

> "In moving about the world, we automatically categorize people, animals, and physical objects both natural and man-made [...]. But a large proportion of our categories are not categories of things; they are categories of abstract entities. We categorize events, actions, emotions, spatial relationships, social relationships, and abstract entities of an enormous range: governments, illnesses, and entities in both scientific and folk theories, like electrons and colds. Any adequate account of human thought must provide an accurate theory for all our categories, both concrete and abstract."

The traditional approach to categorization dates back to Greek philosophers like Aristotle. Hence, the use of the term "classical theory". According to the Aristotelian classical theory, categories are defined in terms of a set of necessary and sufficient features. The latter character- istic of the classical approach forms the basis of the semantic field approach. That is, necessary and sufficient features of categories determine the membership of lexical items in the field as well as the mutual relationship between the members in a field.

Taylor (1989) distinguishes two further very important corollaries to the Aristotelian theory, namely the 'law of contradiction' and the 'law of the excluded middle'. The law of contradiction states that a thing cannot both be and not be something. It cannot both possess a feature and not possess it, nor can it belong to a category and not belong

to it. The law of the excluded middle states that a thing must either be or not be something. It must either possess a feature or not possess it, it must either belong to a category or not belong to it.

Taylor (1989) also summarises the following assumptions of the classical approach:

- Features are binary.

The binary feature notation is applicable to semantic and syntactic analysis. However, its use triggers ambiguity in certain instances. The use of the [-] is inconsistent. Lehrer (1974: 60) also discusses the inconsistency of the use of the [-] in the semantic field approach when she says:

> "Sometimes it means that a feature is nonapplicable, and sometimes it specifies a positive feature that contrasts with [+], such as characterizing [child] as [-parent]. [...] There are times when it is desirable to use the [-] to mean the absence of a feature, but if the [-] is preempted for a positive specification, this is not possible. For example, [feminine] is sometimes represented as [-masculine] (or vice versa) even though the concepts behind [masculine] and [feminine] can both be specified positively."

According to Lehrer (1974), a [-] usually means 'absence of' rather than having some positive value when it is used with sets of features containing more than two. If something is marked [-noun] it can be a verb, adverb, preposition, article, etc. Similarly, something [-blue] can be green, pink, yellow, etc. Normally the feature [+] reads positive and the feature [-] reads negative. The [-] means 'not applicable' and it also means 'the opposite of'.

- Categories have clear boundaries.

A category, once established, divides the universe into two sets of entities - those that are members of the category, and those that are not. There are no ambiguous cases. That is, there are no entities which 'in a way' or 'to some extent' belong to the category, but which 'in another way' do not.

- All members of a category have equal status.

Any entity which exhibits all the defining features of a category is a full member of that category; any entity which does not exhibit all the defining features is not a member. There are no 'degrees of membership' in a category, that is, there are no 'entities which are better' members of a category than others.

The classical theory, insightful as it was, never escaped attacks from many scholars because of certain anomalies. For instance, scholars like Wittgenstein, as quoted by Lakoff (1987), points out that a category like game does not fit the classical mould, since there are no common properties shared by all games. He further argues that some games involve mere amusement, like ring-a-ring-a-rosy. Here there is no competition - no winning or losing - though in other games there is. Some games involve luck, like board games where a throw of the dice determines each move. Others like chess, involve skill. Still others, like rummy, involve both.

Though there is no single collection of properties that all games share, the category of games is united by what Wittgenstein calls 'family resemblances'. Members of a family resemble one another in various ways: they may share the same build or the same facial features, the same hair colour, eye colour, or temperament, and the like. But there

need be no single collection of properties shared by everyone in a family. Games, like family members, are similar to one another in a wide variety of ways despite their differences. Wittgenstein also observes that there is no fixed boundary to the category game. The category game could be extended and new kinds of games introduced, provided that they resemble previous games in appropriate ways.

The classical theory does not account for fuzziness of categories. Categories like rich people or tall men are graded simply because there are gradations of richness and tallness. These shortcomings of the classical theory triggered the development of the very recent theory of categorization called "prototype" theory. Many scholars today favour the prototype theory for an understanding of categorization. Craig (1986: 1), for instance, says:

> "In all these fields it is held that human categorization is commonly achieved through prototypes
> - even in arithmetics as argued by Lakoff - and
> that categories - whenever it is relevant to speak
> of categories - should be described as having
> fuzzy edges and graded membership."

Givón (1986) proposes that prototype theory be viewed as a compromise position between the strict categoriality of Plato and the non-categorical family resemblance approach of Wittgenstein. He argues further that the concept of prototype is in fact needed to account for language use, language change, and language acquisition, the argument being that it accounts best for metaphorical extensions, one of the essential processes at work in use, change, and acquisition.

2.4.4 Prototypes

Eleanor Rosch is said to be the pioneer of the theory of prototypes. Lakoff (1987: 39) says:

"It was Eleanor Rosch who first provided a general perspective on all these problems."

Referring to the problems of fuzziness and graded terms, Lakoff (1987: 39) maintains that,

"[Rosch] developed what has since come to be called 'the theory of prototypes and basic-level categories', or 'prototype theory'. In doing so, she provided a full-scale challenge to the classical theory and did more than anyone else to establish categorization as a subfield of cognitive psychology. Before her work, the classical category was taken for granted, not only in psychology, but in linguistics, anthropology, and philosophy, as well as other disciplines. In a series of electrifying papers, Rosch and her associates presented an overwhelming array of empirical studies that challenged the classical view."

Labov (1973), as quoted by Taylor (1989), also uses the prototype model for categorization. He is interested in the categorization of household receptacles like cups, mugs, bowls and vases. According to Taylor (1989), Labov's procedure for the categorization of these receptacles was simple. Taylor (1989: 40) notes that:

"Line drawings were prepared of receptacles of different shapes. These were shown to subjects, who were asked to name the depicted objects. A receptacle with a circular horizontal cross-sectional area, tapering towards the bottom, whose width was equal to the depth, and which was provided with a handle, was unanimously called a cup. As the ratio of the width to the depth increased, more and more subjects called the

object a **bowl**. Contrary to the expectations of classical theory, there was no clear dividing line between **cup** and **bowl**, rather, the one category merged gradually into the other. Removing the handle from the receptacle lowered the tendency for the depicted object to be designated as a **cup**, but again the effect was not clear-cut. Categorization was also affected by asking subjects to imagine the receptacles filled with different kinds of things. If they were filled with hot coffee, '**cup**' - responses increased, while '**bowl**' -judgments increased if the receptacles were thought of as containing mashed potatoes. Similar effects were found if the depth, rather than the width of the receptacles was increased. In this case, '**cup**' - responses gradually gave way to categorization as '**vase**'. If the receptacles were of a cylindrical rather than a tapering shape, they tended to be categorized as '**mugs**'." (My emphasis - S.N.L.M.)

From Labov's experiment, it emerges very clearly that no single attribute is essential for distinguishing the one category from the other. **Cup**, then, cannot be defined in terms of a set of necessary and sufficient conditions for membership as is the case in the classical theory, but rather in terms of a prototype model of categories as Taylor (1989: 42) says:

"Prototypes contain a richness of sometimes culturally bound detail which, on a strictly Aristotelian view, would have to be regarded as accidental. Thus, the prototypical **cup** (in Western societies) has a handle, it is made of porcelain, it comes with a saucer; it has a certain overall shape and a typical size; **cups** are used for drinking hot tea or coffee, and you usually buy them in sets of six."

However, note here that none of these features listed by Taylor is essential for membership in the category. A plastic container, with no handle and without a saucer, such as might be delivered from a coffee vending machine, is still a cup.

Rosch (1975) investigates the structures of natural categories by asking subjects to judge to what extent particular instances could be regarded as 'good examples' of a category.

The question may arise here as to why it is that certain exemplars of a category come to have the privileged status of prototypical members while other exemplars are marginal members. Why is it that chairs, sofas, and tables and not mirrors, shelves and clocks for instance, are prototypical articles of furniture? Taylor (1989) suggests that the boundaries of prototype categories are necessarily fuzzy. Consequently, the categories have a flexibility, unknown to Aristotelian categories, in accommodating new, hitherto unknown entities.

Scholars like Brown (1958) began the study of what later became known as "basic level categories". The basic level category is the middle tier of the three-tiered hierarchy of the prototype theory. Brown (1958) in his paper entitled, "How shall a thing be called?" observes that there is a "first level" at which children learn object categories and name objects. This level is characterized by distinctive actions, as well as by shorter and more frequently used names. He sees this level of categorization as "natural", whereas higher-level and lower-level categorization are viewed as "achievements of the imagination" with the help of the parents.

This notion of a three-tiered hierarchy is supported by Lakoff (1987: 13) when he says:

"The idea that categories are not merely organized in a hierarchy from the most general to the most specific, but are also organized so that the categories that are cognitively basic are "in the middle" of a general-to-specific hierarchy. Generalization proceeds "upward" from the basic level and specialization proceeds "downwards"."

More extensive empirical support for the notion of a basic level of categorization is also provided by Barbara Tversky (1986):

"There was an overwhelming preference for calling things at the level of the genus (e.g. oak, perch). These categories had shorter, underived names. They were also named first in the ontogeny of a taxonomy, followed by terms, longer, more derived, for both more general and more specific categories, simultaneously."

In summarizing this subsection, one may note that the basic level terms, which are usually short, structurally simple, (that is, monomorphemic), with a high frequency of occurrence, become the prototypical instances of a category. Terms below the basic level are often compounds consisting of the basic level term and a modifier (e.g. kitchen chair). Terms above the basic level are sometimes deviant in some way (i.e. furniture is morphosyntactically irregular in that it is uncountable, i.e. one cannot say *a furniture or *furnitures).

The basic level category in prototype theory is equivalent to the generic categories within a semantic field. As much as categories within the prototype theory are arranged in three-tiered hierarchy, categories within a semantic field can also be arranged in a three-tiered hierarchy. The three tiers within the semantic field are the following:

- superordinate tier.
- middle tier which is equivalent to the generic category.
- subordinate tier which is equivalent to the specific category.

The generic category which is equivalent to the basic level category is the most likely to be grammaticalized. Consequently, verbs which are in this category will be the most likely to become auxiliaries.

2.5 Conclusion

In this chapter we have discussed the process of grammaticalization as one of the processes through which change can be brought about in a language. When this process occurs in a language, the fully fledged lexical items lose their autonomous status and become grammaticalized morphemes. This process of grammaticalization can be summarized in the following three points:

- Grammaticalization is unidirectional (i.e. lexical items become morphosyntactic items).
- Grammaticalization is a diachronic process.
- Grammaticalization leads to greater morphological dependence.

Further on in this chapter we hypothesized that the process of grammaticalization does not occur arbitrarily but there are certain underlying motivating factors such as:

- metaphorical extensions.
- semantic clustering.
- conceptual categorization.
- prototypicality.

In the next chapter we shall discuss the linguistic category auxiliary.

CHAPTER THREE

THE LINGUISTIC CATEGORY

AUXILIARY

3.1 Introduction

In this chapter a theoretical framework for the category
auxiliary will be developed. As such this chapter forms a
general background to the study of Zulu auxiliaries.
Although the traditional grammatical category auxiliary
involves several subcategories such as tense, aspect,
polarity (positive or negative), mood, etc., our investiga-
tion of this category will be restricted to two correlative
subcategories, namely tense and aspect. In the theoretical
basis of our exposition we shall use the more comparative/
typological approach of Comrie (1985) and Dahl (1985) where
the general properties of the subcategories of Aux are
outlined.

In this chapter we shall also discuss the various sub-
categories of tense as well as the various subcategories of
aspect distinguished in languages. The way in which these
categories are metaphorically construed will also be out-
lined in this chapter. With regards to the metaphorical
interpretation of the categories aspect and tense, some
topological schemas will be used to illustrate the various
construals.

3.2 The general nature of the syntactic category auxiliary

Chomsky (1957), according to Steele (1981), proposes the
following phrase structure analysis of English Auxiliaries,

Aux ——————————> Tense (modal) (have + en) (be + ing)

Chomsky's rule entails the following:

- A syntactic category Aux is distinguished in the grammar, which appears as a syntactic node in phrase markers and
- the syntactic category Aux consists of various subcategories (which can be characterized notionally as tense, and mood whose relative distribution (that is, linear position in a string) is directly speci- fied and constrained by the phrase structure rule.

Essien (1987), in his discussion of Aspectual System of Ibibio, presents the following analysis of the category Aux:

Aux —————————> Concord Tense (Aspect)

Languages differ in the specific range of subcategories of Aux they distinguish, as well with regard to the linguistic means whereby they express these subcategories. Among these linguistic means the following types can be distinguished:

- lexical items (e.g. adverbs)
  as in the following English examples:
  He died <u>instantaneously</u> in a car accident.
  I am <u>normally</u> flexible towards my peers.

- periphrastic expressions, as with English: he <u>was</u> <u>read</u>ing, the periphrastic progressive, as opposed to the simple verb form
  <u>he read</u>.

- inflections as with Spanish:
  <u>El leyó</u>   'He read' and
  <u>El leía</u>   'He was reading'

- auxiliary verbs as in French
  <u>J'ai mangé</u>   'I have eaten'

Some languages use combinations of these. Zulu uses three of these means, namely periphrastic expressions, inflections and auxiliary verbs to express the various notions subsumed under the category Aux. Consider the following examples:

<u>Ugogo uhlale ekhuluma njalo</u>
'Grandmother talks always.'

In the above sentence the auxiliary verb <u>hlale</u> 'do always' expresses the notion of the continuity aspect.

<u>Ubaba uhambe izolo</u>.
'Father left yesterday.'

<u>Umntwana usaphila</u>
'The child is still alive.'

These auxiliary subcategories have various specific conceptual significances and we maintain that these conceptual significances have ramifications for the selection of their linguistic realization or expression. That is, there is some other correlation between the significance of the auxiliary and the formal means whereby it is linguistically expressed.

Although Zulu, according to my assertion, uses three different formal devices (periphrastic expressions, inflections, and auxiliary verbs), I shall only concentrate on auxiliary verbs, because the thesis aims at giving an account of the origin of auxiliary verbs in Zulu. The assumption of this thesis is that specific auxiliary verbs are then not arbitrarily selected but are selected for specific conceptual reasons. For the purpose of this thesis only two subcategories of the category Aux, namely tense and aspect, will be examined. In the following section we shall consider these two subcategories in more detail.

3.3 Tense

Fleishman (1989) gives the following definition of the category tense:

> "[...] tense in its basic REFERENTIAL function serves to locate a situation chronologically in relation to a reference point, i.e. as close to or distant from the deictic center, which in most tense systems is the 'now' of the utterance."

In defining tense, Lyons (1968: 304) traces the etymology of the word 'tense' as follows:

> "The term 'tense' derives (via Old French) from the Latin translation of the Greek word for 'time' (Greek khronos, Latin tempus). The category of tense has to do with time - relations in so far as these are expressed by systematic grammatical contrasts. Three such contrasts were recognized by traditional grammarians in the analysis of Greek and Latin: 'past', 'present' and 'future'."

Following Lyons' definition of tense, three major categories of tenses are normally distinguished in grammatical analyses of languages: present tense, past tense and future tense. Although in some languages, many scholars regard the future to be more like an aspect than a tense, as Markkanen (1979: 29) remarks with reference to English:

> "[...] strictly speaking, there are only two tenses in English as far as the form is concerned, yet it is possible to find more tenses on the basis of the notion of time."

3.3.1 Present tense

A situation described in the present tense is located temporally as simultaneous with the moment of speaking, e.g.

<u>John sings now</u>.
<u>The world is a sphere</u>.

Comrie (1985) views the present tense to mean "coincidence of the time of the situation and the present moment." He further clarifies the notion of coincidence of the time of the situation when he says:

> "[...] it is relatively rare for a situation to coincide exactly with the present moment, that is, to occupy, literally or in terms of our conception of the situation, a single point in time which is exactly commensurate with the present moment. Situations of this rare type do, however, occur, and of course the present tense is an appropriate form to use in locating them temporally."

Comrie's notion of coincidence of the time of the situation literally occurs where the situation being described is simultaneous with the reports of an ongoing series of events. Thus when an athletic commentator says <u>Zola Budd crosses the finishing line</u>, his utterance of his sentence coincides, or at least is taken conceptually to coincide, with the event of Zola Budd's crossing the finishing line; and since the report is simultaneous with the situation being described, there is a literal location of a situation at the present moment in time. However, situations of the kind described above are relatively rare, and the more normal uses of the present tense, in languages where it is a separate tense category, go beyond this specific significance.

It is true that the present tense is used to refer to states
and processes which hold at the present moment but which
began before the present moment and may well continue beyond
the present moment as in the following sentences:

The Eiffel Tower stands in Paris.
The author is working on chapter two.

In each of these examples, it is indeed true that the
situation holds at the present moment, that is, at this
moment the Eiffel Tower does stand in Paris, and at this
moment the author is indeed working on chapter two but it is
not the case that the situation is restricted only to the
present moment. Markkanen (1979: 94) remarks as follows on
the present:

> "The time-sphere of the present comprises all
> processes that occur simultaneously with the time
> of speech. The speaker's point of reference is
> then also simultaneous with this prime point of
> orientation. Thus the present means that all
> three points fall together. Theoretically it is
> possible to think of the point of speech, and the
> point of event, being simultaneous and the point
> of reference either preceding or following them.
> But these would fall together with the future in
> the past and the past in the future respectively
> and thus do not form separate cases. Thus, it is
> the time of utterance, the time of the speech
> situation itself, that constitutes the speaker's
> present. But the time span of the utterance can
> be very short. If the time of occurrence of the
> process is supposed to be absolutely simultaneous
> with the time of utterance, that is, have the same
> time span as the utterance, there are very few
> such processes. However, there is no need to
> limit the present to these cases only, but in-

stead, it can simply be defined to mean that the
point of speech and the point of event coincide
but can be varying in length."

Markkanen's view seems to support the point we have made
above that the present tense is not only confined to
momentary occurrences of events and activities but it also
embraces past tense.

The various subcategories of tense distinguished in langu-
ages will be represented by sketches to be revised further
following the topological representations to be outlined in
section 3.6 of this chapter. The present tense can there-
fore be illustrated as follows by means of a diagram.

event time

time of utterance

———————————————————————————————time line
past   present   future
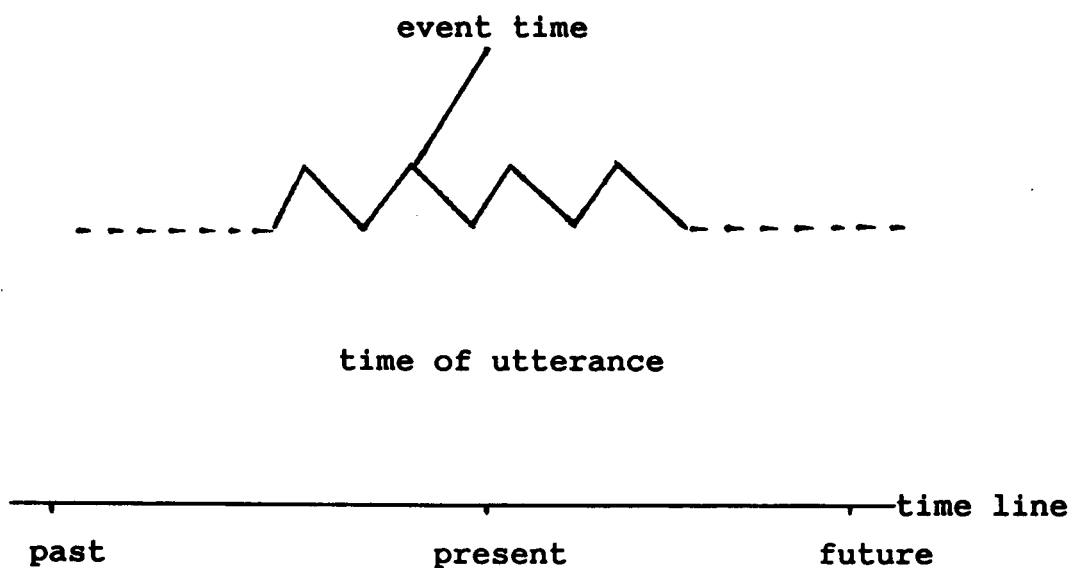
This diagram can be interpreted as follows:

The event overlaps with the moment of utterance. The dotted
lines indicate that the event started somewhere before the
moment of speaking and is extending even after the moment of
speaking. This means that the present is extendable, that
is, present can include both the past and the future. In
the case of the example the world is a sphere, the world is
a sphere presently, was a sphere in the past and will be a

sphere in the future.

3.3.2 Past tense

A situation described in the past is located prior to the moment of speaking, e.g.

<u>John entered before 12 o'clock</u>.
<u>John sang</u>.

Comrie (1985: 24) makes the following remark about the English past tense:

> "The English past tense refers to a situation that held at some time prior to the present moment. Often, it seems that the use of the past tense forms also carries the information that the situation no longer holds, as in <u>John used to live in London</u>. If this sentence was used without any disclaimer, then it would probably be taken to carry the information that John no longer lives in London." (My emphasis - S.N.L.M.)

From the discussion above, it is obvious that the past as a point on the time line would be prior to the present. Markkanen (1979: 117) makes the following remarks about the past tense:

> "Past time in our terms means that the time of occurrence or the point of event is anterior to the moment of speaking, that is, the point of speech."

Consider the following sentences as examples:

<u>I saw him on Tuesday</u>.
<u>They took the child to a doctor yesterday</u>.
<u>His sister was an invalid all her life</u>.

The processes clearly occurred before the moment of speaking, that is, the speaker looks at them retrospectively. The surface expression in the above sentences is the past tense, together with a time-specifier, which however, is not obligatory as the time would be past without them. The past tense can be represented diagrammatically as follows:
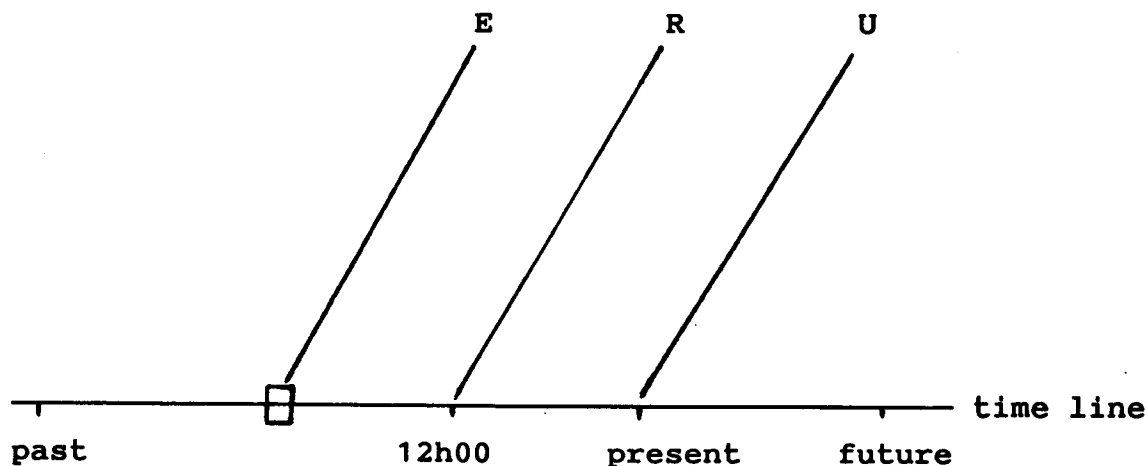
The diagram above can be interpreted as follows:

E stands for event time, R stands for reference time for example, time adverbs are reference points and U stands for the moment of utterance. Notice, however, that the box on the time line does not touch the reference point. This means that the event might have occurred before a certain reference point. But in some cases it could overlap. Consider the following sentences:

He <u>came last year</u>.
She <u>was an invalid all her life</u>.

Having the conception of the past in mind as something

drifting away from the speaker's point, the past is therefore conceived as something behind us. We cannot at the same time deny the fact that some languages place the past head on - the definiteness of what we know, and the future behind that which we cannot see. This therefore suggests two types of verb, viz. one which places the past head on and the other which places the past at the back. I will concentrate on the latter because, when someone in Zulu speaks about the past, he speaks about his back. The recent past is nearer our back and the remote past is far away from our back. Some languages utilise this metaphor extensively. When something has occurred in the past, it is said to be behind us because the past is conceived as something which is behind us.

For example, I wouldn't like to go back to the tragic events of 1976.

3.3.3 Future tense

The future is more complicated than the other tenses. Cognitively speaking the future is different from the past in that the future has not yet happened or has not yet been realised. Talking about the future is not as straight-forward as talking about the past or the present. The speaker can never be absolutely certain about future events and consequently cannot talk about them with the same conviction as he can talk about what has happened in the past or is happening at the present. The only type of future event about which it is possible to be fairly certain is one that occurs according to some natural law. Thus the speaker can say with certainty:

The sun rises at 08h00 tomorrow.

About other types of future events people can only have various degrees of uncertainty. The uncertainty of the

future also means that various additional connotations are attached to the expressions of futurity, such as the speaker's intentions, his desire to do something, plans made for the future and so on.

Comrie (1985: 43) characterises the difference between the future and the past as follows:

> "[...] there is a sense in which the future is clearly different from the past. The past subsumes what may already have taken place and barring science fiction, immutable, beyond the control of our present actions. The future, however, is necessarily more speculative in that any predication we make about the future might be changed by intervening events, including our own conscious intervention. Thus, in a very real sense the past is more definite than the future."

On the basis of Comrie's view above, it can be stated that the past is known from memory and from other people's reports but the future is unknown. Dahl (1985: 103) also observes the uniqueness of the future when he says,

> "[...] the future differs epistemologically - and maybe also ontologically - from the present and the past as Aristotle noted. We cannot perceive the future directly or 'remember' it - at least, this is what conventional wisdom tells us."

According to Dahl, when we talk about the future, we are normally either talking about someone's plans, intentions or obligations, or we are making a prediction or extrapolation from the present state of the world. As a direct consequence, a sentence which refers to the future will also almost always differ modally from a sentence with non-future time reference. The future tense can be represented dia-

grammatically as follows:
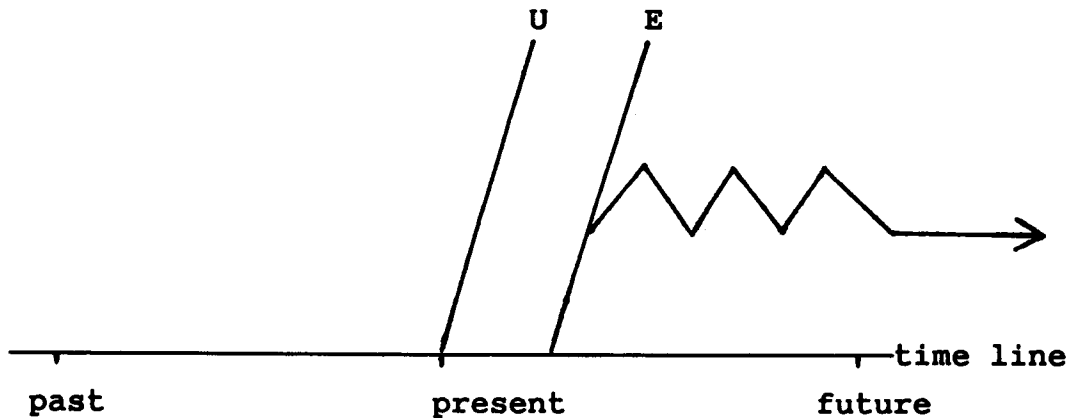
From this diagram we note that, with the future tense, it is difficult to say when the future starts. Whether it starts when we speak about it or immediately after the moment of utterance is hard to say. Spatially and orientationally, the future is conceptualized as something moving towards the speaker and at the same time the speaker moves towards the future. We are facing the future and the future draws nearer to us. We shall return to the significance of this orientation later on.

3.4 Aspect

From the literature it is clear that there is a close relationship between time and aspect. In fact this close relationship very often leads to a confusion of the two. There seems to be particular reasons for this confusion as Lyons (1977) remarks:

"It is, [...], largely a matter of historical accident that the notion of aspect does not figure as prominently in traditional grammar as does the notion of tense. Aspect is in fact, far more commonly to be found throughout the languages of

the world than tense is: there are many languages
that do not have tense, but very few, if any, that
do not have aspect. Furthermore, it has been
argued recently that aspect is ontogenetically
more basic than tense, in that children whose
native language has both come to master the former
more quickly than they do the latter."

It is therefore necessary to distinguish the two more
clearly. Lyons (1968: 313) defines the term aspect as
follows:

"The term aspect (which is a translation of the
Russian word 'vid') was first used to refer to the
distinction of 'perfective' and 'imperfective' in
the inflextion of verbs in Russian and other
Slavonic Languages. The term 'perfective' (or
'perfect') is reminiscent of that used by the
Stoic grammarians for the somewhat similar notion
of 'completion' found in Greek."

From Lyons' definition of aspect above, it seems doubtful
then that there are languages which do not distinguish
aspect in their predicate systems. Languages, however, may
differ as to the range of aspects they distinguish and/or
the means whereby they express aspectual distinctions as
Comrie (1976: 7) observes:

"Just as some languages do not grammaticalize time
reference to give tense, so some languages do not
grammaticalize semantic aspectual distinctions to
give aspects. In some forms of German, for
instance, namely those where the simple past (e.g.
ich ging 'I went') has been supplanted completely
by the perfect (e.g. ich bin gegangen 'I have
gone', in these forms of German also 'I went')
there is no grammaticalization of aspectual

distinctions. This does not mean that in these forms of German it is impossible to express the meaning differences that are expressed by means of aspects. The difference between English <u>he read the book</u> and <u>he was reading the book</u> can to some extent be captured in German by the difference between <u>er las das Buch</u> (which covers the semantic range of both of the English sentences) and <u>er las im Buch</u>, literally 'he read in the book' which has explicitly the meaning of the English progressive <u>was reading</u>." (My emphasis - S.N.L.M.)

Accepting then that all languages express aspects in one way or another, and that the category aspect must be distinguished from the category tense, the question remains: What exactly does the category aspect signify? According to Dahl (1985: 23),

"Aspects are different ways of viewing the internal temporal constituency of a situation."

In this regard, Essien (1987) concludes that events, actions, or states of affairs are analysable into phases. A situation could be viewed from the point of view of its initiation (or inception). Similarly, it could be viewed from the point of view of its continuation (or middle phase) or even from its termination (or completion).

The category aspect can also be subdivided into subcategories. Bybee and Dahl (1989) consider the following to be the major subcategories of aspect:

- perfective, indicating that a situation is viewed as bounded;
- imperfective, indicating that a situation is viewed as not bounded;

- progressive (called <u>continuous</u> in Bybee's study), indicating that the situation is in progress at reference time and
- perfect (called <u>anterior</u> in Bybee's study), indicating that a situation is being described as relevant at the moment of speech or at another point of reference.

The term "aspect", then, according to Lyons (1977: 705) is intended to cover a wide variety of oppositions, insofar as they are grammaticalized in the structure of particular languages - oppositions based upon notions of duration, instantaneity, initiation, completion, etc. We will now consider some of the more general notions associated with aspect in more detail.

3.4.1 Duration

The duration of an event or state is the length of time during which it happens or persists. Duration relates to continuity, insofar as this is not so extended that it becomes a characteristic feature of an entity, at least for some time.

e.g.   <u>I'll be away for the duration of the holiday</u>.

If you say that something will happen for the duration of time, you mean that it will happen for as long as the event or activity which is being talked about continues.

e.g.   <u>You must call me in my office during working hours</u>.

Most languages like English use different time adverbs like <u>for a short while</u>, <u>long time</u>, <u>for three months</u>, <u>for two days</u>, and an indefinite duration adverb <u>all the time</u> as in the following sentences:

He stayed in America for three months.
He is sick all the time.

3.4.2 Instantaneity

If you do something for an instant, you do it for an extremely short period of time. Something that is instantaneous happens immediately and very quickly.

e.g. It was all gone in a single instant.
I'll take an immediate action now.

3.4.3 Frequency

Frequency is the number of times in which something happens over a particular period of time.

e.g. Serious disasters appear to be increasing in frequency.
The frequency of earthquakes in Japan.

Frequency also refers to how often something occurs, that is, the number and distribution of an event over a specified period of time. The following adverbs are used in English to express this aspectual significance: many times, a lot of times, and never as a negative frequency adverb. Consider the following sentences:

He keeps on saying one thing many times.
He never goes to school at all.

3.4.4 Beginning/the inceptive aspect

The beginning of an event is the start of it or the process of causing it to happen.

e.g. The termination of old, and the beginning of new,
      human relationships.

"Beginning" implies that such a situation did not exist
before. It emphasizes the beginning of a new situation
which did not exist in the past.

English uses the following adverbs to express this aspectual
significance: start, initiate, begin, realize, etc. as in;

    He initiated the angry response.
    They started playing soccer at 3 o'clock.
    She only realized yesterday that her mother died five
    years ago.

3.4.5 Completion

Completion is the situation or state of affairs in which a
particular event is finished. Most literature on aspect
(cf. Comrie (1976) for example) classifies the completion
aspect as an example of the perfective aspect.   The per-
fective aspect according to Comrie (1976: 18), "does indeed
denote a complete situation with beginning, middle and end."

    e.g. His work was still far from completion.
          The house was due for completion in 1983.

The following words are used in English to express the
aspectual significance of completion: end, finish, con-
clude, etc. This aspect is lexicalized in the verbs as in
the following sentences:

    He finished eating.
    He ended writing the thesis.
    He concluded his preaching.

3.4.6 Habituality

Habituality refers to the regular or usual occurrence of an activity.

According to Lyons (1977: 716)

"A habitual aspect is appropriately used for the expression of the so-called timeless truths."

Comrie (1976) classifies the habitual aspect as an example of the imperfective. The imperfective is a general name for 'being in a situation.' Thus the habitual aspect clearly indicates being in a situation at least for some time such that being in the situation becomes a characteristic feature of some entity for an extended period of time. Consider the following examples:

He took his habitual seat at the dining table.
John is a habitual liar.
John is habitually late for school.

Adverbs like often, from time to time, sometimes, usually, regularly, normally, in most cases, most of the times, express habituality as in the following sentences.

I normally study over the weekend.
He reads books regularly.
I am normally flexible towards my peers.

3.4.7 Repetition

A repetition is something that is said or done but which has already been said or done before. Repeated actions or events are ones which happen iteratively:

e.g.   <u>Anxious patients require repeated reassurance</u>
       <u>that they are getting better</u>.
       <u>His plans have suffered repeated delays</u>.

Adverbs like the following are used to express repetition:
<u>again</u>, <u>twice</u>, <u>trice</u>, <u>for a second time</u>, the prefix <u>re</u> -
which means "again" as in the following sentences:

    <u>He finished rewriting his dissertation</u>.
    <u>They got married for a second time</u>.
    <u>He reminded him</u>.

3.5   A metaphorical interpretation of the category tense and aspect

From our exposition of tense and aspect above it is clear
that linguists tend to allude to a kind of spatial notion,
namely the time line in order to explicate temporal notions
such as tense and aspect. The question now is whether this
spatial allusion in the context of temporality (tense and
aspect) is purely accidental or whether it is indeed moti-
vated in terms of some significant relation between time and
space. Lyons (1977) in his discussion of the so-called
Localist theory suggests that there is indeed a significant
reason for the relation between time and space. Because
spatial notions are more concrete, they seem to form the
conceptual source for temporal notions. It therefore comes
as no surprise that there is a metaphorically motivated
connection between tense/aspect and spatial expressions. In
this section we shall explore this metaphorical connection
in more detail.

Tense and aspect as abstract notions can, I assert, be
construed and interpreted in terms of a certain type of
metaphor - spatial metaphors. Spatial Orientational meta-
phors seem to underlie the categories tense and aspect. The
metaphor of aspect and tense can be explained as follows:

(tense and aspect) is equivalent to

> TIME = SPACE
> ASPECT = DIMENSIONS
>   = BOUNDEDNESS

The time line in the case of tense is construed as a space line and more precisely a line is an infinite set of points. With regards to tense this time line is an unbroken line and there is no internal structural division. The space line is also a continuous, uninterrupted and unstructured space. Tense is not structured in that there must be a time of reference relative to which one can construe the present, the future and the past. Tense only has a reference point and aspect does not and for this reason tense is vaguer than aspect. Tense therefore as opposed to aspect defines broad topological outlines of space. Aspect, on the other hand is structured and it involves the internal structure of an event. Aspect therefore as opposed to tense divides the topological outlines of tense into specific structural details.

According to Givón (1979) the verb go which is a spatial motion verb for example, seems to give rise chiefly to future time. For example go in the structure going to V expresses the future. The functioning of the verb go as a marker of the future also occurs in other languages like French. Consider the following example:

French:
> Il va partir demain.
> 'He's going to leave tomorrow'.
> 'He'll leave tomorrow'.

With reference to Lakoff and Johnson's metaphorical frames one may therefore say: MOTION IN TIME is MOTION IN SPACE. The metaphorical extension of motion verbs such as go can

then be construed as follows: when, for example, we speak
of the future tense, we seem to orient reference to the
future in front, that is, the future is viewed as something
ahead of us.   The future is conceived as something moving
towards us and we move towards the future, hence, the use of
the spatial motion verb such as <u>go</u> as a future marker in
some languages.

The verb <u>come</u> on the other hand is also a verb of spatial
motion and it also indicates futurity in some languages.
The future as something coming towards us can be illustrated
explicitly by the verb <u>come</u> in the following sentences:

> <u>She'll be married within the coming weeks</u>.
> <u>We'll see what happens as the future comes towards us</u>.

The verb <u>come</u> literally refers to the motion towards the
speaker. Here motion in time is construed as motion in
space. Thus (future) time is understood in terms of spatial
motion. The future is spatially interpreted as something
ahead of us. We are facing the future and the future moves
towards us and we move towards the future as in:

> <u>We are heading for the future</u>.
> <u>The weeks are approaching</u>.

Consider the following diagrams explicating the spatial
motion and the metaphorical extension of the verbs <u>go</u> and
<u>come</u> without any definite end or goal point unless specific-
ally mentioned.

Spatial motion

go

A
●———————— — — — — — ❯

motion away from a specific point

Temporal motion

A
————————————————●- - - - - - - - - - - ❯ time line
past   present   future

Spatial motion

come

A
●❮———————— — — — — —

Temporal motion

A
❮————————————————●- - - - - - - - - -   time line
past   present   future
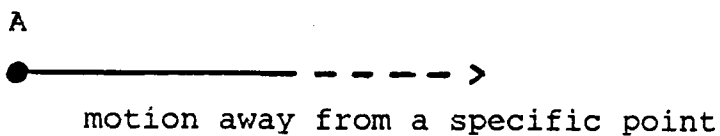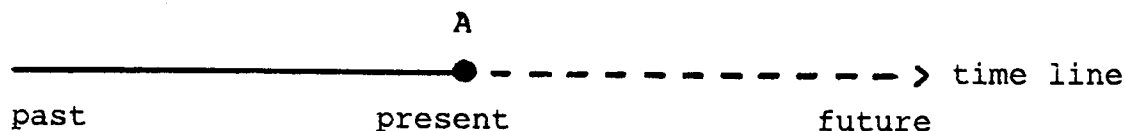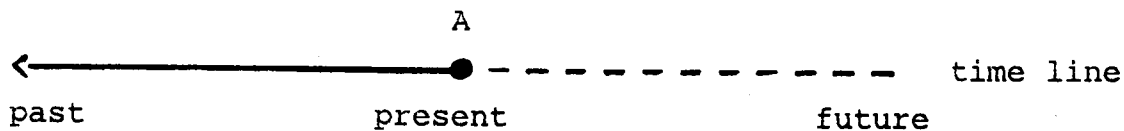
Motion towards a specific point without any definite origin
or source reference point unless specifically mentioned. Go
means move from point A to point B through space and come

means move from point B to point A through space.

This diagram shows that the lexical domain of verbs expressing motion in space are reinterpreted metaphorically to express motion in time.

The same phenomenon holds for the past tense. Normally when we speak about the past tense we orient reference to the past at the back. According to this paradigm, the past drifts away from the speaker. Our back is the past and our face is the future. Consider the following example:

The years seem to move ever more quickly into the past as we face the future.

There are other forms of the English verb by means of which one can indeed orientate oneself towards the past (using a spatial metaphor), but they are not pertinent at this point.

Spatial orientation also underlies the category aspect. The category aspect is exactly the same as the category tense in that they both involve motion through time which is equivalent to TIME = SPACE. The category aspect is different from the category tense in that it is extended to include dimension and boundedness, that is, it is bounded and has dimensions. To illustrate this, let us consider the diagrams of the following aspectual notions, viz. inception of an action/event and completion of an action/event.

3.5.1 Inception of an event or the inceptive aspect

This aspect can diagrammatically be represented as follows:

point of inception
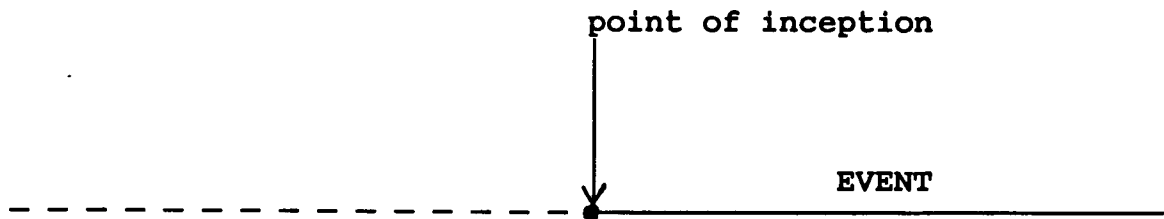
EVENT

The point above represents the inception of an event. What happened before the point is immaterial. "Beginning" implies that such a situation did not exist before. It is something that one has not done before, it has just started. It emphasizes the beginning of a new situation which did not exist in the past. Consider the following examples:

The students have just started writing their exams
He started crying.

The word start in the above sentences represents the inception of the event and it also implies that the two situations did not exist before.

3.5.2 Completion of an Event or the perfective aspect

This is the direct opposite of the inceptive aspect. This can be represented diagrammatically as follows:

point of completion
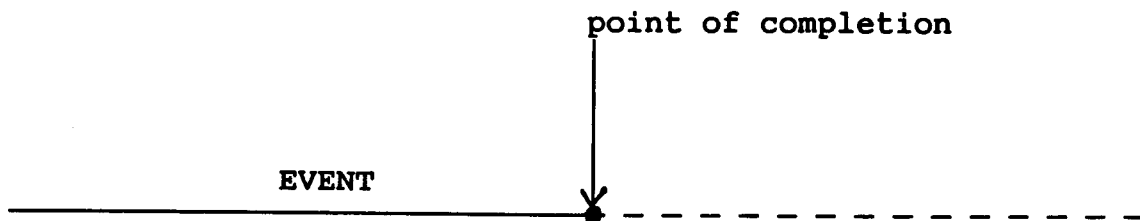
EVENT

There is a specific point at which an event ends. What happens after the end point is immaterial. This aspect focuses on the completion or termination of a situation. Consider the following sentences as examples:

The State President finished his address.
John has just completed his thesis.

The words **finish** and **complete** in the above sentences represent the completion and the termination of the above situations, that is, there is a specific point at which an event ends.

Schematic representations of both tense and aspect will be dealt with in greater detail when we present the analysis of Zulu auxiliaries in the following chapter. Since the schematic representations of these notions deal with spatial orientation, a knowledge of topology is necessary here and will help us in designing these topological schemas, which are very significant in explaining the metaphorical implications of Zulu auxiliaries.

3.6 Topology and the notions of tense and aspect

Desclés (1989) regards topology as a very useful tool in presenting grammatical categories. According to him the meaning of grammatical categories (tense, aspect, as well as spatial categories) and the organization of lexical stems based on grammatical criteria can be presented by means of an objective language free from idiosyncrasies. He claims that topology (or, more precisely, the language of general topology and its basic concepts) is a useful tool for the linguistics of today, just as Boolean algebra was for structural linguistics (the Copenhagen and Prague schools, for instance), which fruitfully used it to handle the 'pertinent' features of phonology.

Our aim here is not to discuss topological notions and issues in great detail. Rather we wish to define those concepts that are pertinent to our discussion of the metaphorical extension of spatial notions to temporal notions in tense and aspect auxiliaries. In this discussion we shall refer to elementary topological concepts. They are as discussed by Desclés (1989), concepts such as boundary, open interval and closed interval.

Some topological concepts as defined by Desclés (1989)

Definition 1. An INTERVAL is an oriented set of contiguous points (which are members of a continuous line) delimited to the left and to the right by two BOUNDARY-POINTS which separate the INTERIOR (that is the points between the boundary-points) and the EXTERIOR (that is the points which are not between the boundary-points) of the interval.

Here, the points are interpreted as _instants_ which belong to a referential axis (representation of time). An interval is a part of this axis composed of contiguous instants. We assume that the axis is oriented. The notions 'to the left' and 'to the right' and also the temporal interpretation of 'anteriority', 'simultaneity' and 'posteriority' are constructed by means of temporal orientation (involving differentiations and identifications between instants).

The interior and the exterior of an interval always exclude the boundary-points: neither the boundary-point to the left nor the boundary-point to the right are members of the interior and of the exterior.

exterior	interior of the interval	exterior
(to the left)	boundary-points	(to the right)

A boundary-point will be also called a boundary. Thus each interval is characterized by two boundaries.

Definition 2. Given a boundary-point to the left of an interval, two cases are possible:

(i)   either the boundary is OPEN; 'we do not have a first point (or, first instant)' in the interval; such interval is said to be OPEN TO THE LEFT,

(ii) or the boundary is CLOSED: 'we have a first point (or, first instant)' in the interval; such interval is said to be CLOSED TO THE LEFT.

Given a boundary-point to the right of an interval, two cases are possible:

(i)   either the boundary is OPEN; 'we do not have a last point (or, last instant)' in the interval; such interval is said to be OPEN TO THE RIGHT.

(ii) or the boundary is CLOSED: 'we have a last point (or, last instant)' in the interval; such interval is said to be CLOSED TO THE RIGHT.

Definition 3. An OPEN INTERVAL is an interval where both boundaries to the left and to the right are open. A CLOSED INTERVAL is an interval where both boundaries to the left and to the right are closed.

When the boundary of an interval is open (either to the left or to the right), it does not belong to that interval; when the boundary is closed (either to the left or to the right), it belongs to the interval. Given an open interval I, its interior coincides with it. We can represent this open interval (or its interior) by a shaded domain:

b_1 b_2

$(b_1 \notin I; \; b_2 \notin I)$
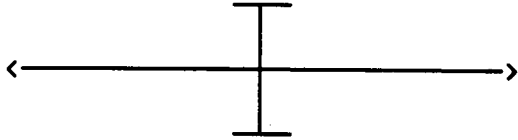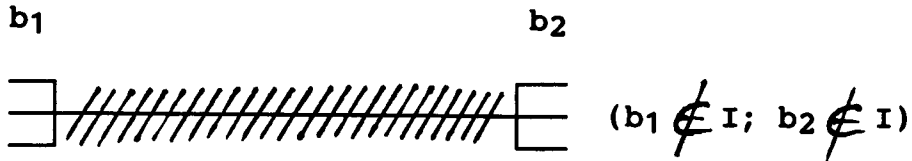
Given a closed interval, its interior does not coincide with it. We can represent this closed interval by a shaded domain:

b_1 b_2

$(b_1 \in I; \; b_2 \in I)$
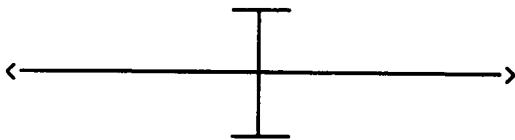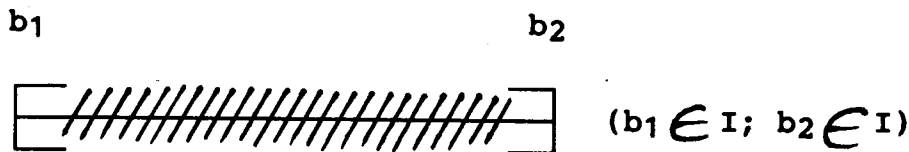
In an open interval, the boundaries are always excluded from it. In a closed interval, the boundaries are always included in it. Two other intervals are associated with each interval I:

1. its interior $\overset{\bullet}{I}$, obtained by excluding both boundaries from it;

2. its closure $\bar{I}$, obtained by including both boundaries in it.

    For a given interval (closed to the left and open to the right, for example) we can represent its corresponding interior and closure:

$(b_1 \in \overset{o}{I}; \; b_2 \in \overset{\bullet}{I})$

$(b_1 \in \overset{-}{I}; \; b_2 \in \overset{-}{I})$
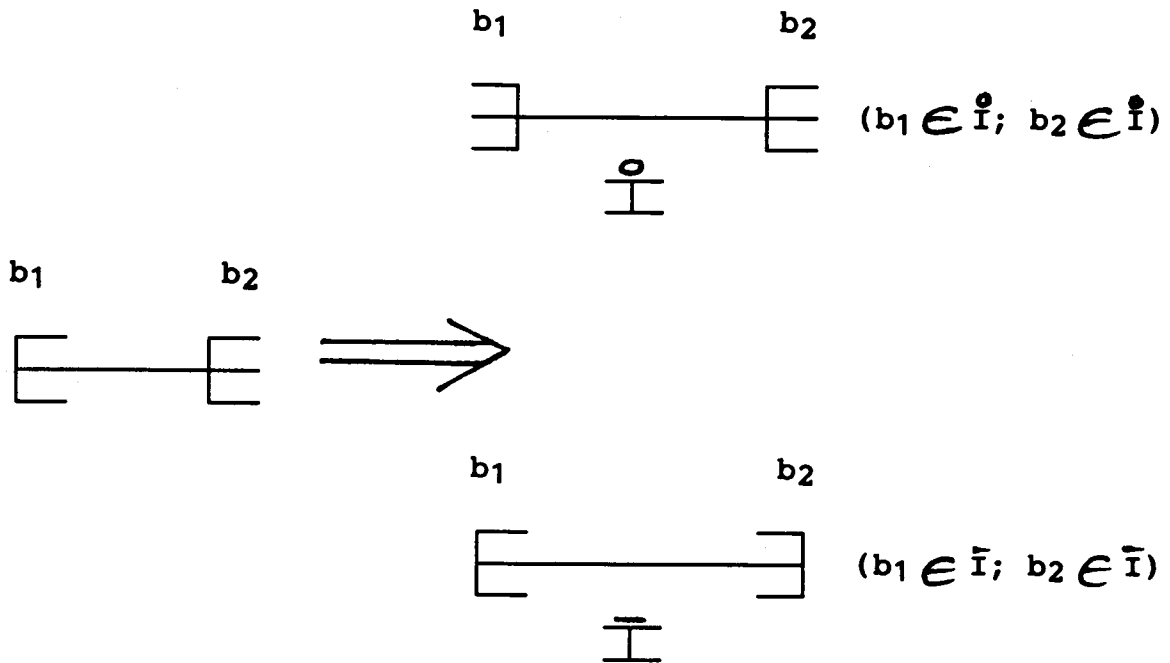
When an interval is <u>closed to the left</u>, we say that the first point (or instant) is the 'starting point'. When an interval is <u>closed to the right</u>, we say that the last point (or, instant) is the 'ending point'. When an interval is <u>open</u> (either to the left or to the right) we say that there is neither a first (or, starting) point nor a last (or, ending) point. From the definitions above, it is clear that a boundary b may be a member of a given interval (the boundary is then closed) or not (the boundary is then open).

Definition 4. Two intervals I and J are CONTIGUOUS AT THE POINT b if for both intervals I and J, b is a boundary which intersects either I or J with the following topological properties:

(a) if b is a closed boundary for I, then b is an open boundary for J;

(b) if b is an open boundary for I, then b is a closed boundary for J.

When we interpret points as instants, we have the same formulation with the first instant (starting point) and the

last instant (ending point). According to Desclés (1989) the above laws are fundamental for understanding the close connection between process, state and event, and especially for understanding the states resulting from dividing up a process in progress. The above topological notions and their representation will be used to interpret the metaphorical construals of tense and aspect auxiliaries in Zulu.

TENSE - Tense categories are traditionally distinguished with reference to a time line. This time line could be reinterpreted in the topological terms developed here.

For example: Present tense

E
↓
————————————●————————————> time line

U
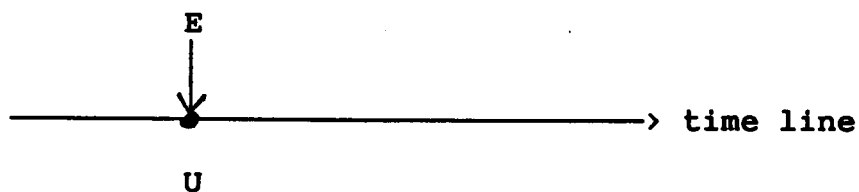
Where E = event and U = moment of utterance

Past tense

E
↓
————————————●————↑————————> time line

U

The event preceeds the moment of utterance

Future tense

E
↓
————↑————●————————————————> time line

U
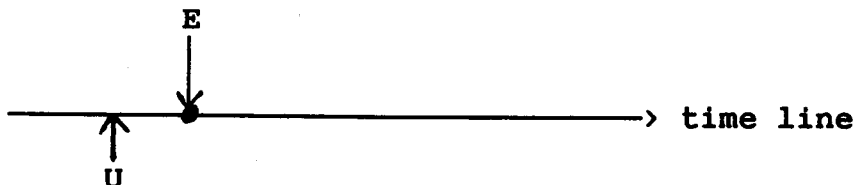
The event occurs immediately after the moment of utterance.

Similarly: ASPECT categories can also be distinguished with reference to a time line as bounded, unbounded etc.

For example: Perfect

```
                                            Point of completion
                                            |
                                            |
                  EVENT                      ↓
  ─────────────────────────────────────────●──> time line
```

Continuation/progressive:

point of inception

```
  |
  |
  ↓            EVENT
  ●─────────────────────────────────────────────> time line
```
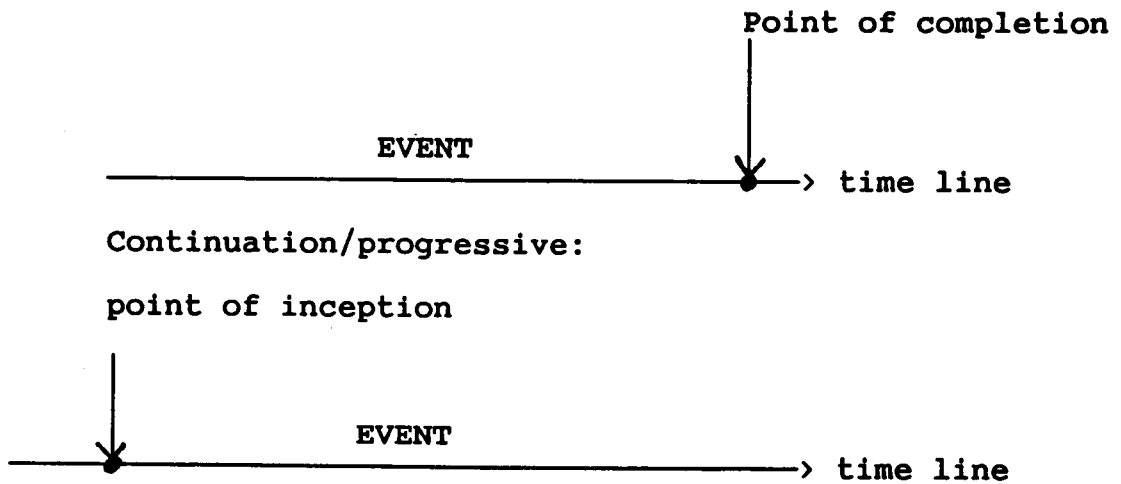
Immediately after the point of inception of the event, the event occurs continuously. With regard to aspect, the moment of utterance does not seem to play an important role as it does with the category tense.

3.8 Conclusion

In this chapter we have looked at the syntactic category Aux. The category Aux comprises various subcategories namely, tense, aspect, mood and polarity (positive or negative). For the purpose of this thesis, we confined ourselves to the discussion of tense and aspect as subcategories of the category Aux. Almost all languages of the world have means of expressing tense and aspect. However, these subcategories can be expressed through various means. Most languages use the following means:

- lexical items (e.g. adverbs).
- periphrastic expressions.
- auxiliary verbs.
- inflections.

Some languages use the combination of these means and Zulu uses three of these means to express the notions of the category Aux, namely periphrastic expressions, inflections and auxiliary verbs. The subcategories of the category Aux have various specific conceptual significances and we claim that the expression of auxiliaries are not arbitrarily selected but are selected for specific conceptual reasons. Languages of the world also differ in the way in which they conceive of these abstract subcategories.

Tense and aspect, as abstract notions can, we claim be construed and interpreted in terms of metaphors. Orientational and spatial metaphors underlie the categories tense and aspect. When, for example, we speak of the future tense, we seem to orient reference to the future in front, that is, the future is viewed as something ahead of us. The future is conceived as something moving towards us and we move towards the future, hence, the use of the verbs such as go and come as future markers in some languages.

Spatial orientation also underlies the category aspect. Aspect in most languages is viewed as a linear progression comparable to tense. In this chapter we have just exemplified with a few topological schemas how these two subcategories of Aux are conceived of in language. More topological schemas will be provided in the subsequent chapter when we explore the category Aux in Zulu as regards tense and aspect.

CHAPTER FOUR

THE CATEGORIAL STATUS OF AUXILIARIES IN ZULU

4.1 Introduction

A survey of various facets of the category AUX was under-
taken in Chapter 3. With Chapter 3 in mind, the present
chapter deals specifically with tense and aspect auxiliaries
in Zulu. The objectives of this chapter are the following:

- to determine the categorial status and the nature of
  tense and aspect auxiliaries in Zulu;
- to explicate the nature of the relationship between
  tense and aspect auxiliaries on the one hand and the
  category verb in Zulu on the other hand.

In our previous discussion on the development of auxiliaries
(Chapter 2), we stated that tense and aspect auxiliaries in
most languages of the world developed diachronically from
full verbs, but cannot synchronically be analysed as full
verbs. The historical development of auxiliaries from verbs
is attested in detailed documentation on various languages,
for example in English (Mathews, 1978), in Japanese
(Matsumoto, 1988) and in Spanish (Myhill, 1988). In a
similar vein, we claim that a similar relationship between
auxiliaries and verbs could be posited Zulu. The nature of
this relationship will be explored in this chapter.

4.2 Traditional Bantu grammarians' views on the categorial
status of auxiliaries in Bantu languages.

In this section we shall present a survey of the views of
certain traditional grammarians on tense and aspect auxili-
aries in Bantu languages. These views are subsumed in

the description of auxiliaries in various Bantu languages including Zulu.

Jacottet (1927: 118), with reference to SeSotho, says the following about tense auxiliaries:

> "Besides the regular tenses which have been reviewed, SeSotho possesses a large number of verbal forms built up with the help of special auxiliaries and verbal particles. Connected with the regular tenses of the verb, these auxiliaries impart to them a special meaning, and enable us to express many nuances of meaning, which in English are generally rendered by adverbs. Of these auxiliaries, some are notional verbs, which have when used as auxiliaries, a value somewhat different from their ordinary meaning, and others are merely auxiliary and no longer possess any real value of their own apart from their use as auxiliaries. Most of the latter class are monosyllabic; some have even been reduced to the condition of mere verbal particles." (My emphasis - S.N.L.M.)

From the quote above, it is clear that Jacottet sees a very close relationship between tense auxiliaries and verbs in Sotho. Yet some auxiliaries, even though they may originally have had some relationship with full lexical verbs, have undergone reduction in both meaning and form compared to the verbs from which they originated. Jacottet, however, does not distinguish categorially between those auxiliaries that are still lexical or notional verbs and those that have undergone reduction.

Cole (1955: 286), with reference to Tswana, supplies us with some comments about the syntactic status of auxiliaries in Bantu languages:

72

"Auxiliary verbs are so termed because they do not
themselves constitute complete predicates. They
cannot stand alone, but must be followed by a
subordinate verb or copulative formation, termed
the complement, in order to produce a complete
predication."

Ziervogel (1969: 118) shares the same view about auxiliaries
in Bantu languages:

"[...] The auxiliary predicate is in fact an
extension or modification of an action. On the
one hand it reminds one of the English auxiliary
verbs such as "will", on the other hand it expres-
ses English adverbs. Many auxiliary verbs are
ordinary verbs which assume a figurative meaning.
The feature of the auxiliary predicate (a term
preferred to auxiliary verb, since it is not
necessarily a verb) is that it is seldom possible
to use it as a word by itself like an ordinary
predicate. The auxiliary predicate is therefore
used to form a compound predicate which, although
it consists of two verbs constitutes a unit. The
auxiliary predicate must always be followed by
another predicate or predicative form such as an
infinitive."

Both Cole and Ziervogel note the similarity between verbs
and auxiliaries in Bantu languages. At the same time they
note the difference between auxiliaries and verbs, particu-
larly the dependent nature of auxiliaries as opposed to
ordinary verbs. The dependent nature of auxiliaries seems
to be the major syntactic motivation for distinguishing the
word category auxiliary in Bantu languages, as can be seen
from the following quote from Slattery (1981: 1), who
defines auxiliary verbs as follows:

"Auxiliary verbs are ones which must be followed by another verb whose meaning they modify in some way."

Doke (1981: 202), on the other hand, prefers the term deficient verb, but also invokes the dependency characteristic of auxiliaries in his classification:

"In Zulu, compound tenses, that is tenses consisting of more than one word, are formed by the employment of a large number of deficient verbs. The majority of these deficient verbs are followed by the subjunctive or the participial mood, though some take the infinitive. [...] most of the deficient verbs are irregular in form, in fact the only ones to end in the regular -a are to be found among those followed by the infinitive mood."

The various traditional views on auxiliaries in Bantu languages quoted above can now be summarized in a table in order to identify the relevant parameters which have been used for distinguishing the category auxiliary.

Table of similarities and differences

	Jacottet (1927)	Cole (1955)	Ziervogel (1969)	Doke (1981)	Slattery (1981)
1. <u>Syntax</u> Dependency Position	dependent ————	dependent before complements predicates	dependent before certain predicates	dependent before verbs in various moods	dependent before verbs
2. <u>Morphology</u> Reduction	reduced	reduced	reduced	reduced	reduced
3. <u>Semantics</u> Special- ized sig- nificance	impart special meaning to verbs	————	modifies an action (figurative meaning)	————	————
4. <u>Categorial</u> <u>Status</u>	auxiliary verb	auxiliary verb	auxiliary predicate	deficient verb	auxiliary verb

From the table given above, the following important observations can be made:

- All of the traditional grammarians recognize some or other connection between auxiliaries and verbs in Bantu languages.
- They all find it necessary to distinguish the category auxiliaries as being distinct from verbs.
- Some of them also note some properties in auxiliaries that are typically associated with grammaticalization, namely reduction in form and in meaning even though they do not specifically mention grammaticalization as a process.
- The traditionalists seem to regard auxiliaries in Bantu languages as a unitary category, not differentiating any subcategories of auxiliaries.

It is clear then, even from the traditionalists' point of view, that the widely attested fact that auxiliaries derive from verbs in many languages of the world holds also for Bantu languages and therefore also for Zulu. What we need to establish now is the nature of the relationship between verbs and auxiliaries in Zulu since the traditionalists failed to make this relationship explicit. In addition we would hope that by explicating the nature of this relationship between verbs and auxiliaries, we should be able to better understand the categorial status of auxiliaries in Zulu. As we have noted in our survey of traditional Bantu grammarians' views on auxiliaries, some of them noted the reduction in both the form and meaning of auxiliaries when compared to verbs. In our explication of the relationship between auxiliaries and verbs in Zulu we will therefore specifically allude to the formal and semantic characteristics of Zulu auxiliaries vis a vis ordinary verbs.

4.3 Structure and Form of Zulu Auxiliaries

The question that we will be exploring here in this section
concerns the formal relationship between verbs and auxilia-
ries. Once the nature of this relationship has been expli-
cated we believe that we will be in a better position to
explain the categorial status of auxiliaries in Zulu.

Given the assumption that auxiliaries derive from verbs, it
would be proper to explore the formal relationship between
auxiliaries and verbs from the point of view of the formal
structure of verbs.

Verbs function as predicates and as such show certain
peculiar morphological and syntactic properties.   It has
been noted by various authors that auxiliaries share many of
these properties of verbs.   Lightfoot (1974), as quoted by
Marchése (1986: 78), for example notes that, in English,
auxiliaries at a certain stage in their historical develop-
ment exhibit typical verb properties such as "number agree-
ment, occurring next to one another, occurring in gerunds
and infinitives, and acting as all other verbs in regard to
negative placement and inversion."

Marchése (1986: 78) observes that, in Kru languages, auxili-
aries act very much like full verbs even synchronically:

> "First, both auxiliaries and full verbs occupy
> sentence - second position. (Particles occupy the
> same position but bear no similarity to full
> verbs). Second, when object clitics and tense
> suffixes occur, they normally occur on full verbs,
> but if auxiliaries are present, these clitics and
> suffixes are attached to them instead."

The question is now whether Zulu auxiliaries share all the
typical properties of verbs. We would regard the following

as some of the typical morphological and syntactic proper-
ties of main verbs:

(a)   Typical morphological structure of verbs

The typical morphological structure of a verb in Zulu
is: subject agreement + verbal radical + a terminative
vowel.
SP + ya + R + TV

Example:
Indoda i+ya+khulum+a
'The man is talking.'

Note that the long form morpheme -ya- is dropped if the
verb takes an adjunct or a complement.
SP + R + TV + adjunct

Example:
Indoda i+khulum+a isiNgisi
Man he + talk + termination
'The man is talking English.'

(b)   Inflectional properties of verbs

- Typically, inflectional properties such as modal,
aspectual and tense are marked on the verb.

Examples:
Indoda ikhulumile (tense).
man he + talk + perfect
'The man has spoken.'
Indoda isakhuluma (aspect).
Man he + still + talk + terminative vowel
'The man is still talking.'

Verbs can be conjugated into various moods.
The two examples above are both in the indicative mood.

- Typically, verbs are carriers of negation morphology.

Example:
Indoda ayikhulumanga.
Man negative + he + talk + negative morpheme
'The man has not talked.'

(c) Derivational properties of verbs

Verbs take verbal extensions.

Example:
Ngiphuzisa umfowethu umuthi
I drink - cause - for my brother medicine.
'I cause my brother to drink medicine.'

(d) Syntactic properties of verbs

- Transitivity: Verbs can be classified as transitive
and intransitive. An intransitive verb is that verb
which does not need to take a complement. A transitive
verb needs to have a complement or an object. A Zulu
transitive verb takes either a complementary object or
an object concord.

Examples:
Indoda isenga inkomo. (object)
'The man milks a cow.'
Indoda iyayisenga. (object concord)
'The man milks it.'

- Word order
The basic word order position of verbs is verb second.

Examples:

Umama uyapheka.

'Mother cooks.'

Usebenza e Goli.

'He works in Johannesburg.'

With regard to auxiliaries in Zulu, it is interesting to note that some of the properties listed above are also associated with some auxiliaries and some of the properties never obtain in auxiliaries. We can use the verb properties listed above together with the variations of auxiliaries with reference to these properties as a differential to distinguish between classes of auxiliaries. Against this background let us consider the behaviour of the following sets of auxiliaries:

Tense auxiliaries.

-za-	'immediate future'
-ya-	'remote future'
-ba-	'past continuous'

Aspect auxiliaries.

-sa-	'progressive aspect'
-se-	'exclusive'
-nga-	'potential'
-sheshe	'do quickly'
-qede	'do as soon as'
-phinde	'do again'
-buye	'do again'
-fike	'do first; do on arrival'
-vele	'do from the outset'
-qale	'do first'
-dlule	'do nevertheless'
-nele	'do as soon as'
-cishe	'do almost; nearly'

<u>-phike</u>	'do merely'
<u>-mane</u>	'do merely'
<u>-sale</u>	'do afterwards'
<u>-suke</u>	'do merely'
<u>-hambe</u>	'do all the way along'

(a) Typical morphological structure of auxiliaries

What we want to test here is whether auxiliaries behave in the same way as verbs with regard to their structure, that is whether they have the canonical structure SP + R + TV. Consider the following examples:

<u>Indoda izakufika</u>.

Man he comes to arrive.

'The man will arrive.'

<u>Indoda iyakufika</u>.

Man he goes to arrive.

'The man will arrive.'

<u>Umama usahamba</u>.

Mother she still go.

'Mother is still going.'

<u>Umama ubesebenza</u>.

Mother she be (past)-work.

'Mother was working.'

<u>Ungafika</u>.

You-potential-arrive.

'You can come.'

<u>Usefikele</u>.

He positive exclusive arrive (perfect).

'He has arrived.'

<u>Uhlale ekhuluma</u>.

She do always she talk.

'She always talks.'

<u>Ubuye angisize</u>.

He do again he me help.

'He helps me again.'

From the examples above we note that the auxiliaries show the minimal structure of verbs, viz. subject agreement, a root and a terminative vowel.

(b) Inflectional properties of auxiliaries

In our discussion of morphological properties of verbs above we noted that verbs are carriers of modal, aspectual and tense markers on the one hand and carriers of negation morphology on the other hand. Let us now consider auxiliaries in terms of these inflectional properties:

- Carriers of modal, aspectual and tense markers.

Indoda ibisihambile.
Man-he-be (past)-positive exclusive-go+perfect.
'The man has already gone.' (remote past).
Amadoda abesehambile.
Men-they-be-(past) positive exclusive-go (perfect).
'The men had already gone.'
Thina sesizoqala.
We-positive exclusive-we come to start.
'We shall start soon/we are about to start.'
Uthisha uzobesebenza.
Teacher he-future-be-work.
'The teacher will be working.'
Uthisha uyobesebenza.
Teacher-he-future-be-work.
'The teacher will be working.'
Indoda isazokhuluma.
Man he still come to talk.
'The man is still going to talk.'
Ugogo ubesekhulumile.
Grandmother she be (past) positive exclusive talk (perfect).
'Grandmother has already talked.'

Ugogo ubesezokhuluma.

Grandmother she be (past) positive exclusive future talk.

'Grandmother was still going to talk.'

Ugogo usengakhuluma.

Grandmother she positive exclusive potential talk.

'Grandmother can now talk.'

Ubaba useyakhuluma.

Father he positive exclusive talk.

'Father is talking now.'

Sizocishe ukuwuqeda lomsebenzi manhlanje.

We future do nearly to finish this work today.

'We shall nearly finish this work today.'

Intombi yasale yakutshela leyomfihlo.

The girl she remote past do afterwards she remote.

'The girl told you that secret afterwards.'

From the examples above it is clear that most auxiliaries, like verbs, are carriers of modal, aspectual and tense markers. Note that the combination of the auxiliaries -be-, -se-, and -za- and -be-, -se- and -ya- respectively can be used to express certain combined tense and aspect notions. The potential auxiliary -nga- on the other hand cannot be used with any other auxiliaries other than the progressive -sa- and the positive exclusive -se-. This therefore means that constructions like the following are ungrammatical in Zulu:

*Ugogo uzangakhuluma.

'Grandmother she-come-can-talk.'

*Ungahlale ekhuluma. (participial)

'He can always he talks.'

With regards to moods, the contracted auxiliaries take the indicative mood as -za- in the following example:

<u>Uzakufika</u>
He come to arrive.
'He will arrive.'
But not for example the subjuctive
*<u>Uzakufika azekuhlala</u>.
He come to arrive he come to sit.
'He will arrive and he will sit down.'

The other auxiliaries may take various moods.

<u>Examples</u>:
<u>Dlule udle noma ungakuthandi ukudla</u>. (imperative)
Do nevertheless you eat even though you negative like
the food.
'Eat [nevertheless] even though you don't like the
food.'
<u>Ngingabuye ngikusize kusasa</u>. (potential)
I potential do again I you help tomorrow.
'I can help you again tomorrow.'

- Carriers of negation morphology:

<u>Indoda ayizukufika</u>.
Man negative - OC - immediate future negative
arrive.
'The man will not arrive.'
<u>Indoda ayiyukufika</u>.
Man negative - OC - remote future negative arrive.
'The man will not arrive.'
<u>Ningasheshe nilale</u>.
You-negative-do quickly you sleep.
'Don't go to bed early.'
<u>Ningabuye / ningaphinde nikwenze lokho</u>.
You negative do again you do that.
'Don't do that again.'

With reference to auxiliaries being carriers of negation

morphology, it is interesting to note that most auxilieries can assume negative forms as can be observed in the examples above. It is also important to note that not all auxiliaries can be negativized. Consider the examples below:

> *Bangabefundi (< ba be befunda (positive)).
> They-negative-be-study.
> *Inja ayisihambile (< ise ihambile (positive)).
> The dog negative - SC - positive exclusive go
> (perfect).

From the examples above, we note that the auxiliaries -be- and -se- cannot be negativized. With regards to the auxiliary -be- only the verbal complement that is used with this auxiliary takes the negative form.

> Example:
> Babengafundi (< ba be bengafundi).
> They be they not study.
> 'They weren't studying.'

With reference to the auxiliary -se- the negative exclusive -ka- is used whenever a negative form is required. This therefore suggests that -ka- is the negative form of -se- as can be observed in the following examples:

> Inja isihambile (positive). (< ise ihambile).
> The dog it positive exclusive go (perfect)
> 'The dog has already gone.'
> Inja ayikahambi (negative).
> The dog negative - SC - negative exclusive go negative
> TV.
> 'The dog has not yet gone.'

(c) Derivational properties of auxiliaries

In this subsection we shall see whether auxiliaries like verbs take verbal extensions.

> Examples:
> *Dlulisa udle ukudla.
> 'Nevertheless-cause-for (you) eat food'
> *Uzisa kufika.
> 'He come - cause - for to arrive.'

From the above examples we note that all auxiliaries cannot take extensions.

(d) Syntactic properties of auxiliaries

- Transivity:

Here we want to see whether auxiliaries can take objects as most transitive verbs do.

> Examples:
> *Ubaba uyisazokushaya.
> 'Father he-it-still-will-hit.'
> *Ubaba uyisathanda.
> 'Father he-it-still-like.'
> *Uyicishe ayishaye.
> 'He nearly-it he hit it'

No auxiliary can be associated with objects even though they may derive from transitive verbs. Given the assumption that most transitive verbs take objects or object concords, we would expect that auxiliaries like cishe, which derives from a transitive verb, would take an object, yet it does not.

- Word order:

The basic word order position of auxiliaries is auxiliary second. Consider the following examples:

Usheshe afike.
He do quickly he arrive.
'He arrives quickly.'
Uzakufika.
'He will arrive.'

From the above examples, it is clear that auxiliaries in Zulu are like verbs to some extent in that they share (though not all of them to the same extent) certain properties with verbs. The degree of differences between verbs and auxiliaries compel us to differentiate categorially between verbs and auxiliaries. The examples above, however, also show that, even if we do recognize a category auxiliary which is distinct from the category verb, this category in itself cannot be a unitary category.

The differences between the elements that would be assigned to the category auxiliary are so great that we might just as well distinguish various subcategories or perhaps even completely distinct categories of auxiliaries.

The dissimilarities between the elements that make up the category auxiliary were noted by the traditional grammarians. One may in fact claim that the use of different terms such as auxiliary verbs, auxiliaries, and deficient verbs show a terminological strategy employed by the traditionalists to reflect the differences between the various elements in this category.

The problem relating to the relationship between verbs and auxiliaries, on the one hand, and to the dissimilarities between the elements in the category auxiliary in Zulu is, however, more fundamental. Traditional word categories like verb and auxiliary are typical classical categories in the

sense outlined in Chapter 2.   That is, the members of such
categories:

- have equal status (no members are more or lesser
  members).
- all members equally share the same set of necessary
  and sufficient defining properties.
- membership of a category is therefore an all or
  nothing categorial decision.

Within such a conception of categories the formal relation-
ship between verbs and auxiliaries in Zulu as well as the
formal differences between auxiliaries as such cannot be
adequately handled. That is, auxiliaries in Zulu relate to
and derive from verb counterparts. Yet, with regard to the
list of typical verb properties considered earlier, they are
not full verbs.

Hence, in the context of a classical view of categories,
auxiliaries cannot be considered to be members of the
category verb. Similarly, auxiliaries show variation among
themselves with regard to certain formal properties such as
subject agreement, independent root, and terminative vowel.
In a classical approach to categorization we will therefore
have to distinguish between subcategories of auxiliaries in
Zulu. Such subcategories, however, would not reflect the
nature of the relationships between verbs and auxiliaries
and between auxiliaries as such.

As we pointed out in Chapter 2 there is an alternative view
of categorization that can indeed accommodate the facts that
we have noted with respect to auxiliaries in Zulu, namely
the prototype theory of categorization. Categories within
this theory exhibit the following properties:

- members of a prototype category do not have equal
  status (some are better members than others).

- members of a prototype category do share certain defining properties but they do not share all the properties; that is there are unique properties that make certain members of the category different from the others.
- membership of such a category is therefore graded. Some members of the category share properties of other categories. This type of categorization covers the notion of fuzziness in categorization.

Given this view of a category we can now reinterpret the relationship between verbs and auxiliaries and the dissimilarities between auxiliaries themselves in the following manner. Verbs and auxiliaries occur on a continuum where the one extreme pole represents prototypical verbs (sharing all the typical formal properties of verbs) and the other extreme pole represents prototypical auxiliary formatives (where most if not all typical verb properties have been lost). Consider the continuum below:

VERBS (INDEPENDENT SYNTACTIC CATEGORY)	DEFICIENT VERBS	AUXILIARY VERBS	CONTRACTED AUXILIARIES	AUXILIARY PARTICLES (DEPENDENT FORMATIVE)
-za 'come'	———	-za- 'im. future'	-zo- 'in future'	-sa- 'progressive'
-ya 'go'	———	-ya- 'rem future'	-yo- 'r. future'	-se- 'positive exclusive'
-ba 'be'	———	———	-b- 'past cont.'	-nga- 'potential'
-sala 'stay behind'	-sale 'do afterwards'		-be-	-ka- 'negative exclusive'
-qala 'begin'	-qale 'do first'	-de- 'do from time to time'		
-qeda 'finish'	-qede 'do as soon as'			
-shesha 'hurry'	-sheshe 'do quickly'	-hle 'just do, do merely'		
-phinda 'repeat'	-phinde 'do again'	-ive 'do very much well'		
-buya 'return'	-phinde 'do again'	-ke 'do ever'		
-fika 'arrive'	-fike 'do first, do on arrival'	-ngahle 'may, might do'		
-vela 'appear, come from'	-vele 'do from the outset'	-ngake 'just do'		
-dlula 'pass, surpass'	-dlule 'do nevertheless'	-ngamane 'would rather do'		
anela 'be sufficient'	-nele 'do as soon as'	-ngase 'may, might do'		
-cisha 'extinguish'	-cishe 'do almost, nearly'	-ngeke 'won't do'		
-phika 'refuse, deny'	-phike 'just do, merely'	-sengathi 'I wish that'		
-mana 'stop, halt'	-mane 'just do, merely'	-simze 'just do, do merely'		
-suka 'move away'	-suke 'just do, merely'			
-hamba 'go'	-hambe 'do all the way long'			

This continuum gives a far better picture of the relationships between the members of the categories verb and auxiliary than the classical view. It also reflects very explicitly the hypothesis that auxiliaries derive from verbs and the nature of this derivation.

In the next section we will consider the semantic relationship between verbs and auxiliaries in Zulu.

4.4 Semantic significance of Zulu auxiliaries

The question that we shall explore in this section concerns the semantic relationship between the categories verb and auxiliary. We have already assumed that auxiliaries derive from verbs. If it is so one would expect that auxiliaries retain some of the meaning of the verbs. But this is not always the case as we noted in our previous discussion that the process of grammaticalization has formal and semantic effects on verbs when they undergo the process of grammaticalization. Some of these auxiliaries retain a lexical meaning that they contribute to the meaning of the predicate. Some of them have lost their lexical meaning altogether and now have only grammatical significance. There are degrees of deviation from a semantic source. Now let us consider this various auxiliaries against this background.

Auxliiaries with similarity in form and meaning to full verbs:

-sheshe 'do quickly' (< V: -shesha 'hurry')

Examples:

Verb meaning:

Shesha uze kimi!
'Hurry and come to me.'

Ngizoshesha ngibuye ekhaya.
'I'll hurry and come back home.'

Auxiliary meaning:

Uthisha usheshe athukuthele.
'The teacher gets angry quickly.'
Nisheshe niwuqede lomsebenzi.
'Finish this work quickly.'

From the examples above, one sees that there is no great deviation of meaning from the original verbal source. Shesha 'hurry' as a verb has a restricted semantic domain. That is, it is a verb of motion which refers only to the quickness of pedal movement. The auxiliary -sheshe 'do quickly' on the other hand, has a wide range of application. It qualifies the speec of actions of any sort. Although the verbal meaning and the meaning of the auxiliary verb -sheshe are similar, there is, however, a slight deviation in the meaning of the auxiliary compared to that of the source verb.

-buye 'do again' (< V: -buya 'return')

Verb meaning:

Uzobuya kusasa.
'He will return tomorrow.'
UZodwa usazobuya nje?
'Will Zodwa still return?'

Auxiliary meaning:

Ubuye usifunde lesisifundo.
'Study this lesson again.'
Ubobuye usivakashele.
'You must visit us again.'

Ngifuna ukubuye ngikubone.
'I want to see you again'.

The verb -buya 'return' literally means a return which implies a movement from point A to point B and from point B back to point A. This notion of returning to the same point is transferred to the auxiliary -buye to mean 'do again' or repetition of the same action. Hence, there is a very slight semantic deviation from the lexical source. Note that the verb -phinda 'repeat' and its auxiliary counterpart -phinde, 'do again' are used interchangeably with -buye 'do again'in the same context.

-fike 'do first' (< V: -fika 'arrive')

Verb meaning:

Izivakashi zizofika ngoMqqibelo.
'The visitors will arrive on Saturday.'
'Ningitshele uma sebefikile.
'Tell me when they have arrived.'

Auxiliary meaning:

Lendaba sizofike siyifunde besesixoxa ngayo.
'We will first read about this matter, and then chat about it.'

There is a slight deviation of meaning from the full verb -fika 'arrive' to its auxiliary counterpart -fike 'do first or do on arrival'. The auxiliary verb -fike 'do first' is similar to the full verb -fika in the way it is used in the examples above.

-dlule 'nevertheless do' (< V: -dlula 'pass or surpass')

Verb meaning:

Le moto izodlula lapha kusasa.
'This car will pass here tomorrow'
Ubaba udlula lapha njalo.
'Father always passes here.'

Auxiliary meaning:

Umfana udlule afunde noma egula.
'The boy [nevertheless] studies even though he is ill.'
Noma eshayiwe umntwana udlule angakhali.
'Even if it is beaten, the child [nevertheless] doesn't cry'.

There is a semantic deviation of the auxiliary verb -_dlule_ 'do nevertheless' from its lexical source -_dlula_ 'pass or surpass'. The verb -_dlula_ means surpass or pass, that is, two subjects perform the same type of action. The one's performance of the action supercedes the other's performance. It is this notion of passing that is invoked in the auxiliary verb -_dlule_ ' do nevertheless.'

-_qale_ 'do first' (< V: -_qala_ 'begin'

Verb meaning:

Sesizoqala manje ngohlelo lwethu.
'We shall now start with our programme.'
Uzoqala nini umsebenzi?
'When will you start working?'

Auxiliary meaning:

Uqale athandaze bese edla.
'He first prays and then eats.'
Zodwa, qale uzopheka bese uyodlala.
'Zodwa, first come and cook and then go and play.'

The verb -gala literally means to start or begin an action.
The notion of inception/beginning is transferred to the
auxiliary, yielding the significance of ordering of events,
viz., first. Hence, there is no great semantic deviation
of the auxiliary verb from its lexical source.

Auxiliaries with similarity in form but with greater
semantic deviation from their lexical source.

-nele 'do as soon as' (< V: anela 'be sufficient')

Verb meaning:

Ngizokwanela ngalokukudla.
'I'll be satisfied with this food.'

Auxiliary meaning:

Nginele ngifike ekhaya ngidle.
'As soon as I arrive home I eat.'
Umfana abonele aqede ukudla afunde.
'The boy must study as soon as he finishes eating.'

From the examples above, one notes that there is no one-to-
one correspondence between the meaning of the verb -anela
and the auxiliary -nele. Anela literally means be suffi-
cient and -nele on the other hand means 'do as soon as'.
Even though the form of the auxiliary can still be linked to
its lexical source, its meaning on the other hand seems to
have been reduced to a point of no linkage.

-vele 'do from the outset' (< V: -vela 'appear or come
from')

Verb meaning:

Uvelaphi?
'Where do you come from?'

Ilanga livela liphinde linyamalale.
'The sun appears and later disappears.'

Auxiliary meaning:

Uvele akhulume isiZulu.
'He just speaks Zulu from the outset.'
Zavele zasho ukuthi uyisela.
'They said from the outset that he is a thief.'

From the examples given above, one may see that there is correlation between the meaning of the verb and the meaning of the auxiliary. The form of the verb is also retained in the auxiliary.

-**sale** 'do afterwards; (< V: -**sala** 'stay behind')

Verb meaning:

Sizosala sipheke.
'We shall stay behind and cook.'
Salani kahle.
'Stay well behind.'

Auxiliary meaning:

Intombi izosale ikutshele leyomfihlo
'The girl will afterwards tell you that secret.'
Basale baxabana.
'Afterwards they quarrelled.'

The auxiliary -**sale** ' do afterwards' has semantic correlation with its lexical source -**sala** 'stay behind'. **Sala** in its literal sense means staying behind with an intention of doing some other things afterwards. It is therefore this semantic significance that is invoked in the auxiliary -**sale** 'do afterwards'.

-shaya 'do completely' (< V: -shaya 'hit')

Verb meaning:

Uthisha ushaya izingane.
'The teacher hits the pupils.'

Auxiliary meaning:

Amahhashi abushaye abuqothula utshani.
'The horses finished off all the grass.'

From the two examples above we note how great the difference between the verb shaya and its auxiliary counter part is. However, the form is still retained in the auxiliary. Note that the auxiliary shaye is idiomatically used with only very few verbs such as -chitha 'throw away; spill'; -qothula 'destroy completely, wipe out'; -phephetha 'clear off; wipe out', etc. which no longer have their normal meaning. For example -chitha means 'throw away' but when used with -shaye it loses its meaning and assumes an idiomatic meaning.

e.g. Ngizoshaye ngichithe.
'I will go for good.'

Auxiliaries with no semantic traces from their lexical sources:

-za- 'immediate future' (< V: -za 'come')
Ngiyeza.
'I'm coming.'
Ngizoza ngemoto.
'I'll come by car.'
Uzakufika.
'He'll arrive.'

The verb -za- 'come' in the above sentences is a motion verb, that is, motion in a specific direction (towards speaker). On the other hand -za-, as an auxiliary verb, means or expresses the future.

-ya- 'remote future' (< V: -ya 'go')
Baya eGoli.
'They are going to Johannesburg.'
Bayakufika.
'They will arrive.'

The semantic relationship between the verb -ya- 'go' and the auxiliary verb -ya- 'remote future' is very indirect just like that of -za- 'immediate future' and -za 'come'.

The only difference is that -ya- 'go' is a verb of motion to an unspecified direction (moving from the speaker). The unspecified nature of this motion, we believe, is invoked in the auxiliary verb to explain the notion of indefiniteness.

-be- 'past continuous' (< V: -ba 'be', 'become').
Uzoba nguthisha.
'He'll become a teacher.'
Bebengafundi (< babe bengafundi)
'They be-past-they not study.'
'They weren't studying.'

The verb -ba 'be' and its auxiliary counterpart -be- 'past continuous' show no semantic relationship.

Auxiliaries that do not have lexical verb counterparts

Not all auxiliary verbs can formally or semantically be linked to their lexical sources. There is a group of auxiliaries which do not show any relationship both in form and in meaning to any verbal source. Their etymology is therefore highly obscure. The following is a list of such

auxiliaries used in sentences:

-nga 'potential'
Ugogo angalala manje.
'Grandmother can now sleep.'

-de 'do from time to time'
Ingane ide ikhala.
'The child keeps on crying.'

-hle 'do just, merely'
Umfana uhle uyadlala nje, akafundi.
'The boy is just playing, he is not studying.'

-ive 'do very much, well'
Alive lina izulu.
'It is raining cats and dogs.
Izolo besingeve sifunda.
'Yesterday we were studying very hard.'

-ke 'do a little, do ever'
Uke waya phesheya?
'Have you ever been to overseas?'

-ngahle 'may, might do'
Bengingahle ngimsize ukuba benginemali.
'I might have helped him if I had had money.'

-ngake 'just do'
Ungake uhlale phansi.
'Just sit down please.'

-ngamane 'would rather do'
Uthisha wayengamane angishaye kunokuba ngikhulume
amanga.
'The teacher would rather beat me than have me tell
lies.'

-ngase 'may, might do'
Ubaba kungase kube uyalima namhlanje.
'Father could be ploughing today.'

-ngeke 'won't do, can't do'
Ngeke ngiye edolobheni namhlanje.
I' won't go to town today.'

Sengathi 'I wish that, would that'
Ngifisa sengathi angafa.
'I wish that he may die.'

-Simze 'do just, merely'
Uthisha uzosimze akushaye uma ukhuluma kanjalo.
'The teacher will just beat you if you talk like that.

From the above examples, one may note that the grammaticalization of auxiliaries in Zulu involves both a reduction in form and in meaning. This reduction involves various degrees of deviation from the source lexical verbs. These degrees of shift in meaning of the auxiliaries and verbs fit very well with our notion of continuum discussed in the previous sections. Consider the contrastive analysis of the following continuums:

FORMAL CONTINUUM:

INDEPENDENT SYNTACTIC CATEGORY — VERBS	DEFICIENT VERBS	AUXILIARY VERBS	CONTRACTED AUXILIARIES	AUXILIARY PARTICLES — DEPENDENT FORMATIVE
-za 'come'	———	-za 'im. future'	-zo- 'in future'	-sa- 'progressive'
-ya 'go'	———	-ya 'rem future'	-yo- 'r. future'	-se- 'positive exclusive'
-ba 'be'	———	———	-b- 'past cont.'	-nga- 'potential'
-sala 'stay behind'	-sale 'do afterwards'		-be-	-ka- 'negative exclusive'
-qala 'begin'	-qale 'do first'	-de- 'do from time to time'		
-qeda 'finish'	-qede 'do as soon as'			
-shesha 'hurry'	-sheshe 'do quickly'	-hle 'just do, do merely'		
-phinda 'repeat'	-phinde 'do again'	-ive 'do very much well'		
-buya 'return'	-phinde 'do again'	-ke 'do ever'		
-fika 'arrive'	-fike 'do first, do on arrival'	-ngahle 'may, might do'		
-vela 'appear, come from'	-vele 'do from the outset'	-ngake 'just do'		
-dlula 'pass, surpass'	-dlule 'do nevertheless'	-ngamane 'would rather do'		
anela 'be sufficient'	-nele 'do as soon as'	-ngase 'may, might do'		
-cisha 'extinguish'	-cishe 'do almost, nearly'	-ngeke 'won't do'		
-phika 'refuse, deny'	-phike 'just do, merely'	-sengathi 'I wish that'		
-mana 'stop, halt'	-mane 'just do, merely'	-simze 'just do, do merely'		
-suka 'move away'	-suke 'just do, merely'			
-hamba 'go'	-hambe 'do all the way long'			

SEMANTIC CONTINUUM:

VERBS / INDEPENDENT LEXICAL FORM	DEFICIENT VERBS	AUXILIARY VERBS	CONTRACTED AUXILIARIES	AUXILIARY PARTICLES / DEPENDENT GRAMMATICAL FORM
-za 'come'	———	-za- 'im. future'	-zo- 'in future'	
-ya 'go'	———	-ya- 'rem future'	-yo- 'r. future'	
-ba 'be'			-b- 'past cont.'	
-sala 'stay behind'	-sale 'do afterwards'	———	-be-	-sa- 'progressive'
				-se- 'positive exclusive'
-qala 'begin'	-qale 'do first'			-nga- 'potential'
-qeda 'finish'	-qede 'do as soon as'	-de- 'do from time to time'		-ka- 'negative exclusive'
-shesha 'hurry'	-sheshe 'do quickly'	-hle 'just do, do merely'		
-phinda 'repeat'	-phinde 'do again'	-ive 'do very much well'		
-buya 'return'	-phinde 'do again'	-ke 'do ever'		
-fika 'arrive'	-fike 'do first, do on arrival'	-ngahle 'may, might do'		
-vela 'appear, come from'	-vele 'do from the outset'	-ngake 'just do'		
-dlula 'pass, surpass'	-dlule 'do nevertheless'	-ngamane 'would rather do'		
anela 'be sufficient'	-nele 'do as soon as'	-ngase 'may, might do'		
-cisha 'extinguish'	-cishe 'do almost, nearly'	-ngeke 'won't do'		
-phika 'refuse, deny'	-phike 'just do, merely'	-sengathi 'I wish that'		
-mana 'stop, halt'	-mane 'just do, merely'	-simze 'just do, do merely'		
-suka 'move away'	-suke 'just do, merely'			
-hamba 'go'	-hambe 'do all the way long'			

The two continuums shown above represent a clear picture of the nature of change in both the form and meaning the auxiliaries undergo in the process of grammaticalization. The spreading out of the auxiliaries on different points of the continuum marks the gradual process of grammaticalization and the fact that the category auxiliary within itself has various degrees of auxiliaries. The further from the lexical source the element occurs, the more reduced in form and meaning it becomes and more auxiliary like it becomes. The nearer to the lexical source the element is, the less the change in form and in meaning and the less the auxiliary-like it is.

Recall that in Chapter 2 we proposed terms that can explicate the formal and semantic reduction of auxiliaries and the relationship between the auxiliaries and their verbal correlates, namely buds and orphans.

These terms help us to explicate the relationship that exists between the auxiliaries and their lexical sources and further assist us to account for those forms of auxiliaries that seem not to have verbal correlates. For example, those auxiliaries which, after the process of grammaticalization, still have a direct relationship in form and meaning with their source lexical item are buds. There is still an etymological trace both in form and meaning of their source. This category of buds mostly includes the deficient verbs and few auxiliary verbs like -ya-, -za- and -be-.

The other example of auxiliary verbs is that which involves a complete loss of the relationship with a source lexical item. These we termed orphans. They are orphans in the sense that they do not seem to relate to any existing verb. Their etymological reconstruction could only be speculative. Note that orphans can at times be construed as buds, that is, the distinction between budding and orphaning hinges on the depth of one's reconstruction given the availability of

relevant data. This therefore means that the category auxiliary as part of the category verb, comprises buds and orphans as its subcategories.

4.5 The nature of the grammaticalization of Zulu auxiliaries

In Chapter 2 grammaticalization was characterized both in formal and in semantic terms. With regard to its formal nature we have noted that grammaticalization involves the reduction of syntactic and morphological properties of elements which originate from a certain lexical category. In Addition the elements themselves may undergo reduction in form. In our discussion of the form and structure of Zulu auxiliaries we have indeed noted that both these characteristics of grammaticalization apply to Zulu auxiliaries, namely the reduction of syntactic and morphological properties of true verbs when they become auxiliaries as well as the reduction in form that some verbs may undergo as auxiliaries. Consider for example the verbs -sala 'stay behind', -za 'come' and -ya 'go' which may be reduced to -sa- 'progressive', -se 'positive exclusive', z- 'immediate future', y- 'remote future' as auxiliaries.

With regard to the semantic nature of grammaticalization we also noted that it also involves the reduction of semantic properties of certain auxiliary elements which originate from the lexical verb. In our discussion of the reduction of the semantic properties of auxiliaries we noted that some auxiliaries retain the semantic properties of their source verbs. On the other hand some auxiliaries completely lose their semantic relation with their lexical source. In the latter case, reconstruction of such relationship becomes highly problematic.

Consider for example the verbs -qala 'begin', -buya 'return', -shesha 'hurry', which become -qale ' do first',

-buye 'do again' and -sheshe 'do quickly' as auxiliaries. There is no semantic deviation of these auxiliaries from their lexical sources.

Auxiliaries like the following on the other hand, -de, 'do from time to time' -ke 'do a little; do ever', -ive 'do very much, very well', -ngahle 'may, might do' represent those auxiliaries which are completely reduced semantically. There is no link whatsoever in meaning with their verbal sources. It is also difficult to say exactly what the verbal origins of these auxiliaries are.

4.6 Conclusion

It is clear then that Zulu auxiliaries exhibit various degrees of grammaticalization both as regards form and semantics. In this sense the category auxiliary is not a prototypical word category or syntactic category in Zulu. Rather it is a derivative category in a parasitic relation with the prototypical category verb, the relation being based on the productive process of grammaticalization.

In the next chapter the motivation for the derivative relationship between auxiliaries and verbs as well as the selection of specific verbs which become auxiliaries will be explored.

CHAPTER FIVE

THE METAPHORICAL SIGNIFICANCE OF TENSE AND ASPECT AUXILIARIES IN ZULU

5.1 Introduction

In Chapter 3 we explored a theoretical framework in terms of which the significance of tense and aspect auxiliaries in general could be interpreted. This framework invokes the notion of the metaphor TIME = SPACE where the abstract notion time is construed in terms of the more concrete notion space. It was claimed in that chapter that the significance of both the temporal auxiliary categories tense and aspect fundamentally involves this metaphor (though differently), viz. TIME = SPACE.

The grammatical notion time line which is often used by linguists to explicate the significances of the various tenses and aspects, is more significant. This time line, we claimed in Chapter 3, reflects the construal of temporality in terms of spatiality. It is therefore not surprising that the various tense and aspectual significances of a language may be explicated in topological schemas since the latter involves spatial arrangement of points on a line.

The differences in the construal of the metaphor TIME = SPACE in tense and aspect have been noted in Chapter 3. With respect to tense, it has been noted that the time line is an unbroken line and there is no internal structural division except for a specific reference point. Aspect, on the other hand, involves a structuring of the time line in terms of dimension and boundedness.

It is against this theoretical background that we shall now explain the metaphorical significances of tense and aspect

auxiliaries in Zulu.   These metaphorical significances, we would like to claim, could explain the semantic motivation for the derivation of Zulu auxiliaries from verbs.   In addition, the selection of specific verbs as sources for the derivation of auxiliaries could be explained. The object- ives of this chapter are therefore twofold, namely the explication of:

- the motivation for the derivative   relationship between auxiliaries and verbs.
- the selection of   specific verbs which   become auxiliaries.

5.2   The metaphorical interpretation of Zulu tense and aspect auxiliaries

Most of the tense and the aspectual auxiliaries originate from motion verbs. Such is the case for those auxiliaries which are buds and for which a corresponding verbal source can still be traced. The fact that the source verbs are mainly motion verbs is rather significant in the light of the metaphorical framework of TIME = SPACE. Recall our reference in Chapter 3 to Lyons's (1977) explanation of the motivation of spatial notions as functioning as a conceptual source for temporal notions. Thus, spatial expressions involving more concrete notions are often exploited in language to express temporal notions as well.

The functioning of motion verbs with their significance of motion through space in auxiliary expressions of tense and aspect fit very well with the localist theory characterized by Lyons. Since tense and aspect represent slightly differ- ent values of the underlying metaphor TIME = SPACE, we need to explore tense and aspect auxiliaries separately. We shall first look at Zulu tense auxiliaries.

5.2.1 Zulu tense auxiliaries

There are only a few tense auxiliaries in Zulu and then not all the tenses are explicitly marked by auxiliary forms. The auxiliaries that we shall be considering here are the following:

The future tense auxiliaries and the past continuous tense auxiliary.

Future tense auxiliaries:
-za- 'immediate future'   (< V: -za 'come').
-ya- 'remote future'   (< V: -ya 'go').

Past continuous tense auxiliary:
-be- 'was, will be ... ing'   (< V: -ba 'be', 'become').
      'had, will have ... en'

There are other tense markers in Zulu such as the suffix -ile/-e (perfect tense) and the prefix a- (remote past). Since the origin of these forms are not clear, we shall not consider them here.

The metaphor TIME = SPACE underlying tense auxiliaries in Zulu can be topologically represented as a time line with a specific reference point. Consider the time line below:

time line:
past	present	future
E_1	E_2	E_3

Where U = time of utterance, E_1 = past event, E_2 = present event and E_3 = future event.

The time line above should be interpreted as follows:
The reference point is the time of the relevant utterance of the speaker. It serves as the reference point in terms of which the values 'past', 'present', 'future' are interpreted. Thus, 'past' refers to an event that occurred before the time of utterance, 'present' refers to an event that takes place at the time of utterance, and 'future' refers to an event that will occur after the time of utterance. If we regard the time line as some kind of progression in a certain direction, then we may interpret the various values on the time line as follows: 'past' is at the back or behind the speaker, 'present' occupies the same space as the speaker, and 'future' as in front of the speaker. We shall shortly show that the latter interpretation of the time line is rather significant for the interpretation of the tense auxiliaries in Zulu.

Future tense auxiliaries:

The temporal auxiliaries _-za-_ 'immediate future' and _-ya-_ 'remote future' derive from the motion verbs _-za-_ 'come' and _-ya-_ 'go' respectively. In these two motion verbs direction of motion relative to the speaker is metaphorically construed in such a way that different significances of futurity are expressed. Consider the following examples and their representation on the time line:

<u>Definite future:</u>

<u>Abantu bazakufika kusasa</u>
'The people they-come-to-arrive tomorrow.'
'The people will arrive tomorrow.'

Indefinite future:

Abantu bayakufika (ngonyaka ozayo/* kusasa')
'The people they-go-to-arrive tomorrow.'
'The people will arrive next year/tomorrow.'

Note: In the case of -ya 'go' the temporal adverb must
refer to some remote time in the future, that is,
the future of the future. Hence, the temporal
adverb ngonyaka ozayo 'next year' is acceptable, but
the temporal adverb kusasa 'tomorrow' is unaccept-
able in the sentence above.

-za- 'immediate future'

```
                         U
                         |
                         |
                         |
                                          E = Bazakufika
                                             'they will arrive'
                         |
time line:  ─────────────▼────────────●<
                      Present         Future
```
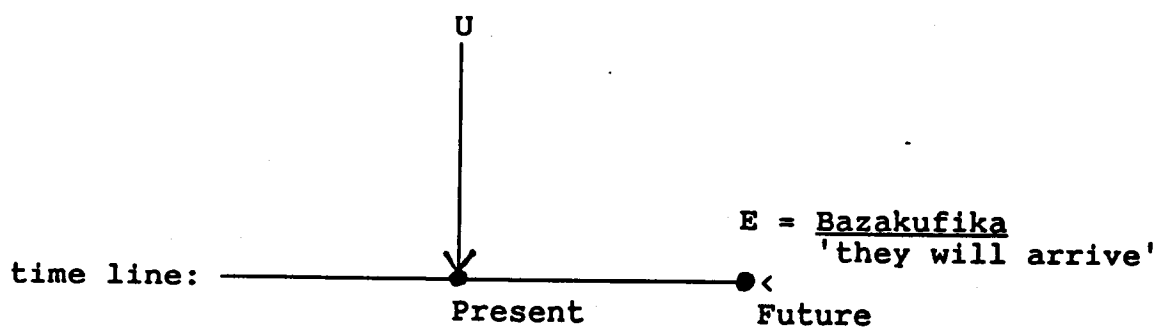
Note that the time line above points from E towards the time
of utterance. This reflects motion of a future event
towards the speaker the significance of which is 'control or
certainty of speaker as regards the realization of the
future event.' In grammatical terms this significance is
encapsulated in the term definite future for the future
tense expressed by the auxiliary -za-. Of particular
significance here is the fact that the spatial motion verb
-za 'come' is used and that the direction of the motion
expressed by the motion verb -za 'come' is directly meta-
phorically reinterpreted as definite future.

-ya- 'remote future'

```
                          U
                          |
                          |
                          |                    E = Bayakufika
                          |                        'they will arrive'
                          |
time line: ───────────────▼────────────────┐ >  ─ ─ ─ ─ ─ ─ ─
                      Present               Future
```
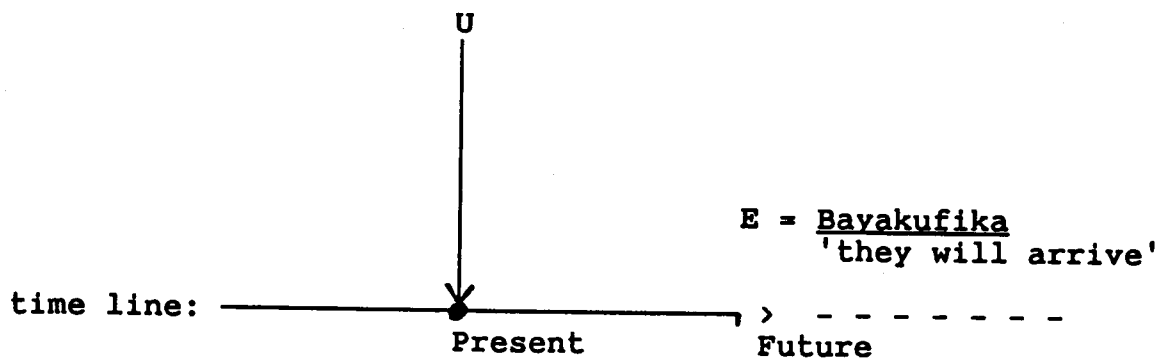
Note that the time line above points away from the time of utterance. This reflects motion of a future event away from the speaker the significance of which is 'uncertainty of speaker as regards the realization of the future event.' In grammatical terms this significance is encapsulated in the term indefinite future for the future tense expressed by the auxiliary -ya-. Of particular significance here is the fact that the spatial motion verb -ya- is used and that the direction of the motion expressed by the motion verb -ya- is directly metaphorically reinterpreted as indefinite future.

Past continuous tense auxiliary:

-be 'past continuous tense'

The temporal auxiliary -be- derives from the existential verb -ba- 'be', 'become'. Now the question is if -ba- is not a motion verb, how could it function metaphorically on the time line? I assert that the existential significance of the verb is exactly that significance that is invoked to identify a certain existential space on the time line relative to which an event is ordered.

Consider the following examples and their representation on the time line:

Izolo abafana bebefunda.   (< ba be befunda.)
'Yesterday the boys (they) be - they - study' (continuous)
'Yesterday the boys were studying.'

Abantu bebelima.   (< ba be belima.)
'The people (they) be - they - plough' (continuous)
'The people were ploughing.'

Note: The concord of the auxiliary _-be_ is deleted in Zulu
           and the auxiliary contracts with the participial
           predicate.

_-be-_ 'past continuous tense'   (< V : _-ba-_ 'be', 'become.')

Time line:

                        Past   Present
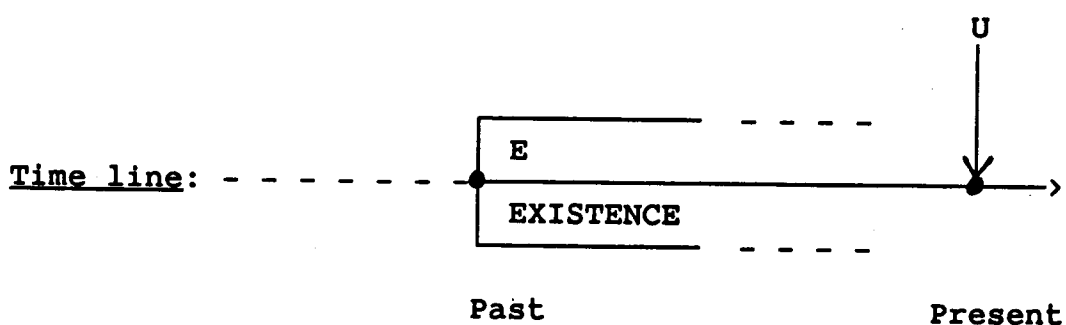
The existential significance of the verb _-ba_ 'be' is meta-
phorically reinterpreted by the auxiliary verb _-be-_ as
continuity through time creating an existential space with
which the participial complement is associated, thereby
deriving the continuous tense.   The inception of existence
is a point on the time line prior to the time of utterance.
Hence, the past significance of the past continuous tense.
Thus, the auxiliary verb _-be-_ identifies both the point of
inception as well as the temporal progression on the time
line in terms of which the continuity of an event over time
is construed.   In a sense the auxiliary _-be-_ functions here
more like an aspectual marker rather than a tense marker in
that it establishes a boundary as well as a dimension of an
event.

5.2.2   Zulu aspectual auxiliaries

Recall that aspectual auxiliaries involve some or other
significance of dimension and boundedness associated with an

event. Thus, the time line as a topological representation of the metaphor TIME = SPACE does not involve an external reference point similar to tense auxiliaries. Hence, the notion of directionality and perhaps even motion through space may not be of any relevance here. The time line would therefore invoke rather different topological symbols such as boundaries and also symbols signaling dimensional properties. Thus, the aspectual significance associated with a specific event can be illustrated in the following general topological representation:

Event line: b_1 ... E ... b_2 → ($b_1 \in I$; $b_2 \in I$)
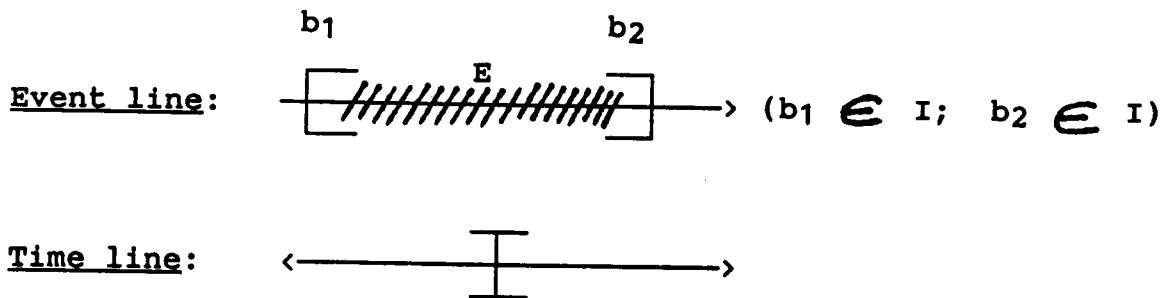
Time line: ← ┬ →

The aspectual significance associated with the event is represented on the time line by means of bounded space, the boundaries of which are represented by b_1 and b_2 in the diagram above. Where two boundaries have a common border, they must be considered as a single boundary unit. That is, if such a unit occurs on the left side of the event line it must be interpreted as open and closed boundaries to the left. Such a unit on the right side of the event line must be interpreted as closed and open boundaries to the right. For the purpose of these schemas below we will not use the boundary labels any further. The arrow on the event line is significant in the sense that the arrangement of the boundaries as open or as closed is determined by the direction of the line. The event in each case is represented by E and the interval, that is, the period or dimension of the event is represented by I. Instead of I, we will use a dot further on in the text. The time line has arrows pointing both ways signaling a period of time in which the direction

is immaterial for the interpretation of the relevant aspect.

Aspectual auxiliary significances are quite extensive compared to the tense auxiliaries. We shall not attempt to cover these auxiliaries exhaustively in this thesis. Rather, we will merely attempt to explore a representative set of auxiliaries in order to show how Zulu aspectual auxiliaries reinterpret their corresponding verbal significances in terms of the metaphor TIME = SPACE in the domain of aspect.

1.   Aspectual auxiliaries dealing with duration of event

    -sa- 'progressive' (< V: -sala 'remain')

    Example:

    Ngisakhuluma.
    'I remain speak.'
    'I am still speaking.'

Note that the aspectual auxiliary -sa- takes on a reduced form of the verb -sala 'remain'.

    Topological representation:

E = ngisakhuluma

Event line:
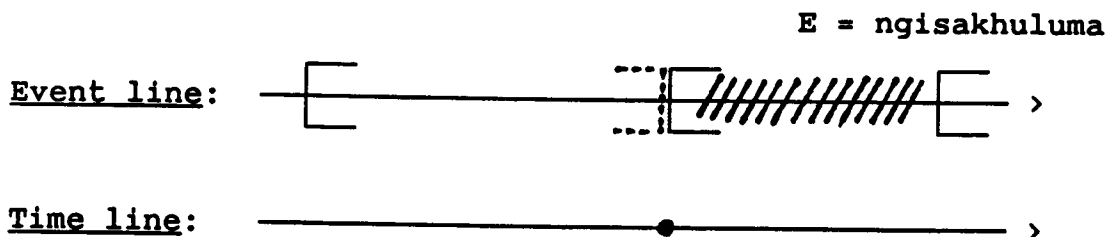
Time line:

This topological schema should be interpreted as follows: the dotted boundary closed to the right is an expectation boundary, that is, a boundary at which an event is expected to terminate. The point on the time line represents the

inception point of the continuation of the event.

It may seem strange to consider _-sala_ 'remain' as an instance of a motion verb. Yet, it is exactly the significance of not partaking in the implied motion (that is, somebody left a certain locality but x remains behind) that is alluded to in the auxiliary. Thus, the idea of remaining or being stationary is metaphorically reinterpreted as persistence associated with an event.

2. Aspectual auxiliaries dealing with the speed of event

- **sheshe** 'do quickly' (< V : _-shesha_ 'hurry').

Examples:

Ukudla kwasheshe kwaba muncu.
'The food got sour quickly.'

Uthisha usheshe athukuthele.
'The teacher gets angry quickly.'

Topological representation:
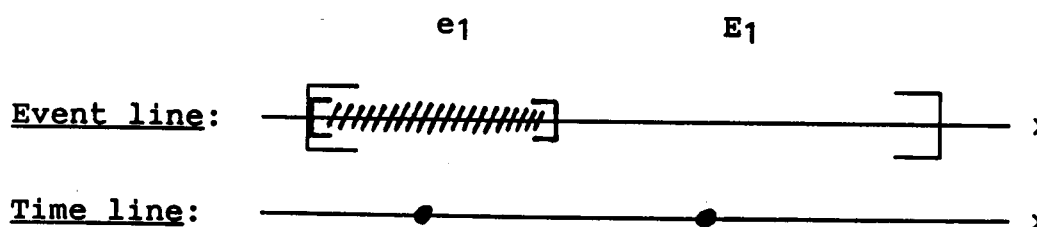
The topological schema above should be interpreted as follows: E_1 represents the standard time within which an event is expected to take place but instead the event is compressed into a shorter period of time, which is represented by e_1. There is a comparison of some sort here. The shaded area on the event line represents e_1 which is the

event compressed into a relatively shorter period of time. The two dots on the time line correspond to the two events on the event line.

It is the significance of the compressed event that is alluded to in the auxiliary.

-dlule 'do nevertheless' (< V: -dlula 'pass, surpass')

Examples:

Umfana udlule afunde noma egula.
'The boy [nevertheless] studies even though he is ill.'

Udlule wangisiza noma ebekhathele.
'He helped me even though he was tired.'

Topological representation:
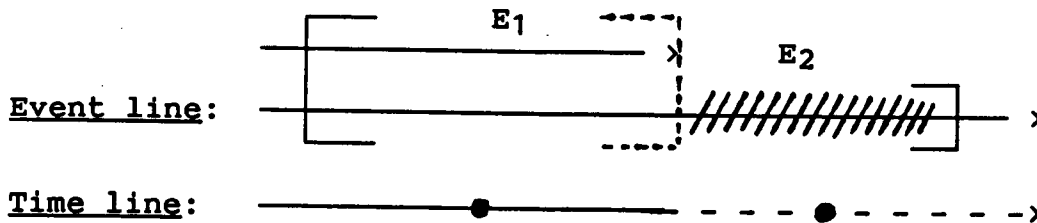
The topological schema above should be interpreted as follows: on the event line, we have two events represented by two parallel lines. The two events have a common expectation boundary closed to the right. According to this illustration we would expect E_1 and E_2 to stop at the same boundary, that is, the expectation boundary but instead E_2 continues. The expectation boundary is therefore a crossable boundary. The shaded area on the event line represents the notion of passing. The two dots on the time line represent the two events, that is E_1 and E_2 and the dotted line represents the continuation of E_2.

It is the significance of E_2 passing E_1 that is alluded to in the auxiliary verb. Thus, the idea of surpassing or one event passing the other one is metaphorically reinterpreted to mean 'do nevertheless' which is the auxiliary meaning. In this case the expectation boundary functions as a barrier. As in the above examples something else happens in spite of the presence of the barrier.

3. Aspectual auxiliaries dealing with the inception of event.

-gale ' do first' (< V : -gala 'begin'.)

Examples:
Sizogale siyodla bese sighubeka nomsebenzi.
'We shall first go and eat and then continue with the work.'
Lomuntu ugale athandaze bese edla.
'This person first prays and then eats.'

Topological representation:
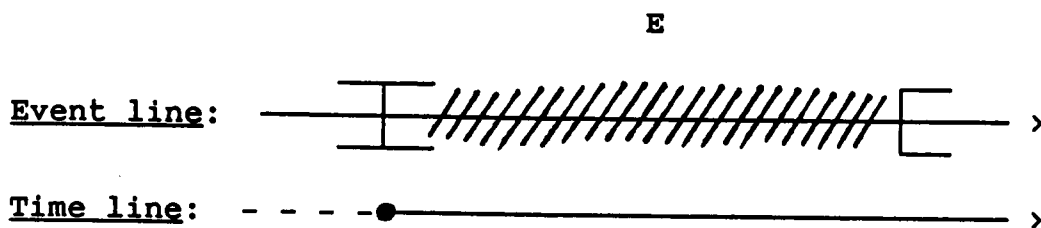
The topological schema above should be interpreted as follows: The open boundary to the left of the boundary unit on the left side of the event line before the inception of the event, represents what went before the inception of the event itself. The closed boundary to the left of the open boundary unit represents the inception of the event. At a

specific point an event starts. This inception of an event is indicated by the dot on the time line. The dotted line represents what goes before the inception of the event. The focus here is not on the event itself but it is at the beginning or inception of the event.

It is the significance of the inception of the event that is alluded to in the auxiliary. Thus, the inception of an event is associated with the auxiliary verb.

-fike 'do first', 'do on (< V : -fika 'arrive')
arrival'

Examples:

Uzofike adle bese efunda.
'He will first eat and read/study.'
Lendaba sizofike siyifunde bese sixoxa ngayo.
'We will first read this matter, and then chat about it.'

Topological representation:

The topological schema above should be interpreted as follows: E_1 represents the act of arriving. E_2 - E_5 are the various events that can be performed immediately on arrival depending on which ones are prioritized. According to the diagram, E_2 is chosen to be done first and this is represented by the shaded area. The dot on the time line corresponds to the inception of the event done on the point of arrival.

How does one construe the relationship between the verb -fika 'arrive' and the meaning of its auxiliary counterpart -fike ' do first', 'do on arrival?' If someone arrives at a certain point it follows that there is an action/event that will immediately follow. In this sense arrive identifies the starting point of the following action. The arrival is the reference point for the following events one of which will be the first. Hence, the auxiliary meaning of the verb 'do first or do on arrival.' At the point of arrival there is a temporal ordering of the execution of the events. One event is picked up to be ordered first. There is option in the execution of events.

-vele 'do from the outset' (< V : -vela 'appear',
       'do just, do merely'   'originate')
       'do from the beginning'

Examples:

Usipho uvele akhulume nje.
'Sipho just/merely talks.'
Uvele ahleke nje.
'He just/merely laughs.'

Topological representation:

E

Event line: ———⊏══//////////////////////⊐——— >

Time line: – – –●———————————————— >

The topological schema above should be interpreted as follows: The open boundary to the left of the boundary unit on the left side of the event line represents what went before the inception of the event. The closed boundary to the left of the boundary units marks the inception of the event itself. What goes before the closed boundary to the left of the boundary unit is in this care irrelevant. The dotted line on the time line translates whatever goes before the open boundary symbol on the event line. The point on the time line represents the position of the event on the event line.

Note that the deficient verb -vele has more than one meaning. These meanings depend on the use of the deficient verb itself. If this deficient verb takes the subject prefix, the deficient verb conveys the meaning 'do just, merely'. If the deficient verb is used without the subject prefix, the deficient verb conveys the meaning, ' do from the beginning, do always,' that is a continuous activity. If the deficient verb is used without the subject prefix, the complementary verb occurs mostly in the remote past tense or in the past continuous tense. Consider the following examples:

Vele ngangingumlimi.
'I have always been a farmer.'
Vele ngizoba khona emshadweni.
'Surely I will be at the wedding party.'

From the above given examples, the deficient verb -vele has the meaning of definiteness.

The implication of this deficient verb -vele as in the example,

USipho uvele akhulume nje.
'Sipho just/merely talks.'

is that a certain action without prior expectations takes place. In this instance, we would expect Sipho maybe to think first before he talks but instead he just talks. An appearance of something normally has no prior expectations. It is against this notion that the auxiliary verb is metaphorically construed as 'do just/merely'.

Topological representation of the deficient verb -vele 'do from the outset,' 'do from the beginning.':
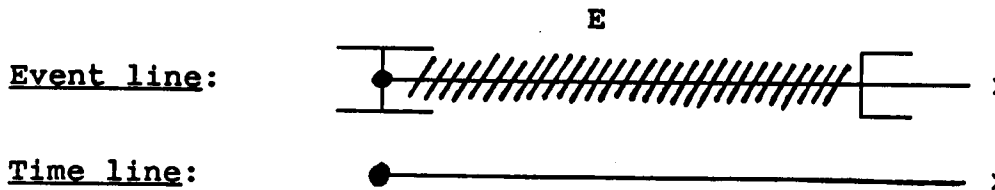
E

Event line:

Time line:

The topological schema above should be interpreted as follows: the open boundary to the left of the boundary unit on the left side of the event time represents the fact that nothing relevant happened before the event itself. The inception of the event is represented by the closed boundary to the left of the boundary unit. The point on the time line represents the position of the event on the event line.

An event has a point at which it begins. "Beginning" with reference to the deficient verb -vele is viewed as a reference point for past existence. When taking one's existence into consideration, one can correctly say,

<u>**Vele ngangingumlimi**</u>.
'I have always been a farmer.'

This implies that ever since the beginning of one's working life, one has been a farmer. Hence, the auxiliary meaning of <u>-vele</u> is 'do from the outset,' 'do from the beginning'.

4. Aspectual auxiliaries dealing with the completion of event.

<u>-gede</u> 'do as soon as'(< V : <u>-geda</u> 'finish')

<u>Examples</u>:

<u>Ngifika ekhaya gede ngidle</u>.
'As soon as I arrive home I eat.'
<u>Kuba makhaza gede sigqoke amajazi</u>.
'As soon as it gets cold we put on overcoats.'

<u>Topological representation</u>:

<u>**Event line**</u>:

E

<u>**Time line**</u>:
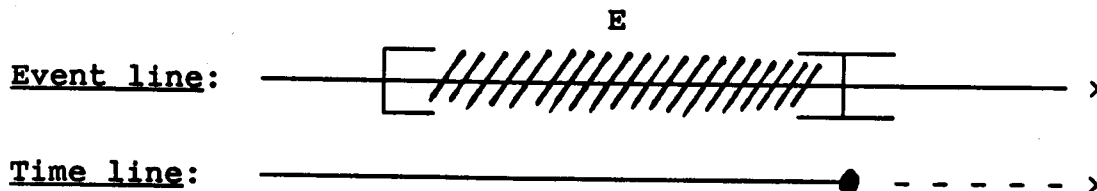
The above topological schema should be interpreted as follows: An action occurs up to a certain specific point. The closed boundary to the right of the boundary unitre on the right side of the event line presents the specific point at which an action terminates. The open boundary to the right of the boundary unit represents what goes after the termination point. The point on the time line represents the point at which the action ends and the dotted line represents what goes after the termination of the event.

The focus here is not on the event itself but is on the termination of the event.

It is the significance of the termination of the event that is alluded to in the auxiliary. The termination of one event implies the inception of the other. This implies that only the next action, in a series of actions can be started if the first one has been completely done. As soon as the first action is completed the next one begins. Hence, the auxiliary meaning of -qede is 'as soon as'.

-shaye 'do completely' (< V : -shaya 'hit')

Examples:

Amahhashi abushaye abugothula utshani.
'The horses finished off all the grass.'
Ngizoshaya ngichithe.
'I will go away for good.'

Topological representation:
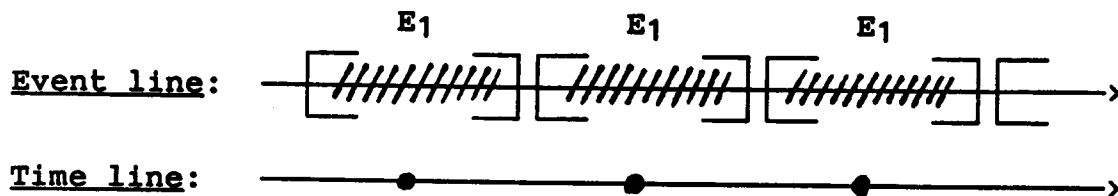
The topological schema above should be interpreted as follows: On the event line, we have three similar repeated actions which are represented by the three dots on the time line. When someone hits something either once or many times, the act of hitting is taken as one complete action or many repeated complete actions. Here we are not interested in the results of hitting since we know that the patient if

it is an animate patient would still sustain the pains of maybe the first hit. It is the significance of completeness of an action that is metaphorically interpreted as the meaning of the auxiliary.

The meaning of the auxiliary -shaye 'do completely' functions differently from other auxiliaries. It is usually used idiomatically with only very few verbs such as -chitha 'throw away, spill' -phephetha 'clear off, destroy, wipe out' -gothula 'destroy completely, wipe out' etc. With this specific deficient verb, the semantics of the complements play an important role in the explanation of the meaning of the deficient verb. These complements have an implication of complete destruction. When this is combined with the deficient verb -shaye 'do completely' it implies fatal hitting, that is making sure that the object is hit to death. This notion of completeness is expressed by both the deficient verb and its complements, hence the completion aspect.

-nele 'do as soon as' (< V : anela 'be sufficient')

Examples:

Nginele ngifike ekhaya ngidle.
'As soon as I arrive home I eat.'
Izolo amadoda anele ageda umsebenzi ahamba.
'Yesterday the men went off as soon as they finished the work.'

Topological representation:

Event line:

E_1 E_2 E_3

Time line:
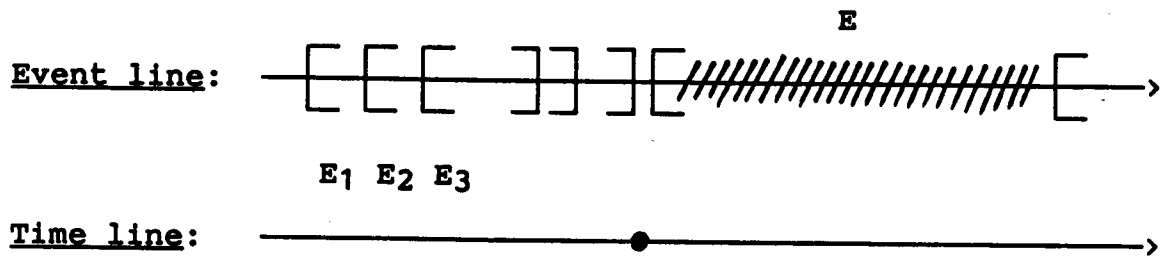
The topological schema above should be interpreted as follows: E_1 - E_3 represent the conditional events that must occur before the actual even occurs. The actual event is represented by the shaded area and its occurrence is dependent on the occurrence of the first three events. On the time line the importance of the preceeding events is represented by the hard line before the dot. The dot represents the inception of the actual event.

What then is the metaphor involved in the meaning of the verb anela 'be sufficient' and the auxiliary verb -nele 'do as soon as'? The verb anela means to be sufficient or to be satisfied. Note that the auxiliary -nele 'do as soon as' is used interchangeably with the deficient verb -gede 'do as soon as'. But the deficient verb -nele seems more commonly used than -gede.

For an action to be carried out, there must be certain conditions that must be met or satisfied. These are prerequisites that one must satisfy. The satisfactory implication of the verb anela is carried over to the deficient verb -nele which means 'do as soon as'. As soon as the conditions are met, the next action can be started.

5. Aspectual auxiliaries expressing persistent or occasional action

-hlale 'do always' (< V :-hlala 'sit, stay, remain').

Examples:

Uhlale ekhuluma njalo.
'He always talks.'
Siyohlale sikukhumbula.
'We shall always remember you.'

Topological representation:

```
                    E                S
Event line:  ──[////////////////////////////[         ──────>
Time line:      ● - - - ────────────────────────────────>
```
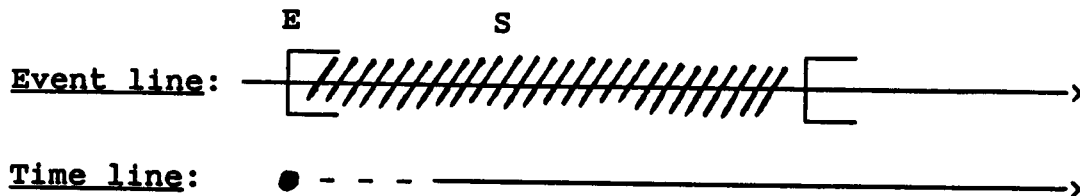
The above topological schema should be interpreted as
follows: The verb -hlala 'sit' is a motion verb. Sitting
down has a specific point at which the action begins. The
action of sitting is represented by E on the event line.
Once someone is seated he is in a state. A state of being
on the event line is represented by the letter S. The
action of sitting down leads into a state. The closed
boundary to the left on the event line represents the point
in time at which the act of sitting begins. The dotted line
on the time line represents the transition from action to
state of being, that is, the state is derived from the event
as it continues indefinitely.

Being in a state implies continuity and a state is viewed as
an unbroken continuum. It is this notion of continuity that
is metaphorically interpreted as always in the auxiliary
meaning of the verb -hlala 'sit'.

-hambe 'do all the way along' (< V : **-hamba** 'travel, go').

Examples:

Lendoda ihambe ilwa nabo bonke abantu.
'This man goes about fighting with everyone.'
Abasahambi bekhononda ngomsebenzi.
'They no longer go about complaining about the work.'

Topological representation:
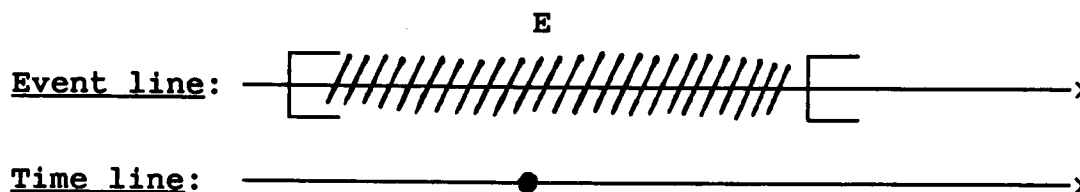
The above topological schema should be interpreted as follows: The point on the time line corresponds to the event on the event line. The closed boundary of the event to the left represents the specific starting point of the event and the other open boundary to the right represents the unboundedness of the event. The act of going has no restrictions and it is the unboundedness of the event that is metaphorically interpreted as the auxiliary meaning of the verb **-hamba** 'go'.

6. **Aspectual auxiliaries expressing repetition of an event**

-buye 'do again' (< V : **-buya** 'return').

Note that the auxiliary **-buye** is used interchangeably with the auxiliary **-phinde** 'do again' (< V : **-Phinda** 'repeat').

We are therefore going to treat them together here.

<u>Examples</u>:

<u>Lomuntu uyagula abuye/aphinde asinde</u>.
'This person gets sick and gets well again.'
<u>Ngifuna ukubuye/ukuphinde ngikubone</u>.
'I want to see you again.'

<u>Topological representation</u>:
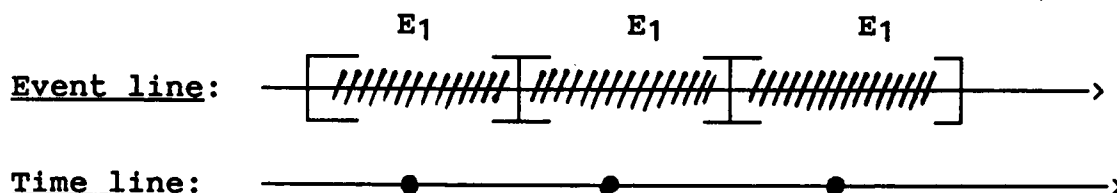
The topological schema above should be interpreted as follows: E_1 represents the same event that recurs a number of times. The same event starts over again. The dots on the time line represent the one event which is self-embedded.

What is then the meaning relationship between the verb <u>-buya</u> 'return' and its deficient verb counterpart <u>-buye</u> 'do again?' The notion of 'return' of the verb is extended to the deficient verb. If an action is performed, such action can be performed once, twice, etc. This means that one action is self-embedded. What is important here is that even though an action is done for the second time, the action cannot exactly be the same as the first one.

7.   Aspectual auxiliary expressing reason or necessity

-sale 'do of necessity, rather do, do afterwards'
(< V: -sala 'stay behind').

I assert that, from the verb -sala 'stay behind', the auxiliary -sa- 'progressive' and the deficient verb -sale 'do afterwards' are derived.

Examples:

Intombi izosale ikutshele leyomfihlo.
'The girl will tell you that secret afterwards.'
Mntanami usale usize ugogo.
'My child, help grandmother afterwards.'

Topological representation:

Event line:

E_1

E_2

E_3

E_4

Time line:
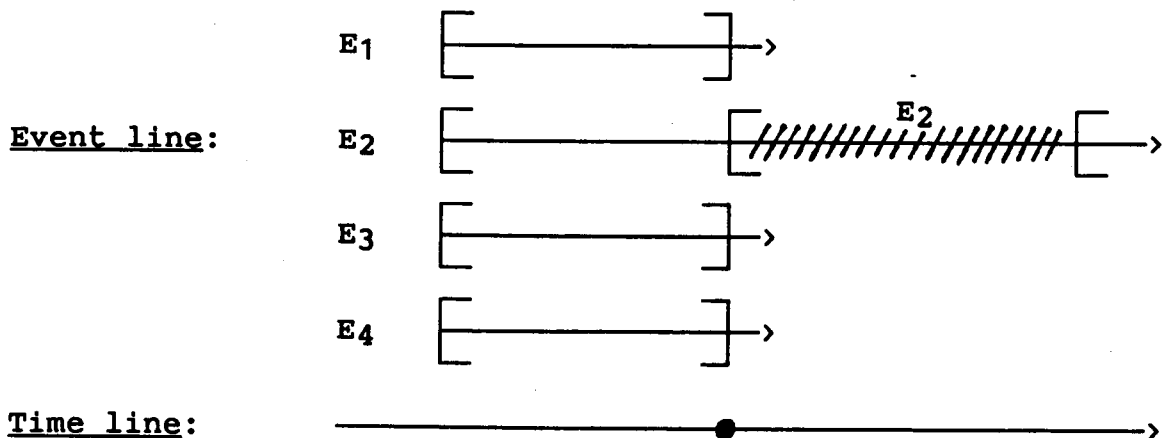
The topological schema above should be interpreted as follows: On the event line we have four events that occur simultaneously. The three events occur up to a specific end point and E_2 occurs after the others have terminated. The shaded area on E_2 represents the continuation of this event. The dot on the time line represents the inceptive point of continuation of E_2.

The notion of remaining behind of the verb -sala is extend-

ed to the deficient verb -sale to mean 'afterwards'. If one remains behind, maybe in a working situation etc., it is an obvious fact that there are several things that he will do afterwards. Many things may happen or occur up to a certain point and one thing remains to occur. It becomes the last action in a series of actions.

In our previous discussions we noted that some auxiliaries in Zulu do not relate to their lexical sources. Such auxiliaries are called orphans. To enable one to provide a topological schema of an auxiliary, one must be able to relate the auxiliary to its source verb. The topological schemas provided in this thesis are therefore those of buds because buds can relate to their lexical sources. In the case of orphans, this seems to be impossible. Yet the topological representations of orphans will not be given here.

5.3 Parameters for the selection of verbs as auxiliaries.

In this section we will briefly explore the factors under-lying the selection of the subset of verbs that became Zulu auxiliaries through the process of grammaticalization. We have already, in the previous section identified one major semantic factor determining the selection of motion verbs as the source for Zulu auxiliaries namely, the metaphorical reinterpretation of temporality in terms of spatiality.

Not all motion verbs, however, grammaticalize as tense and aspectual auxiliaries in Zulu. The question that we would like to examine now is which motion verbs can turn into such auxiliaries and why only these.

In chapter 2 we claimed that, according to the Semantic Field analysis, one could identify certain semantic domains according to which verbs could be lexically classified. One such domain that we have already alluded to earlier is that of

motion verbs as, opposed to, say, communication verbs. We have also indicated in Chapter 2 that a semantic domain is structured in the sense that different semantic levels could be distinguished in each domain namely, a superordinate level, a generic level, and a subordinate level. We would now like to claim that both the notion of semantic domain as well as the notion of genericness as a level within a domain, play a significant role in the selection of verbs as auxiliaries in Zulu.

In the following paragraphs we will explore this claim in greater detail with reference to tense and aspectual auxiliaries in Zulu. Naturally the relevant auxiliaries examined from this point of view can only be those that are buds since only in such cases can we still identify the correlating verbal source.

5.3.1 Subcategories of motion verbs

Given the analytical strategies of the semantic field analysis to characterize semantic domains, namely semantic feature analysis, we shall now attempt to identify subcategories of motion verbs from which the relevant auxiliaries have been selected.

Our exemplification of the verbs in a certain semantic domain will not be exhaustive. Rather we will give sufficient examples in order to show why the verbs that became auxiliaries were selected. In each case we shall compare the generic members with the nongeneric members in contrastive context of sentences.

SEMANTIC DOMAIN	AUXILIARIES	VERBS
V		
[+ motion]	-za- 'immediate future'	-za- 'come'
[+ direction]	-ya- 'remote future'	-ya- 'go'
		-ngena 'come in'
		-sondela 'come near'
		-dilika 'come down'

All the verbs in this semantic domain share the features [motion] and [direction]. Yet all the verbs except -za and -ya exhibit certain unique features that none of the others have. These unique or contrasting features show up in contrasting pairs such as the following: We shall only contrast -za here with the other verbs since the same results would obtain with -ya.

-za 'come' and -sondela ' come near'

Woza kimi!
'Come to me.'
Sondela kimi!
'Come (near) to me.'
Uza eKapa.
'He is coming to Cape Town.'
* Usondela eKapa. (When the speaker is not in Cape Town).
* 'He is coming (near) Cape Town.'

-za 'come' and -dilika 'come down'.

Woza! (said to a person in a tree).
'Come!'
Dilika! (said to a person in a tree).
'Come down!'
Woza emfuleni!
'Come to the river.'

*<u>Dilika emfuleni</u>.
'Come down from the river.'

<u>-za</u> 'come' and <u>-ngena</u> 'come in'.

<u>Woza lapha endlini</u>!
'Come here into the house'.
<u>Ngena endlini</u>!
'Come into the house.'
* <u>Ngena kimi</u>! (nonspiritual sense)
'Come into me.'
<u>Woza</u> kimi!
'Come to me.'

It is clear from the examples above that the verb <u>-za</u> 'come'
is far less semantically constrained than the other verbs.
In fact the other verbs in this semantic domain cannot
freely substitute for one another but <u>-za</u> 'come' can. Thus,
<u>-za</u> 'come', as is the case with <u>-ya</u> 'go', are the generic
members of the semantic domain. We could therefore say that
the features [+motion], [+direction] which we have specified
as the features that define this domain are perhaps the
essential and only features of the verbs <u>-za</u> 'come' and <u>-ya</u>
'go'. Notice that only <u>-za</u> 'come' and <u>-ya</u> 'go' in this
domain have also auxiliary correlates. Since the metaphor
that underlies tense auxiliaries involves simply the notions
motion and direction, it comes as no surprise that the verbs
in this domain that have been selected as tense auxiliaries
are the generic ones <u>-za</u> and <u>-ya</u>.

<u>SEMANTIC DOMAIN</u>	<u>AUXILIARIES</u>	<u>VERBS</u>
V		
[+ motion]	<u>-sheshe</u> 'do quickly'	<u>-shesha</u> 'hurry'
[+ speed]		<u>-baleka</u> 'run fast'
		<u>-gijima</u> 'run fast'
		<u>-hlantula</u> 'run wild'

All the verbs in this semantic domain share the features
[motion] and [speed]. Yet all the verbs except - shesha
'hurry' exhibit certain unique features. These unique
features show up in contrasting pairs such as the following:

-shesha 'hurry' and -baleka 'run fast'

Shesha!
'Hurry!'
Baleka!
'Run fast!'
Shesha udle.
'Hurry and eat.'
'Eat fast!'
* Baleka udle.
'Run fast and eat.'

-shesha 'hurry' and -gijima 'run fast'

Shesha!
'Hurry!'
Gijima!
'Run fast!'
Shesha ukhulume.
'Hurry and talk.'
'Talk fast.'
* Gijima ukhulume.
'Run fast and talk.'

-shesha 'hurry' and -hlantula 'run wild'

Shesha!
'Hurry!'
Hlantula!
'Run wild!'
Shesha usebenze.
'Hurry and work.'
'Work fast.'

* <u>Hlantula usebenze</u>.
'Run wild and work.'

From the examples above, it is clear that the verb <u>-shesha</u>
'hurry' is far less semantically constrained than the other
verbs. In fact the other verbs in this semantic field
cannot freely substitute for one another but <u>-shesha</u> 'hurry'
can. Thus, <u>-shesha</u> 'hurry' is the generic member of the
semantic field. We could therefore say that the features
[+motion], [+speed] which we have specified as the features
that define this domain are perhaps the essential and only
features of the verb <u>-shesha</u> 'hurry'. It is therefore only
the verb <u>-shesha</u> 'hurry' that has an auxiliary correlate in
this domain. The only verbs that are selected as aspectual
auxiliaries are the generic ones such as <u>-shesha</u> 'hurry'.

The verb <u>-shesha</u> is generic in that its scope of usage is
not restricted. As an auxiliary it is used to qualify an
action. The other verbs which share the same features with
the verb <u>-shesha</u> are nongeneric in that they specify means
and place where an action is carried out.

<u>SEMANTIC DOMAIN</u>	<u>AUXILIARIES</u>	<u>VERBS</u>
V		
[+ motion]	<u>-hambe</u> 'do all	<u>-hamba</u> 'travel, go'
[+ means]	the way along'	<u>-bhukuda</u> 'swim'
		<u>-ndiza</u> 'fly'

All the verbs in this semantic domain share the features
[motion] and [means]. Yet all the verbs except <u>-hamba</u>
'travel, go' exhibit certain unique features. These unique
features show up in contrasting pairs such as the following:

<u>-hamba</u> 'travel, go' and <u>-bhukuda</u> 'swim'.

<u>Hamba uwelele ngale</u>.

'Go/travel across overthere.'

<u>Bhukuda uwelele ngale</u>.

'Swim across overthere.'

<u>Hamba esikoleni</u>.

'Go to school'

* <u>Bhukuda esikoleni</u>.

  'Swim to school.'

<u>-hamba</u> 'travel, go' and <u>-ndiza</u> 'fly'.

<u>Hamba</u>!

'Travel, go.'

<u>Ndiza</u>!

'Fly!'

<u>Bahamba belandelana</u>.

'They walk following each other.'

* <u>Bandiza belandelana</u>. (said to people).

  'They fly following each other.'

The examples above clearly show that the verb <u>-hamba</u> 'travel, go' is far less semantically constrained than the other verbs. In fact the other verbs in this semantic domain cannot freely substitute for one another but <u>-hamba</u> 'travel, go', can. Thus, <u>-hamba</u> 'travel, go' is the generic member of this semantic field. We could therefore say that the features [+motion], [+means] which we have specified as the features that define this domain are perhaps the essential and only features of the verb <u>-hamba</u> 'travel, go'. The verbs <u>-bhukuda</u> 'swim' and <u>-ndiza</u> 'fly' are specific with reference to means. Hence, they are nongeneric verbs of this semantic domain. In this semantic domain only the verb <u>-hamba</u> 'travel, go', has an auxiliary correlate because only the generic verbs are selected as aspectual auxiliaries.

SEMANTIC DOMAIN	AUXILIARIES	VERBS
V		
[+ motion]	-hlale 'do always'	-hlala 'sit, stay'
[+ nature/ posture]		-qoshama 'sit on haunches'
		-qhiyama 'sit leaning back'
		-dangalaza 'sit with legs astride'.

All the verbs in this semantic domain share the features [motion] and [nature/posture]. Yet all the verbs except -hlala 'sit, stay' exhibit certain unique features. The unique features show up in contrasting pairs such as the following:

-hlala 'sit, stay' and -qoshama 'sit on haunches'

Hlala!
'Sit!'
Qoshama!
'Sit on haunches.'
Uhlala eGoli
'He stays in Johannesburg.'
* Uqoshama eGoli
'He sits on haunches in Johannesburg.'

-hlala 'sit, stay' and -qhiyama 'sit leaning back'

Hlala!
'Sit!'
Qhiyama!
'Sit leaning back!'
Usezohlala eMlazi.
'He will now stay at uMlazi!'
* Usezoqhiyama eMlazi.
'He will now sit leaning back at uMlazi.'

-hlala 'sit, stay' and -dangalaza 'sit with legs astride

Hlala!

'Sit!'

Dangalaza!

'Sit with legs astride.'

Uhlala eLekazi.

'He stays at Lekazi.'

* Udangalaza eLekazi.

'He sits with legs astride at Lekazi.'

It is clear from the examples above that the verb -hlala 'sit, stay' is far less semantically constrained than the other verbs. In fact the other verbs in this semantic domain cannot freely substitute for one another but -hlala 'sit, stay' can. Thus, the verb -hlala 'sit, stay' is the generic verb of this semantic field. We could therefore say that the features [+motion], [+nature/posture] which we have specified as the features that define this domain are perhaps the essential and only features of the verb -hlala 'sit, stay'. Notice that only the verb -hlala, sit, stay' in this domain has an auxiliary correlate. Only the verb -hlala 'sit, stay' has been selected as an aspectual auxiliary because it is a highly generic verb.

Even though these verbs share the two features above, the others are specific with reference to posture and the verb -hlala does not have this specification. Hence, it is a generic verb.

SEMANTIC DOMAIN	AUXILIARY	VERBS
V		
[+ motion]	-dlule 'do	-dlula 'pass, surpass'
[+ reference point]	nevertheless'	
		eqa 'jump, leap
		across, spring over'
		-wela 'cross'
		(river, mountain,
		path, boundary)

All the verbs in this semantic domain share the features
[motion] and [reference point]. Yet all the verbs except
-dlula 'pass, surpass' exhibit certain unique features. The
unique features show up in the following contrasting pairs:

-dlula 'pass, surpass' and eqa 'jump, spring over'

Dlula lapha.
'Pass here!'
Eqa lapha!
'Jump here!'

Uzodwa uyamdlula ngomsebenzi
'Zodwa surpasses him with work.'
'Zodwa works better than him.'
* Uzodwa uyameqa ngomsebenzi (with the meaning of
                                surpassing)
'Zodwa jumps him with work.'

-dlula 'pass, surpass' and -wela 'cross'

Uzodlula lapha.
'You will pass here.'
Uzowela lapha.
'You will cross here.'
Ubadlula bonke ekilasini.
'He surpasses them all in class.'

* <u>Ubawela bonke ekilasini</u>.
'He crosses them all in class.'

From the examples above, the verb <u>-dlula</u> 'pass, surpass' is far less semantically constrained than the other verbs. In fact the other verbs in this semantic field cannot freely substitute for one another but <u>-dlula</u> 'pass, surpass' is the generic member of the semantic domain. We could therefore say that the features [+motion], [+reference point] which we have specified as the features that define this domain are perhaps the essential and only features of the verb <u>-dlula</u> 'pass, surpass'. Since the verb <u>-dlula</u> 'pass, surpass' is the generic member of this domain, it is the only verb that has an auxiliary correlate.

<u>SEMANTIC DOMAIN</u>	<u>AUXILIARY</u>	<u>VERBS</u>
V		
[+ activity]	<u>-shaye</u> 'do	<u>-shaya</u> 'hit'
[+ instrument]	completely'	
		<u>-bhonya</u> 'belabour with a kerrie'
		<u>-bhaxabula</u> 'strike with a whip or sjambok'
		<u>-phahlaza</u> 'smash'

All the verbs in this semantic domain share the features [activity] and [instrument]. Yet all the · verbs except <u>-shaya</u> 'hit' exhibit certain unique features. The unique features show up in the following contrasting pairs:

<u>-shaya</u> 'hit' and <u>-bhonya</u> 'belabour with a kerrie'

<u>Ungishaye ngesagila</u>.
'He hit me with a kerrie.'
<u>Ungibhonye ngesagile</u>.
'He hit me with a kerrie.'

<u>Ugishaye ngebhodlela</u>.
'He hit me with a bottle.'
* <u>Ungibhonye ngebhodlela</u>.
'He hit me with a bottle.'

<u>-shaya</u> 'hit' and <u>-bhaxabula</u> 'strike with a whip or sjambok'.

<u>Ungamshayi ngensilani</u>.
'Don't him him with a sjambok'.
<u>Ungambhaxabuli ngensilani</u>.
'Don't strike him with a sjambok.'
<u>Mshaye ngempama</u>.
'Hit him with the palm of your hand.'
* <u>Mbhaxabule ngempama</u>.
'Strike him with the palm of your hand.'

<u>-shaya</u> 'hit' and <u>-phahlaza</u> 'smash'

<u>Ngizokushaya ikhanda</u>.
I'll hit your head.'
<u>Ngizokuphahlaza ikhanda</u>.
'I'll smash your head.'
<u>Shaya lenyoka emsileni</u>.
'Hit the snake on the tail.'
* <u>Phahlaza lenyoka emsileni</u>.
'Smash this snake on the tail.'

It is clear from the examples above that the verb <u>-shaya</u>
'hit' is far less semantically constrained than the other
verbs. In fact the other verbs in this semantic domain
cannot freely substitute for one another but <u>-shaya</u> 'hit'
can. Thus, <u>-shaya</u> 'hit' is the generic member of the
semantic domain. We could therefore say that the features
[+activity], [+instrument] which we have specified as the
features that define this domain are perhaps the essential
and only features of the verb <u>-shaya</u> 'hit'. Notice that
only the verb <u>-shaya</u> 'hit' in this domain has an auxiliary

correlate. Even though the verbs of this semantic domain share the two features above, it is interesting to note that the verbs -bhonya 'belabour with a kerrie', -bhaxabula 'strike with a whip' and -phahlaza 'smash' are specific with reference to instrument. Hence, they are nongeneric. Only the generic members of certain semantic domain such as -shaya 'hit' are selected as aspectual auxiliaries.

SEMANTIC DOMAIN	AUXILIARY	VERBS
V		
[+ implied motion]	-vele 'do	-vela 'appear', 'come',
[+ into sight]	from the	'originate'
	outset',	-mila 'germinate,'
	'just do',	'sprout', 'grow'
	'merely'	-thushuka 'appear
		suddenly'
		-vumbuka 'spring up',
		'appear suddenly'

All the verbs in this semantic domain share the features [implied motion] and [into sight]. Even though these verbs belong to the same semantic domain they are not synonyms, that is to say they cannot be used interchangeably in certain contexts. This uniqueness of the verbs shows up in contrasting pairs such as the following:

-vela 'appear' and -mila 'sprout, grow'

Ummbila uvela emva kwamasonto amabili.
'The mealies appear after two weeks'.
Ummbila umila emva kwamasonto amabili.
'The mealies germinate after two weeks.'
Uvela eMaputo.
'He comes from Maputo.'
* Umila eMaputo.
'He grows from Maputo.'

-vela 'appear', 'originate' and **-vumbuka** 'spring up',
'appear suddenly'

Sithe sisaxoxa kwavela amaphoyisa.
'The police appeared suddenly when we were busy conversing.'
Uvela kude.
'He comes from far.'
* **Uvumbuka kude.**
'He appears suddenly from far.'

Note that the verbs **-thushuka** 'appear suddenly' and **-vumbuka**
'appear suddenly' have the same meaning and they can be used
interchangeably in certain context. From the above
examples, it is clear that the verb **-vela** ' appear' is far
less semantically constrained than the other verbs. In fact
the other verbs in this semantic domain cannot freely
substitute for one another but **-vela** 'appear' can. Thus,
-vela ' appear' is the generic member of the semantic
domain. We could therefore say that the features [+implied
motion], [+into sight] which we have specified as the
features that define this domain are perhaps the essential
and only features of the verb **-vela** 'appear'. **Vela** 'appear'
is the only verb that has an auxiliary correlate because it
is the generic member of the semantic domain.

SEMANTIC DOMAIN V	AUXILIARY	VERBS
[+motion] [+destination]	**-fike** 'do first, do on arrival'	**-fika** 'arrive' **-finyelela** ' reach right up to' **-theleka** 'get poured, get springled'.

All the verbs in this semantic domain share the features
[motion] and [destination]. Yet all the verbs except **-fika**
'arrive' exhibit certain unique features. These unique
features show up in the following contrasting pairs:

-fika 'arrive' and -finyelela 'reach right up to'.

Lomjovo ufikile ebuhlungwini.
'The injection has arrived at the painful spot.'
Lomjovo ufinyelele ebuhlungwini.
'The injection reached right up to the painful spot.'
Izivakashi zethu zizofika kusasa.
'Our visitors will arrive tomorrow.'
* Izivakashi zethu zizofinyelela kusasa. (visitors coming to us).
'Our visitors will reach right up to here tomorrow.'

-fika 'arrive' and -theleka 'get poured'

Lomcimbi woniwe ukufika kwemvula.
'This occasion was spoilt by the arrival of the rain.'
Lomcimbi woniwe ukutheleka kwemvula.
'This occasion was spoilt by the arrival of the rain.'
Fika kusasa
'Arrive tomorrow.'
'Come tomorrow.'
* Theleka kusasa. (said to a single person)
'Arrive tomorrow.'
'Come tomorrow.'

From the above examples, it is clear that the verb -fika 'arrive' is far less semantically constrained than the other verbs. In fact the other verbs in this semantic domain cannot freely substitute for one another but -fika 'arrive' can. Thus, the verb -fika 'arrive' is the generic member of the semantic domain. Notice that the verb -fika 'arrive' in this domain has an auxiliary correlate. Only those verbs that are generic such as -fika 'arrive' has been selected as aspectual auxiliaries.

SEMANTIC DOMAIN	AUXILIARY	VERBS
V		
[+motion]	-buye 'do	-buya 'return'
[+direction]	again'	-phinda 'repeat'
[+repetion]	-phinde 'do	-goduka 'go home,
	again'	travel home'

The verbs -buya 'return', -phinda 'repeat' and -goduka 'go home' are similar in that they all involve bidirectional movement, that is movement from point A to point B and movement from point B to point A again. Note also that -buya 'return' and -phinda 'repeat' are used interchangeably, We shall treat them here as one because what holds good for one holds good for the other. All these verbs of the given semantic domain share the features [motion], [direction] and [repetition]. Yet the verb -goduka 'go home', but not -buya 'return' and -phinda 'repeat', exhibits certain specific features that none of the other two have. These unique features show up in the following contrasting pairs:

-buya 'return'/-phinda 'repeat' and -goduka 'go home'

Buya ekhaya.
'Return home.'
Goduka uye ekhaya.
Travel home and go home.
'Travel home/go home.'
Buya lapho eGoli.
'Return from Johannesburg.'
* Goduka lapha eGoli.
  'Go home from Johannesburg.'
Buya lapho uhlezi khona.
'Return from where you are seated.'
* Goduka lapho uhlezi khona.
  'Go home where you are seated.'

From the above examples, it is clear that the verb -buya 'return' is far less semantically constrained than the verb -goduka 'go home'. The notion of movement back to point A, with reference to the verb -buya 'return', is too general, and the verb -goduka 'go home' has a specific returning point, that is, home. Hence, it is a nongeneric verb.

On the other hand, the verb -buya 'return' is the generic verb of this semantic domain. The generic verbs have auxiliary correlates and are therefore selected for the process of grammaticalization.

SEMANTIC DOMAIN	AUXILIARY	VERBS
V		
[+motion]	-qale 'do	-qala 'begin'
[+inception]	first'	-phemba 'start fire, initiate action' (with respect to something specifiable)
		andulela 'commence cultivation' (with respect to something specifiable)

All the verbs in this semantic domain share the features [motion] and [inception]. Yet all the verbs except -qala 'begin' exhibit certain unique features that none of the others have. These unique or contrasting features show up in the following contrasting pairs:

-qala 'begin' and -phemba 'start fire, initiate action'

Qala ngokubasa umlilo!
'Start by making fire.'
Phemba umlilo!
'Start fire.'

Ungagala ukudla.
'You may start eating.'
* Ungaphemba ukudla.
'You may initiate an action of eating.'

-gala 'begin' and andulela 'commence cultivation'

Bazogala ukulima.
'They will start ploughing.'
Bazokwandulela amasimu.
'They will commence cultivating the fields.'
Bazogala ukuthandaza.
'They will start praying.'
* Bazaokwandulela ukuthandaza.
'They will commence cultivation to pray.'
'They will start praying.'

From the examples above, it is clear that the verb -gala
'begin' is far less semantically constrained than the other
verbs. The other verbs are semantically constrained in that
they are specific with reference to something specifiable.
In fact the other verbs in this semantic domain cannot
freely substitute for one another but -gala 'begin' can.
Thus, -gala 'begin' is the generic member of this semantic
domain. Notice that the verb -gala 'begin' is the only verb
of this semantic domain that has an auxiliary correlate. It
therefore comes as no surprise that this verb has been
selected as an aspectual auxiliary because it is a generic
member of the semantic domain.

SEMANTIC DOMAIN	AUXILIARY	VERBS
V		
[+motion]	-qede 'do	-qeda 'finish'
[+termination]	as soon as	-feza 'complete, accomplish' (with respect to something specifiable)
		-qothula 'finish off completely' (with respect to something specifiable).

All the verbs in this semantic domain share the features [motion] and [termination]. Yet all the verbs except -qeda 'finish' exhibit certain unique features that none of the others have. These unique or contrasting features show up in pairs such as the following:

-qeda 'finish' and -qothula 'finish off completely'

Izinkomo zibuqedile utshani.
'The cattle have finished the grass.'
Izinkomo zibuqothulile utshani.
'The cattle have completely finished off the grass.'
Useqedile ukukhuluma.
'He has finished talking.'
* Useqothulile ukukhuluma.
'He has completely finished talking.'

-qeda 'finish' and -feza 'complete, accomplish'

Ufe ewuqedile umsebenzi weNkosi.
'He died having finished the Lord's work.'
Ufe ewufezile umsebenzi weNkosi.
'He died having completed the Lord's work.'
Ufe ewufezile umsebenzi weNkosi.
'He died having completed the Lord's work.'

Qeda inkulumo yakho.
'Finish up your speech.'
* Feza inkulumo yakho. (with the meaning of finishing)
'Complete your talk.'

It is clear from the examples above that the verb -qeda 'finish' is far less semantically constrained than the other verbs. The other verbs are semantically constrained in that they are specific with reference to something specifiable. In fact the other verbs in this semantic domain cannot freely substitute for one another but -qeda 'finish' can. Thus, -qeda 'finish' is the generic member of the semantic domain. We could therefore say that the features [+motion], [+termination] which we have specified as the features that define this domain are perhaps the essential and only features of the verb -qeda 'finish'. Notice that only -qeda 'finish' in this domain has also auxiliary correlate. It therefore comes as no surprise that those verbs in this domain that have been selected as aspectual auxiliaries are the generic ones like -qeda 'finish'.

5.3.2 CONCLUSION

In this chapter we have developed a theoretical framework in terms of which the significance of tense and aspect auxiliaries were interpreted. This framework involved the notion of the metaphor TIME = SPACE where the abstract notion time is construed in terms of a time line with a specific reference point relative to which an action is temporally organized (i.e. tense) and a time line with an internal structure with reference to boundedness and dimension (i.e. aspect).

Making use of the various topological schemas, we tried to show that metaphors play an important role in the development of Zulu auxiliaries from their verb counterparts. The various topological representations are an attempt to explicate our mental view of the way in which the metaphor

is invoked in the various tense and aspect significances.

We have also explained why only certain verbs can function as auxiliaries. The semantic "position" of the selected verbs in certain semantic domain (motivated by the relevant metaphor) determine their selection. Thus, only those motion verbs which are neutral/generic as regards certain semantic properties can function as auxiliaries.

CHAPTER 6

CONCLUSION

In this thesis we have set out the following objectives:

- to determine the nature of the category _auxiliary_ in Zulu;
- to explicate the nature of the relationship between Zulu verbs and Zulu auxiliaries, both in form and meaning;
- the explication of the motivating factors,
  (a) In selecting and employing the lexical category verb as auxiliary.
  (b) In the selection of only certain verbs which become auxiliaries.

With regard to the first and the second objectives, we have found that the category _auxiliary_ in Zulu is a derivative category. The derivative nature of this category is as a result of the process of grammaticalization. When Zulu auxiliaries undergo the process of grammaticalization, two pathways are followed, namely orphaning and budding. This derivation is viewed as a continuum where free lexical items become more dependent grammatical formatives both in meaning and form. We have also found that the category _auxiliary_ in Zulu is not an independent category. Rather it is a derivative category in a parasitic relation with the category verb, the relation being based on the productive process of grammaticalization. We have also noted that the category _auxiliary_ is not a unitary category but it is a degree category which can only be accommodated by the prototype theory where degrees of membership in categories are allowed.

With reference to the third objective, we have found that auxiliaries in Zulu derive from verbs, as opposed to, say, nouns and any other word category. Verbs express events, actions, activities and processes. In this investigation we have noted that motion verbs are a source of Zulu auxiliaries. One would ask a question, "Why only motion verbs?" Verbs of motion express motion through space. The auxiliary verbs that are derived from these motion verbs express the abstract notions of tense and aspect. For the construal of these notions, that is, the concrete notion _space_ and the abstract notion _time_, we invoked the metaphor TIME = SPACE as an underlying motivating factor for the selection of verbs, especially motion verbs as auxiliaries in Zulu.

In our discussion we have also found that not all motion verbs can become auxiliaries in Zulu. In addressing this question we noted that verbs like any other word category can be classified as belonging to certain categories. Verbs which share common features can be classified as a subcategory. We have used semantic field analysis to categorize verbs. Verbs which share certain common features can be said to belong to a certain semantic field/domain. Verbs of a certain semantic domain can further be arranged in a three-tiered hierarchy of the given semantic domain, viz.
- superordinate category.
- generic category.
- subordinate category.

It this thesis it is claimed that those verbs which are generic are selected as sources for the auxiliaries in Zulu. These verbs manifest very general features and the non-generic ones, on the other hand, exhibit certain unique features that none of the others have. These nongeneric verbs, according to my view, will never undergo the process of grammaticalization and will never become auxiliaries in Zulu.

In conclusion, the most salient points of this investigation are that Zulu auxiliaries are a derivative category and this derivation is not arbitrary but is determined by underlying factors such as metaphors. Hence metaphorical extensions form the basis for grammaticalization of Zulu auxiliary verbs.

In an attempt to explicate the metaphor Time = SPACE, certain topological concepts proved to be very useful.The usefulness of these topological concepts derive from the fact that linguists conceive of time and aspect in terms of a time line. In a sense, the metaphor TIME = SPACE can be topologically explicated in terms of certain structural values of the time line. Each of these values represent different tenses and aspects.

Certain problems remain unexplored. To name only two:
- The status of orphans in respect of the development of auxiliaries from verbs. If it is true that auxiliaries develop from verbs through grammaticalization, then one might assume that one could relate all auxiliaries to verbs. In the case of orphans, this seems to be impossible. Yet further research may be able to show the budding relation of such verbs.
- The topological representation of aspectual values needs to be further refined and expanded. On the other hand, the topological representation of time values is relatively unproblematical.

We have attempted in this thesis to represent those differences, but no doubt the nature of these differences in topological terms could be refined.

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