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OBJECTS AND CAUSATIVE CONSTRUCTIONS
IN SISWATI

by

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ABSTRACT

This thesis addressed the problem encountered in Bantu languages of distinguishing between direct object (DO) and indirect object (IO) when the two unmarked nominals occur after the verb. The distinction between DO and IO is a controversial matter among Bantuists, and this thesis has attempted to establish the properties that distinguish these objects, arguing for the existence of DO as different from IO in SiSwati.
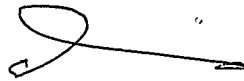
Furthermore, the applicability of Causative Clause Union (CCU) rules, as stated in Davies and Rosen (1985), to the morphological and syntactic causative constructions in SiSwati was investigated. CCU states that if the inner (embedded) clause is intransitive (i), the subject (1) of that clause becomes the direct object (2) in the union (matrix) clause; and if the inner clause is transitive (t), its subject (1) and direct object (2) become the union clause indirect object (3) and direct object (2), respectively. All other primary terms of the inner clause bear the chômeur relation and the non-terms remain unchanged. In this study, it was shown that, firstly at initial level of structure, morphological causatives in SiSwati reveal an inner clause, but, at final level of structure, there is clause union where each element in the inner clause is

assigned a relation according to CCU in the union clause.

Secondly, as in English, the syntactic causatives are not

unions but surface biclausal structures. The analysis

showed that, while the downstairs (DS) clause subject (1)

becomes the upstairs (US) direct object (2), the rest of

the GRs do not participate in the US clause, making it

impossible to speak of "union" therein. It was proposed,

therefore, that the syntactic causative should be treated

as an ascension structure because the DS subject (1) behaves

as the US direct object (2), with the other GRs in the DS

clause maintaining their respective relations.

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Chapter 1

INTRODUCTION

Aim and Scope

In Relational Grammar (RG), Perlmutter and Postal (1974) proposed a universal set of rules known as Causative Clause Union (CCU) to account for the structure of causative constructions. This thesis argues for the distinction that should be made between direct and indirect objects in basic clause structures and investigates the applicability of CCU to causative constructions in SiSwati, a Bantu language spoken in Swaziland. It will show that CCU as modified by Gibson and Raposo (in press) and Davies and Rosen (1985) makes correct predictions and accounts adequately for the morphological causative. Finally, it demonstrates that SiSwati also has a biclausal causative which behaves like an ascension construction rather than a causative clause union.

This chapter includes a sketch of some important aspects of the grammar of SiSwati as will be relevant to an understanding of the core of the study. Chapter 2 contains a brief outline of the RG framework and highlights the principles and grammatical rules that are referred to in accounting for the causative constructions. The third chapter provides a relational analysis of the basic clause

structures of SiSwati. It describes the syntactic proper-
ties of the terms "subject," "direct object," and "indirect
object," as well as those of the non-terms "obliques" and
"chômeurs." It argues for the existence of indirect object
relation as different from the direct object. The discus-
sion here serves as a springboard for Chapter 4 which deals
with the main area of investigation. The proposed approach
to CCU, the initial biclausal (Perlmutter & Postal, 1974),
and the monoclausal (Davies & Rosen, 1985) are compared and
the latter is applied to the causative constructions.
Chapter 5 consolidates the issues discussed in the preceding
chapter and provides the conclusions arrived at in the study.

Some Relevant Background Information

A Bantu language belonging to the Nguni group of the
South Eastern zone[1] of Africa, SiSwati is spoken by about
one-half million people. As the language of a fairly young
nation, this language had never been written before the year
1976 when it began to be taught in the schools where Zulu
orthography was used to spell SiSwati words. In the 1980s,
however, a tentative alternative órthography was proposed
by the Ministry of Education in Swaziland and it is now in
official use. Three aspects of SiSwati grammar which are
deemed relevant to the discussion of grammatical properties
in the subsequent chapters are sketched below.

Phonology

Two important phonological processes that bear upon the modification of certain grammatical forms are palatalization and vowel coalescence. However, before these are discussed, the phonemic inventory of SiSwati is shown in Table 1.

Table 1

PHONEMIC INVENTORY OF SISWATI[2]

Consonants							Clicks	Vowels	
p	f	t	ts	š̌	k	h	ʔ	i	u
b	v	d	dz	ž̌	g	h̥	ʔh		
m		n		ny	ng		nʔ	e	o
	m̥f		s	tj			C	a	
	mv		z	ǰ			nC		
w		l,r		y					
		hl							
		dl							
		kl							

Palatalization. There are many examples of assimilatory and dissimilatory processes in SiSwati. One of concern here, particularly in observing low-level phonological processes, is palatalization which occurs when the

passive marker -w- is attached to verb stems ending in
bilabial sounds. A few examples suffice to illustrate the
process of dissimilation where labial sounds are in sequence:

Verb	Gloss	Passive Marker	Derived Form	Gloss
sab-a	'fear'	-w-	satj-w-a	'be feared'
kabh-a	'chop'	-w-	kaj-w-a	'be chopped'
lum-a	'bite'	-w-	luny-w-a	'be bitten'

Vowel coalescence. Vowel coalescence is another
low-level phonological process which occurs when vowels are
in juxtaposition. Its relevance to this study has to do
with understanding the various forms of the prefixes that
function as relative markers. For example, the basic rela-
tive marker is la- which appears at the beginning of a
relative phrase, always followed by the subject concord
triggered by the subject of relativization, or by the object
concord when the object is relativized. Where vowels are
found in sequence, vowel coalescence, vowel assimilation, or
vowel raising may take place, resulting in varying forms of
relative markers:

Noun	Gloss	Relative Marker + Subject Concord	Derived Relative Marker	
umuntfu	'person'	la- + u-	lo-	'who...'
indvodza	'man'	la + i-	le-	'who...'
sisu	'stomach'	la + si-	lesi-	'which...'
bantfu	'people'	la + ba-	laba-	'who...'

Vowel coalescence takes place when the relative marker (RM) la- is followed by a concord which begins with or contains a high vowel. If it is a high front vowel, the resulting coalesced vowel is mid-front [ε], if it is a high back, the coalesced vowel is mid-back [ɔ], and if it is low-back the coalesced vowel is [ɑ]. The influence of a following high vowel, in the subject concord, is reflected in like manner on the vowel of the RM; e.g., la + si- becomes lesi-.

Morphology

SiSwati is an agglutinating language. It uses prefixal, suffixal, and infixal markers in the derivation of nouns and the inflection of verbs for tense, mood, aspect, and negation.

The noun. Noun formation is realized by combining noun prefixes with other morphemes such as noun and verb stems. Nouns are grouped together into classes on the basis of their prefixes and each prefix is given its own number and class in the classification (see Table 2).

This type of classification, by prefixes, is believed to be more efficient in that it is able to deal with those nouns that are deemed as "exceptions" appropriately. For example, class 5 shows prefixes of the li- type singular; class 6, which is the plural of class 5, shows the ema- type. It may be observed, however, that two

different classes may manifest identical prefixes; for example, classes 1 and 3, classes 13 and 15.

Table 2

CLASSIFICATION

Class	Noun Prefix
1	umu-
2	ba-
3	umu-
4	imi-
5	li-
6	ema-
7	si-
8	ti-
9	in-
10	tin-
11	lu-
12	bu-
13	ku-
14	pha-
15	ku-
16	mu-

In such cases, what distinguishes them is the semantic feature associated with each class as well as the related prefix of its plural form. Whereas class 1 is a 'person class,' class 3 is not; in terms of number parallelism, class 1 umu- (singular) corresponds to class 2 ba- (plural) and class 3 umu- (singular) corresponds to class 4 imi-

(plural). Although most of the noun classes have distinct prefixes, it cannot be denied that each one is also associated with some semantic feature or other (despite some exceptions). In summary, morphological, semantic, and grammatical features all play a role in the noun classification.

The verb. Inflection on verbs for tense, mood, and negation is accounted for as in the example below:

(1)   Bill   u- yo-be-   a -nga   -sa -fun -i
          SC-Rft-Cont-Neg-NegSC-SPr-will-Neg[3]

    'Bill shall not be willing then'

Agreement between the subject Bill and its present tense verb -fun- 'will' is marked by the subject concord u- while nga- the negative subject concord marks agreement between the subject and the negative aspect of that verb which is marked negative by the discontinuous morpheme a- -i.

Pronouns and Concord System

Another property of SiSwati is shown by its agreement or concord system. The verb must be marked by a prefix which agrees with the noun class of its subject. When there is a cooccurring object, it may be optionally marked in the verb by an infix following the subject concord prefix. This infix shows agreement with the noun class of the object; for example:

(2) Babe u-wa-dla njalo (emasi)
        SC-OC-eat often yogurt

'Father eats it (yogurt) often'

where u- and wa- are the respective subject and object con-
cords. The concords have pronominal function constituting
a set of substitutive elements triggered according to the
noun class of the nomal substituted. For instance, with the
zero pronominalization of the subject and object in (2),
the remaining form below is grammatical with the given
interpretation:

(3)   u-wa-dla njalo
        SC-OC-eat often

   'He eats it often'

   Apart from these personal pronouns, there are also
sets of qualificative, demonstrative, interrogative, and
existential pronouns which, however, do not have any bearing
on the present study, hence, they will not be discussed.

Previous Studies

   Previous studies on SiSwati are restricted to the
efforts of five individuals, namely, G. D. Dlamini (1978),
J. V. Dlamini (1979), E. C. L. Kunene (1981), and D. Zier-
vogel with E. J. Mabuza (1976). These four grammars are
valuable pieces of work written in the traditional approach
in which the grammar of the language has been divided into

"parts of speech" or grammatical categories and the bound elements treated as formatives. It appears, therefore, that these descriptions place emphasis on morphology, perhaps rightly so because even in other languages, the trend is to describe syntactic characteristics in terms of affixes.

Be that as it may, the attempt to characterize the sentence is felt in these grammars, the focal point being the idea that no sentence is complete without containing the predicate and, therefore, that a sentence has to have a predicate which is usually a verb. Moreover, a verb has to cooccur with a subject and sometimes an object. Therefore, a basic sentence consists of a verb, a subject, and possibly a cooccurring object. Taking into consideration its function in the sentence, each element represents some grammatical category, thus, six word categories have been established, namely, substantive with the subcategories containing noun and pronoun; qualificative; predicative, under which occurs verbs and copulas; descriptive, with the subcategories of adverbs and locatives; conjunctive and interjective.

As to analytical and descriptive procedures, it is a common exercise in these grammars that the syntax of the language be described and discussed in the context of a given sentence, ascribing to each element its function in the sentence. In this way, only the identification of the elements and their corresponding syntactic function are

highlighted. To illustrate the point, according to this traditional approach, sentences such as:

(4) (a) Inja i-luma Sipho
          dog SC-bite Sipho

         'The dog bites Sipho'

     (b) *Sipho u-luma inja
                SC-bite dog

         'Sipho bites the dog'

would be described thus: (b) is grammatical but pragmatically odd with the meaning 'Sipho bites the dog'; moreover, (b) is being related to (a) as the latter's passive counterpart; thus, the ungrammaticality is identified as being due to the absence of the -w- passive marker.

In the following chapter it is shown how RG provides a more adequate and explanatory linguistic description. By selecting the RG framework to account for an aspect of SiSwati grammar, causative constructions in particular, it is hoped to gain a greater insight into the general functioning of certain grammatical relations and operations which are not clearly dealt with in the traditional analysis.

Footnotes to Chapter 1

[1]This information is adopted from *The Southern Bantu Languages* by C. M. Doke (London University Press, London, 1945). The classification assumes a subdivision of Bantu languages into geographical locations termed "zones."

[2]The orthographic symbols used in this study are consistent with the phonemic representation as shown in Table 1, with the exception of hl [ɬ], dl [ɮ], ny [ɲ], sh [š], zh [ž], and j [ɟ], which are represented by spelling for ease of typing and reading. In the square brackets is the phonetic representation of the orthographic symbols according to IPA. However, spelling has also been used in cases where there is no IPA symbol for a SiSwati sound, e.g. kl.

[3]Abbreviations are explained as follows:

SC	Subject Concord
Rft	Remote future tense
Cont	Continuous aspect
Neg	Negative
NegSC	Negative Subject Concord
SPr	Simple Progressive aspect

Chapter 2

AN OUTLINE OF THE RG FRAMEWORK

Introduction

Following is a brief overview of the Relational Grammar (RG) framework employed in this research. Its basic claims and principles are discussed as well as concepts and rules directly relevant to the basic clause structures and causative constructions analysed.

RG Framework and Grammatical Relations

RG was developed by Perlmutter and Postal in the 1970s. Many of their associates, colleagues, and students have contributed to the continuing refinement of the framework. Central to this syntactic theory is the idea that there are linguistic generalizations, both cross-linguistic and language-internal, that can be captured in terms of grammatical relations (GRs) but not in terms of phrase structure configurations, word order, and morphological case, which notions are basic to the theory of transformational grammar. RG makes two basic claims that distinguish it from other syntactic frameworks:

    (a)   The grammatical relations needed for individual grammars and for cross-linguistic generalizations

cannot be defined in terms of more fundamental notions, but must be taken as primitive notions of syntactic theory.

(b)   It is necessary to posit distinct syntactic levels. (Perlmutter & Postal, 1983:ix)

The claim expressed in (a) that GRs must be consi-dered as primitives and not as concepts defined in terms of other notions, necessarily requires that the GRs which each element bears to other elements in the clause be given. These will constitute the initial GRs in the syntactic representation. Claim (b), on the other hand, posits that syntactic representations depict distinct levels at which each element bears GRs to the other elements. This implies that an element bearing a certain GR at one level may bear another GR at another succeeding level in the representation.

RG identifies three primary relations, namely, Su(bject), D(irect) O(bject), and I(ndirect O(bject) which are referred to as terms 1, 2, and 3, respectively. Terms 1 and 2 are further referred to as nuclear terms. The other GRs are lumped together as oblique relations, or oblique nom-inals (ON). These are the Ben(efactive), Loc(ative), G(oal), Ins(trumental), and an undetermined number of others, all of which are referred to as non-terms. In addition to these is another non-term called Chô(meur).[1] This relation is born by a nominal whose former term relation has been usurped by another nominal and, being displaced, it no longer bears its preceding term relation to that level.

This concept has proved to be useful cross-linguistically.

These GRs are further conceived as being hierarchically organized as follows:

RH---→ SU > DO > IO > ON
       1   2   3   Non-Terms[2]

The empirical basis for this hierarchy derives from the support that has been gathered for a wide range of claims involving various grammatical phenomena.

RG represents the structure of a clause as a relational network (RN) which depicts the various syntactic levels at which clausal elements bear grammatical relations to each other:

(5)

      praise   John   Harry
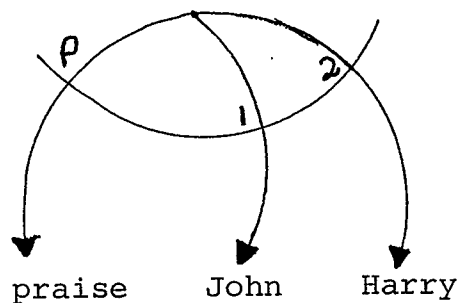
RN (5) is associated with the sentence:

(6) (a) John praised Harry.

In the network, there is only one level or stratum. This means that the initial relation is also the final relation. The notion of levels may be appreciated when the

related sentence 6 (b) is considered:

(6) (b) Harry was praised by John.

whose corresponding RN is:

(7)


```
           praise   John   Harry
```
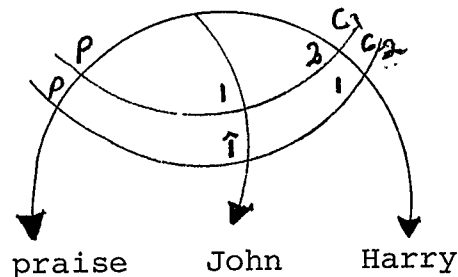
In RN (7), the same initial relations are found on
the first stratum as those found in RN (5). On the second
stratum, however, the passive rule has applied whereby the
initial GRs have been revaluated. The rule stipulates that:

(1) A direct object of an active clause is the (super-
ficial) subject of the "corresponding" passive.

(2) The subject of an active clause is neither the
(superficial) subject nor the (superficial) direct
object of the corresponding passive. (Perlmutter
& Postal, 1983:9)

The RNs (5) and (7) consist of (a) sets of nodes
which represent linguistic elements; and (b) sets of R-signs
1, 2 and chômeur, which are the names of the grammatical
relations.

There is a third item (c), which is a set of
coordinates represented by horizontal lines used to indicate
the levels at which elements bear GRs to each other,

formally represented thus:

(8)
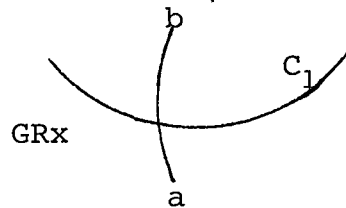
In (8), the line a-b is termed an arc where the linguistic element $\underline{a}$ heads the arc, bearing the relation $\underline{GRx}$ to the linguistic element $\underline{b}$ at the C_1 level. Thus, with reference to RN (5), for example, assuming that $\underline{GRx}$ is 1, then the middle arc represented as the middle arrow, indicates that John bears the 1-relation to the P(redicate) praise at the initial level which may be called C_1. In this case, John is the head of the arc. On the other hand, RN (7) consists of two levels: the initial stratum C_1, before the passive rule is applied and the final stratum C_2, after the application of the passive rule. The final stratum is indicated by the fact that John, which heads a 1-arc initially, now heads a final 1-chômeur arc ($\hat{1}$).

Grammatical Processes

Grammatical processes in RG are viewed as transitions consisting of promotions and demotions within the Relational Hierarchy (RH) identified above. Promotions imply ascending the RH and demotions mean descending it.

Promotions involve advancement rules which occur within a clause, promoting a GR to a higher "stand" in the same clause. So far, there is evidence that demotions do occur in SiSwati but are less frequent than promotions.

Advancements

An advancement rule may be defined as a transition from one grammatical relation to another, higher in the hierarchy. For example, in the stratal diagram (7) the rule of Passive permits an advancement from 2 to 1 such that the direct object, <u>Harry</u>, which bears the 2-relation at initial level C_1 becomes the subject bearing the 1-relation at final level C_2. A nominal undergoing advancement is called an "advancee." An advancee bears at least two distinct relations to a single clause. In this example, therefore, <u>Harry</u> is an advancee because initially it bears the 2-relation to the clause but advances to bear the 1-relation via the 2 to 1 Advancement rule, with the consequent demotion of initial 1 <u>John</u> to 1-chômeur ($\hat{1}$).

Found in many languages, 3-2 advancement is also found in SiSwati. This type of construction can be illustrated in the following English sentences:

(9) (a) Sue gave a book to Bill.

  (b) Sue gave Bill a book.

The first sentence is represented by the following stratal diagram:

(10)

give   Sue   Bill   book
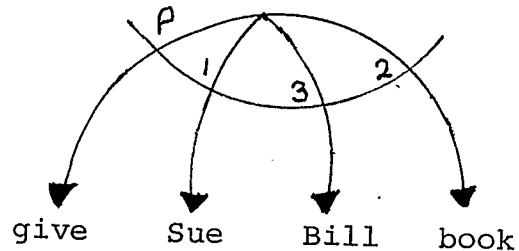
The second sentence has a network consisting of two strata, the first being identical to (10) and the second showing an advancement of 3 to 2, putting the initial 2 en chômage:

(11)

give   Sue · Bill   book
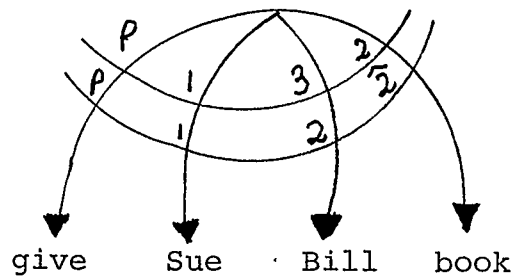
In Chapter 3 it will be seen how the final 2-chômeur behaves when a similar 3 to 2 advancement applies. Other rules of advancement are also discussed.

Ascensions

Ascension is a type of rule involving two clauses instead of one, the matrix clause and its embedded dependent or complement clause. An ascension rule stipulates that a dependent of a complement clause may itself become a dependent of the matrix clause in a later stratum. An

illustration of how this rule works is shown in a sentence
such as:

(12)   Tom wants Mary to cook food,

Such sentence structures are viewed as biclausal, a term
that is discussed at length in Chapter 4. The relational
network associated with (12) would be:

(13)
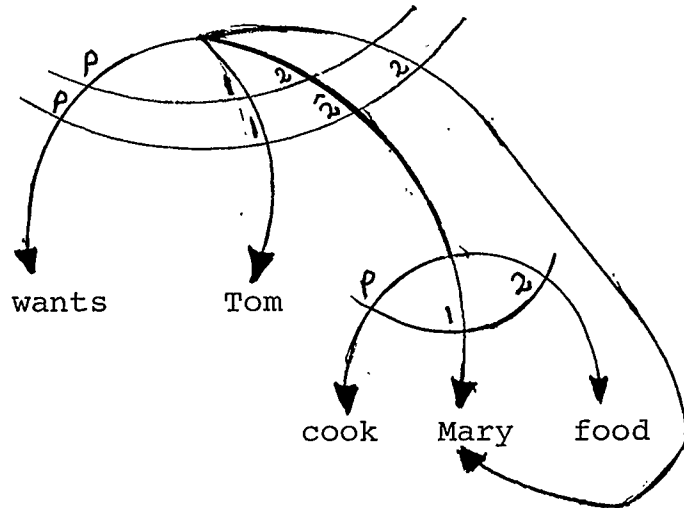
By the ascension rule, <u>Mary</u>, a term 1 dependent of the com-
plement clause, is "raised" or ascends to the matrix clause
on the second stratum, becoming the direct object of that
clause, bearing the 2-relation, This process is enforced by
two well-formedness conditions:[2] the Host Limitation Law
(HLL) and the Relational Succession Law (RSL), HLL states
that only terms can serve as hosts while RSL states than an
ascendee takes on the grammatical relation of its host. In

(13), the embedded clause has the initial 2 relation in the matrix clause, and acts as the host of the ascension. Term 1 of the embedded clause takes on term 2, the relation of the host, in the matrix clause as shown in the second stratum. By the Chômeur Condition, the initial 2 in the matrix clause, which has been displaced by the ascendee, goes en chômage. Note that the rest of the dependents in the complement clause remain in the same clause after the subject has "ascended."

Some well-formedness conditions on RNs, including the grammatical processes they govern (i.e., advancements, demotions, and ascensions), refer only to nuclear terms. It may also be stressed that, in an advancement or an ascension rule, a necessary consequence is a demotion of the term usurped by the advancee or the ascendee, as the case may be, to a chômeur relation. In addition to this, there are other instances of demotions that will be discussed in the next two chapters.

Footnotes to Chapter 2

[1]Perlmutter and Postal (1983:20), following a suggestion by Eugene Loos, showed that terms which bear the relations 1, 2, or 3 in a former stratum may bear the chômeur-relation in a subsequent stratum. However, because it is cumbersome to write, say, 3-chômeur, for presentational purposes this can be written as $\hat{3}$, with a circumflex accent over the numeral of its previous term relation.

[2]Although it is not entirely clear what principles determine the assignment of the GRs at initial level, it is claimed that it is universally determined by principles referring to the semantic roles of the nominals. Thus, agents and experiencers are 1s, patients are 2s, and recipients are 3s.

[3]Other well-formedness conditions on RNs, stated as laws, are discussed in subsequent sections in the following chapters where they are relevant.

Chapter 3

BASIC CLAUSE STRUCTURES IN SISWATI

Introduction

One of the basic ideas that launched RG was that conceiving of syntactic rules like passivization, among others, in terms of grammatical relations makes possible a cross-linguistic characterization of grammatical processes. The passive rule, as has been shown, is one·of those proposed as a universal rule, evidence for which is found supporting 2-1 advancement in many languages, including SiSwati.

Following from this basic idea that grammatical relations play a central role in RG, this chapter gives an overview of the grammatical relations (GRs) involved in basic clause structures in SiSwati. It identifies the set of properties manifested by each GR which distinguish a given GR from another. The basic clause structures of concern here are only verbal ones and will include intransitive, transitive, and ditransitive constructions to show the syntactic behaviour of the term relations. Also included are variations of these constructions where the oblique relations or the non-terms are identified as distinct from

the term relations. Subsequently, related constructions that manifest certain revaluations of GRs will be accounted for, through the application of either advancement, demotion, or ascension rules. The analysis of these structures will include tests for relational terms in order to determine whether the advanced, demoted, or ascended terms exhibit the corresponding properties that characterize each one of them.

As a first step to distinguishing the properties of the primary GRs, one can refer to the assignment of the semantic roles of the nominal dependents of a given verb to term 1 for agents or actors, term 2 for patients or objects, and term 3 for recipients.[1] With reference to word order, SiSwati is described as an SVO type of language and, based on this linear order, the preverbal position is occupied by the final subject or term 1 and the post-verbal position by the final direct object or term 2. (Later it is shown how a 2 may be distinguished from a cooccurring term 3).[2]

Another property, which was identified in Chapter 1, pertains to the agreement or concord system. The subject of a clause obligatorily registers a subject concord (SC) marker, a prefix, in its verb whereas a direct object may or may not be marked with an object concord (OC), which appears next to the SC marker if it is registered. Given these initial sets of properties, the processes of Passivization, Topicalization, and Relativization will be applied

to determine on which GRs they operate and thereby establish
further the syntactic properties of each GR.[3]

The next operation will be to analyse each type of
basic clause structure, first with its given initial rela-
tions showing one-level RNs. Then, related RNs are shown
with multi-levelled structures indicating revaluations of
one form or another.

Intransitive Clauses

Intransitive clauses have a subject but not a
cooccurring direct object. The only nominal which is
assigned a term relation may be semantically an actor or
an object. RG distinguishes between two types of intransi-
tives. The first type, usually with a semantic agent, is
called an unergative construction with term 1 as its
initial GR; for example:

(14)   Inja i-dl -ile
       dog SC-eat-pp

    'The dog has eaten'

whose corresponding RN is:

(15)
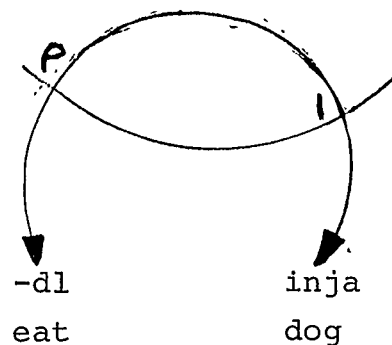
Initial/final term 1 exhibits the properties of a final 1,
i.e., preverbal position and subject concord. The second
type, usually with a semantic object or patient, is labelled
an unaccusative clause. It is assigned to an initial term
2. This type of intransitive clause may be exemplified by:

(16)   logwaja u- f -ile
       rabbit SC-die-pp

       'The rabbit died'

which may be associated with the following partial RN:

(17)

       P   λ

       -f-   logwaja
       die   rabbit
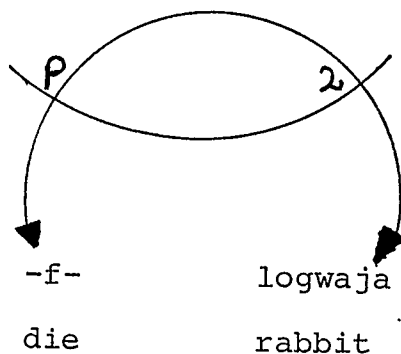
In this structure, the initial term 2 does not have final
direct object features. Rather, it exhibits the two basic
properties of a term 1, the preverbal position and subject
concord, as in the unergative clause above. RG accounts for
this seeming contradiction by invoking the condition expres-
sed by the Final 1 Law, which states that every basic clause
must have a 1-arc in its final stratum. In fulfilment of
this Law, a rule called Unaccusative Advancement promotes
this initial 2 to a final 1, as in:

(18)
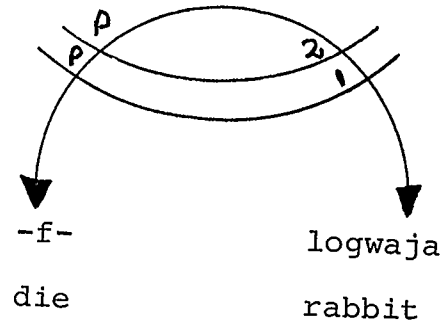
thereby accounting for the properties of 2 displayed as a final 1.

Transitive Clauses

In contrast to the intransitive clauses, a verb of the transitive type takes both a subject and a direct object, as in:

(19) Sue u-dl - a luju
     SC-eat-Pst honey

'Sue eats honey'

Its corresponding representation is:

·(20)
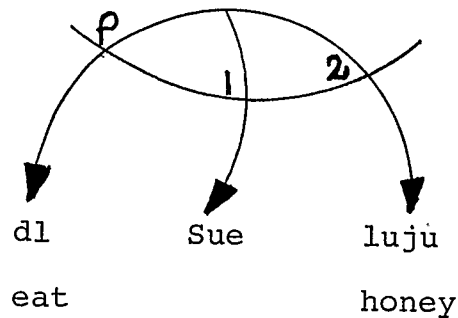
The agent _Sue_ is assigned GR 1 and the patient _luju_ 'honey,' GR 2. Word order and SC confirm that _Sue_ is,

indeed, term 1. As final 2, _luju_ correctly occurs in post-verbal position. Moreover, it can trigger an optional OC, -_lu_-, with a consequent optional omission or shift of the object nominal to the end of the clause, as shown below:

(21) Sue u-lu -dl - a njalo (luju)
      SC-OC-eat -Pst always honey

      'Sue always eats it (honey)'

With RN (20) as the initial structure, three related constructions may be formed, namely, a passive, a topicalized, and a relativized construction as follows:

(22) Luju lu -dl-iw-a   ngu Sue njalo
      SC-eat-Ps-Pst by Sue always

      'Honey is always eaten by Sue'

(23) Luju, Sue u-lu -dl-a   njalo
      honey   SC-OC-eat-Pst always

      'Honey, Sue eats it always'

(24) Luju Sue la-lu -dl- a njalo lubi
      honey   RM-OC-eat-Pst always bad

      'The honey which Sue always eats is bad'

Observe that OC is obligatory when final 2 is (a) topicalized and (b) relativized.

The passive construction in (22) has the corresponding RN (25), the topicalization structure (23), RN (26) and (24) showing a relativization, RN (27):

(25)
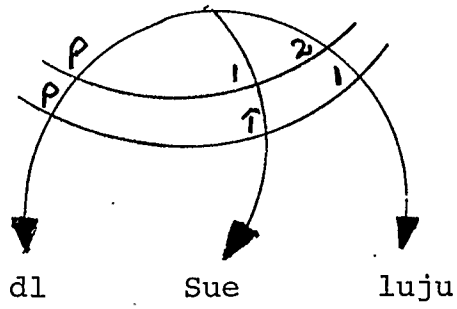
(26)
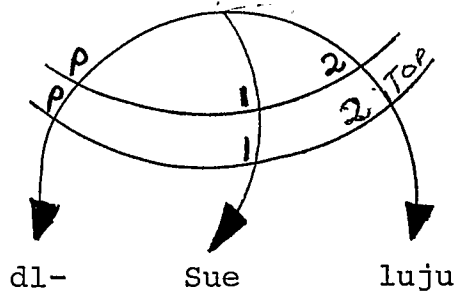
(27)
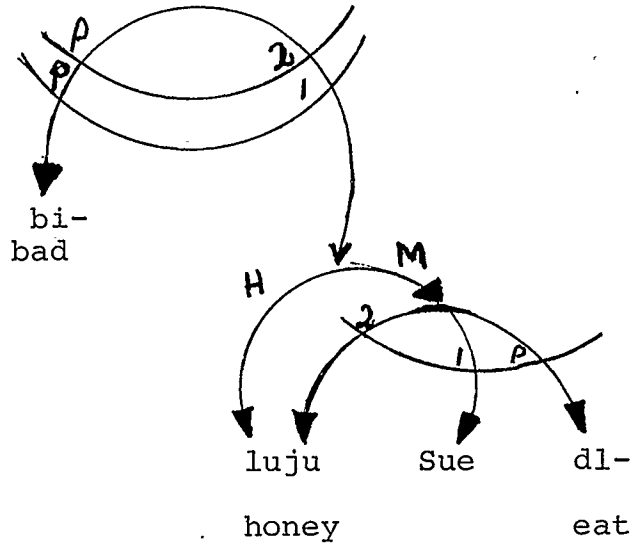
(H = head, M = modifier)

In (25), as shown previously (Chapter 2 (RN 27)), 2 to 1
advancement and the consequent 1-chômeur ($\hat{1}$) (flagged by
ngu-) accounts for structures such as (22), The initial 2/

final 1 term <u>luju</u> 'honey' exhibits the properties of final
1. Between the two cooccurring terms 1 and 2, in (26) the
latter, <u>luju</u>, undergoes topicalization, a syntactic process
which usually shifts a nominal either to the left or right
of a clause, hence, one speaks of preposing or postposing a
nominal for the purpose of highlighting it as a <u>topic</u>. For
clarity of exposition in this study, when topicalization is
used it refers to preposing. Since term 1 <u>Sue</u> already
occurs in initial position, the application of topicaliza-
tion to it would be vacuous. On the other hand, RN (27)
accounts for (24) where the initial relations of that clause
are shown. The relative clause <u>Sue</u> <u>la-lu-dla</u> <u>njalo</u> 'which
Sue eats every day' bears a modifier relation (M) to the
nominal term <u>luju</u>; in turn, this nominal bears the 2 rela-
tion in the relative clause, but heads the matrix 1 so that
it is the head (H) of that clause.

Ditransitive Clauses

In this section consideration is given to clauses in
which the verb takes more than one object, a ditransitive
clause, considering in particular the distinction between
the three cooccurring nominals.

On the basis of differing semantic roles, the three
cooccurring nominals are assigned their corresponding
initial term relations, as in the following sentence:

(28) Bill u- nik- a   ingabisa lucu
      SC-give-Pst girl   necklace

'Bill gives the girl a necklace'

The sentence has the structural representation:

(29)

nik-   Bill   ingabisa   lucu

give   girl   necklace
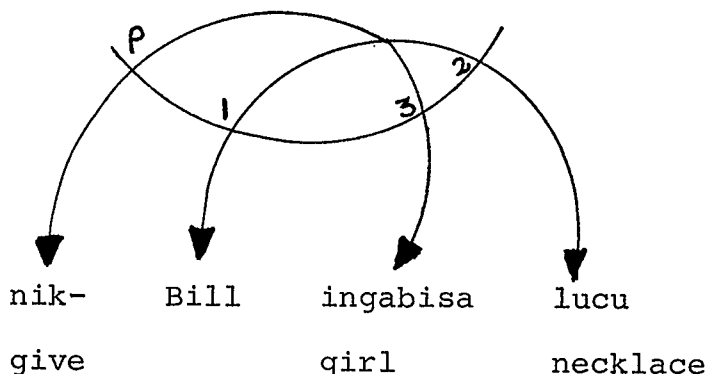
To test the correctness of this assignment of terms, an
assessment is made as to whether they manifest the proper-
ties set up for at least terms 1 and 2. In (28) Bill is
final 1 because it occurs in preverbal position and it
controls subject agreement as shown by the SC marker u-.
Since there are two unmarked nominals occurring postverbally,
it is not clear whether ingabisa 'girl,' which is immedi-
ately after the verb, should be final 2, or whether lucu
'necklace' which is further away from the verb, is final 3.
If the order of these two nominals is reversed, the result
is a pragmatically odd sentence where 'Bill gives the neck-
lace a girl.' Thus, it is safe to assume that when a final
3, which has the semantic role of recipient, occurs with a
term 2, the strict order is final 3, immediately follows the

verb and final 2 follows term 3. Term 2, both as an initial and final term, has the ability to trigger an optional OC as in:

(30)   Bill u-lu-nik - a ingabisa (lucu)
        SC-OC-give-Pst girl   necklace

        'Bill gives it (necklace) to the girl'

whereas final term 3 does not. However, some Bantuists (Gary & Keenan, 1976; Hyman & Duranti, 1982; Kimenyi, 1980) have challenged the position of distinct objects, thus maintaining that in languages like Kinyarwanda, the object position is occupied by double direct objects, a position which challenges the Stratal Uniqueness Law[4] in RG. On the contrary, other linguists (De Guzman, 1986; Dryer, 1983; Frantz, 1983; Perlmutter & Postal, 1984; Zaenen, 1984) have provided convincing counter examples sufficient to show the existence of distinct objects. Interestingly enough, Dryer's (1983) counter-evidence comes from Kinyarwanda, Similarly, Zaenen (1984) provided evidence from Kikuyu, disproving the existence of double objects in that language. As will be shown later, there is much support in SiSwati for the rule 3 to 2 advancement, where this final 2 may be distinguished from the consequent 2-chômeur. Evidence of this significant distinction between term 3 (IO) and term 2 (DO), with respect to OC registration, can be shown in the following OC-marked passive sentences:

(31)   Ingabisa i-lu-nik -w- a ngu Bill (lucu)
              SC-OC-give-P-Pst by   necklace

'The girl is given it (the necklace) by Bill'

(32)   *lucu   lu-yi-nik -w- a ngu Bill (ingabisa)
        necklace SC-OC-give-P-Pst by Bill girl

In (31) and (32) the rule of passive which typically promotes objects to subject position has applied, but the sentences show that with an OC marking corresponding to term 3 (IO) in (32), the sentence is ungrammatical. Compared with (31) where initial 3 appears to have been promoted to final 1, initial 2 can trigger OC.

Apart from recourse to semantic roles, word order, and OC marking, there is also a set of facts that can be adduced against the two-object analysis. OC requirements with topicalization can show the difference between ingabisa, final 3 and lucu, final 2. As an initial/final 2, lucu undergoes topicalization:

(33)   lucu, Bill u-nik - a ingabisa
              SC-give-Pst girl

'The necklace, Bill gives the girl'

(34)   lucu, Bill u-lu-nik - a ingabisa
              SC-OC-give-Pst girl

'The necklace, Bill gives it to the girl'

Both (33) and (34) are equally acceptable, showing optional OC marking -lu-, triggered by initial/final 2 lucu. The

distinction between this term 2 and initial/final 3 <u>ingabisa</u> is readily manifest in that the latter fails to undergo topicalization because the resulting sentence is ungrammatical unless the 3 triggers OC:

(35)   *ingabisa, Bill u-nik -a   lucu
                   SC-give-Ps   necklace

However, notice that the sentence (35) is rendered grammatical by OC marking -<u>yi</u>-, triggered by <u>ingabisa</u>:

(36)   ingabisa, Bill u-yi-nik - a   lucu
                    SC-OC-give-Pst necklace

'The girl, Bill gives her the necklace'

This implies that the initial 2 and the initial 3 differ in that a topicalized initial 3 must trigger OC, whereas a topicalized initial 2 optionally triggers OC.

A further test, relativization, reliably shows the distinction between direct object (DO) and indirect object (IO). In the sentences to follow, observe that if a final term 2 is relativized, its OC is optionally marked in the relative clause, hence, both (37) and (38) are also equally acceptable:

(37)   Lucu Bill la-nik - a   ingabisa luhle
                  RM-give-Pst girl   beautiful

'The necklace which Bill gives the girl is beautiful'

(38)   <u>Lucu</u> Bill la-lu-nik - a   ingabisa luhle
                  RM-OC-give-Pst girl   beautiful

'The necklace which Bill gives the girl is beautiful'

(39) *Ingabisa Bill la-nik - a   lucu   yinhle
                 RM-give-Pst necklace pretty

'The girl Bill gives a necklace is pretty'

But for (39) to be acceptable, it is mandatory for
ingabisa to register its OC in the relative clause:

(40) Ingabisa Bill la-yi-nik   a   lucu   yinhle
                 RM-OC-give-Pst necklace pretty

'The girl who Bill gives the necklace is pretty'

When ingabisa registers its corresponding OC -yi-,
which implies a 3-2 advancement of this term, it becomes
clear that this nominal is the object that is being relativ-
ized, as shown in (40). On the contrary, ingabisa as a
final 3 cannot be relativized if it cooccurs with final 2
lucu when the latter's OC -lu- is marked in the verb:

(41) Ingabisa Bill la-lu-nik - a   lucu   yinhle
                 RM-OC-give-Pst necklace pretty

Comparing (33), (35), (37), and (39), it is quite
apparent that lucu (2) and ingabisa (3) manifest different
behaviour under the processes of topicalization and relati-
vization. Both (35) and (39) indicate that the behaviour
of ingabisa as a 3-relation is constrained because it has to
fulfil a certain condition before it can be topicalized or
relativized. In simple terms, the condition is for this

term to trigger OC when these grammatical processes apply to it, which, as shown previously, is a property of a term 2. It may then be posited that initial 3 has to advance to final 2, with the consequence that it triggers an OC marker. This, then, leads to another type of grammatical process, 3-2 advancement.

3-2 Advancement

In the foregoing discussion, the facts bear out the assumption that, in SiSwati basic ditransitive clauses, the two cooccurring objects, are distinct, not only with respect to semantic roles, but also to word order and grammatical processes such as topicalization, relativisation, and OC marking. The overall idea ensuing from the discussion is that, even though both final indirect object and direct object can advance to subject by passivization, only the initial/final direct object appears to trigger OC with both active and passive ditransitive verbs and not the initial/ final indirect object (Cf (30), (31) in contrast with (32)). As shown in (39), the initial indirect object, _ingabisa_, here understood as the notional recipient, has to trigger OC when it heads a relative clause. RG can account for this by promoting initial 3 to term 2 via the rule 3-2 advance- ment, as shown in (42) below:

(42)   Bill u-yi-nik - a   lucu   (ingabisa)
             SC-OC-give-Pst necklace   girl

'Bill gives her (girl) a necklace'

The corresponding RN is:

(43)
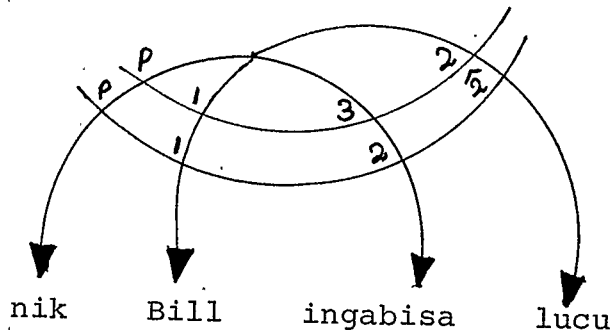
Consequently, <u>ingabisa</u>, now a final 2, obligatorily triggers OC -<u>yi</u>- which once registered in the verb, the nominal with which it agrees may be shunted or deleted.

As a consequence of 3-2 advancement, initial 2, still the notional patient, is put en chômage. In observing the behaviour of the 2-chômeur, consider topicalization and relativization, respectively:

(44) *Lucu, Bill u-<u>yi</u>-nik - a (<u>ingabisa</u>)
                 SC-OC-give-Pst   girl

(45) *Lucu, Bill la-<u>yi</u>-nik - a (<u>ingabisa</u>) luhle
                 RM-OC-give-Pst   girl   beautiful

The ungrammaticality of the above sentences is evidence of the inoperativeness of <u>lucu</u> as a 2-chômeur. Thus, by positing 3-2 advancement as a rule, which has been shown to operate in many other languages, one can account for the final object properties exhibited by indirect objects.

3-1 Advancement

In De Guzman (1986) it has been argued that SiSwati has both 2 to 1 and 3 to 1 passivization because, in the latter type, the initial 2 continues to exhibit the properties of 2. Not only can it trigger OC, it can also topicalize and relativize, as in the following passive clauses in (46) and (47), respectively:

```
(46)  Lucu,      ingabisa i-lu-nik -w- a   ngu Bill
      necklace,  girl     SC-OC-give-P-Pst by  Bill
```

'The necklace, the girl is given by Bill'

```
(47)  Lucu          lo-lu-nik -w- a   ingabisa ngu Bill
      necklace RM   SC-OC-give-P-Pst  girl     by  Bill
      luhle
      beautiful
```

'The necklace the girl which is given by Bill is beautiful'

OC is shown by the related sentence (31), and, of course, (46) and (47) show it as marked in both sentences by -lu-.

The account pertaining to the proposal of 3-1 advancement, is shown in the following RN, representing sentence (31),

(48)

nik-   Bill   ingabisa   lucu
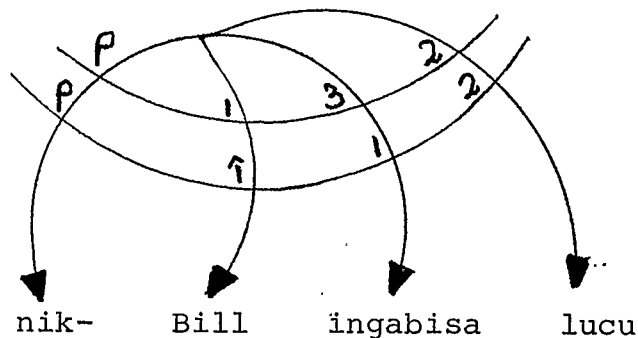
appears to be preferable to the 3-2-1 advancement account
shown in RN (49),

(49)

nik-   Bill   ingabisa   lucu
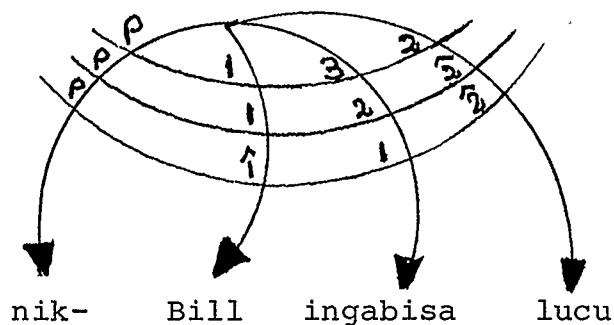
where 3-2-1 represents a sequence of two transitions, the
first being the 3-2 advancement which puts the initial 2 en
chômage and, then, the 2 to 1 advancement which renders
initial 1 a final 1-chômeur. As has been shown in the pre-
ceding section, the 2-chômeur resulting from the advancement
of _ingabisa_ from 3 to 2 is rendered inoperative with regard
to the tests for objecthood. However, the evidence on
passivizing on the initial indirect object yields different
results (Cf (31)). Thus, there is justification for main-
taining the existence of two separate passive rules: 2 to 1
and 3 to 1 advancements. A general constraint proposed here
states that only initial-final 2 may optionally trigger OC,
and 3 to 2 advancee must trigger OC.

The Oblique Nominals

The non-term relations referred to as Oblique

Nominals which are relevant to this study are the goals (G),
locatives (Loc), and benefactives (Ben).[5] These nominals
are marked by ku-, e- -eni, and zero (unmarked), respect-
ively. The marked nominals have the option of occurring
unmarked. This section will show how RG accounts for the
occurrence of the unmarked nominals as instances of advance-
ment rules. It will be shown that these nominals, when they
occur unmarked, exhibit properties generally characterizing
IOs. The interaction of the advancement rules with one
another and with other grammatical processes will be con-
sidered.

Goal (G)

Ku- is a prefix which marks a goal (G) nominal in
SiSwati. In addition to this marked form, it may also
appear unmarked immediately after the verb, the regular
position for 3s. For example:

(50) Babe u-thumel- a   tinkhomo ku-Dlamini
         SC-send -Pst cattle   to Dlamini

    'Father sends cattle to Dlamini'

(51) Babe u-thumela Dlamini tinkhomo
         SC-send   Dlamini cattle

    'Father sends Dlamini the cattle'

To account for (51), it may be proposed that there is a
transition from G to 3. As a new 3, it can be an input to
the 3 to 2 advancement rule and thereby have access to the

grammatical processes that operate on final 2, putting the initial 2 en chômage. Thus, it may trigger OC as in (52):

(52)   As OC, putting <u>tinkhomo</u> (cattle) en chômage:

      Babe u-m -thumel- a tinkhomo (Dlamini)
         SC-OC-send -Pst cattle   (Dlamini)

      'Father sends him (Dlamini) the cattle'

and, like initial 3s which advance to 2, non-initial 3s which advance to 2 must trigger OC when in preverbal position:

(53)   *Dlamini, babe u -thumel- a tinkhomo
            father SC-send -Pst cattle

      'Dlamini, father sends cattle'

(54)   Dlamini, babe   u -m -thumela tinkhomo
            father SC-OC-send   cattle

      'Dlamini, father sends him cattle'

Its corresponding relativization is shown in (55):

(55)   Dlamini babe   la-m -thumela tinkhomo mudze
            father RM-OC-send   cattle   tall

      'Dlamini who father sends cattle is tall'

As the arguments for chômeurs are the same as presented earlier, they are not repeated henceforth. However, it should be mentioned once more that passivization does not follow from 3-2 advancement but that it is a direct 3-1 advancement.

Passivization,

(56) Dlamini u-thunyel-w- a   tinkhomo ngu babe
              SC-send   -P-Pst cattle   by   father

      'Dlamini is sent cattle by father'

where u- marks agreement between Dlamini and the passive

verb which is, in turn, marked by -w-, and babe marked

chômeur by ngu- 'by.' As shown in the previous discussion,

final 2, tinkhomo, may trigger OC.

Locative

        In the same manner as shown by the preceding oblique

nominal, Loc occurs with the discontinuous marker e- -eni or

without it. Compare:

(57) Bill u-bhadal- a   imali e -sikolo-eni
           SC-pay   -Pst money to   school

      'Bill pays money to the school'

(58) Bill u-bhadal- a   sikolo imali
           SC-pay   -Pst school money

      'Bill pays the school money'

It may be noted in (58) that sikolo is without the Loc

marker, e- -eni and that it occupies the indirect object

position in ditransitive clauses, Hence, it is reasonable

to say that sikolo has assumed the 3 relation via a Loc to

3 advancement, and, as such, it may undergo 3 to 2 advance-

ment, When it does so, this derived final 2 should, again,

be able to manifest the properties of a final 2. To

witness, note the following sentences:

(59)   Bill u-si-bhadal- a   imali (sikolo)
           SC-OC-pay   -Pst money (school)

       'Bill pays it (the school) money'

As predicted, the initial Loc, as a final 2, may trigger OC,

as in (59), and behaves as a 2 with regard to topicaliza-

tion, relativization, and passivization, respectively:

(60)   Sikolo, Bill u-si-bhadal- a   imali
                     SC-OC-pay   -Pst money

       'The school, Bill pays it money'

(61)   Sikolo Bill la-si-bhadal- a   imali sishile
                   RM-OC-pay   -Pst money burned

   .   'The school which Bill pays money to burned down'

(62)   Sikolo si-bhadal-w- a   imali ngu Bill
              SC-pay   -P Pst money by Bill

       'The school is paid money by Bill'

Benefactive

       Formally, in SiSwati, Bens and IOs are indistinguish-

able since they exhibit the same properties that distinguish

IOs from other nominals, behaving the same as IOs with res-

pect to position and advancement to 2, henceforth displaying

the properties of final 2. Like IOs, Bens are unmarked;

thus, the structures where they occur are identical with the

ditransitive type of clause discussed earlier. The only

difference is that, with a Ben, the verb is marked with
-el. For example:

(63)   Tozi u-phek-el - a   make   kudla
           SC-cook-Ben-Pst mother food

'Tozi cooks food for mother'

Like IOs, the Ben nominal make 'mother' cannot participate
in any of the grammatical processes unless it assumes the
status of a 2. It appears that parallel to a 3 to 2
advancement, one may also posit a Ben to 2 advancement.
Technically, however, it seems necessary to posit the
following:

Ben ------→ 3

by which the Ben is promoted from its non-term status to
term 3 instead of being advanced directly to term 2 because
it will unify and thereby simplify the advancement rule
governing the oblique nominals Goal, Loc, and Ben. The
suffix -el is then seen to register the Ben to 3 advance-
ment.

Assuming the correctness of Ben to 3 advancement,
one can now show the object properties of this term, via a
subsequent 3 to 2 advancement, such as OC, topicalization,
relativization, and passivization, as follows:

(64)   Tozi u-m -phek-el - a   kudla (make)
           SC-OC-cook-Ben-Pst food   mother

'Tozi cooks food for her (mother)'

(65)   Make, Tozi u-m -phek-el - a   kudla
          SC-OC-cook-Ben-Pst food

   'Mother, Tozi cooks food for her'

(66)   Make Tozi la-m -phek-el - a   kudla ubongile
          RM-OC-cook-Ben-Pst food grateful

   'Mother who Tozi cooks food for is grateful'

(67)   Make u-ku-phek-el -w- a   ngu Tozi kudla
          SC-OC-cook-Ben-P-Pst by Tozi food

   'Make is cooked food for by Tozi'

Again to be noted here is that passivization involves a direct 3 to 1 advancement, evidenced by the OC marking -ku- referring to final 2 kudla 'food.'

The arguments presented in this section are in accordance with and confirm the conclusions reached by De Guzman (1986) that SiSwati distinguishes particularly between initial DO and initial IO (terms 2 and 3) along with the various oblique terms which may alternatively assume an object relation. Through the empirical evidence provided, it has been shown that rules which advance GRs account adequately for certain constructions and grammatical processes. OC, topicalization, relativization, and passivization show that (a) OC is triggered by final 2; optionally by initial-final 2 and obligatorily by advanced 2s; (b) topicalization operates on final 2s, final Loc, and Goal; (c) relativization operates on final nuclear terms; (d) passivization operates on final 2 and final 3. It is

also very clear that, when two unmarked nominals appear, SiSwati distinguishes between IO and DO through word order, OC, and passivization. On the whole, positing initial IO as being distinct from DO simplifies the grammatical accounts leading to the unification of the behaviour of the unmarked Goal/Loc/Ben with IOs. By maintaining the distinction between IO and DO, based on the arguments presented, the language explains:

(a) the ungrammaticality of a final 3 triggering OC marking when initial 2 advances to 1; the grammaticality of a final 2 registering OC marking when initial or advanced 3 advances to 1;

(b) the ungrammaticality of final 3 triggering OC when the cooccurring DO is topicalized or relativized; and the ungrammaticality of final 2-chômeur triggering OC when a 3 to final 2 is topicalized.
(De Guzman, 1986:15-16)

Footnotes to Chapter 3

[1]But see Rosen (1984) for evidence against a strong form of universal rules for initial term assignment.

[2]This problem of distinguishing between two cooccurring objects in a clause was addressed in a paper entitled "Indirect Objects in SiSwati," by V. P. De Guzman (1986). It was shown therein that, in SiSwati, the two objects need to be distinguished.

[3]Another grammatical process, clefting, was also employed in the research but because it operates very much like relativization, it was decided to omit the process. Also, there are tests like reflexivization and quantifier-float that may be further employed to distinguish the terms.

[4]The Stratal Uniqueness Law (SUL) states that no two nominals can bear the same term relation to a single predicate in the same stratum (Perlmutter & Postal, 1983).

[5]The Instrumental (Ins), also an oblique nominal, is excluded in the investigation of oblique nominals studied in this chapter. Unlike the G(oals), Loc(atives), and Ben (efactives) which have the option of occurring unmarked after a verb, the Ins in SiSwati is always marked with prefix nge-, with the exception of very few nominals whose origin as Ins is doubtful.

[6]Abbreviations to be interpreted: PP = past perfect and Pst = present tense.

Chapter 4

CAUSATIVE CONSTRUCTIONS IN SISWATI

Introduction

In recent years, causative constructions have
received a great deal of attention within the relational
grammar framework. A number of linguists, Aissen (1974),
Cole and Sridhar (1977), Davies and Rosen (1985), De Guzman
(1984), Frantz (1977; 1981), Gibson and Raposo (in press),
Perlmutter and Postal (1974), and Rosen (1984), among others,
have studied causative constructions in various languages.
In these studies, universal causative clause union rules
have been proposed, the validity of which has been shown in
some cases, and certain modifications effected in others.
This study is concerned with the syntax of the two types of
causative constructions found in SiSwati, namely, the
Morphological and Syntactic causatives. In particular, this
study purports to investigate the applicability of the
causative clause union (CCU) rules as stated in Davies and
Rosen (1985) based on Perlmutter and Postal (1974) and
Gibson and Raposo (in press). The rules state that (a) the
subject (1) or object (2) of an intransitive and the direct
object (2) of a transitive inner clause become the direct

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object (2) of the union clause; (b) the subject (1) of the
transitive inner clause becomes the indirect object (3) of
the union clause. The inner clause indirect object (3)
becomes a 3-chômeur in the union clause.

In this chapter, the first section contains an intro-
duction to two types of causative constructions found in
SiSwati. The second section outlines the RG view of causa-
tives as biclausal structures, and the third section intro-
duces the monoclausal approach for unions following Davies
and Rosen (1985), which is adopted in this study. The
fourth and fifth sections present the analysis and arguments
for the appropriate account of the two types of construc-
tions investigated.

Morphological and Syntactic Causatives

In a number of languages there exists at least
either or both of the types of causative constructions found
in SiSwati, namely, morphological and syntactic causatives.
According to Matisoff (1976:418), in the morphological
causative the idea of causation is embodied in a causative
affix. Some examples of the causative morphemes are:
Turkish dur- and -t- (Comrie, 1981); Japanese -sase-
(Shiba-
tani, 1978); Tagalog pa- (De Guzman, 1984); SiSwati -is-
(Kunene, 1981) which are attached to non-causative verb
stems. Below is an example of the morphological causative

in SiSwati (C = causative affix):

(68)   Sue u-khal-is- a   umtfwana
          SC-cry -C -Pst child

    'Sue causes the child to cry'

where the causative expression is marked by the bound mor-
pheme -is- which conveys the meaning of "cause" or "make
to."

On the other hand, a syntactic causative is one
formed by the juxtaposition of two or more verbal elements
that are separate words. Examples of this type in English
are the main verbs cause and make followed by another verb
as in: He made John run. This type of causative is expres-
sed by the verb -enta in SiSwati. It is the only indepen-
dent verb bearing the same causative idea expressed by the
causative suffix -is-. However, as exemplified below, the
syntactic causative will be observed to be different in
structure from the morphological causative:

(69)   Sue w-ent-a   kutsi umtfwana a -khal-e
          SC- C -Ps that   child   SC -cry -sbj

    'Sue causes the child to cry'

In (69) the causative verb -enta 'cause,' 'make' occurs in
juxtaposition with another free verbal element -khal- 'cry,'
occurring in the complement clause.

Generally, the causative verb is expected to have
one more grammatical relation than that of the corresponding

non-causative verb. In addition to the subject and object, if any, there will be the term which expresses the causer. The aim in this chapter is to investigate the syntactic behaviour of cooccurring grammatical relations of the causative verb and to determine how SiSwati causative constructions accommodate the extra term. In the analysis of the two types of causatives, it will be noted (just as the examples given above show) that the morphological and syntactic causatives differ in terms of their verbs and cooccurring nominals and, consequently, their respective relational networks. In the morphological causative construction, it will be observed that every non-causative verb may be associated with a causative counterpart marked by the causative affix -is-. On the contrary, the syntactic causative makes use of the single verb of causation -enta. By the morphological structure of the verb, therefore, the two types of causative constructions may be readily distinguished. In terms of cooccurring complements, the surface structure shows that morphological causative constructions appear to be much like the basic or non-causative structures in taking nominals, each bearing a grammatical relation in the clause. The syntactic causative, on the other hand, clearly shows a cooccurring sentential complement, introduced by a complementizer.

The Biclausal Approach

RG claims that causative constructions consist of a biclausal structure in which a complement clause is embedded in a matrix clause. Applied to SiSwati, the verb in the matrix clause is either a causative verb like -enta 'cause,' 'make' or the causative affix -is- which in surface structure unites with the verb of the embedded clause. The matrix clause has a subject term corresponding to the causer of the action or event. In effect, the causer is the agent of causation. On the other hand, the embedded complement, which may be intransitive, transitive, or ditransitive, has a subject, the person or agent who carries out the action stated by the cooccurring verb in the clause. However, the embedded relation may not always be a subject, as in the case of unaccusative intransitives where the embedded relation is an object suffering the action stated therein. Embedded transitive clauses have one or more object terms (DO, IO) according to the valence of the embedded verb. Whichever the case, the embedded clause relations become matrix clause relations, according to CCU (Perlmutter & Postal, 1974) which, restated, says that if the downstairs (DS) clause is intransitive (i), the subject (1) of that clause becomes the direct object (2) in the upstairs (US) clause; and if the DS clause is transitive (t), its subject (1) and direct object (2) become the US clause indirect

object (3) and direct object (2), respectively. All other dependents of the DS clause bear relation R-emeritus (Re)[1] to the US predicate (P) which is their final DS P relation. The rule formalized accounting for term relations is as follows:

Causative Clause Union (CCU)

(70) Vi DS   US
          1 ----→ 2

      Vt DS   US
          1 ----→ 3
          2   2
          3   3e

The biclausal structure of the causative construction may be illustrated using (71), the initial relational network of which is shown below:

(71)

-is-   Sue
cause

khal   umtfwana
cry   child
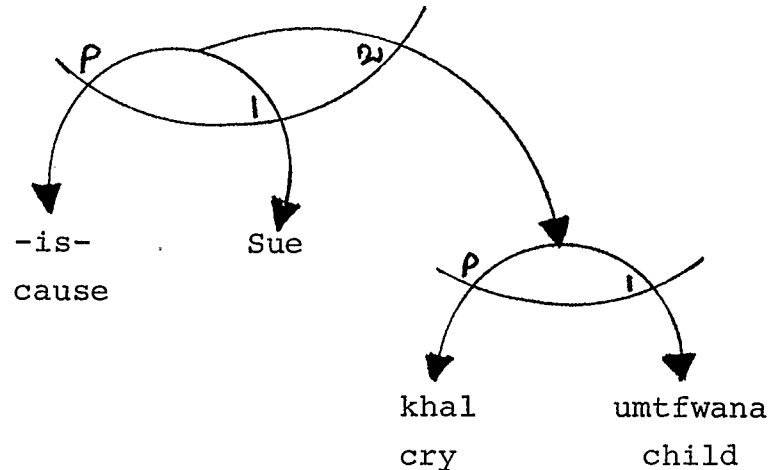
Following rule (70), the RN (71) may be completed as shown
in (72):

(72)
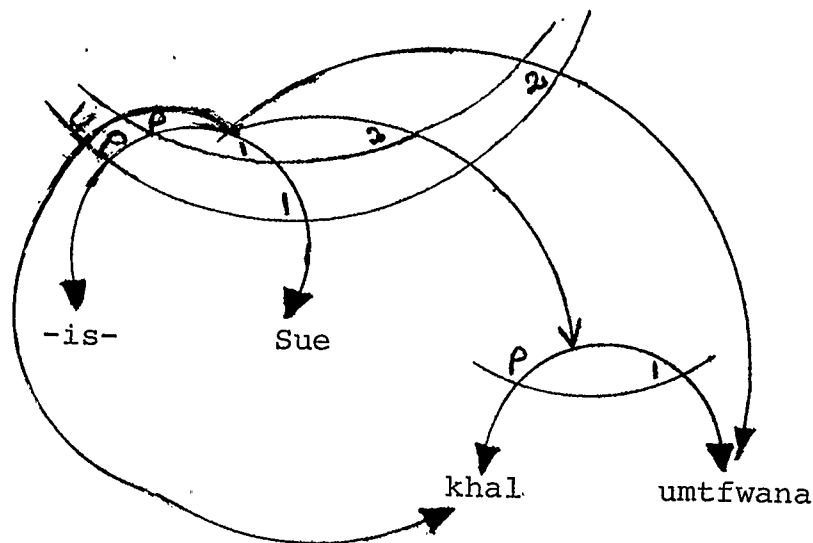
Although the representation starts as a biclausal
structure (71) showing the initial grammatical relations
(GRs) cooccurring with each given predicate (P), the embed-
ded clause ends up merging with the matrix P and the GRs
downstairs being assigned GRs upstairs. With a transitive
clause downstairs as in:

(73)   Zama u-dl -is- a   bafana umlata
            SC-eat-C -Pst boys   whey

    'Zama makes the boys eat whey'

the representation is RN (74), following CCU:

(74)
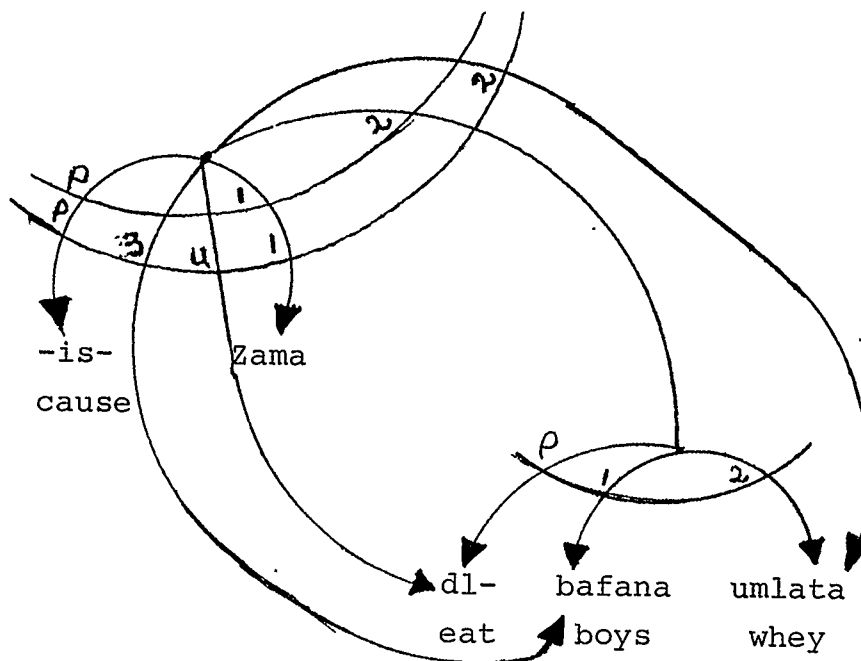
When the downstairs clause is ditransitive, as exemplified below:

(75)   Misi u-fundz-is- a   titjudeni likilasi tibalo
       SC-teach-C -Pst students   class   math

'The mistress makes the students teach her class math'

its corresponding RN is as shown in (76) (p. 55).

In a later study by Gibson (1980), the CCU rule as stated in (70) was found not to be universally applicable. There are languages such as Chamorro, in which there is a language-specific rule stating that, regardless of transitivity, the DS 1 becomes US 2. Following from the Chômeur Law, if there is DS 2 it will become a 2-chômeur; any other DS relations will remain unchanged.

(76)
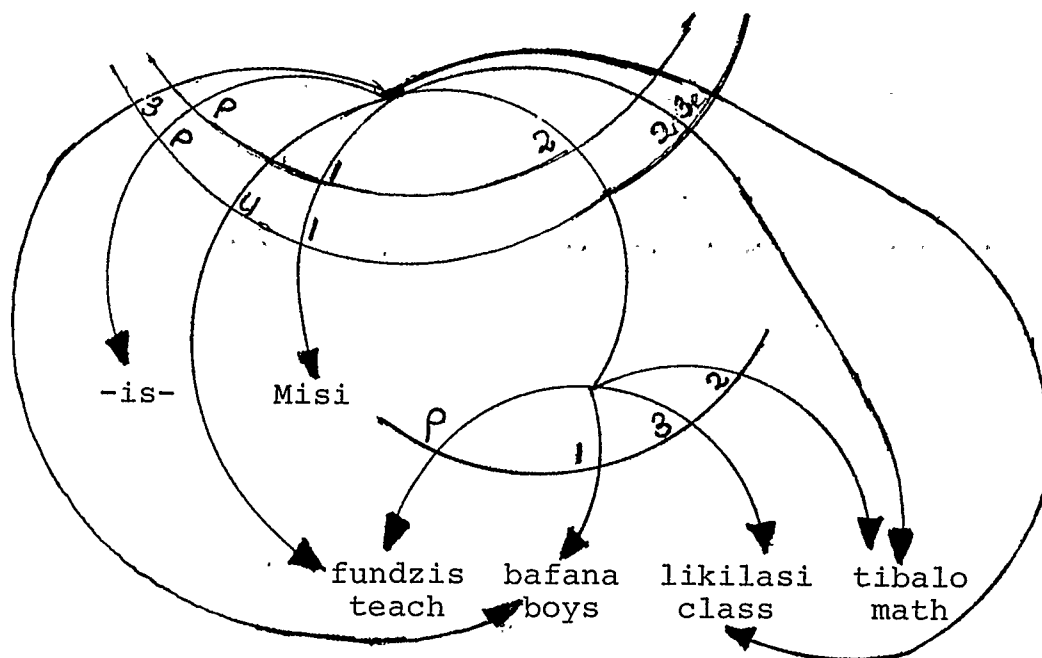
To distinguish between this rule (76) (Gibson, 1980)
and the first (70) (Perlmutter & Postal, 1974), reference is
made to (70) as CCU I and Gibson's as CCU II. Recently,
Davies and Rosen (1985), adopting these two rules, following
Gibson and Raposo's (in press) enrichment, have developed a
proposal in which the causative construction is viewed as
being monoclausal. Since this was said to be a better
account than the preceding, it was adopted in the present
study. Below is an overview of the monoclausal approach
and its advantages.

The Monoclausal Approach

According to Davies and Rosen (1985), the causative
construction is a monoclausal structure exhibiting a "flat"

structure which resembles a single clause where all nominals behave like clause-mates. There is no embedding in the monoclause but there is an "inner clause" which is part of the syntactic representation of the union and occupies the n-strata (n = 1). In a union there are two P-arcs instead of one: an initial (inner) P-arc ending in stratum n and a successive (union) P-arc starting in n + 1 stratum. In simple terms, a union is a clause containing a second P that starts in some post-initial stratum called the union stratum illustrated below using (71):

(77)

-is-	Sue	umtfwana	khala
cause		child	cry
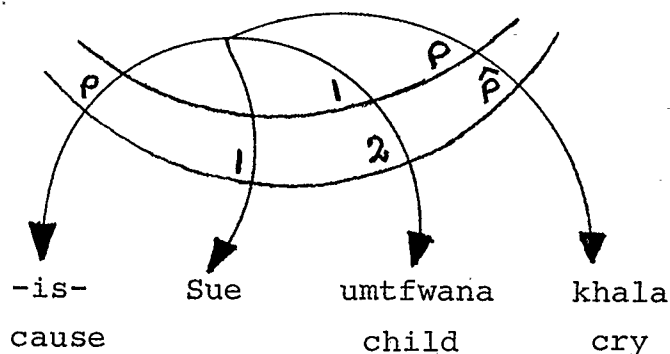
In this approach it is noted that the notion of 'initial/final' relations within RG is kept intact. Like any other clause, a union has one initial stratum and only one final stratum. In keeping with RG principles, which are only being broadened in the Davies-Rosen approach, there is the notion of P-final stratum, and P-sector and boundary, which is an innovation in the monoclausal approach. In the monoclausal union:

(a) the P-sector consists of all strata K
from k = i to k = j

(b) the P-initial stratum is stratum i

(c) the P-final stratum is stratum j (Davies &
Rosen, 1985)

where each P determines a P-sector, which consists of all
the strata in which it heads a P-arc. The first of these is
the P-initial stratum for that P and the last is P-final
stratum. In this parameter, therefore, the 'P-initial/P-
final' is analogous with the 'initial/final' relation. The
stratal diagram below clarifies this:

(78)
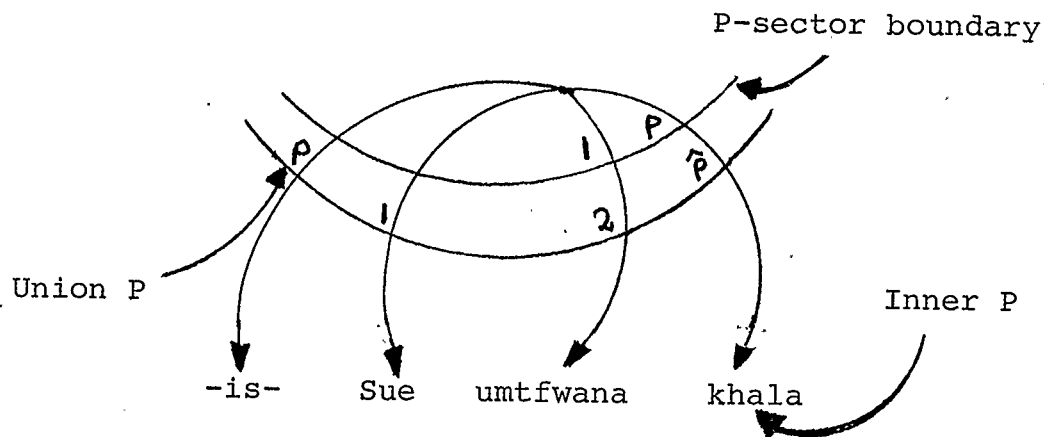
In the monoclausal approach, the union (U) and
emeritus (Re) relations are dispensed with. In CCU I, when
terms 1, 2, and 3 have been assigned their corresponding
relations in the matrix clause, all other remaining rela-
tions bear the emeritus relation, which is their final DS
relation, with the complement P becoming a U. Following
CCU I, when there is a DS 3, it becomes a US 3e, which is

distinguished from a DS 1 that becomes a US 3. However, in the monoclausal approach, the Re becomes unnecessary where the Stratal Uniqueness Law (SUL) and Chômeur Law (CL) can be shown to account for the structure. By an extended CL (originally applicable to terms) the U relation, which the complement verb changes into when it unites with the matrix clause, can be marked instead as a P-chômeur, thus avoiding violation of SUL. This occurs in the union stratum when the union P is introduced. To be clear in the references to these notions, the three examples in the biclausal approach section will be helpful.

The foregoing discussion presents the monoclausal analysis as a simpler, more economical, yet just as adequate an account as the biclausal analysis. Since essentially the same rules of CCU apply in both approaches, the monoclausal analysis has been adopted in this investigation and corresponding monoclausal RNs will be shown representing the structures under study.

Relational Analysis of the
Morphological Causatives

As defined earlier, the morphological causative construction in SiSwati is characterized by the presence of the causative affix -is-. Affixing it to a non-causative verb is quite a productive process. This section provides a monoclausal analysis for morphological causative

constructions and thereby accounts for the occurring gram-
atical relations expressed in the inner clause when it
merges with the union causative clause. First, the applic-
ability of CCU I as modified by Davies & Rosen (1985) will
be tested. Formally, CCU I may be re-stated as CCU II:

(79)   Vi Inner P   Union P

           1 --------→   2

        Vt Inner P   Union P

           1 --------→ 2 or 3

           2   2 $\hat{2}$

           3             $\hat{3}$ 3   (after Davies & Rosen,
                                                          1985)

This rule[2] states that (a) the SU (1) of an intransitive of
an inner clause becomes the DO (2) of the union clause; (b)
the SU (1) of the transitive inner clause becomes the IO (3)
of the union clause, putting initial 3 en chômage according
to CL. The cooccurring inner DO (2) remains to be a 2 in
the union clause. The alternative rule states that the
SU (1) of the transitive inner clause becomes the DO (2) of
the union clause and the cooccuring DO (2) goes en chômage
in the union clause; a cooccurring IO (3) remains unchanged.

Morphological Causatives
of Intransitives

The first type of morphological causative construc-
tion analysed below has an inner intransitive clause; viz.:

(80) Bill u-tfuts-is- a   bantfu
      SC-move -C -Pst people

'Bill causes the people to move'

associated with RN (81):

(81)

-is-	Bill	bantfu	tfuts
cause		people	move
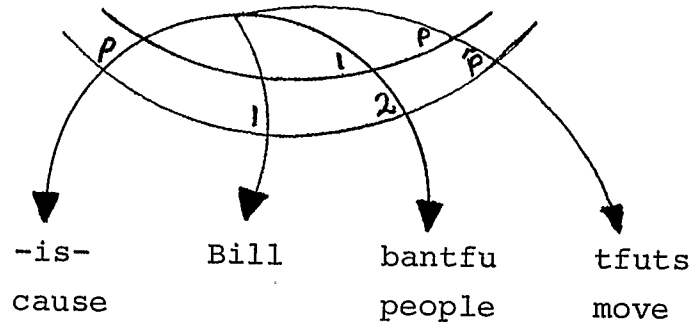
With respect to word order, it is possible to establish the
nature of the grammatical relations in initial stratum
before CCU I. In: bantfu ba-tfutsa 'people move,' note
that the subject occurs before the verb and triggers obliga-
tory subject verb agreement ba-, showing the 1-hood of
bantfu in the inner clause. In the union clause, Bill is
the union subject, occurring before the union P; it triggers
obligatory subject verb agreement u-. In this clause, inner
1 bantfu is in postverbal position as the direct object of
the union verb tfuts-is-; the union itself is marked by the
merging of the P-chômeur tfuts- and the union P -is-, 'move'
and 'cause.' To test whether inner 1 is, indeed, a final 2
in the union clause, it will be subjected to the various
tests for objecthood, namely, OC, topicalization, and

relativization, respectively:

(82) Bill u-ya[3] -ba-tfuts-is- a   (bantfu)
          SC-ya   -OC-move -C -Pst   people

      'Bill causes them (people) to move'

(83) Bantfu, Bill u-ya-ba-tfuts-is- a
                   SC-ya-OC-move -C -Pst

      'The people, Bill causes them to move'

(84) Bantfu Bill la-ba-tfuts-is- a   -ko[3] bahambile
                   RM-OC-move -C -Pst- RM   left

      'The people who Bill causes to move have left'

With this evidence, <u>bantfu</u> passes as a final 2 to the union verb. It should then likewise be able to undergo 2-1 advancement:

(85) Bantfu ba-tfuts-is-w- a   ngu Bill
               SC-move -C -P-Pst by Bill

      'The people are caused to move by Bill'

with the RN (86):

(86)

      -is-   Bill   bantfu   tfuts-
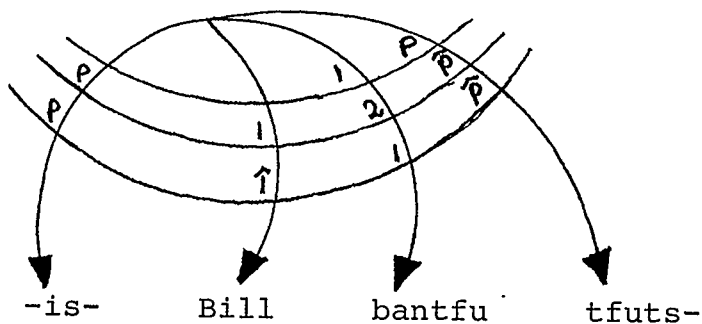
It is shown in (86) that <u>bantfu</u> is in subject position, before the verb, triggering obligatory subject verb agreement <u>ba-</u>, the union P is marked passive by <u>-w-</u> and former initial 1 <u>Bill</u> is preceded by <u>ngu-</u> 'by' marking a 1-chômeur. CCU II correctly predicts that the subject of the inner intransitive clause becomes the direct object of the union clause.

In SiSwati, as in other languages exhibiting morphological causatives, following the fusion of the inner P with the causative affix, P-chômeur is replaced by incorporation arc in the complex causative verb. This indicates that in the definition of P-chômeur, features of chômeurhood need to be spelled out. The importance of this notion will be seen later in the section on syntactic causatives.

The next type of intransitive inner clause to be analysed is the unaccusative, in which the only occurring nominal bears a 2-relation:

(87) Lilanga li-bun-   is- a ummbila
      sun   SC-wither-C -Pst maize

'The sun causes the maize to wither'

which corresponds to the RN:

(88)

      -is-   lilanga   ummbila   bun-
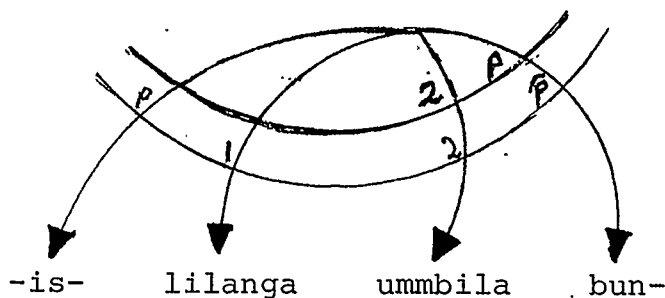
With <u>ummbila</u> as the subject of the inner clause it may occur as ˉ<u>ummbila u-ya-bun-a</u> 'the maize withers.' In the initial stratum, <u>ummbila</u> occurs before the inner P, triggering obligatory subject verb agreement <u>u</u>. In (88), <u>ummbila</u> bears the 2-relation initially, in the inner clause, for the reason that it is the patient, suffering the withering. This not being an agent, the inner clause is expected to be unaccusative. In terms of word order (WO), <u>lilanga</u> 'sun' union 1, appearing in preverbal position, controls agreement obligatorily, marked by <u>li-</u> and <u>ummbila</u> in postverbal position as final 2. The following sentences bear out the final 2-hood of <u>ummbila</u>.

Object Concord:

(89) Lilanga li-ya-wu-bun   -is- a   (ummbila)
            SC-ya-OC-wither-C -Pst   maize

    'The sun causes it (maize) to wither'

Topicalization:

(90) Ummbila, lilanga li-ya-wu-bun   -is- a
                        SC-ya-OC-wither-C -Pst

    'The maize, the sun causes it to wither'

Relativization:

(91) Ummbila lilanga le-li-wu-bun   -is- a -ko ushile
                        RM-SC-OC-wither-C -Pst RM dry

    'The maize which the sun caused to wither dried up'

Passivization:

(92)   Ummbila u-bun   -is-w- a   lìlanga[4]
             SC-wither -C -P-Pst by the sun

       'The maize is caused to wither by the sun'

As shown in (92), through 2-1 advancement ummbila assumes

preverbal position and controls subject verb agreement

marked by u-, the verb is marked passive by -w-, and lìlanga

is marked 1-chômeur by the grave mark on the prefix li-.

Morphological Causatives
of Transitives

       With a transitive construction as the inner clause,

CCU predicts that the inner subject (1) will be the indirect

object (3) in the union stratum, 2 remains to be a 2. Again,

SiSwati shows an indirect object (3) in this structure:

(93)   Bill u-lim -is- a   bafana kotini
            SC-plant-C -Pst boys   cotton

       'Bill makes the boys plant cotton'

The relational network associated with (93) is:

(94)


```
  -is-    Bill   bafana  kotini   lima
 cause            boys   cotton   plant
```
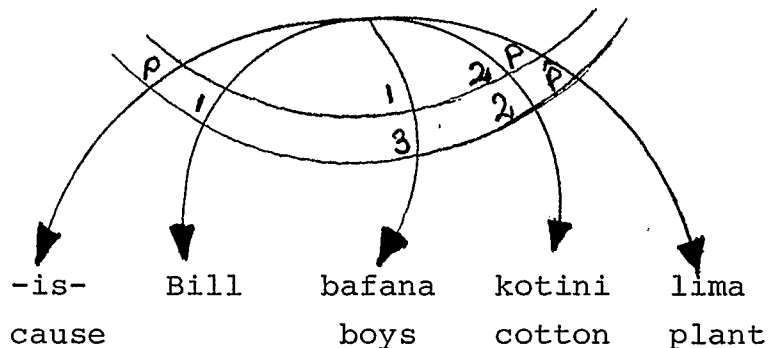
The purpose of RN (94) is to show, in a relational diagram, the final stratum in a union where an inner 1 of a transitive clause has become a union 3.

Based on word order, <u>bafana</u> is a 3, appearing in immediate postverbal position and followed by another term which is the 2. Using the tests of OC, topicalization, relativization, and passivization, the final 2-hood of <u>kotini</u> can be shown.

Object Concord:

(95)   Bill u-wu-lim -is- a bafana (kotini)
           SC-OC-plant-C -Pst boys   cotton

'Bill makes the boys to plant it (the cotton)'

Topicalization:

(96)   Kotini, Bill u-lim -is- a bafana
       cotton   SC-plant-C -Pst boys

'Cotton, Bill makes the boys to plant'

Relativization:

(97)   Kotini Bill la-wu-lim -is- a bafana muhle
                   RM-OC-plant-C -Pst boys   good

'The cotton which Bill makes the boys to plant is good'

Passivization:

(98)   Kotini u-liny -is- w - a bafana ngu Bill
       cotton SC-plant-C-Pas-Pst boys   by Bill

'The cotton is made for the boys to plant by Bill'

Note that in (98) where <u>kotini</u> has advanced to 1

bafana, a final 3 cannot participate in the above-named

grammatical processes, as shown below:

Object Concord:

(99)   *Kotini u-ba-liny -is- w - a bafana ngu Bill
            SC-OC-plant-C   P - Pst boys by Bill

Topicalization:

(100)   *Bafana, kotini u -liny -is- w - a   ngu Bill
                 cotton SC-plant-C   P -Pst by Bill

Relativization:

(101)   *Bafana la-liny -is-w- a   kotini ngu Bill baphi?
                 RM-plant-C -P-Pst cotton by   Bill where

        This evidence provides good argument for the distinc-

tion existing between DO and IO. However, as proposed in

Chapter 3, this term 3 bafana can function as a 2 via the 3

to 2 advancement rule, putting initial 2 en chômage, as in

the following sentence:

(102)   Bill u-ba-lim -is- a   kotini (bafana)
             SC-OC-plant-C -Pst cotton   (boys)

        'Bill makes them (boys) plant cotton'

with the following RN:

(103)

-is-   Bill   bafana   kotini   lima
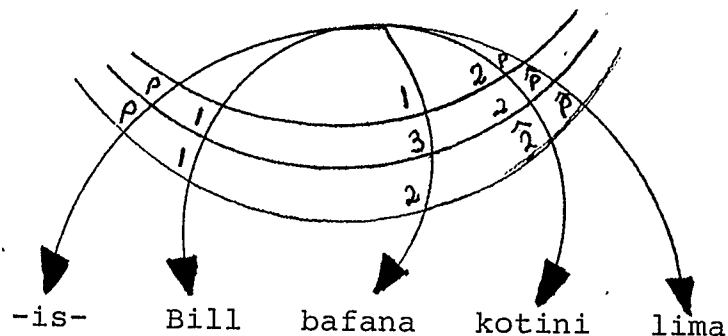
where as a final 2 <u>bafana</u> triggers OC marking (103). It
also shows access to:

Topicalization:

(104) Bafana, Bill u-ba-lim -is- a kotini
                 SC-OC-plant-C -Pst cotton

      'The boys, Bill makes them plant cotton'

Relativization:

(105) Bafana Bill la-ba-lim -is- a kotini baphi?
                 SC-OC-plant-C -Pst cotton where

      'Where are the boys who Bill makes to plant cotton?

      Note the final chômeurhood of initial 2 <u>kotini</u>. As
was shown previously, the chômeur relations do not take part
in the grammatical processes shown above. With a 3-1
advancement, <u>kotini</u>, as a final 2, is still operative as in:

(106) Bafana ba-wu-liny -is-w- a ngu Bill (kotini)
              SC-OC-plant-C -P-Pst by   cotton

      'The boys are made to plant cotton by Bill'

      In (106) <u>bafana</u> is assuming subject position marked
by <u>ba</u>-. The OC -<u>wu</u>- is optionally triggered by <u>kotini</u> as a
final 2 and the verb is marked passive by -<u>w</u>-, with initial
1 <u>Bill</u> flagged as chômeur by <u>ngu</u>- 'by.'

Morphological Causatives
   ### of Ditransitives

      Where a non-causative verb, the inner P, has both
direct (2) and indirect (3) objects, CCU II predicts that

the union P should have its subject (1) and then a direct
object (2) coming from the inner P 2, an indirect object
(3) from the inner P 1, with the inner P 3 going en chômage.
This prediction is attested in SiSwati; for example:

(107)   Sibondza   si-niket-is- a boweta   tikhulu i-whisky
        supervisor SC-serve-C -Pst waiters chiefs   whisky

        'The supervisor makes the waiters serve whisky to the
        chiefs'

which may be associated with the RN:

(108)

        -is-   sibondza   boweta   tikhulu i-whisky   niket
        cause   supervisor   waiters chiefs   whisky   serve
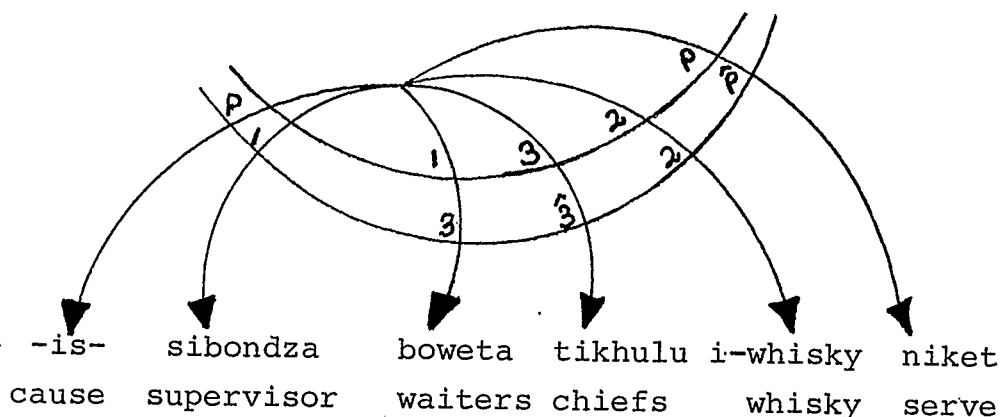
        Again, evidence from OC, topicalization, relativiza-
tion, and passivization is presented to justify the final
stratum as shown in (108). Sibondza 'supervisor' as final 1
is in preverbal position and obligatorily controls subject
verb agreement.

Object Concord:

(109)   Sibondza si-yi-niket-is- a   boweta tikhulu (i-whisky)
                 SC-OC-serve-C -Pst waiters chiefs   (whisky)

'The supervisor makes the waiters serve it (whisky) to the chiefs'

Topicalization:

(110)   I-whisky, sibondza   si-yi-niket-is- a   boweta tikhulu
                  supervisor SC-OC-serve-C -Pst waiters chiefs

'The whisky, the supervisor makes the waiters serve to the chiefs'

Relativization:

(111)   I-whisky sibondza le-si-yi-niket-is- a   boweta
                          RM-SC-OC-serve-C -Pst waiters

        tikhulu i-latile
        chiefs mature

'The whisky which the supervisor makes the waiters to serve to the chiefs is mature'

Passivization:

(112)   I-whisky i-niket-is-w - a boweta tikhula sibondza
                 SC-serve-C   P -Pst waiters chiefs by supervisor

'The whisky is made for the waiters to serve to the chiefs by the supervisor'

RN (108) has boweta, inner 1, as a final 3 in the union clause. This can be proven by (a) first showing that this term does not behave like i-whisky which is a final 2. Note that boweta can neither topicalize nor relativize (without triggering OC, which is possible only if 3 advances to 2; see p. 24):

(113)   *Boweta, sibondza si-niket-is- a   tikhulu i-whisky
                          SC-serve-C -Pst chiefs

(114)   *Boweta sibondza le-si-niket-is- a   tikhulu i-whisky
                         RM-SC-serve-P -Pst chiefs   whisky

        baphumile
        off

and then (b) showing that through 3-2 advancement it can be

final 2 (putatively putting initial 2 i-whisky en chômage),

thus gaining access to OC, topicalization, and relativiza-

tion:

(115)   Sibondza si-ba-niket-is- a   tikhulu i-whisky (boweta)
                  SC-OC-serve-C Pst   chiefs   whisky   waiters

        'The supervisor makes them (waiters) serve whisky to
        the chiefs'

(116)   Boweta, sibondza si-ba-niket-is- a   tikhulu i-whisky
                         SC-OC-serve-C -Pst chiefs   whisky

        'The waiters, the supervisor makes them serve whisky
        to the chiefs'

(117)   Boweta sibondza le-si-ba-niket-is- a   tikhulu
                         RM-SC-OC-serve-C -Pst chiefs

        i-whisky baphumile
        whisky   off

        'The waiters who the supervisor makes to serve whisky
        to the chiefs are off'

As a final 3, boweta may advance to 1:

(118)   Boweta ba-yi-niket-is- w - a   tikhulu i-whisky
               SC-OC-serve-C   P -Pst chiefs   whisky

        sibondza
        by supervisor

        'The waiters are made to serve whisky to the chiefs
        by the supervisor'

In (118), it may be observed that the OC -yi- is triggered by i-whisky. As may be recalled from Chapter 3, this seeming discrepancy was accounted for by positing a direct 3 to 1 advancement rule for SiSwati instead of a 3 to 2 to 1 which implies a final 2-chômeur in the place of a final 2.

The following sentences will show that, as a final 3-chômeur, tikhulu should not be able to advance to 2, hence, unlike a 3, it can never have the chance to have access to the grammatical processes that operate on final 2. Thus, note the ungrammaticality of the following sentences:

Object Concord:

(119)   *Sibondza si-ti-niket-is- a boweta i-whisky (tikhulu)
                SC-OC-serve-C -Pst waiters whisky   chiefs

Topicalization:

(120)   *Tikhulu, sibondza si-ti-niket-is- a boweta i-whisky
                           CS-OC-serve-C -Pst waiters whisky

Relativization:

(121)   *Tikhulu sibondza le-si-ti-niket-is- a boweta
                          RM-SC-OC-serve-C -Pst waiters

                          i-whisky tiphi?
                          whisky   where

Passivization:

(122)   *Tikhulu ti-niket-is- w - a boweta i-whisky
                 SC-serve-C   P -Pst waiters whisky

                 sibondza
                 supervisor

The foregoing discussion gives evidence to support CCU II as correctly accounting for the morphological causatives in SiSwati. Furthermore, the arguments provided earlier for the ditransitive structure (pp. 55 ff) illustrated a means of distinguishing a derived union P 3 from the inner P 3, which, as a 3-chômeur, has been shown to behave differently from the cooccurring final 3.

A Relational Analysis of the Syntactic Causatives

This section shows that syntactic causatives in SiSwati, as in English, are not unions but surface biclausal, and that the ascension rule discussed in Chapter 2 accounts for these causatives. The data are selected to reveal the fact that, although this type of causative construction is different in syntactic structure from the morphological causatives just discussed, the two constructions are semantically identical. Using the transitive and ditransitive structures, it can be demonstrated, first, that CCU is not the rule to account for biclausal causatives, and, second, that the rule of ascension accounts for the structure.

Syntactic Causatives of Transitives

When the downstairs (DS) clause is transitive, certain revaluations may be effected within the clause

before the CCU rule applies. In the following sentences, the inner clause shows its 2 triggering OC, topicalized, and passivized therein:

(123) Zungu w-ent- a kutsi bafana ba-wu-lim - e (kotini)
           SC- C -Pst comp   boys SC-OC-plant-sbj cotton

       'Zungu makes the boys plant it (cotton)'

Topicalization of kotini in the inner P is possible:

(124) Zungu w-ent- a .kutsi. kotini. bafana ba-wu-lim - e
           SC- C -Pst comp   cotton boys   SC-OC-plant-sbj

       'Zungu makes the boys cotton to plant'

Passivization:

(125) Zungu w-ent- a   kutsi kotini u-liny - w - e
           SC- C -Pst comp cotton SC-plant- P -sbj

           bafana
           by boys

       'Zungu causes that the cotton be planted by the boys'

        According to CCU II, bafana is final US 3 and, as such, it is not expected to have access to any of the grammatical processes which operate on 2; yet it does so, as shown by the following sentences with OC, topicalization, relativization, and passivization, respectively:

(126) Zungu u-b -ent- a kutsi ba-lim - e kotini (bafana)
           SC-OC- C -Pst comp SC-plant-sbj cotton   boys

       'Zungu makes them (the boys) to plant cotton'

(127)   Bafana, Zungu w-ent- a   kutsi ba-lim - e kotini
        boys   SC- C -Pst comp SC-plant-sbj cotton

'The boys, Zungu makes to plant cotton'

(128)   Bafana Zungu la-b -ent- a   kutsi ba-lim - e
        boys   RM-OC- C -Pst comp SC-plant-sbj

                kotini baphi?
                cotton where

'Where are the boys who Zungu makes to plant cotton?'

(129)   Bafana b-ent-iw - a   kutsi ba-lim - e   kotini
            SC- C   P -Pst comp SC-plant-sbj cotton

                ngu Zungu
                by Zungu

'The boys are made to plant cotton by Zungu'

which shows that, instead of final US 3, _bafana_ is final

US 2.

      Furthermore, CCU II predicts that DS 2 is also

final US 2 and the following sentences disprove this pre-

diction as _kotini_ 'cotton' does not behave as a 2 of US _ent-_:

Object Concord:

(130)   *Zungu u-w -ent- a   kutsi bafana ba-wu-lime kotini
             SC-OC- C -Pst comp boys   SC-OC-plant cotton

where -_w_- is OC triggered by _kotini_ in US clause.

Passivization, by 3 to 1 advancement:

(131)   *Bafana ba-w -ent-iw - a   kutsi ba-wu-lime kotini
             SC-OC- C -Pas-Pst comp SC-OC-plant cotton

                ngu Zungu
                by Zungu

In (131) where <u>bafana</u> advances to 1, <u>kotini,</u> as a final US 2, triggers OC marked by -<u>w</u>- in US P. The ungrammaticality of these sentences is full proof that <u>kotini</u> is not final US 2. Also, (126) - (129) show that CCU II makes wrong predictions with regard to DS 2, as has been shown.

Syntactic Causatives
of Ditransitives

Again, on the basis of topicalization, OC, relativization, and passivization, the following shows how the relations of the DS P are affected by CCU II. Having observed the behaviour of DS 1 and 2 in the preceding section, using the following sentence:

(132) Sibondza s-ent- a kutsi boweta ba-niket- e
             SC- C -Pst comp waiters SC-serve-sbj

        tikhulu i-whisky
        chiefs   whisky

the behaviour of DS 3 <u>tikhulu</u> 'chiefs' can now be considered. Assuming that <u>tikhulu</u> was a final 3-chômeur, according to CCU II, note that the rule seems to apply as the term fails to OC and passivize:

(133) *Sibondza si-t -ent- a kutsi ba-niket- e (tikhulu)
             SC-OC- C -Pst comp SC-serve-sbj chiefs

        i-whisky (boweta)
        whisky   waiters

(134) *Tikhulu t-ent-iw - a kutsi boweta ba-ti-niket- e
             SC- C -Pas-Pst comp waiters SC-OC-serve-sbj

        i-whisky boweta sibondza
   whisky waiters by supervisor

Hence, one might say here, that (133) and (134) illustrate the final 3-chômeurhood of tikhulu as per CCU II, the implication being that CCU II correctly applies to the syntactic causatives in SiSwati. However, given the evidence provided by transitive clauses (pp. 72 ff), there is good reason to believe that, with CCU II, DS 1 is wrongly assigned the 3-relation in union stratum; it should be assigned the 2-relation. The behaviour of kotini (130) - (131) and tikhulu (134) shows that these grammatical relations are not interacting with the US P, unlike US 2 from DS 1.

On the whole, the investigation into the syntactic causatives indicates that they are not unions. The evidence from the behaviour of final 3 tikhulu suggests that, apart from DS 1, the rest of the GRs do not interact with the union P. On that basis, it is logical to claim that there is no real "union" to speak of in this construction. In addition to that, as the sentences show, there remains to be two clauses, the complement one being introduced by the complementizer kutsi 'that.' Finally, as pointed out earlier, the verbs retain their independence, the complement verb being clearly marked subjunctive by -e which distinguishes it from the main verb ent-a 'cause.'

An alternative to viewing the syntactic causative

is to treat it as an ascension structure, as in English
(Marantz, 1984:265). In Chapter 2, an ascension type of
structure was said to involve two clauses, a matrix and a
complement clause. It was further shown that the ascension
rule raises the complement or downstairs final 1 into the
matrix or upstairs clause where it is assigned term 2, the
relation of the host, by the Relational Succession Law[5]
which puts the initial term 2 en chômage according to the
Chômeur Law. Consequently, the other complement relations
remain downstairs. It is suggested, therefore, that the
syntactic causatives in SiSwati are better accounted for by
the ascension rule, maintaining the biclause as their
structure, instead of the monoclause. For a sentence like
(132), therefore, the following RN is proposed:

(135)

ent-   Sibondza   niket boweta tikhulu i-whisky
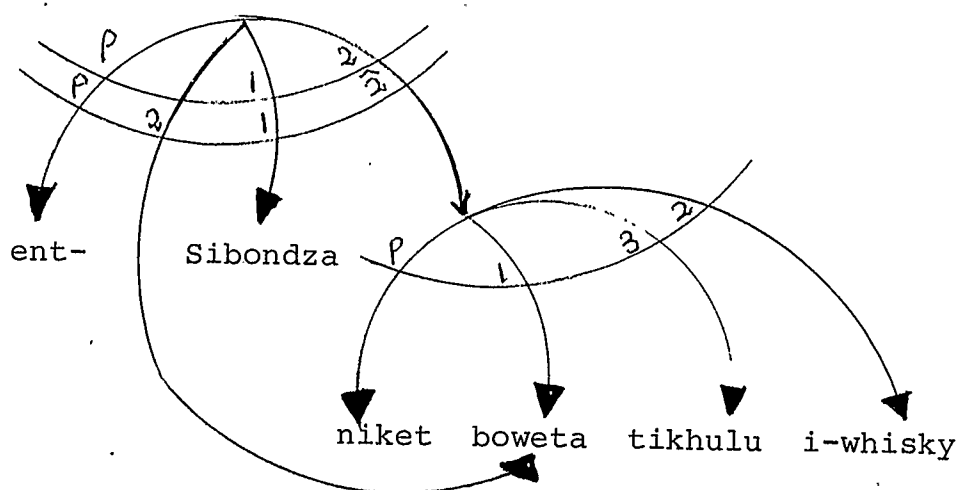
where only the downstairs final 1 <u>boweta</u> 'ascends' to the upstairs clause, taking on the 2 relation thereby, with the rest of the GRs remaining downstairs. The Chômeur Law enforces well-formedness by assigning final 2-chômeur rela-tion to the initial 2, the grammatical relation of the host.

Footnotes to Chapter 4

[1]Only Frantz (1981) applied "emeritus" to other than P; Perlmutter and Postal (1974) used "dead."

[2]The rule as presented in (70) presupposes the application of the Final 1 Law in unaccusative clauses.

[3]The infix -ya-, which some traditional grammarians have mistakenly called the present-tense marker, is an affix employed by the language as a strategy to compensate for the absence of direct objects in intransitive clauses. The same phenomenon is observed when an additional relative marker -ko appears (84).

[4]The grave tone (ˋ) on prefixes marks chômeur and carries the same meaning as 'by'.

[5]The Relational Succession Law states that an ascendee takes on the GR of the host (Perlmutter & Postal, 1983).

Chapter 5

SUMMARY AND CONCLUSIONS

In this study an attempt·has been made to establish
the properties that distinguish the various GRs, terms, and
non-terms. In particular, the goal was to distinguish the
two objects, DO and IO, which have been the subject of
controversy in Bantu languages. With respect to the gram-
matical processes of object concord, topicalization, rela-
tivization, and passivization, the significant roles played
by the nuclear terms have been identified. Advancements
were shown to be strategies used by the language to bestow
term status on non-terms, thereby allowing them to partici-
pate in certain grammatical processes. Derived terms were
shown to have acquired the coding properties of the respec-
tive term relations they assume in final strata.

SiSwati--unlike other Bantu languages such as Kin-
yarwanda (Kimenyi, 1978), and Shambala and Haya (Duranti,
1979) having problems in distinguishing direct from indirect
objects--unifies the pattern, as it were, with the possible
exception of one type of apparent Ins, by giving the oblique
nominals the same syntactic slot for indirect objects when
they occur unmarked. Thus, this type of occurrence has been
systematically accounted for by an advancement to 3 rule.

The strategy whereby non-nuclear terms are allowed to advance to nuclear terms points to a significant syntactic characteristic of SiSwati which it shares with Chi-Mwini (Frantz, 1983).

In the investigation, a description was presented of the morphological and syntactical causatives. The validity of the causative clause union rule (CCU), employing the monoclausal approach to account for these constructions, was tested. Drawing upon evidence from word order, topicalization, object concord, relativization, and passivization, the grammatical relations predicted by the CCU rule were tested. The analysis showed CCU is a valid account for the morphological causatives.

Construction of the syntactic causative was analysed and it was shown that CCU cannot account for the transitive and ditransitive embedded clauses in this construction. It was demonstrated that the syntactic causative which is surface biclausal, with two distinct predicates, could best be analysed as an ascension structure. On the contrary, the morphological causatives, like the basic clause structures, are monoclausal with one main verb. The universal causative clause union rule, originally posed by Perlmutter and Postal (1974), revised by Gibson and Raposo (in press) and modified in Davies and Rosen (1985), accounts adequately for the morphological causatives in SiSwati.

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